## 6.2.7 Industry zone code

## 6.2.7.1 Application - Industry zone

This code applies to undertaking development in the Industry zone, if:

- the development has been categorised as either accepted development subject to requirements or assessable 1. development - code assessment, and this code is identified as applicable to that development in the assessment benchmarks for assessable development and requirements for accepted development column of a table of assessment (Part 5);
- 2. the development has been categorised as assessable development - impact assessment (Part 5).

When using this code, reference should be made to section 5.3.2 Determining the category of development and category of assessment and, where applicable, section 5.3.3 Determining and applying the requirements for accepted development and the assessment benchmarks for assessable development located in Part 5.

For accepted development subject to requirements or assessable development under this Code:

- 1. Part A of the code applies to accepted development subject to requirements in all precincts;
- 2. Part B of the code applies only to assessable development in the 6.2.7.1 'Mixed industry and business precinct';
- 3. Part C of the code applies only to assessable development in the 6.2.7.2 'Light industry precinct';
- Part D of the code applies only to assessable development in the 6.2.7.3 'General industry precinct'; 4.
- 5. Part E of the code applies only to assessable development in the 6.2.7.4 'Restricted industry precinct';
- 6. Part F of the code applies only to assessable development in the 6.2.7.5 'Marine industry precinct'.

## 6.2.7.2 Purpose - Industry zone

- The purpose of the Industry zone code is to provide for a range of service, low, medium, or high impact industrial 1. uses. It may include non-industrial and business uses that support the industrial activities where they do not compromise the long-term use of the land for industrial purposes.
- Industry areas contain high quality, fully serviced, accessible land accommodating a wide range of industrial and supporting activities in accordance with acceptable environmental standards and with minimal impact on surrounding uses. The purpose of the Industry zone code is to implement the policy direction as set out in Part 3, Strategic Framework. The Industry zone contains 5 precincts which have the following purpose:
  - The Mixed industry and business precinct will facilitate a range of low impact industry (42) and associated commercial uses which have a nexus with other industrial activities occurring in the precinct.
  - The Light industry precinct will facilitate and maintain the long term viability of a range of low impact and b. low intensity industrial and business activities which are compatible with adjacent commercial and residential areas.
  - The General industry precinct will facilitate and maintain the long term viability of a broad range of industrial uses which provide significant employment opportunities and require locations which are well separated from incompatible uses.
  - The Restricted industry precinct will support the continued viability of a range of high impact and hard to locate industrial uses which contribute significantly to the regional economy and require locations which are well separated from incompatible uses.
  - The Marine industry precinct will facilitate and maintain the long-term viability waterfront-based industry e. and associated commercial activities which require direct access to a waterway.

## 6.2.7.3 Accepted development subject to requirements

If development is to be categorised as accepted development subject to requirements it must comply with the requirements for accepted development set out in Part A, Table 6.2.7.1. Where the development does not meet a requirement for accepted development (RAD) within Part A, Table 6.2.7.1, the category of development changes to assessable development under the rules outlined in section 5.3.3. (1), and assessment is against the corresponding performance outcome (PO) identified in the table below. This only occurs whenever a RAD is not met, and is therefore limited to the subject matter of the RADs that are not complied with. To remove any doubt, for those RADs that are complied with, there is no need for assessment against the corresponding PO.

Requirements for accepted development	Mixed industry and business precinct - corresponding performance outcome	Light industry precinct - corresponding performance outcome	General industry precinct - corresponding performance outcome	Restricted industry precinct - corresponding performance outcome	Marine industry precinct - corresponding performance outcome
RAD1	PO1	PO1	PO1	PO1	PO4
RAD2	PO2	PO2	PO2	PO2	PO5
RAD3	PO3, PO4	PO3, PO4	PO3, PO4	PO3, PO4	PO6, PO7, PO8
RAD4	PO8	PO8	PO7	P07	PO11
RAD5	PO19	PO18	PO17	PO17	PO22
RAD6	PO12	PO12	PO11	PO11	PO15
RAD7	PO17	PO16	PO15	PO15	PO19
RAD8	PO27	PO26	PO25	PO25	PO30
RAD9	PO28	PO27	PO26	PO26	PO31
RAD10	PO37	PO36	PO35	PO35	PO40
RAD11 PO30, PO31		PO29, PO30	, PO30 PO28, PO29		PO33, PO34
RAD12 PO30, PO31 PO29,		PO29, PO30	PO28, PO29 PO28, PO29		PO33, PO34
RAD13 PO31 PO30		PO30	PO29	PO29	PO34
RAD14 PO31		PO30	PO29	PO29	PO34
RAD15 PO41		PO40	PO39 PO39		PO44
RAD16	RAD16 PO43 PO42 PO41		PO41	PO46	
RAD17	PO40 PO39 PO38 PO38		PO43		
RAD18	PO40	PO39	PO38	PO38	PO43
RAD19	PO44	PO43	PO42	PO42	PO47
RAD20	PO46	PO45	PO44	PO44	PO49
RAD21	PO47	PO46	PO45	PO45	PO50
RAD22	PO48	PO47	PO46	PO46	PO51
RAD23	PO47	PO46	PO45	PO45	PO50
RAD24	PO47, PO50	PO46, PO49	PO45, PO48	PO45, PO48	PO46, PO50
RAD25	PO49	PO48	PO47 PO47		PO52
RAD26	PO49	PO48	PO47	PO47	PO49
RAD27 PO52 PO51		PO50	PO50	PO55	

RAD28	PO52	PO51 PO50 PO50		PO55	
RAD29	D29 PO53 P		PO51	PO51	PO56
RAD30 PO61		PO60	PO59	PO59	PO64
RAD31	RAD31 PO58 P		PO56	PO56	PO61
RAD32	PO55	PO54	PO53	PO53	PO58
RAD33	PO55	PO54	PO53	PO53	PO58
RAD34	PO55	PO54	PO53	PO53	PO58
RAD35	PO60	PO59	PO58	PO58	PO63
RAD36	PO55	PO54	PO53	PO53	PO58
RAD37	PO55	PO54	PO53	PO53	PO58
RAD38	PO57	PO56	PO55	PO55	PO60
RAD39	PO57	PO56	PO55	PO55	PO60
RAD40	PO62	PO61	PO60	PO60	PO65
RAD41	RAD41 PO62		PO60	PO60	PO65
RAD42 PO63		PO62	PO61	PO61	PO62
PO4, PO8, PO16, PO18-PO21, PO66		PO4, PO8, PO15, PO17-PO20, PO65	PO4, PO7, PO14, PO16-PO19, PO65	PO4, PO7, PO14, PO16-PO19, PO64	PO7, PO8, PO18, PO20-PO24, PO69
RAD44	PO65	P064 P063 P063		PO63	PO68
RAD45	PO65	PO64	PO64 PO64		PO68
RAD46	D46 PO68		PO71 PO67		PO78
RAD47	PO22-PO25	PO21-PO24	PO20-PO23	PO20-PO23	PO26-PO29
RAD48	PO22-PO25		PO20-PO23	PO20-PO23 PO20-PO23	
RAD49	049 PO85		PO80 PO73		PO84
RAD50	PO86	PO85	PO81 PO74		PO85
RAD51	PO87	PO86	PO82	PO75	PO86
RAD52	PO87	PO86	PO82	PO75	PO86
RAD53	PO87	PO86	PO82	PO75	PO86
RAD54	PO87	PO86	PO82	PO75	PO86
RAD55	PO89	PO88	PO84	PO77	PO88
RAD56	PO90	PO89	PO85 PO85		PO89
RAD57	PO91-PO102	PO90-PO101	PO86-PO97 PO79-PO90		PO90-PO101
RAD58	PO91-PO102	PO90-PO101	PO86-PO97 PO79-PO90		PO90-PO101
RAD59	PO103	PO102	PO98 N/A		N/A
RAD60	PO104	PO103	PO99	N/A	N/A
RAD61	PO105	PO104	PO100	N/A N/A	
RAD62	PO106	PO105	PO101	N/A	N/A

# 6 Zones

		1	1	1	,
RAD63	PO107	PO106	PO102	N/A	N/A
RAD64	PO108		PO103	N/A	N/A
RAD65 PO56		PO56	PO54	PO54	PO59
RAD66	RAD66 PO109		PO104 PO91		PO102
RAD67	PO109	PO108	PO104	PO91	PO102
RAD68	PO112	PO111	PO107	PO94	PO105
RAD69	PO112	PO111	PO107 PO94		PO105
RAD70 PO112		PO111	PO107	PO94	PO105
RAD71 PO113		PO112	PO108	N/A	N/A
RAD72 PO114 PO113		PO113	PO109 N/A		N/A
RAD73	ND73 PO115, PO116 PO114, PO115		PO110, PO111	PO110, PO111 N/A	
RAD74	AD74 PO118 PO117		PO113	N/A	N/A
RAD75	PO119-PO121, PO117-PO119, PO123-PO125 PO121-PO123		PO114-PO119 PO95-PO97, PO99-PO101		PO106-PO108, PO110-PO112
RAD76 PO119-PO121, PO117-PO119, PO123-PO125 PO121-PO123		,	PO114-PO116, PO95-PO97, PO118-PO120 PO99-PO101		PO106-PO108, PO110-PO112
RAD77	PO119-PO121 PO117-PO119		PO114-PO116 PO95-PO97		PO106-PO108
RAD78	PO122	PO120	PO117 PO101		PO109
RAD79	PO126	PO124	PO121	PO102	PO113
RAD80 PO127 PO125		PO122	PO122 PO103 F		

# Part A—Requirements for accepted development - All precincts

## Table 6.2.7.1 Requirements for accepted development - All precincts

Require	Requirements for accepted development					
	General requirements					
Extensi	ons to existing buildings					
RAD1	Extensions to an existing building do not exceed 20% of the existing GFA on-site.					
	Note - The 20% increase in GFA includes all previous instances of GFA increase under this outcome, or as part of Building Work.					
Buildin	g height					
RAD2	Building height does not exceed the maximum height identified on Overlay map - Building heights.					
Setback	(S					
RAD3	Extensions to buildings maintain a minimum setback of:					
	a. 6m to the street frontage (other than the Bruce Highway);					
	b. 3m to the secondary street frontage;					

- 5m to land not included in the Industry zone;
- d. 10m to a boundary adjoining the Bruce Highway.

## Landscaping

RAD4

Development does not result in a net reduction in established landscaping on the site.

## Lighting

#### RAD5

Artificial lighting on-site is directed and shielded in such a manner as not to exceed the recommended maximum values of light technical parameters for the control of obtrusive light given in Table 2.1 of the Australian Standard AS 4282 (1997) Control of Obtrusive Effects of Outdoor Lighting.

Note - "Curfewed hours" are taken to be those between 10pm and 7am the following day.

### Car parking

RAD6

On-site car parking is provided at a rate identified in Schedule 7 - Car parking.

#### Waste

RAD7

Bins and bin storage area/s are provided, designed and managed in accordance with Planning scheme policy - Waste.

### Clearing of habitat trees where not located in the Environmental areas overlay map

#### RAD8

Development does not result in the damaging, destroyed or clearing of a habitat tree. This does not apply to:

- Clearing of a habitat tree located within an approved development footprint; a.
- Clearing of a habitat tree within 10m from a lawfully established building reasonably necessary for b. emergency access or immediately required in response to an accident or emergency;
- Clearing of a habitat tree reasonably necessary to remove or reduce the risk vegetation poses to serious personal injury or damage to infrastructure;
- d. Clearing of a habitat tree reasonably necessary to construct and maintain a property boundary fence and not exceed 4m in width either side of the fence where in the Rural, Rural residential and Environmental management and conservation zones. In any other zone, clearing is not to exceed 2m in width either side of the fence:
- Clearing of a habitat tree reasonably necessary for the purpose of maintenance or works within a e. registered easement for public infrastructure or drainage purposes;
- f. Clearing of a habitat tree in accordance with a bushfire management plan prepared by a suitably qualified person, submitted to and accepted by Council;
- Clearing of a habitat tree associated with removal of recognised weed species, maintaining existing g. open pastures and cropping land, windbreaks, lawns or created gardens;
- Native forest practice where accepted development under Part 1, 1.7.7 Accepted development.

Editor's note - A native tree measuring greater than 80cm in diameter when measured at 1.3m from the ground is recognised as a 'habitat tree'. For further information on habitat trees, refer to Planning scheme policy – Environmental areas and corridors. Information detailing how this measurement is undertaken is provided in Australian Standard AS 4970 2009 Protection of Trees on Development Sites - Appendix A.

## Works requirements

### **Utilities**

### RAD9

Development is provided with an appropriate level of service and infrastructure in accordance with Planning scheme policy - Integrated design (Appendix A).

#### **Access**

## RAD10

The frontage road is fully constructed to Council's standards.

Note - Roads are considered to be constructed in accordance with Council standards when there is sufficient pavement width, geometry and depth to comply with the requirements of Planning scheme policy - Integrated design and Planning scheme policy - Operational works inspection, maintenance and bonding procedures. Testing of the existing pavement may be required to confirm whether the existing works meet the standards in Planning scheme policy - Integrated design and Planning scheme policy - Operational works inspection, maintenance and bonding procedures.

Note - Frontage roads include streets where no direct lot access is provided.

### RAD11

Any new or changes to existing crossovers and driveways are designed, located and constructed in accordance with:

- where for a Council-controlled road and associated with a Dwelling house:
  - Planning scheme policy Integrated design;
- where for a Council-controlled road and not associated with a Dwelling house:
  - AS/NZS2890.1 Parking facilities Part 1: Off street car parking;
  - ii. AS/NZS 2890.2 - Parking facilities Part 2: Off-street commercial vehicle facilities;
  - iii. Planning scheme policy - Integrated design;
  - iv. Schedule 8 - Service vehicle requirements;
- where for a State-Controlled road, the Safe Intersection Sight Distance requirements in Austroads and the appropriate IPWEAQ standard drawings, or a copy of a Transport Infrastructure Act 1994, section 62 approval.

## RAD12

Any new or changes to existing internal driveways and access ways are designed and constructed in accordance with AS/NZS 2890.1 Parking Facilities Part 1: Off street car parking and the relevant standards in Planning scheme policy - Integrated design.

## RAD13

Access driveways, manoeuvring areas and loading facilities are sealed and provide for service vehicles listed in Schedule 8 - Service vehicle requirements for the relevant use. The on-site manoeuvring is to be in accordance with Schedule 8 - Service vehicle requirements.

## RAD14

Access driveways, manoeuvring areas and loading facilities are constructed with reinforced concrete road pavements. Concrete is to be designed in accordance with rigid road pavement design principles.

Note - Pavements are to be designed by a RPEQ.

#### **Stormwater**

#### RAD15

Any new or changes to existing stormwater run-off from the site is conveyed to a point of lawful discharge without causing actionable nuisance to any person, property or premises in accordance with Planning scheme policy – Integrated design.

Note - A watercourse as defined in the Water Act may be accepted as a lawful point of discharge providing the drainage discharge from the site does not increase the downstream flood levels during events up to and including the 1% AEP storm. An afflux of +20mm may be accepted on Council controlled land and road infrastructure. No worsening is ensured when stormwater is discharged into a catchment that includes State Transport Infrastructure.

#### RAD16

Development incorporates a 'deemed to comply solution' to manage stormwater quality where the development:

- is for an urban purpose that involves a land area of 2500m<sup>2</sup> or greater; and a.
- b. will result in:
  - i. 6 or more dwellings; or
  - ii. an impervious area greater than 25% of the net developable area.

Note - The deemed to comply solution is to be designed, constructed, established and maintained in accordance with the requirements of Water by Design 'Deemed to Comply Solutions - Stormwater Quality Management for South East Queensland' and Planning scheme policy - Integrated design.

### RAD17

Development ensures that surface flows entering the premises from adjacent properties are not blocked, diverted or concentrated.

Note - A report from a suitably qualified Registered Professional Engineer Queensland may be required certifying that the development does not increase the potential for significant adverse impacts on an upstream, downstream or surrounding premises.

## **RAD18**

Development ensures that works (e.g. fences and walls) do not block, divert or concentrate the flow of stormwater to adjoining properties.

Note - A report from a suitably qualified Registered Professional Engineer Queensland may be required certifying that the development does not increase the potential for significant adverse impacts on an upstream, downstream or surrounding premises.

## RAD19

Stormwater drainage infrastructure (excluding detention and bio-retention systems) through or within private land is protected by easements in favour of Council (at no cost to Council). Minimum easement widths are as follows:

Pipe Diameter	Minimum Easement Width (excluding access requirements)		
Stormwater Pipe up to 825mm diameter	3.0m		
Stormwater Pipe up to 825mm diameter with Sewer pipe up to 225m diameter	4.0m		
Stormwater pipe greater than 825mm diameter	Easement boundary to be 1m clear of the outside wall of the pipe and clear of all pits.		

Note - Additional easement width may be required in certain circumstances in order to facilitate maintenance access to the stormwater system.

Note - Refer to Planning scheme policy - Integrated design (Appendix C) for easement requirements over open channels.

Site work	s and construction management					
RAD20	The site and any existing structures are to be maintained in a tidy and safe condition.					
RAD21	Development does not cause erosion or allow sediment to leave the site.					
	Note - The International Erosion Control Association (Australasia) Best Practice Erosion and Sediment Control provides guidance on strategies and techniques for managing erosion and sedimentation.					
RAD22	No dust emissions extend beyond the boundaries of the site during soil disturbances and construction works.					
RAD23	Existing street trees are protected and not damaged during works.					
	Note - Where development occurs in the tree protection zone, measures and techniques as detailed in Australian Standard AS 4970 Protection of trees on developments sites are adopted and implemented.					
RAD24	Any damage to Council land or infrastructure is repaired or replaced with the same materials, prior to plan sealing, or final building classification.					
RAD25	Construction traffic including contractor car parking is controlled in accordance with a traffic management plan, prepared in accordance with the Manual of Uniform Traffic Control Devices (MUTCD) to ensure all traffic movements to and from the site are safe.					
RAD26	Any material dropped, deposited or spilled on the road(s) as a result of construction processes associated with the site are to be cleaned at all times.					
RAD27	All native vegetation to be retained on-site is temporarily fenced or protected prior to and during development works.					
	Note - No parking of vehicles or storage of machinery or goods is to occur in these areas during development works					
RAD28	Disposal of materials is managed in one or more of the following ways:					
	a. all cleared vegetation, declared weeds, stumps, rubbish, car bodies, scrap metal and the like are removed and disposed of in a Council land fill facility; or					
	b. all native vegetation with a diameter below 400mm is to be chipped and stored on-site.					
	Note - No burning of cleared vegetation is permitted.					
	Note - The chipped vegetation must be stored in an approved location.					

#### RAD29

All development works are carried out within the following times:

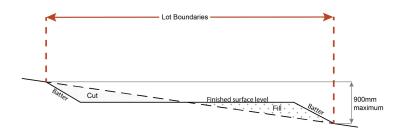
- Monday to Saturday (other than public holidays) between 6:30am and 6:30pm on the same day;
- b. no work is to be carried out on Sundays or public holidays.

### **Earthworks**

### RAD30

The total of all cut and fill on-site does not exceed 900mm in height.

Figure - Cut and Fill



Note - This is site earthworks not building work.

### RAD31

Cut and fill batters, (other than batters to dams and water impoundments), have a finished slope no steeper than the following:

- any cut batter is no steeper than 1V in 4H; a.
- b. any fill batter, (other than a compacted fill batter), is no steeper than 1V in 4H;
- any compacted fill batter is no steeper than 1V in 4H.

#### RAD32

All cut and fill batters are provided with appropriate scour, erosion protection and run-off control measures including catch drains at the top of batters and lined batter drains as necessary.

### RAD33

Stabilisation measures are provided, as necessary, to ensure long-term stability and low maintenance of steep slopes and batters.

Note - Inspection and certification of steep slopes and batters may be required by a suitably qualified and experienced RPEQ.

### RAD34

All fill and excavation is contained on-site and is free draining.

#### RAD35

Earthworks undertaken on the development site are shaped in a manner which does not:

- prevent stormwater surface flow which, prior to commencement of the earthworks, passed onto the development site, from entering the land; or
- redirect stormwater surface flow away from existing flow paths; or
- divert stormwater surface flow onto adjacent land (other than a road) in a manner which:
  - i. concentrates the flow; or
  - ii. increases the flow rates of stormwater over the affected section of the adjacent land above the situation which existed prior to the diversion; or
  - causes actionable nuisance to any person, property or premises.

RAD36	All fill placed on-site is:			
	a. limited to that necessary for the approved use;			
	b. clean and uncontaminated (i.e. no building waste, concrete, green waste, actual acid sulfate soils, potential acid sulfate soils or contaminated material etc.).			
RAD37	The site is prepared and the fill placed on-site in accordance with Australian Standard AS3798.			
	Note - The fill is to be inspected and tested in accordance with Planning scheme policy - Operational works inspection, maintenance and bonding procedures			
RAD38	No filling or excavation is undertaken in an easement issued in favour of Council or a public sector entity.			
	Note - Public sector entity is defined in Schedule 2 of the Act.			
RAD39	Filling or excavation that would result in any of the following is not carried out on site:			
	a. a reduction in cover over any Council or public sector entity infrastructure to less than 600mm;			
	b. an increase in finished surface grade over, or within 1.5m on each side of, the Council or public sector entity infrastructure above that which existed prior to the filling or excavation works being undertaken;			
	c. prevent reasonable access to Council or public sector entity maintained infrastructure or any drainage feature on, or adjacent to the site for monitoring, maintenance or replacement purposes.			
	Note - Public sector entity is defined in Schedule 2 of the Act.			
	Note - All building work covered by QDC MP1.4 is excluded from this provision.			

## Fire services

Note - The provisions under this heading only apply if:

- the development is for, or incorporates:
  - reconfiguring a lot for a community title scheme creating 1 or more vacant lots; or
  - material change of use for 2 or more sole occupancy units on the same lot, or within the same community titles scheme; or material change of use for a Tourist park<sup>(84)</sup> with accommodation in the form of caravans or tents; or material change of use for outdoor sales<sup>(54)</sup>, outdoor processing or outdoor storage where involving combustible materials. ii.

### AND

- none of the following exceptions apply: h
  - the distributor-retailer for the area has indicated, in its netserv plan, that the premises will not be served by that entity's reticulated water supply; or
  - every part of the development site is within 60m walking distance of an existing fire hydrant on the distributor-retailer's reticulated water supply network, measured around all obstructions, either on or adjacent to the site.

Note - The provisions under this heading do not apply to buildings that are required by the Building Code of Australia to have a fire hydrant system complying with Australian Standard AS 2419.1 (2005) – Fire Hydrant Installations or other fire fighting facilities which provide equivalent protection.

### RAD40

External fire hydrant facilities are provided on site to the standard prescribed under the relevant parts of Australian Standard AS 2419.1 (2005) - Fire Hydrant Installations.

Note - For this requirement for accepted development, the following are the relevant parts of AS 2419.1 (2005):

- in regard to the form of any fire hydrant Part 8.5 and Part 3.2.2.1, with the exception that for Tourist parks (84) or development comprised solely of dwellings and their associated outbuildings, single outlet above-ground hydrants or suitably signposted in-ground hydrants would be an acceptable alternative;
- h in regard to the general locational requirements for fire hydrants - Part 3.2.2.2 (a), (e), (f), (g) and (h) as well as Appendix B of AS 2419.1 (2005);
- in regard to the proximity of hydrants to buildings and other facilities Part 3.2.2.2 (b), (c) and (d), with the exception C.
  - i. - for dwellings and their associated outbuildings, hydrant coverage need only extend to the roof and external walls of those buildings:
  - for caravans and tents, hydrant coverage need only extend to the roof of those tents and caravans;
  - for outdoor sales  $^{(54)}$ , processing or storage facilities, hydrant coverage is required across the entire area of the outdoor sales  $^{(54)}$ , outdoor processing and outdoor storage facilities; and
- d. in regard to fire hydrant accessibility and clearance requirements - Part 3.5 and where applicable, Part 3.6.

#### RAD41

A continuous path of travel having the following characteristics is provided between the vehicle access point to the site and each external fire hydrant and hydrant booster point on the land:

- an unobstructed width of no less than 3.5m; a.
- b. an unobstructed height of no less than 4.8m;
- constructed to be readily traversed by a 17 tonne HRV fire brigade pumping appliance; C.
- d. an area for a fire brigade pumping appliance to stand within 20m of each fire hydrant and 8m of each hydrant booster point.

### RAD42

For development that contains on-site fire hydrants external to buildings:

- those external hydrants can be seen from the vehicular entry point to the site; or a.
- b. a sign identifying the following is provided at the vehicular entry point to the site:
  - i. the overall layout of the development (to scale);
  - ii. internal road names (where used);
  - iii. all communal facilities (where provided);
  - the reception area and on-site manager's office (where provided); iv
  - V. external hydrants and hydrant booster points;
  - physical constraints within the internal roadway system which would restrict access by fire vi. fighting appliances to external hydrants and hydrant booster points.

Note - The sign prescribed above, and the graphics used are to be:

in a form:

- of a size: h
- C. illuminated to a level;

which allows the information on the sign to be readily understood, at all times, by a person in a fire fighting appliance up to 4.5m from the sign.

## Use specific requirements

## Land use

### RAD43

Where within 100m of a sensitive zone:

- a. development is undertaken fully indoors;
- b. uses do not create audible noise measured at the boundary of the site between the hours of 7:00 pm and 6:00 am;
- any new plant or air conditioning equipment is not located along adjoining boundaries with sensitive land uses and screened from view of the street;
- landscaping and noise attenuating fencing are used to buffer visual and audible impacts generated from the use.

### RAD44

The combined area for ancillary office<sup>(53)</sup> and administration functions does not exceed 20% of the GFA or 200m2 whichever is the lesser.

### RAD45

The display of items for sale to the public is limited to commodities, articles or goods resulting from the industrial processes undertaken on-site and limited to 5% of the GFA or 100m<sup>2</sup> of the use, whichever is the lesser.

## Caretaker's accommodation<sup>(10)</sup>

### RAD46

Caretaker's accommodation (10):

- has a maximum GFA of 80m<sup>2</sup>; a.
- does not gain access from a separate driveway to the principal use of the site; b.
- Includes a minimum 16m<sup>2</sup> of private open space directly accessible from a habitable room. C.

## **Hazardous Chemicals**

## RAD47

All development that involves the storage or handling of hazardous chemicals listed in Schedule 9, Development involving hazardous chemicals, Table 9.0.1 Quantity thresholds for hazardous chemicals stored as accepted development subject to requirements complies with Table 9.0.3 Hazardous chemicals.

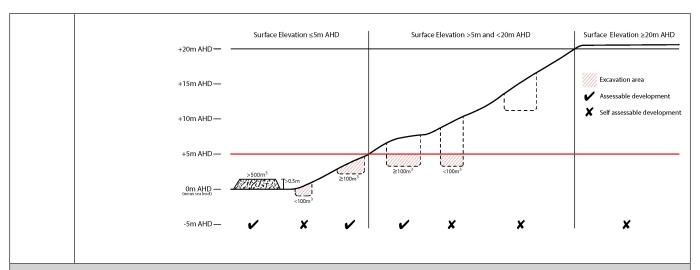
## RAD48

Development does not involve the storage or handling of hazardous chemicals listed in Schedule 9, Development involving hazardous chemicals, Table 9.0.2 Hazardous chemicals assessable thresholds.

## Telecommunications facility<sup>(81)</sup>

Editor's note - In accordance with the Federal legislation Telecommunications facilities (81) must be constructed and operated in a manner that will not cause human exposure to electromagnetic radiation beyond the limits outlined in the Radiocommunications (Electromagnetic Radiation - Human Exposure) Standard 2003 and Radio Protection Standard for Maximum Exposure Levels to Radiofrequency Fields - 3Khz to 300Ghz.

RAD49	A minimum area of 45m² is available to allow for additional equipment shelters and associated structures for the purpose of co-locating on the proposed facility.					
RAD50	The development results in no net reduction in the minimum quantity and standard of landscaping, private or communal open space or car parking spaces required under the planning scheme or under an existing development approval.					
RAD51	Equipment shelters and associated structures are located:					
	<ul> <li>a. directly beside the existing equipment shelter and associated structures;</li> <li>b. behind the main building line;</li> <li>c. further away from the frontage than the existing equipment shelter and associated structures;</li> <li>d. a minimum of 10m from side and rear boundaries, except where in the Industry and Extractive industry zones, the minimum side and rear setback is 3m.</li> </ul>					
RAD52	Equipment shelters and other associated structures are either the same type of colour or material to match the surrounding locality.					
RAD53	The facility is enclosed by security fencing or by other means to ensure public access is prohibited.					
RAD54	A minimum 3m wide strip of dense planting is provided around the perimeter of the fenced area, between the development and street frontage and adjoining uses.					
	Note - Landscaping is provided in accordance with Planning scheme policy - Integrated design.					
	Note - Council may require a detailed landscaping plan, prepared by a suitably qualified person to ensure compliance with Planning scheme policy - Integrated design.					
RAD55	All equipment comprising the telecommunications facility <sup>(81)</sup> which produces audible or non-audible sound is housed within a fully enclosed building incorporating sound control measures sufficient to ensure no noise from this equipment can be heard, or felt at the site boundary.					
	Values and constraints requirements					
Acid sulf	ate soils - (refer Overlay map - Acid sulfate soils to determine if the following requirements apply)					
Note - Pla	nning scheme policy - Acid sulfate soils provides guidance for requirements for accepted development that has the potential to d sulfate					
soils i.e. d	evelopment involving filling or excavation works below the thresholds of 100m3 and 500m3 respectively.					
RAD56	Development does not involve:					
	a. excavation or otherwise removing of more than 100m³ of soil or sediment where below 5m Australian Height Datum AHD, or					
	b. filling of land of more than 500m³ of material with an average depth of 0.5m or greater where below the 5m AHD.					



## Environmental areas (refer Overlay map - Environmental areas to determine if the following requirements apply)

Note - The following are excluded from the native clearing provisions of this planning scheme:

- Clearing of native vegetation located within an approved development footprint; а
- Clearing of native vegetation within 10m from a lawfully established building reasonably necessary for emergency access or immediately b. required in response to an accident or emergency;
- Clearing of native vegetation reasonably necessary to remove or reduce the risk vegetation poses to serious personal injury or damage C. to infrastructure;
- d. Clearing of native vegetation reasonably necessary to construct and maintain a property boundary fence and not exceed 4m in width either side of the fence where in the Rural, Rural residential and Environmental Management and Conservation zones. In any other zone, clearing is not to exceed 2m in width either side of the fence;
- Clearing of native vegetation reasonably necessary for the purpose of maintenance or works within a registered easement for public e infrastructure or drainage purposes;
- Clearing of native vegetation in accordance with a bushfire management plan prepared by a suitably qualified person, submitted to and accepted by Council;
- Clearing of native vegetation associated with removal of recognised weed species, maintaining existing open pastures and cropping g. land, windbreaks, lawns or created gardens;
- h. Grazing of native pasture by stock;
- Native forest practice where accepted development under Part 1, 1.7.7 Accepted development.

Note - Definition for native vegetation is located in Schedule 1 Definitions.

Note - Native vegetation subject to this requirement primarily comprises of matters of national environmental significance (MNES), matters of state environmental significance (MSES). They also comprise some matters of local environmental significance (MLES). A MLES is defined in Schedule 1.2, Administrative definitions. A list of the elements that apply to the mapped MSES and MLES is provided in Appendix 1 of the Planning scheme policy - Environmental areas.

Editors' Note - The accuracy of overlay mapping can be challenged through the development application process (code assessable development) or by way of a planning scheme amendment. See Council's website for details.

Editors' Note - When clearing native vegetation within a MSES area, you may still require approval from the State government.

### RAD57

Where no suitable land cleared of native vegetation exists, clearing of native vegetation in High Value Area or Value Offset Area is for the purpose of a new dwelling house<sup>(22)</sup> and all associated facilities\* or an extension to an existing dwelling house<sup>(22)</sup> only, and comprises an area no greater than 1500m<sup>2</sup>.

Note - \*All associated facilities includes: on-site wastewater treatment, all areas of disturbance, on-site parking, access and manoeuvring areas.

Editor's note - See in heading above for other uses excluded from native vegetation clearing requirements.

Editor's note - Where vegetation clearance is accepted development subject to requirements, care should be undertaken to avoid adverse impacts on koalas, koala habitat values and habitat connectivity and to encourage existing koala usage of the site. Measures to minimise impacts include:

- i. co-locating all associated activities, infrastructure and access strips;
- ii be the least valued area of koala habitat on the site;
- iii. minimise the footprint of the development envelope area;
- iv. minimise edge effects to areas external to the development envelope;
- location and design consideration to ensure koala safety and movement in accordance with the Koala-sensitive Design Guideline and Planning scheme policy - Environmental areas;
- vi. sufficient area between the development and koala habitat trees to achieve their long-term viability.

Editor's note - Where vegetation clearing is accepted development subject to requirements, consideration should be given to avoid clearing habitat trees. Habitat trees may contain structural hollows where animals live, breed and shelter. The provision of nest boxes or salvaging of hollows will provide compensatory roosting and nesting opportunities for local wildlife including sugar gliders, possums and owls. For further information see Planning scheme policy - Environmental areas.

### RAD58

No clearing of native vegetation is to occur within the Value Offset Area MLES - Waterway buffer or Value Offset Area MLES - Wetland buffer.

This does not apply to the following:

- Clearing of native vegetation located within an approved development footprint; a.
- b. Clearing of native vegetation within 10m from a lawfully established building reasonably necessary for emergency access or immediately required in response to an accident or emergency;
- Clearing of native vegetation reasonably necessary to remove or reduce the risk vegetation poses C. to serious personal injury or damage to infrastructure;
- d. Clearing of native vegetation reasonably necessary to construct and maintain a property boundary fence and not exceed 4m in width either side of the fence where in the Rural, Rural residential and Environmental management and conservation zones. In any other zone, clearing is not to exceed 2m in width either side of the fence;
- Clearing of native vegetation reasonably necessary for the purpose of maintenance or works within a registered easement for public infrastructure or drainage purposes;
- Clearing of native vegetation in accordance with a bushfire management plan prepared by a suitably qualified person, submitted to and accepted by Council;
- Clearing of native vegetation associated with removal of recognised weed species, maintaining g. existing open pastures and cropping land, windbreaks, lawns or created gardens;
- h. Grazing of native pasture by stock;
- Native forest practice where accepted development under Part 1, 1.7.7 Accepted development.

## Extractive resources separation area (refer Overlay map - Extractive resources (separation area) to determine if the following requirements apply)

#### Development does not result in more than one dwelling house (22) per lot within separation areas. RAD59 RAD60 Development within the separation area does not include the following uses: caretaker's accommodation (10); a. community residence<sup>(16)</sup>; b. dual occupancy<sup>(21)</sup>: C. dwelling unit (23); d. hospital<sup>(36)</sup>: e. rooming accommodation (69);

RAD61	g. multiple dwelling <sup>(49)</sup> ; h. non-resident workforce accommodation <sup>(52)</sup> ; i. relocatable home park <sup>(62)</sup> ; j. residential care facility <sup>(65)</sup> ; k. resort complex <sup>(66)</sup> ; l. retirement facility <sup>(67)</sup> ; m. rural workers' accommodation <sup>(71)</sup> ; n. short-term accommodation <sup>(77)</sup> ; o. tourist park <sup>(84)</sup> .  All habitable rooms within the separation area are:
	<ul> <li>a. acoustically insulated to achieve the noise levels listed in Schedule 1 Acoustic Quality Objectives, Environmental Protection (Noise) Policy 2008;</li> <li>b. provided with mechanical ventilation.</li> </ul>
RAD62	Private open space areas are separated from the resource processing area by buildings or a 1.8m high solid structure.
	e resources transport routes (refer Overlay map - Extractive resources (transport route and buffer) nine if the following requirements apply)
RAD63	The following uses are not located within the 100m wide transport route buffer:  a. Caretaker's accommodation <sup>(10)</sup> , except where located in the Extractive industry zone;  b. Community residence <sup>(16)</sup> ;  c. Dual occupancy <sup>(21)</sup> ;  d. Dwelling house; <sup>(22)</sup> e. Dwelling unit <sup>(23)</sup> ;  f. Hospital <sup>(36)</sup> ;  g. Rooming accommodation <sup>(69)</sup> ;  h. Multiple dwelling <sup>(49)</sup> ;  i. Non-resident workforce accommodation <sup>(52)</sup> ;  j. Relocatable home park <sup>(62)</sup> ;  k. Residential care facility <sup>(65)</sup> ;  l. Resort complex <sup>(66)</sup> ;  m. Retirement facility <sup>(67)</sup> ;  n. Rural workers' accommodation <sup>(71)</sup> ;  o. Short-term accommodation <sup>(77)</sup> ;  p. Tourist park <sup>(84)</sup> .
RAD64	Except for an existing vacant lot, development does not create a new vehicle access point onto an Extractive resources transport route.
RAD65	A vehicle access point is located, designed and constructed in accordance with Planning scheme policy - Integrated design.
Note - Place landscape heritage si	and landscape character (refer Overlay map - Heritage and landscape character to determine if wing requirements apply)  ces, including sites, objects and buildings having local cultural heritage significance, are identified on Overlay map - Heritage and character and listed in Schedule 1 of Planning scheme policy - Heritage and landscape character. Places also having cultural gnificance at a State level and being entered in the Queensland Heritage Register, are also identified in Schedule 1 of Planning olicy - Heritage and landscape character.
RAD66	Development is for the preservation, maintenance, repair and restoration of the site, object or building.

	This does not apply to Listed item 99, in Schedule 1 - List of sites, objects and buildings of significant historical and cultural value of Planning scheme policy - Heritage and landscape character.  Note - Preservation, maintenance, repair and restoration are defined in Schedule 1 - Definitions
RAD67	A cultural heritage conservation management plan is prepared in accordance with Planning scheme policy – Heritage and landscape character and submitted to Council prior to the commencement of any preservation, maintenance, repair and restoration works. Any preservation, maintenance, repair and restoration works are in accordance with the Council approved cultural heritage conservation management plan.
	This does not apply to Listed item 99 in Schedule 1 - List of sites, objects and buildings of significant historical and cultural value of Planning scheme policy - Heritage and landscape character.
RAD68	Development does not result in the removal of or damage to any significant tree identified on Overlay map – Heritage and landscape character and listed in Appendix 2 of Planning scheme policy – Heritage and landscape character.
RAD69	The following development does not occur within 20m of the base of any significant tree, identified on Overlay map – Heritage and landscape character and listed in Appendix 2 of Planning scheme policy – Heritage and landscape character:
	<ul> <li>a. construction of any building;</li> <li>b. laying of overhead or underground services;</li> <li>c. any sealing, paving, soil compaction;</li> <li>d. any alteration of more than 75mm to the ground surface prior to work commencing.</li> </ul>
RAD70	Pruning of a significant tree occurs in accordance with Australian Standard AS 4373-2007 - Pruning of Amenity Trees.
Infrastru apply)	cture buffers (refer Overlay map - Infrastructure buffers to determine if the following requirements
RAD71	Development does not include the following uses within a Wastewater treatment site buffer:  a. Caretaker's accommodation <sup>(10)</sup> ; b. Community residence <sup>(16)</sup> ; c. Dual occupancy <sup>(21)</sup> ; d. Dwelling house; <sup>(22)</sup> e. Dwelling unit <sup>(23)</sup> ; f. Hospital <sup>(36)</sup> ; g. Rooming accommodation <sup>(69)</sup> ; h. Multiple dwelling <sup>(49)</sup> ; i. Non-resident workforce accommodation <sup>(52)</sup> ; j. Relocatable home park <sup>(62)</sup> ; k. Residential care facility <sup>(65)</sup> ; l. Resort complex <sup>(66)</sup> ; m. Retirement facility <sup>(67)</sup> ; n. Rural workers' accommodation <sup>(71)</sup> ; o. Short-term accommodation <sup>(77)</sup> ; p. Tourist park <sup>(84)</sup> .
RAD72	Development does not include the following uses located within a landfill site buffer:  a. caretaker's accommodation <sup>(10)</sup> ; b. community residence <sup>(16)</sup> ; c. dual occupancy <sup>(21)</sup> ;

DAD72	d. dwelling house; (22) e. dwelling unit (23); f. hospital (36); g. rooming accommodation (69); h. multiple dwelling (49); i. non-resident workforce accommodation (52); j. relocatable home park (62); k. residential care facility (65); l. resort complex (66); m. retirement facility (67); n. rural workers' accommodation (71); o. short term accommodation (77); p. tourist park (84).
RAD73	<ul> <li>All habitable rooms located within an Electricity supply substation buffer are:</li> <li>a. located a minimum of 10m from an electricity supply substation<sup>(80)</sup>; and</li> <li>b. acoustically insulated to achieve the noise levels listed in Schedule 1, Acoustic Quality Objectives, Environmental Protection (Noise) Policy 2008.</li> </ul>
RAD74	Development does not involve the construction of any buildings or structures containing habitable rooms or sensitive land uses within a High voltage electricity line buffer.
Overland	flow path (refer Overlay map - Overland flow path to determine if the following requirements apply)
RAD75	Development for a material change of use or building work does not involve the construction of a building or structure in an Overland flow path area.
RAD76	Development for a material change of use or operational work does not impede the flow of flood waters through the premises or worsen flood flows to other premises.  Note - A report from a suitably qualified Registered Professional Engineer Queensland is required certifying that the development does not increase the potential for significant adverse impacts on an upstream, downstream or surrounding premises.  Note - Reporting to be prepared in accordance with Planning scheme policy – Flood hazard, Coastal hazard and Overland flow
RAD77	Development for a material change of use or building work ensures that fencing in an overland flow path area is at least 50% permeable.
RAD78	Development for a material change of use or building work that involves a hazardous chemical ensures the hazardous chemicals is not located within an overland flow path area.
RAD79	Development for a material change of use or building work for a Park <sup>(57)</sup> ensures that work is provided in accordance with the requirements set out in Appendix B of the Planning scheme policy - Integrated design.
following	and wetland setbacks (refer Overlay map - Riparian and wetland setback to determine if the requirements apply)  W2 and W3 waterway and drainage lines, and wetlands are mapped on Schedule 2, Section 2.5 Overlay Maps – Riparian and etbacks.
RAD80	No development is to occur within:
	a. 50m from top of bank for W1 waterway and drainage line
	b. 30m from top of bank for W2 waterway and drainage line

- C. 20m from top of bank for W3 waterway and drainage line
- d. 100m from the edge of a Ramsar wetland, 50m from all other wetlands.

Note - W1, W2 and W3 waterways and drainage lines, and wetlands are mapped on Schedule 2, Section 2.5 Overlay Maps -Riparian and wetland setbacks.

Note - In some cases, the top of bank may not be easily defined, as such a hydraulic measurement may be applied instead. Moreton Bay Regional Council will provide further direction on how to determine and locate the setback boundary in these locations.

Note - The minimum setback distance applies to the each side of waterway.

## Transport noise corridors (refer Overlay map - Transport noise corridors)

Note - This is for information purposes only. No requirements for accepted development or criteria for assessable development apply. Development located within a Transport Noise Corridor must satisfy the requirements of the Queensland Development Code

## 6.2.7.1 Mixed industry and business precinct

## 6.2.7.1.1 Purpose - Mixed industry and business precinct

- The purpose of the code will be achieved through the following overall outcomes for the Mixed industry and business precinct:
  - A range of employment-intensive, knowledge-based, low impact industrial activities and associated commercial activities are established in the precinct which benefit from high levels of exposure and access to high quality transport infrastructure.
  - The operation and viability of existing and future industrial activities is protected from the intrusion of h. incompatible uses.
  - Development is located, designed and managed to:
    - i. maintain the health and safety of people;
    - ii. avoid significant adverse effects on the natural environment;
    - iii. minimise the possibility of adverse impacts on nearby non-industrial uses;
    - iv. be adaptable for alternative industry uses.
  - d. Development has access to infrastructure and essential services and safe and convenient access to major transport routes.
  - Development is designed to incorporate sustainable practices including water sensitive design and energy efficient building design.
  - The scale, character, and built form of development and the resulting streetscape contribute to a high f. standard of visual and physical amenity and incorporate crime prevention through environmental design (CPTED) principles.
  - Commercial, Shop and Office activities only occur in the precinct where: g.
    - i. there is a justified need for the use to be located in the precinct;
    - ii. the use does not compromise the role or function of the region's centres network.
  - Sensitive land uses do not occur where they could compromise or constrain existing or future industrial h. land uses in the precinct or adjoining industrial areas.
  - Special industry<sup>(79)</sup> does not establish within the precinct. i.
  - Development encourages public transport patronage and active transport choices through streetscape j. improvements and the provision of appropriate end of trip facilities.
  - The continued operation of Places of worship and Medium impact industries that were lawfully established k. at commencement is supported. Any extensions to these uses needs to satisfy the outcomes of this code.
  - I. Large format retail, car dominated uses or uses that require large outdoor storage space are not located in the precinct.
  - Development provides a high quality urban form and landscaped environment. m.
  - General works associated with the development achieves the following: n.
    - i. new development is provided with a high standard of services to meet and support the current and future needs of users of the site, including roads, street lighting services, telecommunications and reticulated electricity (underground wherever possible), water and sewerage (where available);

- ii. the development manages stormwater to:
  - ensure the discharge of stormwater does not adversely affect the quality, environmental values Α. or ecosystem functions of downstream receiving waters;
  - B. prevent stormwater contamination and the release of pollutants;
  - C. maintain or improve the structure and condition of drainage lines and riparian areas;
  - avoid off-site adverse impacts from stormwater. D.
- iii. the development does not result in unacceptable impacts on the capacity and safety of the external road network;
- iv. the development ensures the safety, efficiency and useability of access ways and parking areas;
- site works including earthworks are managed to be safe and have minimal impacts on adjoining or adjacent premises, the streetscape or the environment.
- Development does not cause a nuisance by way of aerosols, fumes, light, noise, odour, particles or smoke. 0.
- Noise generating uses are designed, sited and constructed to minimise the transmission of noise to p. appropriate levels and do not cause environmental harm or nuisance.
- Noise sensitive uses are designed, sited and constructed so as not to be subject to unacceptable levels q. of noise.
- Development avoids areas subject to constraint, limitation, or environmental value. Where development r cannot avoid these identified areas, it responds by:
  - adopting a 'least risk, least impact' approach when designing, siting and locating development in any i. area subject to a constraint, limitation or environmental value to minimise the potential risk to people, property and the environment;
  - ii. ensuring no further instability, erosion or degradation of the land, water or soil resource;
  - when located within a Water buffer area, complying with the Water Quality Vision and Objectives contained in the Segwater Development Guidelines: Development Guidelines for Water Quality Management in Drinking Water Catchments 2012.
  - maintaining, restoring and rehabilitating environmental values, including natural, ecological, biological, aquatic, hydrological and amenity values, and enhancing these values through the provision of planting and landscaping, and facilitating safe wildlife movement and connectivity through:
    - the provision of replacement, restoration, rehabilitation planting and landscaping;
    - the location, design and management of development to avoid or minimise adverse impacts on B. ecological systems and processes;
    - C. the requiring of environmental offsets in accordance with the Environmental Offsets Act 2014.
  - protecting native species and protecting and enhancing species habitat;
  - protecting and preserving the natural, aesthetic, architectural historic and cultural values of significant trees, places, objects and buildings of heritage and cultural significance;
  - establishing effective separation distances, buffers and mitigation measures associated with identified vii. infrastructure to minimise adverse effects on sensitive land uses from odour, noise, dust and other nuisance generating activities;
  - viii. establishing, maintaining and protecting appropriate buffers to waterways, wetlands, native vegetation and significant fauna habitat;
  - ensuring it promotes and does not undermine the ongoing viability, integrity, operation, maintenance ix. and safety of identified infrastructure;
  - ensuring effective and efficient disaster management response and recovery capabilities; X.
  - where located in an overland flow path:
    - development siting, built form, layout and access responds to the risk presented by the overland Α. flow and minimises risk to personal safety;
    - development is resilient to the impacts of overland flow by ensuring the siting and design accounts B. for the potential risks to property associated with the overland flow;

- development does not impact on the conveyance of the overland flow for any event up to and C. including the 1% AEP for the fully developed upstream catchment;
- D. development directly, indirectly and cumulatively avoid an increase in the severity of overland flow and potential for damage on the premises or other premises, public lands, watercourses, roads or infrastructure.
- Development in the Mixed industry and business precinct includes one or more of the following: S.

•	Caretaker's accommodation <sup>(10)</sup>	•	Indoor sport and recreation <sup>(38)</sup>	•	Sales office <sup>(72)</sup>
•	Educational (24) as a	•	Low impact industry <sup>(42)</sup>	•	Service industry <sup>(73)</sup>
	establishment <sup>(24)</sup> (if for technical or trade related	•	Medium impact industry <sup>(47)</sup> (if at least 250 metres from	•	Service station <sup>(74)</sup> Showroom <sup>(78)</sup> (where for
	education)  Emergency services <sup>(25)</sup>		a sensitive land use or zone)		industry or trade related products and a maximum of
•	Food and drink outlet <sup>(28)</sup> (if	•	Office <sup>(53)</sup> (where on a		500m <sup>2</sup> GFA)
	less than 100m <sup>2</sup> GFA)		District Collector road or higher)	•	Warehouse <sup>(88)</sup>
•	Hardware and trade supplies (32) (where a maximum of 500m <sup>2</sup> GFA)	•	Outdoor sales <sup>(54)</sup> (where for sale of goods manufactured on-site)		
		•	Research and technology industry <sup>(64)</sup>		

Development in the Mixed industry and business precinct does not include any of the following: t.

•	Air services <sup>(3)</sup>	•	Funeral parlour <sup>(30)</sup>	•	Permanent plantation <sup>(59)</sup>
•	Animal keeping <sup>(5)</sup>	•	Garden centre <sup>(31)</sup>	•	Relocatable home park <sup>(62)</sup>
•	Bar <sup>(7)</sup>	•	Hardware and trade supplies <sup>(32)</sup> (Where	•	Residential care facility <sup>(65)</sup>
•	Brothel <sup>(8)</sup>		exceeding 500m <sup>2</sup> GFA)		Resort complex <sup>(66)</sup>
•	Cemetery <sup>(12)</sup>	•	High Impact Industry <sup>(34)</sup>	•	Retirement facility <sup>(67)</sup>
•	Community care centre <sup>(15)</sup>	•	Hospital <sup>(36)</sup>	•	Roadside stall <sup>(68)</sup>
•	Community residence <sup>(16)</sup>	•	Hotel <sup>(37)</sup>	•	Rooming accommodation (69)
•	Community use <sup>(17)</sup>	•	Intensive animal industry (39)	•	Rural industry <sup>(70)</sup>
•	Cropping <sup>(19)</sup>	•	Intensive horticulture (40)	•	Rural workers' accommodation <sup>(71)</sup>
•	Detention facility <sup>(20)</sup>	•	Landing <sup>(41)</sup>		
•	Dual occupancy <sup>(21)</sup>	•	Major sport, recreation and	•	Shopping Centre <sup>(76)</sup>
•	Dwelling house <sup>(22)</sup>		entertainment facility <sup>(44)</sup>		Short-term accommodation <sup>(77)</sup>
	, and the second	•			

•	Dwelling unit <sup>(23)</sup>	•	Multiple dwelling <sup>(49)</sup>	•	Showroom <sup>(78)</sup> (where not for industry or trade related
•	Education establishment (where not for technical or	•	Nature-based tourism <sup>(50)</sup>		products or exceeds 500m <sup>2</sup> GFA)
	trade related education)	•	Nightclub entertainment facility <sup>(51)</sup>	•	Special industry <sup>(79)</sup>
•	Environment facility <sup>(26)</sup>	•	Non-resident workforce	•	Theatre <sup>(82)</sup>
•	Extractive industry <sup>(27)</sup>		accommodation <sup>(52)</sup>	•	Tourist park <sup>(84)</sup>
•	Food and drink outlet <sup>(28)</sup> (where exceeding 100m <sup>2</sup>	•	Outdoor sport and recreation <sup>(55)</sup>	•	Veterinary services <sup>(87)</sup>
	GFA)	•	Parking station <sup>(58)</sup>	•	Wholesale nursery <sup>(89)</sup>
•	Function facility <sup>(29)</sup>			•	Winery <sup>(90)</sup>

Development not included in the tables above may be considered on its merits and where it reflects and supports the outcomes of the precinct.

## 6.2.7.1.2 Criteria for assessable development

Where development is categorised as assessable development - code assessment in the Table of Assessment, and located in a precinct, the assessment benchmarks are the criteria set out in Part B, Table 6.2.7.1.1 as well as the purpose statement and overall outcomes of this code.

Where development is categorised as assessable development - impact assessment, the assessment benchmarks become the whole of the planning scheme.

## Part B—Criteria for assessable development - Mixed industry and business precinct

Table 6.2.7.1.1 Assessable development - Mixed industry and business precinct

Per	formance outcomes	Examples that achieve aspects of the Performance Outcomes					
	General criteria						
Site	cover						
PO	1	No example provided.					
Site	cover is limited to a proportion of a site that ensures:						
a.	A sufficient number and type of vehicle parking spaces are provided on the site to meet the parking demands and expectations of the proposed use;						
b.	Any type of vehicle expected to visit the site on a regular basis is able to access and leave the site in a forward direction with clear manoeuvring on the site;						

- setbacks to boundaries maximise the efficient use C. of the site while ensuring positive interfaces with public space or sensitive land uses;
- d. Areas of landscaping are provided to soften the built form and hard stand impacts of development whilst providing areas of natural space on a site.

## **Building height**

#### PO<sub>2</sub>

The height of buildings is in keeping with the predominant industrial and commercial character of the precinct and does not cause adverse amenity impacts on nearby sensitive land uses and zones.

### **E2**

Building height does not exceed the maximum height identified on Overlay map - Building heights.

#### **Setbacks**

#### PO<sub>3</sub>

Street boundary setbacks:

- minimise building bulk and visual dominance from a. the street;
- b. provide areas for landscaping at the front of the
- allow for customer parking to be located at the front C. of the building;
- d. provide opportunities for dense landscaping to screen at maturity any visibility of development of a site from the Bruce Highway.

### **E3**

Buildings maintain a minimum setback of:

- 6m to the primary frontage (other than the Bruce a. Highway);
- b. 3m to the secondary street frontage;
- C. 10m to a boundary adjoining the Bruce Highway.

## PO4

Side and rear boundary setbacks maintain views, privacy, access to natural light and the visual amenity of adjoining sensitive land uses.

### **E4**

Where a development adjoins general residential zoned land, the building is setback a minimum of 3m from the property boundary with dense landscaping installed along the boundary to provide screening of the development with a mature height of at least 3m.

Note - Refer to Planning scheme policy - Integrated design for determining acceptable levels of landscaping for screening purposes.

## **Building appearance and design**

### PO<sub>5</sub>

Buildings exhibit a high standard of commercial design and construction, which:

adds visual interest to the streetscape, through a. variation in building materials, colours and features; No example provided.

- b. does not result in blank, unarticulated walls fronting streets or public areas;
- reduces the perceived bulk of the building when C. viewed from the street;
- d. articulates or accentuates the administration and customer service areas of the building;
- contributes to safe environment, through the e. incorporation of CPTED principles;
- f. incorporates high quality, low maintenance building materials;
- does not utilise highly reflective materials. g.

Note - The following examples illustrate an acceptable design response to this outcome.





**PO6** 

Buildings on corner allotments:

address both street frontages; a.

No example provided.

- b. contain building openings facing both street frontages;
- C. do not present blank unarticulated walls to either frontage.

Note - The following example illustrates an acceptable design response to this outcome.



### Staff recreation area

### **PO7**

Staff are provided with adequate and amenable break/dining facilities to suit the nature of the activities on-site.

### **E7**

Where the nature of the activities on-site do not allow staff to eat in their work environment, the development provides an on-site recreation area for staff that:

- a. includes adequate seating, tables and rubbish bins for the number of staff on-site:
- b. is adequately protected from the weather;
- C. is safely accessible to all staff;
- d. is separate and private from public areas;
- e. is located away from a noisy or odorous activity.

## Landscaping

### **PO8**

Landscaping is provided on the site to:

- visually soften the built form, areas of hardstand, a. storage areas and mechanical plant associated with the on-site activities;
- b. complement the existing or desired streetscape;
- minimise the impact of industrial development on C. any adjoining lots not zoned for industrial purposes.

### **E8**

Landscaping is provided and maintained in accordance with Planning scheme policy - Integrated design.

## **Fencing**

## **PO9**

The provision of fencing on street frontages does not dominate the street or create safety issues.

Note - The following example illustrates an acceptable design response to this outcome.



## **E9**

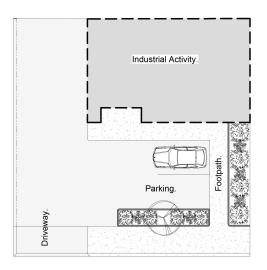
Where fencing is provided on the street frontage, fence sections between columns or posts have a minimum transparency of 70% spread evenly across its total surface area.

### **Public access**

### **PO10**

The use has a safe, clearly identifiable public access separate from service and parking areas.

Note - The following diagram illustrates an acceptable design response to this outcome.



### E10.1

Pedestrian linkages are provided from the street and customer car parking areas directly to the main entrance of the building.

## E10.2

Public access to the building is not provided through industrial service areas.

## **Movement network**

**PO11** E11.1 Development is designed to connect to and form part of the surrounding neighbourhood by providing interconnected streets, pedestrian and cyclist pathways to adjoining development, nearby centres, neighbourhood hubs, community facilities, public transport nodes and open space.

Note - Refer to Planning scheme policy - Neighbourhood design for guidance on achieving the above outcome.

Development provides and maintains the connections shown on the following movement figures:

- Figure 1 Deception Bay Bailey Road / Park Road a.
- Figure 2 Deception Bay Deception Bay Road b.
- C. Figure 3 - Dakabin

#### E11.2

For areas not shown on the above movement figures, no example provided.

Note - Refer to Planning scheme policy - Neighbourhood design for guidance on achieving the Performance outcome.

### Car parking

#### **PO12**

Car parking is provided on-site to meet the anticipated demand of employees and visitors and avoid adverse impacts on the external road network.

Note - Refer to Planning scheme policy - Integrated transport assessment for guidance on how to achieve compliance with this outcome.

### E12

Car parking is provided in accordance with Schedule 7 - Car parking.

#### **PO13**

The design of vehicle entry points and car parking areas:

- does not impact on the safety of the external road network;
- b. ensures the safety of pedestrians at all times;
- ensures the safe movement of vehicles within the C. site:
- d. provides connections with car parking areas on adjoining sites where possible.

## E13

All vehicle entry points and car parking areas are designed and constructed in accordance with Australian Standard AS2890.1 Parking facilities Part 1: Off-street car parking.

### **PO14**

Vehicle cross-overs do not dominate the street frontage.

#### E14

A maximum of 1 vehicle cross-over is provided to each street frontage unless required for manoeuvring purposes.

## Bicycle parking and end of trip facilities

Note - Building work to which this code applies constitutes Major Development for purposes of development requirements for end of trip facilities prescribed in the Queensland Development Code MP 4.1.

E15.1 **PO15** 

- End of trip facilities are provided for employees or a. occupants, in the building or on-site within a reasonable walking distance, and include:
  - i. adequate bicycle parking and storage facilities: and
  - ii. adequate provision for securing belongings;
  - iii. change rooms that include adequate showers, sanitary compartments, wash basins and mirrors.
- b. Notwithstanding a. there is no requirement to provide end of trip facilities if it would be unreasonable to provide these facilities having regard to:
  - i. the projected population growth and forward planning for road upgrading and development of cycle paths; or
  - whether it would be practical to commute to and from the building on a bicycle, having regard to the likely commute distances and nature of the terrain; or
  - the condition of the road and the nature and amount of traffic potentially affecting the safety of commuters.

Editor's note - The intent of b above is to ensure the requirements for bicycle parking and end of trip facilities are not applied in unreasonable circumstances. For example these requirements should not, and do not apply in the Rural zone or the Rural residential zone etc.

Editor's note - This performance outcome is the same as the Performance Requirement prescribed for end of trip facilities under the Queensland Development Code. For development incorporating building work, that Queensland Development Code performance requirement cannot be altered by a local planning instrument and has been reproduced here solely for information purposes. Council's assessment in its building work concurrence agency role for end of trip facilities will be against the performance requirement in the Queensland Development Code. As it is subject to change at any time, applicants for development incorporating building work should ensure that proposals that do not comply with the examples under this heading meet the current performance requirement prescribed in the Queensland Development Code.

Minimum bicycle parking facilities are provided at a rate of 1 bicycle parking space for every 3 vehicles parking spaces required by Schedule 7 - Car parking.

Editor's note - The examples for end of trip facilities prescribed under the Queensland Development Code permit a local planning instrument to prescribe facility levels higher than the default levels identified in those acceptable solutions. This example is a combination of the default levels set for end of trip facilities in the Queensland Development Code and the additional facilities required by Council.

### E15.2

Bicycle parking is:

- provided in accordance with Austroads (2008). Guide to Traffic Management - Part 11: Parking:
- b. protected from the weather by its location or a dedicated roof structure;
- located within the building or in a dedicated, secure structure for residents and staff:
- d. adjacent to building entrances or in public areas for customers and visitors.

Note - Bicycle parking structures are to be constructed to the standards prescribed in AS2890.3.

Note - Bicycle parking and end of trip facilities provided for residential and non-residential activities may be pooled, provided they are within 100 metres of the entrance to the building.

Editor's note - The examples for end of trip facilities prescribed under the Queensland Development Code permit a local planning instrument to prescribe facility levels higher than the default levels identified in those acceptable solutions. This example is an amalgamation of the default levels set for end of trip facilities in the Queensland Development Code and the additional facilities required by Council.

### E15.3

For non-residential uses, storage lockers:

- are provide at a rate of 1.6 per bicycle parking space (rounded up to the nearest whole number);
- b. have minimum dimensions of 900mm (height) x 300mm (width) x 450mm (depth).

Note - Storage lockers may be pooled across multiple sites and activities when within 100 metres of the entrance to the building and within 50 metres of bicycle parking and storage facilities.

Editor's note - The examples for end of trip facilities prescribed under the Queensland Development Code permit a local planning instrument to prescribe facility levels higher than the default levels identified in those acceptable solutions. This example is an amalgamation of the default levels set for end of trip facilities in the Queensland Development Code and the additional facilities required by Council.

### E15.4

For non-residential uses, changing rooms:

- are provided at a rate of 1 per 10 bicycle parking a. spaces;
- b. are fitted with a lockable door or otherwise screened from public view;
- C. are provided with shower(s), sanitary compartment(s) and wash basin(s) in accordance with the table below:

Bicycle spaces provided	Male/ Female	Change rooms required	Showers required	Sanitary compartments required	Washbasins required
1-5	Male and female	1 unisex change room	1	1 closet pan	1
6-19	Female	1	1	1 closet pan	1
20 or more	Male	1	1	1 closet pan	1
	Female	1	2, plus 1 for every 20 bicycle spaces provided thereafter	2 closet pans, plus 1 sanitary compartment for every 60 bicycle parking spaces provided thereafter	1, plus 1 for every 60 bicycle parking spaces provided thereafter
	Male	1	2, plus 1 for every 20 bicycle spaces provided thereafter	1 urinal and 1 closet pans, plus 1 sanitary compartment at the rate of 1 closet pan or 1 urinal for every 60 bicycle space provided thereafter	1, plus 1 for every 60 bicycle parking spaces provided thereafter

Note - All showers have a minimum 3-star Water Efficiency Labelling and Standards (WELS) rating shower head.

Note - All sanitary compartments are constructed in compliance with F2.3 (e) and F2.5 of BCA (Volume 1).

- d. are provided with:
  - i. a mirror located above each wash basin;
  - ii. a hook and bench seating within each shower compartment;
  - a socket-outlet located adjacent to each wash iii. basin.

Note - Change rooms may be pooled across multiple sites, residential and non-residential activities when within 100 metres of the entrance

to the building and within 50 metres of bicycle parking and storage facilities

Editor's note - The examples for end of trip facilities prescribed under the Queensland Development Code permit a local planning instrument to prescribe facility levels higher than the default levels identified in those acceptable solutions. This example is an amalgamation of the default levels set for end of trip facilities in the Queensland Development Code and the additional facilities required by Council.

## Loading and servicing

#### **PO16**

Service areas, including loading/unloading facilities, plant areas and outdoor storage areas, are screened from the direct view from land not included in the Industry zone and sub-arterial and arterial roads.

Note - If landscaping is proposed for screening purposes, refer to Planning scheme Policy - Integrated design for determining acceptable levels.

No example provided.

### Waste

#### **PO17**

Bins and bin storage area/s are designed, located and managed to prevent amenity impacts on the locality.

### E17

Development is designed to meet the criteria in the Planning scheme policy - Waste and is demonstrated in a waste management program.

### **Environmental impacts**

### **PO18**

Where a use is not an environmentally relevant activity under the Environmental Protection Act 1994, the release of any containment that may cause environmental harm is mitigated to an acceptable level.

### E18

Development achieves the standard listed in Schedule 1 Air Quality Objectives, Environmental Protection (Air) Policy 2008.

## Lighting

### **PO19**

Lighting is directed and shielded to not cause unreasonable disturbance to any person on adjoining land.

### E19

Artificial lighting is directed and shielded in such a manner as not to exceed the recommended maximum values of light technical parameters for the control of obtrusive light given in Table 2.1 of the Australian Standard AS 4282 (1997) Control of Obtrusive Effects of Outdoor Lighting.

Note - "Curfewed hours" are taken to be those hours between 10pm and 7am on the following day.

## **Noise**

**PO20** 

No example provided.

Noise generating uses do not adversely affect existing noise sensitive uses.

Note - The use of walls, barriers or fences that are visible from or adjoin a road or public area are not appropriate noise attenuation measures unless adjoining a motorway, arterial road or rail line.

Note - A noise impact assessment may be required to demonstrate compliance with this PO. Noise impact assessments are to be prepared in accordance with Planning scheme policy - Noise.

### **PO21**

Sensitive land uses are provided with an appropriate acoustic environment within designated external private outdoor living spaces and internal areas while:

- contributing to safe and usable public spaces, through maintaining high levels of surveillance of parks, streets and roads that serve active transport purposes (e.g. existing or future pedestrian paths or cycle lanes etc);
- maintaining the amenity of the streetscape. b.

Note - A noise impact assessment may be required to demonstrate compliance with this PO. Noise impact assessments are to be prepared in accordance with Planning scheme policy - Noise.

Note - Refer to Planning Scheme Policy - Integrated design for details and examples of noise attenuation structures.

### E21.1

Development is designed to meet the criteria outlined in the Planning Scheme Policy - Noise.

### E21.2

Noise attenuation structures (e.g. walls, barriers or fences):

- are not visible from an adjoining road or public area a. unless:
  - i. adjoining a motorway or rail line; or
  - adjoining part of an arterial road that does not serve an existing or future active transport purpose (e.g. pedestrian paths or cycle lanes) or where attenuation through building location and materials is not possible.
- b. do not remove existing or prevent future active transport routes or connections to the street network;
- are located, constructed and landscaped in accordance with Planning scheme policy -Integrated design.

Note - Refer to Planning scheme policy - Integrated design for details and examples of noise attenuation structures.

Note - Refer to Overlay map - Active transport for future active transport routes.

### **Hazardous Chemicals**

Note - To assist in demonstrating compliance with the following performance outcomes, a Hazard Assessment Report may be required to be prepared and submitted by a suitably qualified person in accordance with 'State Planning Policy Guideline - Guidance on development involving hazardous chemicals'.

Note - Terms used in this section are defined in 'State Planning Policy Guideline - Guidance on development involving hazardous chemicals'.

PO22	E22.1	

Off sites risks from foreseeable hazard scenarios involving hazardous chemicals are commensurate with the sensitivity of the surrounding land use zones.

Off site impacts or risks from any foreseeable hazard scenario does not exceed the dangerous dose at the boundary of land zoned for vulnerable or sensitive land uses as described below:

## Dangerous Dose

- For any hazard scenario involving the release of gases or vapours:
  - i. AEGL2 (60minutes) or if not available ERPG2;
  - An oxygen content in air <19.5% or >23.5% at normal atmospheric pressure.
- b. For any hazard scenario involving fire or explosion:
  - 7kPa overpressure;
  - ii. 4.7kW/m2 heat radiation.

If criteria E22.1 (a) or (b) cannot be achieved, then the risk of any foreseeable hazard scenario shall not exceed an individual fatality risk level of 0.5 x 10-6/year.

#### E22.2

Off site impacts or risks from any foreseeable hazard scenario does not exceed the dangerous dose at the boundary of a commercial or community activity land use zone as described below:

## Dangerous Dose

- For any hazard scenario involving the release of gases or vapours:
  - i. AEGL2 (60minutes) or if not available ERPG2;
  - ii. An oxygen content in air <19.5% or >23.5% at normal atmospheric pressure.
- b. For any hazard scenario involving fire or explosion:
  - i. 7kPa overpressure;
  - 4.7kW/m2 heat radiation. ii

If criteria E22.2 (a) or (b) cannot be achieved, then the risk of any foreseeable hazard scenario shall not exceed an individual fatality risk level of 5 x 10-6/year.

### E22.3

Off site impacts or risks from any foreseeable hazard scenario does not exceed the dangerous dose at the boundary of an industrial land use zone as described below:

## Dangerous Dose

- For any hazard scenario involving the release of gases or vapours:
  - i. AEGL2 (60minutes) or if not available ERPG2;
  - An oxygen content in air <19.5% or >23.5% at normal atmospheric pressure.
- b. For any hazard scenario involving fire or explosion:
  - 14kPa overpressure;
  - ii. 12.6kW/m2 heat radiation.

If criteria E22.3 (a) or (b) cannot be achieved, then the risk of any foreseeable hazard scenario shall not exceed an individual fatality risk level of 50 x 10-6/year.

#### **PO23**

Buildings and package stores containing fire-risk hazardous chemicals are designed to detect the early stages of a fire situation and notify a designated person.

#### **E23**

Buildings and package stores containing fire-risk hazardous chemicals are provided with 24 hour monitored fire detection system for early detection of a fire event.

### **PO24**

Common storage areas containing packages of flammable and toxic hazardous chemicals are designed with spill containment system(s) that are adequate to contain releases, including fire fighting media.

### **E24**

Storage areas containing packages of flammable and toxic hazardous chemicals are designed with spill containment system(s) capable of containing a minimum of the total aggregate capacity of all packages plus the maximum operating capacity of any fire protection system for the storage area(s) over a minimum of 60 minutes.

### **PO25**

Storage and handling areas, including manufacturing areas, containing hazardous chemicals in quantities greater than 2,500L or kg within a Local Government "flood hazard area" are located and designed in a manner to minimise the likelihood of inundation of flood waters from creeks, rivers, lakes or estuaries.

### E25.1

The base of any tank with a WC >2,500L or kg is higher than any relevant flood height level identified in an area's flood hazard area. Alternatively:

- bulk tanks are anchored so they cannot float if a. submerged or inundated by water; and
- b. tank openings not provided with a liquid tight seal, i.e. an atmospheric vent, are extended above the relevant flood height level.

### E25.2

The lowest point of any storage area for packages >2,500L or kg is higher than any relevant flood height level identified in an area's flood hazard area. Alternatively, package stores are provided with impervious bund walls or racking systems higher than the relevant flood height level.

## **Emissions into Brisbane operational airspace**

#### **PO26**

Emissions do not significantly increase air turbulence, reduce visibility or compromise the operation of aircraft engines in Brisbane airport's operational airspace.

Note - Refer to State Planning Policy December 2013 mapping to identify Brisbane airport's operational airspace.

### E26.1

Development does not emit a gaseous plume into the airport's operational airspace at a velocity exceeding 4.3m per second.

### E26.2

Development emitting smoke, dust, ash, steam or a gaseous plume exceeding 4.3m per second is designed and constructed to mitigate adverse impacts of emissions upon operational airspace.

## Clearing of habitat trees where not located within the Environmental areas overlay map

### **PO27**

- Development ensures that the biodiversity quality and integrity of habitats is not adversely impacted upon but maintained and protected.
- b. Development does not result in the net loss of fauna habitat. Where development does result in the loss of a habitat tree, development will provide replacement fauna nesting boxes at the following rate of 1 nest box for every hollow removed. Where hollows have not yet formed in trees > 80cm in diameter at 1.3m height, 3 nest boxes are required for every habitat tree removed.
- Development does not result in soil erosion or land degradation or leave land exposed for an unreasonable period of time but is rehabilitated in a timely manner

Note: Further guidance on habitat trees is provided in Planning scheme policy - Environmental areas

No example provided.

### Works criteria

# **Utilities PO28** No example provided.

All services including water supply, sewage disposal, electricity, street lighting, telecommunications and gas (if available) are provided in accordance with Planning scheme policy - Integrated design (Appendix A).

#### **Access**

#### **PO29**

Where required, access easements contain a driveway and provision for services appropriate to the use. The easement covers all works associated with the access in accordance with Planning scheme policy - Integrated design.

No example provided.

#### **PO30**

The layout of the development does not compromise:

- a. the development of the road network in the area;
- b. the function or safety of the road network;
- the capacity of the road network.

Note - The road hierarchy is mapped on Overlay map - Road hierarchy.

### E30.1

The development provides for the extension of the road network in the area in accordance with Council's road network planning.

### E30.2

The development does not compromise future road widening of frontage roads in accordance with the relevant standard and Council's road planning.

#### E30.3

The development layout allows forward vehicular access to and from the site.

### E30.4

For land located at Deception Bay, all vehicle access to Deception Bay Road is via a future 4-way signalised intersection at Deception Bay Road and Zammit Street, as illustrated in Figure 2 - Deception Bay- Deception Bay Road, except where an alternative access has been previously approved by TMR or allowed through an existing development approval. No direct property access is provided to Deception Bay Road.

## **PO31**

Safe access is provided for all vehicles required to access the site.

## E31.1

Site access and driveways are designed, located and constructed in accordance with:

- a. where for a Council-controlled road and associated with a Dwelling house:
  - i. Planning scheme policy Integrated design;
- b. where for a Council-controlled road and not associated with a Dwelling house:

- i. AS/NZS2890.1 Parking facilities Part 1: Off street car parking;
- ii. AS 2890.2 - Parking facilities Part 2: Off-street commercial vehicle facilities;
- iii. Planning scheme policy - Integrated design;
- Schedule 8 Service vehicle requirements;
- where for a State-Controlled road, the Safe Intersection Sight Distance requirements in Austroads and the appropriate IPWEAQ standard drawings, or a copy of a Transport Infrastructure Act 1994, section 62 approval.

#### E31.2

Internal driveways, car parks and access ways are designed and constructed with a sealed pavement and in accordance with:

- AS/NZS 2890.1 Parking Facilities Part 1: Off street a. car parking;
- b. AS 2890.2 Parking Facilities Part 2: Off street commercial vehicle facilities:
- Planning scheme policy Integrated design; and C.
- d. Schedule 8 - Service vehicle requirements.

Note - This includes queue lengths (refer to Schedule 8 -Service vehicle requirements), pavement widths and construction.

#### E31.3

Access driveways, manoeuvring areas and loading facilities are sealed and provide for service vehicles listed in Schedule 8 - Service vehicle requirements for the relevant use. The on-site manoeuvring is to be in accordance with Schedule 8 - Service vehicle requirements.

### E31.4

Access driveways, manoeuvring areas and loading facilities are constructed with reinforced concrete road pavements. Concrete is to be designed in accordance with rigid road pavement design principles.

Note - Pavements are to be designed by an RPEQ.

### E31.5

Landscaping (including shade trees) is provided within car parks in accordance with Planning scheme policy -Integrated design. **PO32** E32 Sealed and flood free road access during the minor storm Roads or streets giving access to the development from event is available to the site from the nearest arterial or the nearest arterial or sub-arterial road are flood free sub-arterial road. during the minor storm event and are sealed. Editor's note - Where associated with a State-controlled road, further Note - The road network is mapped on Overlay map - Road requirements may apply, and approvals may be required from the hierarchy. Department of Transport and Main Roads. **PO33** E33.1 Roads which provide access to the site from an arterial Access roads to the development have sufficient or sub-arterial road remain trafficable during major storm longitudinal and cross drainage to remain safely events without flooding or impacting upon residential trafficable during major storm (1% AEP) events. properties or other premises. Note - The road network is mapped on Overlay map - Road

#### E33.2

hierarchy.

Culverts and causeways do not increase inundation levels or increase velocities, for all events up to the defined flood event, to upstream or downstream properties.

Note - Refer to QUDM for requirements regarding trafficability.

### Street design and layout

#### **PO34**

Streets are designed and constructed in accordance with Planning scheme policy - Integrated design and Planning scheme policy - Operational works inspection, maintenance and bonding procedures. The street design and construction accommodates the following functions:

- access to premises by providing convenient a. vehicular movement for residents between their homes and the major road network;
- safe and convenient pedestrian and cycle movement:
- adequate on street parking; C.
- d. stormwater drainage paths and treatment facilities;
- e. efficient public transport routes;
- f. utility services location;

No example provided.

- g. emergency access and waste collection;
- h. setting and approach (streetscape, landscaping and street furniture) for adjoining residences;
- i. expected traffic speeds and volumes; and
- į. wildlife movement (where relevant).

Note - Preliminary road design (including all services, street lighting, stormwater infrastructure, access locations, street trees and pedestrian network) may be required to demonstrate compliance with this PO.

Note - Refer to Planning scheme policy - Environmental areas and corridors for examples of when and where wildlife movement infrastructure is required.

#### **PO35**

The existing road network (whether trunk or non-trunk) is upgraded where necessary to cater for the impact from the development.

Note - An applicant may be required to submit an Integrated Transport Assessment (ITA), prepared in accordance with Planning scheme policy - Integrated transport assessment to demonstrate compliance with this PO, when any of the following occurs:

- Development is within 200m of a transport sensitive location such as a school, shopping centre, bus or train station or a large generator of pedestrian or vehicular traffic;
- Forecast traffic to/from the development exceeds 5% of the two way flow on the adjoining road or intersection in the morning or afternoon transport peak within 10 years of the development completion;
- Development access onto a sub arterial, or arterial road or within 100m of a signalised intersection;
- Residential development greater than 50 lots or dwellings;
- Offices greater than 4,000m<sup>2</sup> Gross Floor Area (GFA);
- Retail activities including Hardware and trade supplies, Showroom, Shop or Shopping centre greater than 1,000m2 GFA;
- Warehouses and Industry greater than 6,000m<sup>2</sup> GFA;
- On-site carpark greater than 100 spaces;
- Development has a trip generation rate of 100 vehicles or more within the peak hour;
- Development which dissects or significantly impacts on an environmental area or an environmental corridor.

The ITA is to review the development's impact upon the external road network for the period of 10 years from completion of the development. The ITA is to provide sufficient information for determining the impact and the type and extent of any ameliorative

### E35.1

New intersections onto existing roads are designed to accommodate traffic volumes and traffic movements taken from a date 10 years from the date of completion of the last stage of the development. Detailed design is to be in accordance with Planning scheme policy -Integrated design.

Note - All turns vehicular access to existing lots is to be retained at new road intersections wherever practicable.

Note - Existing on-street parking is to be retained at new road intersections and along road frontages wherever practicable.

#### E35.2

Existing intersections external to the site are upgraded as necessary to accommodate increased traffic from the development. Design is in accordance with Planning scheme policy - Operational works inspection, maintenance and bonding procedures.

Note - All turns vehicular access to existing lots is to be retained at new road intersections wherever practicable.

Note - Existing on-street parking is to be retained at upgraded road intersections and along road frontages wherever practicable.

#### E35.3

The active transport network is extended in accordance with Planning scheme policy - Integrated design.

works required to cater for the additional traffic. The ITA must include a future structural road layout of adjoining properties that will form part of this catchment and road connecting to these properties. The ITA is to assess the ultimate developed catchment's impacts and necessary ameliorative works, and the works or contribution required by the applicant as identified in the study.

Note - The road network is mapped on Overlay map - Road hierarchy.

Note - The primary and secondary active transport network is mapped on Overlay map - Active transport.

#### **PO36**

New intersections along all streets and roads are located and designed to provide safe and convenient movements for all users.

Note - Refer Planning scheme policy - Integrated design and Planning scheme policy - Operational works inspection, maintenance and bonding procedures for design and construction standards.

Note - An Integrated Transport Assessment (ITA) including preliminary intersection designs, prepared in accordance with Planning scheme policy - Integrated transport assessment may be required to demonstrate compliance with this PO. Intersection spacing will be determined based on the deceleration and queue storage distances required for the intersection after considering vehicle speed and present/forecast turning and through volumes.

#### **E36**

New intersection spacing (centreline – centreline) along a through road conforms with the following:

- where the through road provides an access function;
  - i. intersecting road located on the same side = 60 metres;
  - ii. intersecting road located on opposite side (Left Right Stagger) = 60 metres;
  - intersecting road located on opposite side iii. (Right Left Stagger) = 40 metres.
- b. Where the through road provides a collector or sub-arterial function:
  - i. intersecting road located on the same side = 100 metres:
  - ii. intersecting road located on opposite side (Left Right Stagger) = 100 metres;
  - intersecting road located on opposite side iii. (Right Left Stagger) = 60 metres.
- Where the through road provides an arterial function:
  - i. intersecting road located on the same side = 300 metres:
  - ii. intersecting road located on opposite side (Left Right Stagger) = 300 metres;
  - iii. intersecting road located on opposite side (Right Left Stagger) = 300 metres;
- d. Walkable block perimeter does not exceed 1000 metres.

Note - Based on the absolute minimum intersection spacing identified above, all turns access may not be permitted (ie. left in/left out only) at intersections with sub-arterial roads or arterial roads.

Note - The road network is mapped on Overlay map - Road hierarchy.

Note - An Integrated Transport Assessment (ITA) including preliminary intersection designs, prepared in accordance with Planning scheme policy - Integrated transport assessment may be required to demonstrate compliance with this PO. Intersection spacing will be determined based on the deceleration and queue storage distances required for the intersection after considering vehicle speed and present/forecast turning and through volumes.

#### **PO37**

All Council controlled frontage roads adjoining the development are designed and constructed in accordance with Planning scheme policy - Integrated design and Planning scheme policy - Operational works inspection, maintenance and bonding procedures. All new works are extended to join any existing works within 20m.

Note - Frontage roads include streets where no direct lot access is provided.

Note - The road network is mapped on Overlay map - Road hierarchy.

Note - The Primary and Secondary active transport network is mapped on Overlay map - Active transport.

Note - Roads are considered to be constructed in accordance with Council's standards when there is sufficient pavement width, geometry and depth to comply with the requirements of Planning scheme policy - Integrated design and Planning scheme policy -Operational works inspection, maintenance and bonding procedures.

#### E37

Design and construct all Council controlled frontage roads in accordance with Planning scheme policy - Integrated design, Planning scheme policy - Operational works inspection, maintenance and bonding procedures and the following:

Situation	Minimum construction
Frontage road unconstructed or gravel road only;  OR  Frontage road sealed but not constructed* to Planning scheme policy - Integrated design standard;  OR  Frontage road partially constructed* to Planning scheme policy - Integrated design standard;	Construct the verge adjoining the development and the carriageway (including development side kerb and channel) to a minimum sealed width containing near side parking lane (if required), cycle lane (if required), cycle lane (if required), 2 travel lanes plus 1.5m wide (full depth pavement) gravel shoulder and table drainage to the opposite side.  The minimum total travel lane width is:  6m for minor roads;

Note - Major roads are sub-arterial roads and arterial roads. Minor roads are roads that are not major roads.

Note - Construction includes all associated works (services, street lighting and linemarking).

Note - Alignment within road reserves is to be agreed with Council.

Note - \*Roads are considered to be constructed in accordance with Council standards when there is sufficient pavement width, geometry and depth to comply with the requirements of Planning scheme policy - Integrated design and Planning scheme policy - Operational works inspection, maintenance and bonding procedures. Testing of the existing pavement may be required to confirm whether the existing works meet the standards in Planning scheme policy -Integrated design and Planning scheme policy - Operational works inspection, maintenance and bonding procedures.

### **Stormwater**

#### **PO38**

Minor stormwater drainage systems (internal and external) have the capacity to convey stormwater flows from frequent storm events for the fully developed upstream catchment whilst ensuring pedestrian and vehicular traffic movements are safe and convenient.

#### E38.1

The capacity of all minor drainage systems are designed in accordance with Planning scheme policy - Integrated design.

#### E38.2

Stormwater pipe network capacity is to be calculated in accordance with the Hydraulic Grade Line method as detailed in Australian Rainfall and Runoff or QUDM.

#### E38.3

Development ensures that inter-allotment drainage infrastructure is provided in accordance with the relevant level as identified in QUDM.

### **PO39**

Major stormwater drainage system(s) have the capacity to safely convey stormwater flows for the 1% AEP event for the fully developed upstream catchment.

### E39.1

The internal drainage system safely and adequately conveys the stormwater flows for the 1% AEP event for the fully developed upstream catchment through the site.

#### E39.2

The external (downstream) drainage system safely conveys the stormwater flows for the 1% AEP event for the fully developed upstream catchment without allowing the flows to encroach upon private lots.

#### E39.3

Overland flow paths from roads and public open space areas do not pass through private lots. Drainage pathways are provided to accommodate overland flows from roads and public open space areas.

### E39.4

The flow velocity in all unlined or soft faced open drains is kept within acceptable limits for the type of material or lining and condition of the channel.

	Note - Refer to QUDM for recommended average flow velocities.
PO40	E40
Provide measures to properly manage surface flows for the 1% AEP event (for the fully developed catchment) draining to and through the land to ensure no actionable nuisance is created to any person or premises as a result of the development. The development must not result in ponding on adjacent land, redirection of surface flows to other premises or blockage of a surface flow relief path for flows exceeding the design flows for any underground system within the development.	The stormwater drainage system is designed and constructed in accordance with Planning scheme policy - Integrated design.
PO41	No example provided.
Stormwater run-off from the site is conveyed to a point of lawful discharge without causing actionable nuisance to any person, property or premises.	
Note - Refer to Planning scheme policy - Integrated design for details.	
Note - A downstream drainage discharge report in accordance with Planning scheme policy - Stormwater management may be required to demonstrate achievement of this performance outcome.	
Note - A watercourse as defined in the Water Act may be accepted as a lawful point of discharge providing the drainage discharge from the site does not increase the downstream flood levels during events up to and including the 1% AEP storm. An afflux of +20mm may be accepted on Council controlled land and road infrastructure. No worsening is ensured when stormwater is discharged into a catchment that includes State Transport Infrastructure.	
PO42	No example provided.
Stormwater generated from the development does not compromise the capacity of existing stormwater infrastructure downstream of the site.	
Note - A downstream drainage discharge report in accordance with Planning scheme policy - Stormwater management may be required to demonstrate achievement of this performance outcome.	
PO43	No example provided.
Where development:	
a. is for an urban purpose that involves a land area of 2500m² or greater; and	
b. will result in:	

- i. 6 or more dwellings; or
- ii. an impervious area greater than 25% of the net developable area,

stormwater quality management systems are designed, constructed, established and maintained to minimise the environmental impact of stormwater on surface. groundwater and receiving water environments and meet the design objectives outlined in Schedule 10

- Stormwater management design objectives.

Note - A site based stormwater management plan prepared by a suitably qualified professional will be required in accordance with Planning scheme policy - Stormwater management. Stormwater quality infrastructure is to be designed in accordance with Planning scheme policy - Integrated design (Appendix C).

#### **PO44**

Stormwater drainage pipes and structures through or within private land (including inter-allotment drainage) are protected by easements in favour of Council with sufficient area for practical access for maintenance purposes.

Note - In order to achieve a lawful point of discharge, stormwater easements may also be required over temporary drainage channels/infrastructure where stormwater discharges to a balance lot prior to entering Council's stormwater drainage system.

#### **E44**

Stormwater drainage infrastructure (excluding detention and bio-retention systems) through or within private land (including inter-allotment drainage) is protected by easements in favour of Council. Minimum easement widths are as follows:

Pipe Diameter	Minimum easement width (excluding access requirements)
Stormwater pipe up to 825mm diameter	3.0m
Stormwater pipe up to 825mm diameter with sewer pipe up to 225m diameter	4.0m
Stormwater pipe greater than 825mm diameter	Easement boundary to be 1m clear of the outside wall of the stormwater pipe (each side).

Note - Additional easement width may be required in certain circumstances in order to facilitate maintenance access to the stormwater system.

Note - Refer to Planning scheme policy - Integrated design (Appendix C) for easement requirements over open channels.

#### **PO45**

Stormwater management facilities (excluding outlets) are located outside of riparian areas and prevent increased channel bed and bank erosion.

No example provided.

### Site works and construction management

#### **PO46**

The site and any existing structures are maintained in a tidy and safe condition.

No example provided.

### **PO47**

All works on-site are managed to:

- minimise as far as practicable, impacts on adjoining or adjacent premises and the streetscape in regard to erosion and sedimentation, dust, noise, safety and light;
- b. minimise as far as possible, impacts on the natural environment;
- ensure stormwater discharge is managed in a manner that does not cause actionable nuisance to any person or premises;
- d. avoid adverse impacts on street trees and their critical root zone.

#### E47.1

Works incorporate temporary stormwater runoff, erosion and sediment controls and trash removal devices designed in accordance with the Urban Stormwater Quality Planning Guidelines, State Planning Policy, Schedule 10 - Stormwater management design objectives, Planning scheme policy - Stormwater management and Planning scheme policy - Integrated design, including but not limited to the following:

- stormwater is not discharged to adjacent properties a. in a manner that differs significantly from pre-existing conditions;
- b. stormwater discharged to adjoining and downstream properties does not cause scour or erosion of any kind;
- stormwater discharge rates do not exceed C. pre-existing conditions;
- minimum design storm for all temporary diversion drains and sedimentation basins in accordance with Schedule 10 - Stormwater management design objectives;
- ponding or concentration of stormwater does not occur on adjoining properties.

#### E47.2

Stormwater runoff, erosion and sediment controls are constructed in accordance with Planning scheme policy - Integrated design (Appendix C) prior to commencement of any clearing or earthworks and are maintained and adjusted as necessary at all times to ensure their ongoing effectiveness.

Note - The measures are adjusted on-site to maximise their effectiveness.

#### E47.3

The completed earthworks area is stabilised using turf, established grass seeding, mulch or sprayed stabilisation techniques to control erosion and sediment and dust from leaving the property.

### E47.4

Existing street trees are protected and not damaged during works.

Note - Where development occurs in the tree protection zone, measures and techniques as detailed in Australian Standard AS 4970 Protection of trees on development sites are adopted and implemented.

#### **PO48**

Dust suppression measures are implemented during soil disturbances and construction works to protect nearby premises from unreasonable dust impacts.

#### E48

No dust emissions extend beyond the boundaries of the site during soil disturbances and construction works.

#### **PO49**

All development works including the transportation of material to and from the site are managed to not negatively impact the existing road network, the amenity of the surrounding area or the streetscape.

Note - A Traffic Management Plan may be required to demonstrate compliance with this PO. A Traffic Management Plan is to be prepared in accordance with the Manual of Uniform Traffic Control Devices (MUTCD).

Note - A haulage route must be identified and approved by Council where imported or exported material is transported to the site via a road of Local Collector standard or less, and:

- the aggregate volume of imported or exported material is greater than 1000m3; or
- b. the aggregate volume of imported or exported material is greater than 200m3 per day; or
- the proposed haulage route involves a vulnerable land use or shopping centre.

Note - A dilapidation report (including photographs) may be required for the haulage route to demonstrate compliance with this PO.

Editor's note - Where associated with a State-controlled road, further requirements may apply, and approval may be required from the Department of Transport and Main Roads.

#### E49.1

Construction traffic including contractor car parking is controlled in accordance with a traffic management plan, prepared in accordance with the Manual of Uniform Traffic Control Devices (MUTCD) to ensure all traffic movements to and from the site are safe.

#### E49.2

All contractor car parking is either provided on the development site, or on an alternative site in the general locality which has been set aside for car parking. Contractors vehicles are generally not to be parked in existing roads.

#### E49.3

Any material dropped, deposited or spilled on the road(s) as a result of construction processes associated with the site are to be cleaned at all times.

#### E49.4

Construction traffic to and from the development site uses the highest classification streets or roads where a choice of access routes is available. Haul routes for the transport of imported or spoil material and gravel pavement material along Council roads below sub-arterial standard must be approved routes.

Note - The road hierarchy is mapped on Overlay map - Road hierarchy.

Note - A dilapidation report may be required to demonstrate compliance with this E.

### E49.5

Where works are carried out in existing roads, the works must be undertaken so that the existing roads are maintained in a safe and usable condition. Practical

access for residents, visitors and services (including postal deliveries and refuse collection) is retained to existing lots during the construction period and after completion of the works.

Note - A traffic control plan prepared in accordance with the Manual of Uniform Traffic Control Devices (MUTCD) will be required for any works that will affect access, traffic movements or traffic safety in existing roads.

#### E49.6

Access to the development site is obtained via an existing lawful access point.

#### **PO50**

All disturbed areas are to be progressively stabilised during construction and the entire site rehabilitated and substantially stabilised at the completion of construction.

Note - Refer to Planning scheme policy - Integrated design for details.

#### E50

At completion of construction all disturbed areas of the site are to be:

- topsoiled with a minimum compacted thickness of fifty (50) millimetres;
- b. stabilised using turf, established grass seeding, mulch or sprayed stabilisation techniques.

Note - These areas are to be maintained during any maintenance period to maximise grass coverage.

### **PO51**

Earthworks are undertaken to ensure that soil disturbances are staged into manageable areas.

Note - A site specific Erosion and Sediment Control Plan (ESCP) will be required to demonstrate compliance with this PO. An ESCP is to be prepared in accordance with Planning scheme policy -Stormwater management and Planning scheme policy - Integrated design (Appendix C).

### E51

Soil disturbances are staged into manageable areas of not greater than 3.5 ha.

#### **PO52**

The clearing of vegetation on-site:

- is limited to the area of infrastructure works, building areas and other necessary areas for the works; and
- includes the removal of declared weeds and other b. materials which are detrimental to the intended use of the land:
- is disposed of in a manner which minimises C. nuisance and annoyance to existing premises.

Note - No burning of cleared vegetation is permitted.

#### E52.1

All native vegetation to be retained on-site is temporarily fenced or protected prior to and during development works.

Note - No parking of vehicles or storage of machinery or goods is to occur in these areas during development works.

#### E52.2

Disposal of materials is managed in one or more of the following ways:

all cleared vegetation, declared weeds, stumps, rubbish, car bodies, scrap metal and the like are removed and disposed of in a Council land fill facility; or

all native vegetation with a diameter below 400mm is to be chipped and stored on-site.

Note - The chipped vegetation must be stored in an approved location.

#### **PO53**

All development works are carried out at times which minimise noise impacts to residents.

#### E53

All development works are carried out within the following times:

- a. Monday to Saturday (other than public holidays) between 6:30am and 6:30pm on the same day;
- no work is to be carried out on Sundays or public b. holidays.

Note - Work outside the above hours may be approved (in writing) where it can be demonstrated that the work will not cause significant inconvenience or disruption to the public, or the work is unlikely to cause annoyance or inconvenience to occupants of adjacent properties.

#### **PO54**

Any alteration or relocation in connection with or arising from the development to any service, installation, plant, equipment or other item belonging to or under the control of the telecommunications authority, electricity authorities, the Council or other person engaged in the provision of public utility services is to be carried with the development and at no cost to Council.

No example provided.

#### **Earthworks**

#### **PO55**

On-site earthworks are designed to consider the visual and amenity impact as they relate to:

- the natural topographical features of the site; a.
- b. short and long-term slope stability;
- C. soft or compressible foundation soils;
- d. reactive soils;
- low density or potentially collapsing soils; e.

#### E55.1

All cut and fill batters are provided with appropriate scour, erosion protection and run-off control measures including catch drains at the top of batters and lined batter drains as necessary.

### E55.2

Stabilisation measures are provided, as necessary, to ensure long-term stability and low maintenance of steep slopes and batters.

### E55.3

- f. existing fill and soil contamination that may exist on-site;
- the stability and maintenance of steep slopes and g. batters:
- h. excavation (cut) and fill and impacts on the amenity of adjoining lots (e.g. residential).

Inspection and certification of steep slopes and batters is required by a suitably qualified and experienced RPEQ.

#### E55.4

All filling or excavation is contained on-site and is free draining.

#### E55.5

All fill placed on-site is:

- limited to that area necessary for the approved use;
- b. clean and uncontaminated (i.e. no building waste, concrete, green waste, actual acid sulfate soils, potential acid sulfate soils or contaminated material etc.).

#### E55.6

The site is prepared and the fill placed on-site in accordance with AS3798.

Note - The fill is to be inspected and tested in accordance with Planning scheme policy - Operational works inspection, maintenance and bonding procedures.

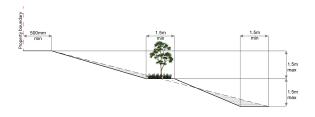
### **PO56**

Embankments are stepped, terraced and landscaped to not adversely impact on the visual amenity of the surrounding area.

### E56

Any embankments more than 1.5 metres in height are stepped, terraced and landscaped.

Figure - Embankment



#### **PO57**

Filling or excavation is undertaken in a manner that:

- does not adversely impact on a Council or public sector entity maintained infrastructure or any drainage feature on, or adjacent to the land;
- does not preclude reasonable access to a Council b. or public sector entity maintained infrastructure or any drainage feature on, or adjacent to the land for monitoring, maintenance or replacement purposes.

#### E57.1

No filling or excavation is undertaken in an easement issued in favour of Council or a public sector entity.

Note - Public sector entity is defined in Schedule 2 of the Act.

#### E57.2

Filling or excavation that would result in any of the following is not carried out on-site:

a reduction in cover over any Council or public Note - Public sector entity is defined in Schedule 2 of the Act. sector entity infrastructure service to less than 600mm: b. an increase in finished surface grade over, or within 1.5m on each side of, the Council or public sector entity infrastructure above that which existed prior to the earthworks being undertaken; prevent reasonable access to Council or public sector entity maintained infrastructure or any drainage feature on, or adjacent to the site for monitoring, maintenance or replacement purposes. Note - Public sector entity is defined in Schedule 2 of the Act. Note - All building work covered by QDC MP1.4 is excluded from this provision. **PO58** No example provided. Filling or excavation does not result in land instability. Note - Steep slopes and batters are inspected and certified for long-term stability by a suitably qualified and experienced geotechnical engineer with RPEQ gualifications. Stabilisation measures are provided, as necessary, to ensure long-term stability and low maintenance. **PO59** No example provided. Filling or excavation does not result in: adverse impacts on the hydrological and hydraulic a. capacity of the waterway or floodway; b. increased flood inundation outside the site; C. any reduction in the flood storage capacity in the floodway; d. any clearing of native vegetation. Note - To demonstrate compliance with this outcome, Planning Scheme Policy - Stormwater Management provides guidance on the preparation of a site based stormwater management plan by a suitably qualified professional. Refer to Planning scheme policy -Integrated design for guidance on infrastructure design and modelling requirements. **PO60** E60 Filling or excavation on the development site is Filling and excavation undertaken on the development undertaken in a manner which does not create or site are shaped in a manner which does not: accentuate problems associated with stormwater flows а prevent stormwater surface flow which, prior to and drainage systems on land adjoining the site. commencement of the earthworks, passed onto the development site, from entering the land; or

- b. redirect stormwater surface flow away from existing flow paths; or
- C. divert stormwater surface flow onto adjacent land, (other than a road), in a manner which:
  - i. concentrates the flow; or
  - ii. increases the flow rates of stormwater over the affected section of the adjacent land above the situation which existed prior to the diversion; or
  - iii. causes actionable nuisance to any person, property or premises.

### **PO61**

All earth retaining structures provide a positive interface with the streetscape and minimise impacts on the amenity of adjoining residents.

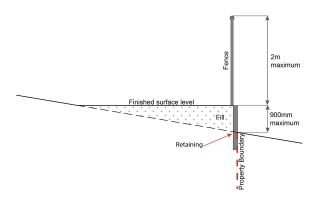
Note - Refer to Planning scheme policy - Residential design for guidance on how to achieve compliance with this performance outcome.

#### E61

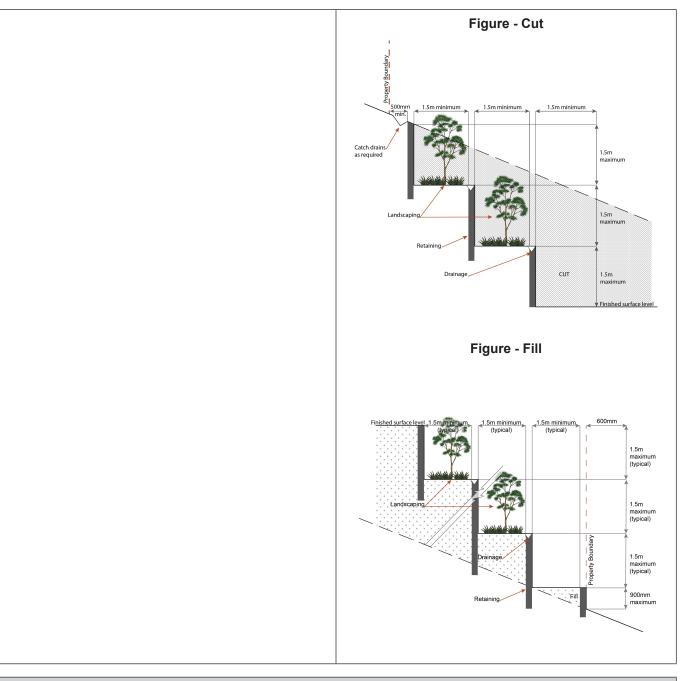
Earth retaining structures:

- are not constructed of boulder rocks or timber; a.
- where height is no greater than 900mm, are b. provided in accordance with Figure - Retaining on a boundary;

Figure - Retaining on boundary



- where height is greater than 900mm but no greater than 1.5m, are to be setback at least the equivalent height of the retaining structure from any property boundary;
- where height is greater than 1.5m, are to be setback and stepped 1.5m vertical: 1.5m horizontal, terraced, landscaped and drained as shown below.



### **Fire Services**

Note - The provisions under this heading only apply if:

- the development is for, or incorporates:
  - reconfiguring a lot for a community title scheme creating 1 or more vacant lots; or
  - material change of use for 2 or more sole occupancy units on the same lot, or within the same community titles scheme; or material change of use for a Tourist park<sup>(84)</sup> with accommodation in the form of caravans or tents; or material change of use for outdoor sales<sup>(54)</sup>, outdoor processing or outdoor storage where involving combustible materials. ii.

#### AND

- none of the following exceptions apply: b.
  - the distributor-retailer for the area has indicated, in its netserv plan, that the premises will not be served by that entity's reticulated
  - every part of the development site is within 60m walking distance of an existing fire hydrant on the distributor-retailer's reticulated water supply network, measured around all obstructions, either on or adjacent to the site.

Note - The provisions under this heading do not apply to buildings that are required by the Building Code of Australia to have a fire hydrant system complying with Australian Standard AS 2419.1 (2005) – Fire Hydrant Installations or other fire fighting facilities which provide equivalent protection.

#### **PO62**

Development incorporates a fire fighting system that:

- satisfies the reasonable needs of the fire fighting entity for the area;
- is appropriate for the size, shape and topography b. of the development and its surrounds;
- is compatible with the operational equipment C. available to the fire fighting entity for the area;
- d. considers the fire hazard inherent in the materials comprising the development and their proximity to one another:
- considers the fire hazard inherent in the surrounds e. to the development site;
- f. is maintained in effective operating order.

Note - The Queensland Fire and Emergency Services is the entity currently providing the fire fighting function for the urban areas of the Moreton Bay Region.

#### E62.1

External fire hydrant facilities are provided on site to the standard prescribed under the relevant parts of Australian Standard AS 2419.1 (2005) – Fire Hydrant Installations.

Note - For this requirement for accepted development, the following are the relevant parts of AS 2419.1 (2005) that may be applicable:

- in regard to the form of any fire hydrant Part 8.5 and Part 3.2.2.1, with the exception that for Tourist parks  $^{(84)}$  or development comprised solely of dwellings and their associated outbuildings, single outlet above-ground hydrants or suitably signposted in-ground hydrants would be an acceptable alternative;
- in regard to the general locational requirements for fire b. hydrants - Part 3.2.2.2 (a), (e), (f), (g) and (h) as well as Appendix B of AS 2419.1 (2005);
- in regard to the proximity of hydrants to buildings and other C. facilities - Part 3.2.2.2 (b), (c) and (d), with the exception that:
  - for dwellings and their associated outbuildings, hydrant coverage need only extend to the roof and external walls of those buildings;
  - for caravans and tents, hydrant coverage need only extend to the roof of those tents and caravans; for outdoor sales <sup>(54)</sup>, processing or storage facilities,
  - hydrant coverage is required across the entire area of the outdoor sales <sup>(54)</sup>, outdoor processing and outdoor storage facilities;
- d. in regard to fire hydrant accessibility and clearance requirements - Part 3.5 and, where applicable, Part 3.6.

### E62.2

A continuous path of travel having the following characteristics is provided between the vehicle access point to the site and each external fire hydrant and hydrant booster point on the land:

- an unobstructed width of no less than 3.5m; a.
- h. an unobstructed height of no less than 4.8m;
- constructed to be readily traversed by a 17 tonne HRV fire brigade pumping appliance;
- d. an area for a fire brigade pumping appliance to stand within 20m of each fire hydrant and 8m of each hydrant booster point.

### E62.3

On-site fire hydrant facilities are maintained in effective operating order in a manner prescribed in Australian Standard AS1851 (2012) – Routine service of fire protection systems and equipment.

**PO63** E63 On-site fire hydrants that are external to buildings, as well as the available fire fighting appliance access routes to those hydrants, can be readily identified at all times from, or at, the vehicular entry point to the development site.

For development that contains on-site fire hydrants external to buildings:

- a. those external hydrants can be seen from the vehicular entry point to the site; or
- b. a sign identifying the following is provided at the vehicular entry point to the site:
  - i. the overall layout of the development (to scale);
  - ii. internal road names (where used);
  - all communal facilities (where provided); iii.
  - iv. the reception area and on-site manager's office (where provided);
  - external hydrants and hydrant booster points; ٧.
  - vi. physical constraints within the internal roadway system which would restrict access by fire fighting appliances to external hydrants and hydrant booster points.

Note - The sign prescribed above, and the graphics used are to be:

- in a form: a.
- b. of a size;
- illuminated to a level; C.

which allows the information on the sign to be readily understood, at all times, by a person in a fire fighting appliance up to 4.5m from the sign.

#### **PO64**

Each on-site fire hydrant that is external to a building is signposted in a way that enables it to be readily identified at all times by the occupants of any firefighting appliance traversing the development site.

### E64

For development that contains on-site fire hydrants external to buildings, those hydrants are identified by way of marker posts and raised reflective pavement markers in the manner prescribed in the technical note Fire hydrant indication system produced by the Queensland Department of Transport and Main Roads.

Note - Technical note Fire hydrant indication system is available on the website of the Queensland Department of Transport and Main Roads.

#### Use specific criteria

#### Industrial land uses

**PO65** 

E65

Ancillary office<sup>(53)</sup>, administration functions, retail sales and customer service components do not compromise the industrial activities in the precinct or compromise the role or function of the region's centres network.

The combined area for ancillary office<sup>(53)</sup>, administration functions, display and retail sale of commodities, articles or goods resulting from the industrial processes on-site, does not exceed 50% of the GFA.

#### **PO66**

Buildings directly adjoining non-industrial zoned land:

- are compatible with the character of the adjoining area:
- b. minimises overlooking and overshadowing;
- C. maintain privacy; and
- do not cause significant loss of amenity to neighbouring residents by way noise, vibration, odour, lighting, traffic generation and/or hours of operation.

No example provided.

### **PO67**

Medium impact industry<sup>(47)</sup> uses only establish in the precinct where:

- a. buildings and activities are located at least 250m from a sensitive land use or sensitive zone;
- do not constrain the function of existing or future b. uses in the precinct; and
- not adversely impact on the amenity, health or safety of adjoining industrial workers or sensitive land uses.

Note - Separation distance is to be measured in a straight-line (in accordance with the State policy)

No example provided.

### Caretaker's accommodation<sup>(10)</sup>

### **PO68**

Development of Caretaker's accommodation (10):

- does not compromise the productivity of the use occurring on-site and in the surrounding area;
- is domestic in scale; b.
- provides adequate car parking provisions exclusive C. on the primary use of the site;
- d. is safe for the residents;
- e. has regard to the open space and recreation needs of the residents.

Caretaker's accommodation<sup>(10)</sup>:

- has a maximum GFA is 80m<sup>2</sup>; a.
- b. does not gain access from a separate driveway to that of the industrial use:
- provides a minimum 16m² of private open space C. directly accessible from a habitable room;
- d. provides car parking in accordance with Schedule 7 - Car parking.

Sale	Sales office <sup>(72)</sup>		
PO	9	E69	
dem	es office <sup>(72)</sup> remain temporary in duration and onstrates a relationship to the land or buildings being layed or sold.	A Sales office <sup>(72)</sup> is located on the site for no longer than 2 years.	
Hon	ne based business <sup>(35)</sup>		
PO7	70	No example provided.	
Hon	ne based business(s) <sup>(35)</sup> :		
a.	is subordinate in size and function to the primary use on the site being residential;		
b.	are of a scale and intensity that does not result in adverse visual or nuisance impacts on the residents in adjoining or nearby dwellings;		
C.	results in a vehicular and pedestrian traffic generation consistent with that reasonably expected in the surrounding area;		
d.	are suitably screened to ensure adverse visual impacts on the residents in adjoining or nearby dwellings are minimised;		
e.	sufficiently separated from adjoining properties so development does not result in adverse visual, noise, or nuisance impacts on adjoining residents.		
PO7	1	E71.1	
	site display and sales of goods is limited to the vities being undertaken from the site and does not lt in:	Only goods grown, produced or manufactured on-site are sold from the site.	
a.	the display and sale of goods being viewed from	E71.2	
b.	outside of the site; overall development on the site having a predominantly commercial appearance.	Display of goods grown, produced or manufactured on-site are contained within a dwelling or on-site structure and the display of goods is not visible from the boundary of the site.	
Oth	Other Non-industrial land uses		
PO7	2	No example provided.	
Offic	ces located in the precinct must:		
a.	have a direct nexus with industrial activities;		
b.	not compromise the viability, role and function of the regions centre network.		
PO7	3	No example provided.	

Showrooms <sup>(78)</sup> are limited to:	
a. industry and trade related product lines;	
b. a gross floor area of 500m²	
Note - Industry and trade related products are considered to be products used by the industry and trades in creating an end product. Examples may include:  Kitchen and bathroom showrooms <sup>(78)</sup> (i.e. Fixtures, plumbing supplies, bench tops etc) Flooring showrooms <sup>(78)</sup> (i.e. Tiles, carpet, hardwood flooring supplies) Electrical showrooms <sup>(78)</sup> Building and construction products	
P074	No example provided.
Food and Drink Outlets <sup>(28)</sup> are limited to a gross floor area of 100m <sup>2</sup> .	
PO75	No example provided.
With the exception of Caretaker's accommodation <sup>(10)</sup> , residential and other sensitive land uses do not establish within the precinct.	
PO76	No example provided.
Where not located on a district collector, sub-arterial or arterial road, non-industrial uses:	
a. provide direct convenience retail or services to the local industrial workforce;	
b. are consolidated with existing non-industrial uses;	
c. do not compromise the viability, role or function of the region's centre network;	
d. are not subject to adverse amenity impacts or risks to health;	
e. do not constrain the operations of industrial activities.	
Note - Hazard and Nuisance Mitigation Plan may be required to be submitted to justify compliance with this outcome.	
submitted to justify compliance with this outcome.  Note - The Road hierarchy is mapped on Overlay map - Road	No example provided.

a.	are consolidated with existing non-industrial uses;	
b.	do not compromise the viability, role or function of the region's centre network;	
C.	are not subject to adverse amenity impacts or risk to health;	
d.	do not constrain the operations of industrial activities.	
	e - A Hazard and Nuisance Mitigation Plan may be required to submitted to justify compliance with this outcome.	
	e - The Road hierarchy is mapped on Overlay map - Road rarchy	
PO	78	No example provided.
detr	fic generated by non-industrial uses does not imentally impact upon the operation and functionality ne receiving road network.	
РО	79	No example provided.
The	design of non-industrial buildings in the precinct:	
a.	adds visual interest to the streetscape (e.g. variation in materials, patterns, textures and colours, a consistent building line, blank walls that are visible from public places are treated to not negatively impact the surrounding amenity);	
b.	contribute to a safe environment (e.g. through the use of lighting and avoiding concealed recesses or potential entrapment areas);	
C.	incorporate architectural features within the building facade at the street level to create human scale (e.g. awnings).	
d.	are adaptable for future alternative industry uses.	
PO	30	E80.1
Buil	ding entrances:	The main entrance to the building is clearly visible from
a.	are readily identifiable from the road frontage;	and addresses the primary street frontage.
b.	add visual interest to the streetscape;	E80.2
C.	are designed to limit opportunities for concealment;	Where the building does not adjoin the street frontage, a dedicated and sealed pedestrian footpath is provided
d.	are located and oriented to favour active and public transport usage by connecting to pedestrian footpaths on the street frontage and adjoining sites.	between the street frontage and the building entrance.

Note - The design provisions for footpaths outlined in Planning scheme policy - Integrated design may assist in demonstrating compliance with this outcome.

# Major electricity infrastructure<sup>(43)</sup>, Substation<sup>(80)</sup> and Utility installation<sup>(86)</sup>

#### **PO81**

The development does not have an adverse impact on the visual amenity of a locality and is:

- high quality design and construction; a.
- b. visually integrated with the surrounding area;
- not visually dominant or intrusive; C.
- d. located behind the main building line;
- below the level of the predominant tree canopy or e. the level of the surrounding buildings and structures:
- f. camouflaged through the use of colours and materials which blend into the landscape;
- treated to eliminate glare and reflectivity; g.
- h. landscaped:
- i. otherwise consistent with the amenity and character of the zone and surrounding area.

#### E81.1

Development is designed to minimise surrounding land use conflicts by ensuring infrastructure, buildings, structures and other equipment:

- are enclosed within buildings or structures; a.
- are located behind the main building line;
- have a similar height, bulk and scale to the C. surrounding fabric;
- d. have horizontal and vertical articulation applied to all exterior walls.

#### E81.2

A minimum 3m wide strip of dense planting is provided around the outside of the fenced area, between the development and street frontage, side and rear boundaries.

#### **PO82**

Infrastructure does not have an impact on pedestrian health and safety.

#### E82

Access control arrangements:

- a. do not create dead-ends or dark alleyways adjacent to the infrastructure:
- minimise the number and width of crossovers and entry points;
- provide safe vehicular access to the site: C.
- do not utilise barbed wire or razor wire. d.

#### **PO83**

All activities associated with the development occur within an environment incorporating sufficient controls to ensure the facility:

- generates no audible sound at the site boundaries a. where in a residential setting; or
- meet the objectives as set out in the Environmental Protection (Noise) Policy 2008.

### E83

All equipment which produces audible or non-audible sound is housed within a fully enclosed building incorporating sound control measures sufficient to ensure noise emissions meet the objectives as set out in the Environmental Protection (Noise) Policy 2008.

# Telecommunications facility<sup>(81)</sup>

Editor's note - In accordance with the Federal legislation Telecommunications facilities (81) must be constructed and operated in a manner that will not cause human exposure to electromagnetic radiation beyond the limits outlined in the Radiocommunications (Electromagnetic Radiation - Human Exposure) Standard 2003 and Radio Protection Standard for Maximum Exposure Levels to Radiofrequency Fields - 3Khz to 300Ghz.

PO84	E84.1	

Telecommunications facilities<sup>(81)</sup> are co-located with existing telecommunications facilities<sup>(81)</sup>, Utility installation<sup>(86)</sup>, Major electricity infrastructure<sup>(43)</sup> or Substation<sup>(80)</sup> if there is already a facility in the same coverage area.

New telecommunication facilities (81) are co-located on existing towers with new equipment shelter and associated structures positioned adjacent to the existing shelters and structures.

#### E84.2

If not co-located with an existing facility, all co-location opportunities have been investigated and fully exhausted within a 2km radius of the site.

#### **PO85**

A new Telecommunications facility<sup>(81)</sup> is designed and constructed to ensure co-masting or co-siting with other carriers both on the tower or pole and at ground level is possible in the future.

#### E85

A minimum area of 45m<sup>2</sup> is available to allow for additional equipment shelters and associated structures for the purpose of co-locating on the proposed facility.

#### **PO86**

Telecommunications facilities (81) do not conflict with lawful existing land uses both on and adjoining the site.

#### **E86**

The development results in no net reduction in the minimum quantity and standard of landscaping, private or communal open space or car parking spaces required under the planning scheme or under an existing development approval.

#### **PO87**

The Telecommunications facility<sup>(81)</sup> does not have an adverse impact on the visual amenity of a locality and is:

- high quality design and construction; a.
- b. visually integrated with the surrounding area;
- not visually dominant or intrusive; C.
- d. located behind the main building line;
- below the level of the predominant tree canopy or e. the level of the surrounding buildings and
- f. camouflaged through the use of colours and materials which blend into the landscape;
- treated to eliminate glare and reflectivity; g.
- landscaped; h.
- otherwise consistent with the amenity and character of the zone and surrounding area.

#### E87.1

Where in an urban area, the development does not protrude more than 5m above the level of the existing treeline, prominent ridgeline or building rooftops in the surrounding townscape.

### E87.2

In all other areas towers do not exceed 35m in height.

#### E87.3

Towers, equipment shelters and associated structures are of a design, colour and material to:

- reduce recognition in the landscape; a.
- b. reduce glare and reflectivity.

#### E87.4

All structures and buildings are setback behind the main building line and a minimum of 10m from side and rear boundaries, except where in the Industry and Extractive industry zones, the minimum side and rear setback is

Where there is no established building line the facility is located at the rear of the site.

#### E87.5

The facility is enclosed by security fencing or by other means to ensure public access is prohibited.

#### E87.6

A minimum 3m wide strip of dense planting is provided around the perimeter of the fenced area, between the facility and street frontage and adjoining uses.

Note - Landscaping is provided in accordance with Planning scheme policy - Integrated design.

Note - Council may require a detailed landscaping plan, prepared by a suitably qualified person, to ensure compliance with Planning scheme policy - Integrated design.

#### **PO88**

Lawful access is maintained to the site at all times that does not alter the amenity of the landscape or surrounding uses.

#### E88

An Access and Landscape Plan demonstrates how 24 hour vehicular access will be obtained and maintained to the facility in a manner that is appropriate to the site's context.

#### **PO89**

All activities associated with the development occur within an environment incorporating sufficient controls to ensure the facility generates no audible sound at the site boundaries where in a residential setting.

#### E89

All equipment comprising the Telecommunications facility<sup>(81)</sup> which produces audible or non-audible sound is housed within a fully enclosed building incorporating sound control measures sufficient to ensure no noise from this equipment can be heard, or felt at the site boundary.

### Values and constraints criteria

Note - The relevant values and constraints criteria do not apply where the development is consistent with a current Development permit for Reconfiguring a lot or Material change of use or Operational work, where that approval has considered and addressed (e.g. through a development footprint plan (or similar in the case of Landslide hazard) or conditions of approval) the identified value or constraint under this planning scheme.

### Acid sulfate soils - (refer Overlay map - Acid sulfate soils to determine if the following assessment criteria apply)

Note - To demonstrate achievement of the performance outcome, an Acid sulfate soils (ASS) investigation report and soil management plan

is prepared by a qualified engineer. Guidance for the preparation an ASS investigation report and soil management plan is provided in

Planning scheme policy - Acid sulfate soils.

### **PO90**

Development avoids disturbing acid sulfate soils. Where development disturbs acid sulfate soils, development:

#### E90

Development does not involve:

- is managed to avoid or minimise the release of a. surface or groundwater flows containing acid and metal contaminants into the environment;
- b. protects the environmental and ecological values and health of receiving waters;
- protects buildings and infrastructure from the effects C. of acid sulfate soils.
- excavation or otherwise removing of more than 100m<sup>3</sup> of soil or sediment where below than 5m Australian Height datum AHD; or
- filling of land of more than 500m<sup>3</sup> of material with b. an average depth of 0.5m or greater where below the 5m Australian Height datum AHD.

### Environmental areas (refer Overlay map - Environmental areas to determine if the following assessment criteria apply)

Note - The following are excluded from the native clearing provisions of this planning scheme:

- Clearing of native vegetation located within an approved development footprint;
- Clearing of native vegetation within 10m from a lawfully established building reasonably necessary for emergency access or immediately b. required in response to an accident or emergency;
- C. Clearing of native vegetation reasonably necessary to remove or reduce the risk vegetation poses to serious personal injury or damage to infrastructure;
- d Clearing of native vegetation reasonably necessary to construct and maintain a property boundary fence and not exceed 4m in width either side of the fence where in the Rural, Rural residential and Environmental Management and Conservation zones. In any other zone, clearing is not to exceed 2m in width either side of the fence;
- Clearing of native vegetation reasonably necessary for the purpose of maintenance or works within a registered easement for public e. infrastructure or drainage purposes;
- Clearing of native vegetation in accordance with a bushfire management plan prepared by a suitably qualified person, submitted to and accepted by Council;
- Clearing of native vegetation associated with removal of recognised weed species, maintaining existing open pastures and cropping g. land, windbreaks, lawns or created gardens;
- Grazing of native pasture by stock; h.
- Native forest practice where accepted development under Part 1, 1.7.7 Accepted development.

Note - Definition for native vegetation is located in Schedule 1 Definitions.

Note - Native vegetation subject to this criteria primarily comprises of matters of national environmental significance (MNES), matters of state environmental significance (MSES). They also comprise some matters of local environmental significance (MLES). A MLES is defined in Schedule 1.2, Administrative definitions. A list of the elements that apply to the mapped MSES and MLES is provided in Appendix 1 of the Planning scheme policy - Environmental areas.

Editors' Note - The accuracy of overlay mapping can be challenged through the development application process (code assessable development) or by way of a planning scheme amendment. See Council's website for details.

Editors' Note - When clearing native vegetation within a MSES area, you may still require approval from the State government.

#### Vegetation clearing, ecological value and connectivity

#### **PO91**

Development avoids locating in a High Value Area or a Value Offset Area. Where it is not practicable or reasonable for development to avoid establishing in these areas, development must ensure that:

the quality and integrity of the biodiversity and a. ecological values inherent to a High Value Area No example provided.

and a Value Offset Area is maintained and not lost or degraded; on-site mitigation measures, mechanisms or processes are in place demonstrating the quality and integrity of the biodiversity and ecological values inherent to a High Value Area and a Value Offset Area are maintained. For example, this can be achieved through replacement, restoration or rehabilitation planting as part of any proposed covenant, the development of a Vegetation Management Plan, a Fauna Management Plan, and any other on-site mitigation options identified in the Planning scheme policy - Environmental areas\*. \* Editor's note - This is not a requirement for an environmental offset under the Environmental Offsets Act 2014 **PO92** No example provided. Development provides for safe, unimpeded, convenient and ongoing wildlife movement and establishes and maintains habitat connectivity by: a. retaining habitat trees; b. providing contiguous patches of habitat; C. provide replacement and rehabilitation planting to improve connectivity; d. avoiding the creation of fragmented and isolated patches of habitat; providing wildlife movement infrastructure. e. Editor's note - Wildlife movement infrastructure may include refuge poles, tree boulevarding, 'stepping stone' vegetation plantings, tunnels, appropriate wildlife fencing; culverts with ledges, underpasses, overpasses, land bridges and rope bridges. Further information is provided in Planning scheme policy – Environmental Vegetation clearing and habitat protection **PO93** No example provided. Development ensures that the biodiversity quality and integrity of habitats is not adversely impacted upon but maintained and protected. **PO94** No example provided. Development does not result in the net loss or degradation of habitat value in a High Value Area or a Value Offset Area. Where development does result in the loss or degradation of habitat value, development will: rehabilitate, revegetate, restore and enhance an area to ensure it continues to function as a viable and healthy habitat area;

b. c.	provide replacement fauna nesting boxes in the event of habitat tree loss in accordance with Planning scheme policy - Environmental areas; undertake rehabilitation, revegetation and restoration in accordance with the South East Queensland Ecological Restoration Framework.	
POS	95	No example provided.
	elopment ensures safe, unimpeded, convenient and bing wildlife movement and habitat connectivity by:	
a. b. c. d.	providing contiguous patches of habitat; avoiding the creation of fragmented and isolated patches of habitat; providing wildlife movement infrastructure; providing replacement and rehabilitation planting to improve connectivity.	
Veg	etation clearing and soil resource stability	
POS	06	No example provided.
Dev	elopment does not:	
a. b.	result in soil erosion or land degradation; leave cleared land exposed for an unreasonable period of time but is rehabilitated in a timely manner.	
Veg	etation clearing and water quality	
POS	7	No example provided.
grou	elopment maintains or improves the quality of indwater and surface water within, and downstream, site by:	
a. b. c.	ensuring an effective vegetated buffers and setbacks from waterbodies is retained to achieve natural filtration and reduce sediment loads; avoiding or minimising changes to landforms to maintain hydrological water flows; adopting suitable measures to exclude livestock from entering a waterbody where a site is being used for animal husbandry <sup>(4)</sup> and animal keeping <sup>(5)</sup> activities.	
POS	98	No example provided.
Development minimises adverse impacts of stormwater run-off on water quality by:		
a. b. c. d. e.	minimising flow velocity to reduce erosion; minimising hard surface areas; maximising the use of permeable surfaces; incorporating sediment retention devices; minimising channelled flow.	
Veg	Vegetation clearing and access, edge effects and urban heat island effects	

### **PO99** No example provided. Development retains safe and convenient public access in a manner that does not result in the adverse edge effects or the loss or degradation of biodiversity values within the environment. PO100 No example provided. Development minimises potential adverse 'edge effects' on ecological values by: providing dense planting buffers of native vegetation a. between a development and environmental areas; b. retaining patches of native vegetation of greatest possible size where located between a development and environmental areas; restoring, rehabilitating and increasing the size of C. existing patches of native vegetation; d. ensuring that buildings and access (public and vehicle) are setback as far as possible from environmental areas and corridors: e. landscaping with native plants of local origin. Editor's note - Edge effects are factors of development that go to detrimentally affecting the composition and density of natural populations at the fringe of natural areas. Factors include weed invasion, pets, public and vehicle access, nutrient loads, noise and light pollution, increased fire frequency and changes in the groundwater and surface water flow. PO101 No example provided. Development avoids adverse microclimate change and does not result in increased urban heat island effects. Adverse urban heat island effects are minimised by: pervious surfaces; b. providing deeply planted vegetation buffers and green linkage opportunities; landscaping with local native plant species to C. achieve well-shaded urban places; d. increasing the service extent of the urban forest canopy. Vegetation clearing and Matters of Local Environmental Significance (MLES) environmental offsets PO102 No example provided. Where development results in the unavoidable loss of native vegetation within a Value Offset Area MLES waterway buffer or a Value Offset Area MLES wetland buffer, an environmental offset is required in accordance with the environmental offset requirements identified in Planning scheme policy - Environmental areas. Editor's note - For MSES Koala Offsets, the environmental offset provisions in schedule 11 of the Regulation, in combination with the requirements of the Environmental Offset Act 2014, apply.

### Extractive resources separation area (refer Overlay map - Extractive resources (separation area) to determine if the following assessment criteria apply)

Note - To demonstrate achievement of the performance outcomes, a noise impact assessment report is prepared by a suitably qualified person. Guidance to preparing noise impact assessment report is provided in Planning scheme policy - Noise.

#### **PO103**

Development does not increase the number of people living in the Extractive Resources separation area.

#### E103

One dwelling house<sup>(22)</sup> permitted per lot within separation

#### PO104

#### Development:

- does not introduce or increase uses that are a. sensitive to the impacts of an Extractive industry (27);
- is compatible with the operation of an Extractive b. industry<sup>(27)</sup>;
- C. does not comprise or undermine the function and integrity of the separation area in providing a buffer between key extractive and processing activities and sensitive, incompatible uses outside the separation area.

#### E104

Development within the separation area does not include the following activities:

- Caretaker's accommodation<sup>(10)</sup>: a.
- Community residence (16); b.
- Dual occupancy<sup>(21)</sup>: C.
- Dwelling unit<sup>(23)</sup>: d.
- Hospital (36): e.
- Rooming accommodation<sup>(69)</sup>; f.
- Multiple dwelling (49); g.
- Non-resident workforce accommodation (52); h.
- Relocatable home park (62): i.
- Residential care facility<sup>(65)</sup>. j.
- Resort complex<sup>(66)</sup>; k.
- Retirement facility<sup>(67)</sup>; I.
- Rural workers' accommodation<sup>(71)</sup>; m.
- Short-term accommodation (77); n.
- Tourist park (84). 0.

### PO105

Habitable rooms achieve the noise levels listed in Schedule 1 Acoustic Quality Objectives, Environmental Protection (Noise) Policy 2008 and provides a safe, healthy and disturbance free living environment.

### E105

All habitable rooms within the separation area are:

- acoustically insulated to achieve the noise levels a. listed in Schedule 1 Acoustic Quality Objectives, Environmental Protection (Noise) Policy 2008;
- b. provided with mechanical ventilation.

### **PO106**

Development provides open space areas for passive recreation in a manner where impacts from key extractive/processing activities, particularly noise, is minimised.

### E106

Private open space areas are separated from the resource processing area by buildings or a 1.8m high solid structure.

Extractive resources transport routes (refer Overlay map - Extractive resources (transport route and buffer) to determine if the following assessment criteria apply)

### **PO107**

### Development:

does not increase in the number of people living in a. close proximity to a transport route and being

### E107

The following uses are not located within the 100m wide transport route buffer:

- subject to the adverse effects from the transportation route;
- b. does not result in the establishment of uses that are incompatible with the operation of Extractive resources transport routes;
- adopts design and location measures to C. satisfactorily mitigate the potential adverse impacts associated with transportation routes on sensitive land uses. Such measures include, but are not limited to:
  - locating the furthest distance possible from the transportation route;
  - ii. habitable rooms being located the furthest from the transportation route;
  - iii. shielding and screening private outdoor recreation space from the transportation routes.

- Caretaker's accommodation<sup>(10)</sup>, except where a. located in the Extractive industry zone;
- Community residence<sup>(16)</sup>; b.
- Dual occupancy<sup>(21)</sup>; C.
- Dwelling house (22): d.
- Dwelling unit<sup>(23)</sup>; e.
- Hospital<sup>(36)</sup>; f.
- Rooming accommodation (69): g.
- Multiple dwelling<sup>(49)</sup>; h.
- Non-resident workforce accommodation<sup>(52)</sup>; i.
- Relocatable home park<sup>(62)</sup>: j.
- Residential care facility<sup>(65)</sup>: k.
- Resort complex<sup>(66)</sup>; l.
- Retirement facility (67); m.
- Rural workers' accommodation<sup>(71)</sup>; n.
- Short-term accommodation<sup>(77)</sup>: 0.
- Tourist park<sup>(84)</sup>. p.

#### **PO108**

### Development:

- a. does not adversely impact upon the efficient and effective transportation of extractive material along a transportation route;
- b. ensures vehicle access and egress along transportation routes are designed and located to achieve a high degree of safety, having good visibility;
- utilises existing vehicle access points and where C. existing vehicle access points are sub-standard or poorly formed, they are upgraded to an appropriate standard.

#### E108.1

Development does not create a new vehicle access point onto an Extractive resources transport route.

#### E108.2

A vehicle access point is located, designed and constructed in accordance with Planning scheme policy - Integrated design.

### Heritage and landscape character (refer Overlay map - Heritage and landscape character to determine if the following assessment criteria apply)

Note - To assist in demonstrating achievement of heritage performance outcomes, a Cultural heritage impact assessment report is prepared by a suitably qualified person verifying the proposed development is in accordance with The Australia ICOMOS Burra Charter.

Note - To assist in demonstrating achievement of this performance outcome, a Tree assessment report is prepared by a qualified arborist in accordance with Planning scheme policy - Heritage and landscape character. The Tree assessment report will also detail the measures adopted in accordance with AS 4970-2009 Protection of trees on development sites.

Note - Places, including sites, objects and buildings having local cultural heritage significance, are identified on Overlay map - Heritage and landscape character and listed in Schedule 1 of Planning scheme policy - Heritage and landscape character. Places also having cultural heritage significance at a State level and being entered in the Queensland Heritage Register, are also identified in Schedule 1 of Planning scheme policy - Heritage and landscape character.

#### PO109

#### Development will:

- not diminish or cause irreversible damage to the cultural heritage values present on the site, and associated with a heritage site, object or building;
- b. protect the fabric and setting of the heritage site, object or building;

#### E109

Development is for the preservation, maintenance, repair and restoration of a site, object or building of cultural heritage value.

Note - A cultural heritage conservation management plan for the preservation, maintenance, repair and restoration of a site, object or building of cultural heritage value is prepared in accordance with

- be consistent with the form, scale and style of the heritage site, object or building;
- d. utilise similar materials to those existing, or where this is not reasonable or practicable, neutral materials and finishes;
- incorporate complementary elements, detailing and e. ornamentation to those present on the heritage site, object or building;
- f. retain public access where this is currently provided.

Planning scheme policy - Heritage and landscape character. The plan is sent to, and approved by Council prior to the commencement of any preservation, maintenance, repair and restoration works.

#### **PO110**

Demolition and removal is only considered where:

- a report prepared by a suitably qualified conservation architect or conservation engineer demonstrates that the building is structurally unsound and is not reasonably capable of economic repair; or
- demolition is confined to the removal of b. outbuildings, extensions and alterations that are not part of the original structure; or
- limited demolition is performed in the course of C. repairs, maintenance or restoration; or
- demolition is performed following a catastrophic event which substantially destroys the building or object.

No example provided.

### **PO111**

Where development is occurring on land adjoining a site of cultural heritage value, the development is to be sympathetic to and consistent with the cultural heritage values present on the site and not result in their values being eroded, degraded or unreasonably obscured from public view.

No example provided.

### PO112

Development does not adversely impact upon the health and vitality of significant trees. Where development occurs in proximity to a significant tree, construction measures and techniques as detailed in AS 4970-2009 Protection of trees on development sites are adopted to ensure a significant tree's health, wellbeing and vitality.

Significant trees are only removed where they are in a poor state of health or where they pose a health and safety risk to persons or property. A Tree Assessment report prepared by a suitably qualified arborist confirming a tree's state of health is required to demonstrate achievement of this performance outcome.

### E112

Development does:

- a. not result in the removal of a significant tree;
- b. not occur within 20m of a protected tree;
- C. involve pruning of a tree in accordance with Australian Standard AS 4373-2007 - Pruning of Amenity Trees.

Infrastructure buffers (refer Overlay map - Infrastructure buffers to determine if the following assessment criteria apply)

E113 **PO113** 

Odour sensitive development is separated from Wastewater treatment plants so they are not adversely affected by odour emission or other air pollutant impacts. The following uses are not located within a wastewater treatment site buffer:

- Caretaker's accommodation<sup>(10)</sup>: a.
- Community residence<sup>(16)</sup>; b.
- Dual occupancy<sup>(21)</sup>; C.
- Dwelling house<sup>(22)</sup> d.
- Dwelling unit<sup>(23)</sup>; e.
- Hospital (36); f.
- Rooming accommodation (69): q.
- Multiple dwelling<sup>(49)</sup>; h.
- Non-resident workforce accommodation<sup>(52)</sup>: i.
- Relocatable home park<sup>(62)</sup>; j.
- Residential care facility<sup>(65)</sup>; k.
- Resort complex<sup>(66)</sup>; I.
- Retirement facility (67); m.
- Rural workers' accommodation<sup>(71)</sup>; n.
- Short-term accommodation (77); 0.
- Tourist park<sup>(84)</sup>. p.

#### PO114

Odour sensitive development is separated from landfill sites so they are not adversely affected by odour emission or other air pollutant impacts.

### E114

The following uses are not located within a Landfill buffer:

- Caretaker's accommodation (10); a.
- Community residence<sup>(16)</sup>: h.
- Dual occupancy<sup>(21)</sup>; C.
- Dwelling house<sup>(22)</sup>; d.
- Dwelling unit<sup>(23)</sup>: e.
- Hospital (36); f.
- Rooming accommodation (69); g.
- Multiple dwelling<sup>(49)</sup>; h.
- Non-resident workforce accommodation (52); i.
- Relocatable home park (62); j.
- Residential care facility<sup>(65)</sup>: k.
- Resort complex<sup>(66)</sup>; I.
- Retirement facility<sup>(67)</sup>: m.
- Rural workers' accommodation<sup>(71)</sup>; n.
- Short-term accommodation<sup>(77)</sup>; 0.
- Tourist park (84). p.

#### PO115

Habitable rooms within an Electricity supply substation buffer are located a sufficient distance from substations<sup>(80)</sup> to avoid any potential adverse impacts on personal health and wellbeing from electromagnetic fields.

Note - Habitable room is defined in the Building Code of Australia (Volume 1)

#### E115

Habitable rooms:

- are not located within an Electricity supply a. substation buffer; and
- proposed on a site subject to an Electricity supply supply substation<sup>(80)</sup> are acoustically insulted to achieve the noise levels listed in Schedule 1, Acoustic Quality Objectives, Environmental Protection (Noise) Policy 2008.

Note - Habitable room is defined in the Building Code of Australia (Volume 1)

### **PO116**

No example provided.

Habitable rooms within an Electricity supply substation buffer are acoustically insulated from the noise of a substation<sup>(80)</sup> to achieve the noise levels listed in Schedule 1 Acoustic Quality Objectives, Environmental Protection (Noise) Policy 2008 and provides a safe, healthy and disturbance free living environment.

Note - To demonstrate achievement of the performance outcome, a noise impact assessment report is prepared by a suitably qualified person. Guidance to preparing an noise impact assessment report is provided in Planning scheme policy - Noise.

Note - Habitable room is defined in the Building Code of Australia

#### **PO117**

Development within a High voltage electricity line buffer provides adequate buffers to high voltage electricity lines to protect amenity and health by ensuring development:

- is located and designed to avoid any potential a. adverse impacts on personal health and wellbeing from electromagnetic fields in accordance with the principle of prudent avoidance;
- is located and designed in a manner that maintains b. a high level of security of supply;
- is located and design so not to impede upon the functioning and maintenance of high voltage electrical infrastructure.

#### E117

Development does not involve the construction of any buildings or structures within a High voltage electricity line buffer.

#### **PO118**

Development within a Pumping station buffer is located, designed and constructed to:

- ensure that odour or other air pollutant impacts on a. the amenity of the development met the air quality of objectives in the Environmental Protection (Air) Policy 2008;
- ensure that noise impacts on the amenity of the development met the indoor noise objectives set out in the Environmental Protection (Noise) Policy 2008.

#### E118

Development does not involve the construction of any buildings or structures within a Pumping station buffer.

Overland flow path (refer Overlay map - Overland flow path to determine if the following assessment criteria apply)

Note - The applicable river and creek flood planning levels associated with defined flood event (DFE) within the inundation area can be obtained by requesting a flood check property report from Council.

#### **PO119**

Development:

No example provided.

minimises the risk to persons from overland flow; a. b. does not increase the potential for damage from overland flow either on the premises or other premises, public land, watercourses, roads or infrastructure. **PO120** No example provided. Development: maintains the conveyance of overland flow a. predominantly unimpeded through the premises for any event up to and including the 1% AEP for the fully developed upstream catchment; b. does not concentrate, intensify or divert overland flow onto an upstream, downstream or surrounding property. Note - A report from a suitably qualified Registered Professional Engineer Queensland is required certifying that the development does not increase the potential for significant adverse impacts on an upstream, downstream or surrounding premises. Note - Reporting to be prepared in accordance with Planning scheme policy - Flood hazard, Coastal hazard and Overland flow. PO121 No example provided. Development does not: directly, indirectly or cumulatively cause any a. increase in overland flow velocity or level; increase the potential for flood damage from b. overland flow either on the premises or other premises, public lands, watercourses, roads or infrastructure. Note - Open concrete drains greater than 1m in width are not an acceptable outcome, nor are any other design options that may increase scouring. PO122 E122 Development ensures that public safety and the risk to Development ensures that a hazardous chemical is not the environment are not adversely affected by a located or stored in an Overland flow path area. detrimental impact of overland flow on a hazardous chemical located or stored on the premises. Note - Refer to the Work Health and Safety Act 2011 and associated Regulation and Guidelines, the Environmental Protection Act 1994 and the relevant building assessment provisions under the Building Act 1975 for requirements related to the manufacture and storage of hazardous substances.

#### **PO123**

Development which is not in a Rural zone ensures that overland flow is not conveyed from a road or public open space onto a private lot.

# E123

Development which is not in a Rural zone that an overland flow paths and drainage infrastructure is provided to convey overland flow from a road or public open space area away from a private lot.

#### PO124

Development ensures that inter-allotment drainage infrastructure, overland flow paths and open drains through private property cater for overland flows for a fully developed upstream catchment and are able to be easily maintained.

Note - A report from a suitably qualified Registered Professional Engineer Queensland is required certifying that the development does not increase the potential for significant adverse impacts on an upstream, downstream or surrounding premises.

Note - Reporting to be prepared in accordance with Planning scheme policy - Flood hazard, Coastal hazard and Overland flow

#### E124.1

Development ensures that roof and allotment drainage infrastructure is provided in accordance with the following relevant level as identified in QUDM:

- Urban area Level III; a.
- Rural area N/A; b.
- C. Industrial area - Level V;
- d. Commercial area - Level V.

#### E124.2

Development ensures that inter-allotment drainage infrastructure is designed to accommodate any event up to and including the 1% AEP for the fully developed upstream catchment.

### PO125

Development protects the conveyance of overland flow such that an easement for drainage purposes is provided over:

- a. a stormwater pipe if the nominal pipe diameter exceeds 300mm;
- b. an overland flow path where it crosses more than one premises;
- inter-allotment drainage infrastructure. C.

Note - Refer to Planning scheme policy - Integrated design for details and examples.

Note - Stormwater Drainage easement dimensions are provided in accordance with Section 3.8.5 of QUDM.

No example provided.

# Additional criteria for development for a Park (57)

#### **PO126**

Development for a Park<sup>(57)</sup> ensures that the design and layout responds to the nature of the overland flow affecting the premises such that:

- a. public benefit and enjoyment is maximised;
- b. impacts on the asset life and integrity of park structures is minimised;
- maintenance and replacement costs are minimised.

## E126

Development for a Park<sup>(57)</sup> ensures works are provided in accordance with the requirements set out in Appendix B of the Planning scheme policy - Integrated design.

#### Riparian and wetland setbacks

PO127 E127 Development provides and maintains a suitable setback from waterways and wetlands that protects natural and environmental values. This is achieved by recognising and responding to the following matters:

- impact on fauna habitats; a.
- b. impact on wildlife corridors and connectivity;
- C. impact on stream integrity;
- impact of opportunities for revegetation and d. rehabilitation planting;
- edge effects. e.

Development does not occur within:

- 50m from top of bank for W1 waterway and drainage line
- b. 30m from top of bank for W2 waterway and drainage line
- C. 20m from top of bank for W3 waterway and drainage line
- d. 100m from the edge of a Ramsar wetland, 50m from all other wetlands.

Note - W1, W2 and W3 waterway and drainage lines, and wetlands are mapped on Schedule 2, Section 2.5 Overlay Maps – Riparian and wetland setbacks.

## Movement network figures

Figure 1 - Deception Bay - Bailey Road / Park Road

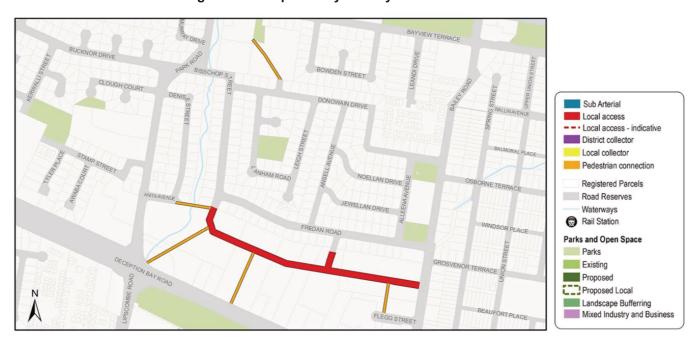


Figure 2 - Deception Bay - Deception Bay Road

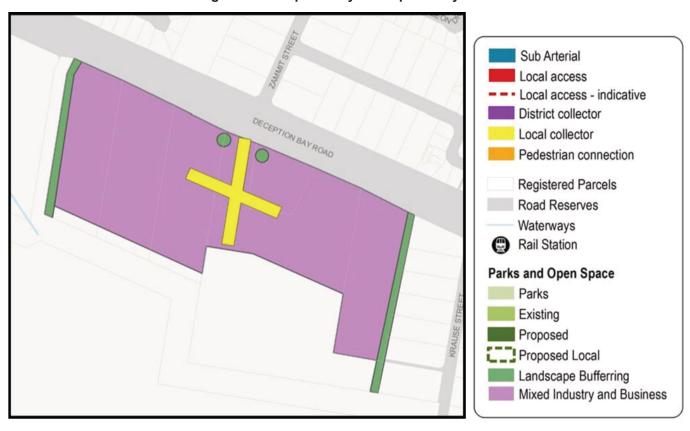




Figure 3 - Dakabin

## 6.2.7.2 Light industry precinct

## 6.2.7.2.1 Purpose - Light industry precinct

- The purpose of the code will be achieved through the following overall outcomes for the Light industry precinct:
  - A range of industrial activities are established in the precinct which are of a low intensity and scale, with a. minimal off-site impacts and no adverse impacts on surrounding sensitive land uses.
  - The operation and viability of existing and future industrial activities is protected from the intrusion of incompatible uses.
  - Industrial activities which involve a high level of contact with the general public are located along arterial, C. sub-arterial and collector roads.
  - d. Industrial activities are located, designed and managed to:
    - i. maintain the health and safety of people;
    - ii. avoid significant adverse effects on the natural environment;
    - iii. minimise the possibility of adverse impacts on nearby non-industrial uses.
  - Development has access to infrastructure and essential services and convenient access to major transport routes.
  - f. Non-industrial uses occurring in the precinct:
    - i. Do not compromise or constrain the operation or viability of existing or future industrial activities;
    - ii. Are subordinate in function and scale to all centres within the region;
    - iii. Do not undermine the viability of existing or future centres or neighbourhood hubs;
    - iv. Are consolidated to minimise adverse impacts on the efficient functioning of industrial activities;
    - Provide a convenience service or support role to industries and employees in the precinct; or ٧.
    - vi. Where not providing a convenience service or support role, development:
      - Is located on a district collector, sub-arterial or arterial road; Α.
      - B. Does not generate large amounts of vehicle traffic during operating hours of industry;
      - C. Cannot reasonably be located within a zone suited to the type of development
  - Development is designed to incorporate sustainable practices, including water sensitive design and energy g. efficient building design.
  - The scale, character and built form of development and the resulting streetscape contribute to a high h. standard of visual and physical amenity and incorporates crime prevention through environmental design (CPTED) principles.
  - Special industry<sup>(79)</sup> does not occur within the precinct. i.
  - The continued operation of Places of worship (60) and Medium impact industries (47) that were lawfully j. established at commencement is supported. Any extensions to these uses need to satisfy the outcomes of this code.

- With the exception of Caretaker's accommodation<sup>(10)</sup>, sensitive land uses do not occur within the precinct. k.
- Ι. General works associated with the development achieves the following:
  - new development is provided with a high standard of services to meet and support the current and i. future needs of users of the site, including roads, street lighting services, telecommunications and reticulated electricity (underground wherever possible), water and sewerage (where available);
  - ii. the development manages stormwater to:
    - ensure the discharge of stormwater does not adversely affect the quality, environmental values A. or ecosystem functions of downstream receiving waters;
    - B. prevent stormwater contamination and the release of pollutants;
    - C. maintain or improve the structure and condition of drainage lines and riparian areas;
    - D. avoid off-site adverse impacts from stormwater.
  - iii. the development does not result in unacceptable impacts on the capacity and safety of the external road network;
  - iv. the development ensures the safety, efficiency and useability of access ways and parking areas;
  - site works including earthworks are managed to be safe and have minimal impacts on adjoining or ٧. adjacent premises, the streetscape or the environment.
- Activities associated with the use do not cause a nuisance by way of aerosols, fumes, light, noise, odour, particles or smoke.
- Noise generating uses are designed, sited and constructed to minimise the transmission of noise to n. appropriate levels and do not cause environmental harm or nuisance.
- Noise sensitive uses are designed, sited and constructed so as not to be subject to unacceptable levels of noise.
- Development avoids areas subject to constraint, limitation, or environmental value. Where development p. cannot avoid these identified areas, it responds by:
  - i. adopting a 'least risk, least impact' approach when designing, siting and locating development in any area subject to a constraint, limitation or environmental value to minimise the potential risk to people, property and the environment;
  - ii. ensuring no further instability, erosion or degradation of the land, water or soil resource;
  - iii. when located within a Water buffer area, complying with the Water Quality Vision and Objectives contained in the Segwater Development Guidelines: Development Guidelines for Water Quality Management in Drinking Water Catchments 2012.
  - maintaining, restoring and rehabilitating environmental values, including natural, ecological, biological, aquatic, hydrological and amenity values, and enhancing these values through the provision of planting and landscaping, and facilitating safe wildlife movement and connectivity through:
    - the provision of replacement, restoration, rehabilitation planting and landscaping; Α.
    - В. the location, design and management of development to avoid or minimise adverse impacts on ecological systems and processes;
    - C. the requiring of environmental offsets in accordance with the Environmental Offsets Act 2014.

- protecting native species and protecting and enhancing species habitat; V.
- vi. protecting and preserving the natural, aesthetic, architectural historic and cultural values of significant trees, places, objects and buildings of heritage and cultural significance;
- establishing effective separation distances, buffers and mitigation measures associated with identified infrastructure to minimise adverse effects on sensitive land uses from odour, noise, dust and other nuisance generating activities;
- viii. establishing, maintaining and protecting appropriate buffers to waterways, wetlands, native vegetation and significant fauna habitat;
- ensuring it promotes and does not undermine the ongoing viability, integrity, operation, maintenance and safety of identified infrastructure;
- ensuring effective and efficient disaster management response and recovery capabilities; Х.
- where located in an overland flow path: Χİ.
  - development siting, built form, layout and access responds to the risk presented by the overland flow and minimises risk to personal safety;
  - development is resilient to the impacts of overland flow by ensuring the siting and design accounts for the potential risks to property associated with the overland flow;
  - development does not impact on the conveyance of the overland flow for any event up to and including the 1% AEP for the fully developed upstream catchment;
  - development directly, indirectly and cumulatively avoid an increase in the severity of overland flow and potential for damage on the premises or other premises, public lands, watercourses, roads or infrastructure.
- Development in the Light industry precinct includes one or more of the following: q.

•	Agricultural supplies store <sup>(2)</sup>	•	Educational establishment <sup>(24)</sup> (where for	•	Medium Impact Industry <sup>(47)</sup> (if 250m or greater from a
•	Animal husbandry <sup>(4)</sup>		technical and trade related		sensitive zone)
•	Aquaculture <sup>(6)</sup> (where in a	_	education only)	•	Outdoor sales <sup>(54)</sup>
	building)	•	Emergency services <sup>(25)</sup>	_	December and technology
•	Bulk landscape supplies <sup>(9)</sup>	•	Food and drink outlet <sup>(28)</sup>	•	Research and technology industry <sup>(64)</sup>
•	Caretaker's accommodation <sup>(10)</sup>		(where not exceeding 100m <sup>2</sup> GFA)	•	Sales office <sup>(72)</sup>
	(44)	•	Hardware and trade	•	Service Industry
•	Car wash <sup>(11)</sup>		supplies <sup>(32)</sup>		Service station <sup>(74)</sup>
		•	Low impact industry <sup>(42)</sup>	•	Warehouse <sup>(88)</sup>

Development in the Light industry precinct does not include any of the following: r.

• Air services <sup>(3)</sup>	<ul> <li>Extractive industry<sup>(27)</sup></li> </ul>	<ul> <li>Parking station<sup>(58)</sup></li> </ul>
<ul> <li>Animal keeping<sup>(5)</sup></li> <li>Bar<sup>(7)</sup></li> </ul>	<ul> <li>Food and drink outlet<sup>(28)</sup>         (where exceeding 100m²         GFA)</li> </ul>	<ul> <li>Permanent plantation<sup>(59)</sup></li> <li>Relocatable home park<sup>(62)</sup></li> </ul>

•	Brothel <sup>(8)</sup>	•	Function facility <sup>(29)</sup>	•	Renewable energy facility <sup>(63)</sup>
•	Cemetery <sup>(12)</sup>	•	Funeral parlour <sup>(30)</sup>	•	Residential care facility <sup>(65)</sup>
•	Child care centre <sup>(13)</sup>	•	Health care services (33)	•	Resort complex <sup>(66)</sup>
•	Club <sup>(14)</sup>	•	High impact industry <sup>(34)</sup>	•	Retirement facility <sup>(67)</sup>
•	Community care centre <sup>(15)</sup>	•	Intensive animal industry <sup>(39)</sup>	•	Roadside stall <sup>(68)</sup>
•	Community residence <sup>(16)</sup>	•	Intensive horticulture <sup>(40)</sup>	•	Rooming Accommodation <sup>(69)</sup>
•	Community use <sup>(17)</sup>	•	Landing <sup>(41)</sup>	•	Rural industry <sup>(70)</sup>
•	Crematorium <sup>(18)</sup>	•	Major sport, recreation and	•	Rural workers'
•	Cropping <sup>(19)</sup>		entertainment facility <sup>(44)</sup>		accommodation <sup>(71)</sup>
•	Detention facility <sup>(20)</sup>	•	Market <sup>(46)</sup>	•	Shopping Centre <sup>(76)</sup>
•	Dual occupancy <sup>(21)</sup>	•	Multiple dwelling <sup>(49)</sup>	•	Short-term accommodation <sup>(77)</sup>
•	Dwelling house <sup>(22)</sup>	•	Nightclub entertainment facility <sup>(51)</sup>	•	Special Industry <sup>(79)</sup>
•	Dwelling unit <sup>(23)</sup>	•	Non-resident workforce accommodation <sup>(52)</sup>	•	Theatre <sup>(82)</sup>
•	Educational		accommodation	•	Tourist attraction <sup>(83)</sup>
	establishment <sup>(24)</sup> (where not for technical and trade	•	Outdoor sport and recreation <sup>(55)</sup>	•	Tourist park <sup>(84)</sup>
	related education)			•	Veterinary services <sup>(87)</sup>
•	Environment facility <sup>(26)</sup>			•	Winery <sup>(90)</sup>

Development not listed above may be considered on its merits and where it reflects and supports the outcomes of the precinct.

## 6.2.7.2.2 Criteria for assessable development

Where development is categorised as assessable development - code assessment in the Table of Assessment, and located in a precinct, the assessment benchmarks are the criteria set out in Part C, Table 6.2.7.2.1 as well as the purpose statement and overall outcomes of this code.

Where development is categorised as assessable development - impact assessment, the assessment benchmarks become the whole of the planning scheme.

## Part C—Criteria for assessable development - Light industry precinct

Table 6.2.7.2.1 Assessable development - Light industry precinct

Performance outcomes	Examples that achieve aspects of the Performance Outcomes				
General criteria					
Site cover					
PO1	No example provided.				

Site cover is limited to a proportion of a site that ensures:

- A sufficient number and type of vehicle parking spaces are provided on the site to meet the parking demands and expectations of the proposed use;
- Any type of vehicle expected to visit the site on a b. regular basis is able to access and leave the site in a forward direction with clear manoeuvring on the site:
- setbacks to boundaries maximise the efficient use C. of the site while ensuring positive interfaces with public space or sensitive land uses;
- d. Areas of landscaping are provided to soften the built form and hard stand impacts of development whilst providing areas of natural space on a site.

## **Building height**

## PO<sub>2</sub>

The height of buildings is in keeping with the predominant industrial character of the precinct and does not cause adverse amenity impacts on nearby sensitive land uses and zones.

## **E2**

Building height does not exceed the maximum height identified on Overlay map - Building heights.

## **Setbacks**

## PO<sub>3</sub>

Street boundary setbacks:

- minimise building bulk and visual dominance from the street:
- b. provide areas for landscaping at the front of the site;
- allow for customer parking to be located at the front of the building;
- d. Provide opportunities for dense landscaping to screen at maturity any visibility of development of a site from the Bruce Highway.

## **E**3

Buildings maintain a minimum setback of:

- 6m to the primary frontage (other than the Bruce Highway);
- b. 3m to the secondary frontage;
- 10m to a boundary adjoining the Bruce Highway. C.

## **PO4**

Side and rear boundary setbacks maintain views, privacy, access to natural light and the visual amenity of adjoining sensitive land uses.

## **E4**

Where a development adjoins general residential zoned land, the building is setback a minimum of 3m from the property boundary with dense landscaping installed along the boundary to provide screening of the development with a mature height of at least 3m.

Note - Refer to Planning scheme policy - Integrated design for determining acceptable levels of landscaping for screening purposes.

## **Building appearance and design**

## **PO5**

Where fronting a district collector, sub-arterial or arterial road, or visible from a  $\mathsf{Park}^{(57)}$ , or a centre zoned lot, buildings provide a high level of architectural design which adds visual interest to the streetscape and reduces the perceived bulk of the building, by incorporating:

- a range of building materials, colours and features; a.
- b. facade articulation along street frontages;
- design features to promote customer entry points; C.
- d. materials that are not highly reflective.

Note - The road hierarchy is mapped on Overlay map - Road hierarchy

Note - The following example illustrates an acceptable design response to this outcome.



No example provided.

# **PO6**

Buildings on highly visible corner allotments:

- a. address both frontages;
- b. contain building openings facing both frontages;
- do not present blank unarticulated walls to either frontage.

Note - The following example illustrates an acceptable design response to this outcome.

No example provided.



## Staff recreation area

## **PO7**

Staff are provided with adequate and amenable break/dining facilities to suit the nature of the activities on-site.

## **E7**

Where the nature of the activities on-site do not allow staff to eat in their work environment, the development provides an on-site recreation area for staff that:

- Includes adequate seating, tables and rubbish bins a. for the number of staff onsite;
- b. is adequately protected from the weather;
- is safely accessible to all staff; C.
- d. is separate and private from public areas;
- e. is located away from a noisy or odorous activity.

## Landscaping

## **PO8**

Landscaping is provided on the site to:

- visually soften the built form, areas of hardstand, storage areas and mechanical plant associated with the on-site activities;
- complement the existing or desired streetscape; b.
- minimise the impact of industrial development on adjoining lots not zoned for industrial purposes.

## **E8**

Landscaping is provided and maintained in accordance with Planning scheme policy - Integrated design.

## **Fencing**

**PO9** 

**E9** 

The provision of fencing on street frontages does not dominate the streetscape or create safety issues.

Note - The following example illustrates an acceptable design response to this outcome.



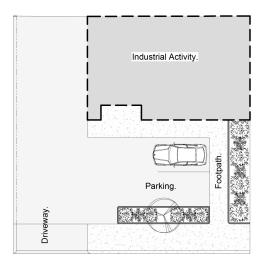
Where fencing is provided on the street frontage, fence sections between columns or posts have a minimum transparency of 70% spread evenly across its total surface area.

#### **Public access**

### **PO10**

The use has a safe, clearly identifiable public access separated from service and parking areas.

Note - The following diagram illustrates an acceptable design response to this outcome.



#### E10.1

Pedestrian linkages are provided from the street and customer car parking areas directly to the main entrance of the building.

## E10.2

The public access is separated from industrial service areas.

### Movement network

## **PO11**

Development is designed to connect to and form part of the surrounding neighbourhood by providing interconnected streets, pedestrian and cyclist pathways

## E11.1

Development provides and maintains the connections shown on the following movement figure:

Figure 1 - Elimbah East a.

to adjoining development, nearby centres, neighbourhood hubs, community facilities, public transport nodes and open space.

Note - Refer to Planning scheme policy - Neighbourhood design for guidance on achieving the above outcome.

#### E11.2

For areas not shown on the above movement figure, no example provided.

Note - Refer to Planning scheme policy - Neighbourhood design for guidance on achieving the Performance outcome.

## Car parking

#### **PO12**

Car parking is provided on-site to meet the anticipated demand of employees and visitors and avoid adverse impacts on the external road network.

Note - Refer to Planning scheme policy - Integrated transport assessment for guidance on how to achieve compliance with this outcome.

## E12

Car parking is provided in accordance with Schedule 7 - Car parking.

#### **PO13**

The design of car parking areas:

- does not impact on the safety of the external road network;
- b. ensures the safety of pedestrians at all times;
- ensures the safe movement of vehicles within the site.

#### E13

All car parking areas are designed and constructed in accordance with Australian Standard AS 2890.1 Parking facilities Part 1: Off-street car parking.

## Bicycle parking and end of trip facilities

Note - Building work to which this code applies constitutes Major Development for purposes of development requirements for end of trip facilities prescribed in the Queensland Development Code MP 4.1.

## **PO14**

- End of trip facilities are provided for employees or occupants, in the building or on-site within a reasonable walking distance, and include:
  - adequate bicycle parking and storage facilities; and
  - adequate provision for securing belongings; and
  - change rooms that include adequate showers, sanitary compartments, wash basins and mirrors.
- Notwithstanding a. there is no requirement to provide end of trip facilities if it would be unreasonable to provide these facilities having regard to:

## E14.1

Minimum bicycle parking facilities are provided at a rate of 1 bicycle parking space for every 3 vehicles parking spaces required by Schedule 7 – Car parking.

Editor's note - The examples for end of trip facilities prescribed under the Queensland Development Code permit a local planning instrument to prescribe facility levels higher than the default levels identified in those acceptable solutions. This example is a combination of the default levels set for end of trip facilities in the Queensland Development Code and the additional facilities required by Council.

#### E14.2

Bicycle parking is:

a. provided in accordance with Austroads (2008), Guide to Traffic Management - Part 11: Parking;

- i. the projected population growth and forward planning for road upgrading and development of cycle paths; or
- ii. whether it would be practical to commute to and from the building on a bicycle, having regard to the likely commute distances and nature of the terrain; or
- the condition of the road and the nature and iii. amount of traffic potentially affecting the safety of commuters.

Editor's note - The intent of b above is to ensure the requirements for bicycle parking and end of trip facilities are not applied in unreasonable circumstances. For example these requirements should not, and do not apply in the Rural zone or the Rural residential zone etc.

Editor's note - This performance outcome is the same as the Performance Requirement prescribed for end of trip facilities under the Queensland Development Code. For development incorporating building work, that Queensland Development Code performance requirement cannot be altered by a local planning instrument and has been reproduced here solely for information purposes. Council's assessment in its building work concurrence agency role for end of trip facilities will be against the performance requirement in the Queensland Development Code. As it is subject to change at any time, applicants for development incorporating building work should ensure that proposals that do not comply with the examples under this heading meet the current performance requirement prescribed in the Queensland Development Code.

- protected from the weather by its location or a dedicated roof structure;
- C. located within the building or in a dedicated, secure structure for residents and staff;
- d. adjacent to building entrances or in public areas for customers and visitors.

Note - Bicycle parking structures are to be constructed to the standards prescribed in AS2890.3.

Note - Bicycle parking and end of trip facilities provided for residential and non-residential activities may be pooled, provided they are within 100 metres of the entrance to the building.

Editor's note - The examples for end of trip facilities prescribed under the Queensland Development Code permit a local planning instrument to prescribe facility levels higher than the default levels identified in those acceptable solutions. This example is an amalgamation of the default levels set for end of trip facilities in the Queensland Development Code and the additional facilities required by Council.

#### E14.3

For non-residential uses, storage lockers:

- are provide at a rate of 1.6 per bicycle parking space (rounded up to the nearest whole number);
- b. have minimum dimensions of 900mm (height) x 300mm (width) x 450mm (depth).

Note - Storage lockers may be pooled across multiple sites and activities when within 100 metres of the entrance to the building and within 50 metres of bicycle parking and storage facilities.

Editor's note - The examples for end of trip facilities prescribed under the Queensland Development Code permit a local planning instrument to prescribe facility levels higher than the default levels identified in those acceptable solutions. This example is an amalgamation of the default levels set for end of trip facilities in the Queensland Development Code and the additional facilities required by Council.

## E14.4

For non-residential uses, changing rooms:

- are provided at a rate of 1 per 10 bicycle parking a. spaces:
- b. are fitted with a lockable door or otherwise screened from public view;
- are provided with shower(s), sanitary C. compartment(s) and wash basin(s) in accordance with the table below:

Bicycle spaces provided	Male/ Female	Change rooms required	Showers required	Sanitary compartments required	Washbasins required
1-5	Male and female	1 unisex change room	1	1 closet pan	1
6-19	Female	1	1	1 closet pan	1
20 or more	Male	1	1	1 closet pan	1
nois	Female	1	2, plus 1 for every 20 bicycle spaces provided thereafter	2 closet pans, plus 1 sanitary compartment for every 60 bicycle parking spaces provided thereafter	1, plus 1 for every 60 bicycle parking spaces provided thereafter
	Male	1	2, plus 1 for every 20 bicycle spaces provided thereafter	1 urinal and 1 closet pans, plus 1 sanitary compartment at the rate of 1 closet pan or 1 urinal for every 60 bicycle space provided thereafter	1, plus 1 for every 60 bicycle parking spaces provided thereafter

Note - All showers have a minimum 3-star Water Efficiency Labelling and Standards (WELS) rating shower head.

Note - All sanitary compartments are constructed in compliance with F2.3 (e) and F2.5 of BCA (Volume 1).

#### d. are provided with:

- a mirror located above each wash basin;
- a hook and bench seating within each shower compartment;
- iii. a socket-outlet located adjacent to each wash basin.

Note - Change rooms may be pooled across multiple sites, residential and non-residential activities when within 100 metres of the entrance to the building and within 50 metres of bicycle parking and storage

Editor's note - The examples for end of trip facilities prescribed under the Queensland Development Code permit a local planning instrument to prescribe facility levels higher than the default levels identified in those acceptable solutions. This example is an amalgamation of the default levels set for end of trip facilities in the Queensland Development Code and the additional facilities required by Council.

## Loading and servicing

#### **PO15**

Service areas, including loading/unloading facilities, plant areas and outdoor storage areas, are screened from the direct view from land not included in the Industry zone and sub-arterial and arterial roads.

No example provided.

Note - If landscaping is proposed for screening purposes, refer to Planning scheme policy - Integrated design for determining acceptable levels.

### Waste

#### **PO16**

Bins and bin storage area/s are designed, located and managed to prevent amenity impacts on the locality.

#### E16

Development is designed to meet the criteria in the Planning scheme policy - Waste and is demonstrated in a waste management program.

## **Environmental impacts**

#### **PO17**

Where a use is not an environmentally relevant activity under the Environmental Protection Act, the release of any containment that may cause environmental harm is mitigated to an acceptable level.

## E17

Development achieves the standard listed in Schedule 1 Air Quality Objectives, Environmental Protection (Air) Policy 2008.

## Lighting

### **PO18**

Lighting is directed and shielded to not cause unreasonable disturbance to any person on adjoining land.

### E18

Artificial lighting on-site is directed and shielded in such a manner as not to exceed the recommended maximum values of light technical parameters for the control of obtrusive light given in Table 2.1 of Australian Standard AS 4282 (1997) Control of Obtrusive Effects of Outdoor Lighting.

Note - "Curfewed hours" are taken to be those hours between 10pm and 7am on the following day

### **Noise**

### **PO19**

Noise generating uses do not adversely affect existing or potential noise sensitive uses.

Note - The use of walls, barriers or fences that are visible from or adjoin a road or public area are not appropriate noise attenuation measures unless adjoining a motorway, arterial road or rail line.

Note - A noise impact assessment may be required to demonstrate compliance with this performance outcome. Noise impact assessments are to be prepared in accordance with Planning scheme policy - Noise.

## No example provided.

## **PO20**

Sensitive land uses are provided with an appropriate acoustic environment within designated external private outdoor living spaces and internal areas while:

## E20.1

Development is designed to meet the criteria outlined in the Planning Scheme Policy - Noise

- contributing to safe and usable public spaces, through maintaining high levels of surveillance of parks, streets and roads that serve active transport purposes (e.g. existing or future pedestrian paths or cycle lanes etc);
- maintaining the amenity of the streetscape. b.

Note - A noise impact assessment may be required to demonstrate compliance with this PO. Noise impact assessments are to be prepared in accordance with Planning scheme policy - Noise.

Note - Refer to Planning Scheme Policy - Integrated design for details and examples of noise attenuation structures.

#### E20.2

Noise attenuation structures (e.g. walls, barriers or fences):

- a. are not visible from an adjoining road or public area
  - i. adjoining a motorway or rail line; or
  - adjoining part of an arterial road that does not serve an existing or future active transport purpose (e.g. pedestrian paths or cycle lanes) or where attenuation through building location and materials is not possible.
- do not remove existing or prevent future active transport routes or connections to the street network:
- C. are located, constructed and landscaped in accordance with Planning scheme policy -Integrated design.

Note - Refer to Planning scheme policy - Integrated design for details and examples of noise attenuation structures.

Note - Refer to Overlay map - Active transport for future active transport routes.

## **Hazardous Chemicals**

Note - To assist in demonstrating compliance with the following performance outcomes, a Hazard Assessment Report may be required to be prepared and submitted by a suitably qualified person in accordance with 'State Planning Policy Guideline - Guidance on development involving hazardous chemicals'.

Note - Terms used in this section are defined in 'State Planning Policy Guideline - Guidance on development involving hazardous chemicals'.

## **PO21**

Off sites risks from foreseeable hazard scenarios involving hazardous chemicals are commensurate with the sensitivity of the surrounding land use zones.

## E21.1

Off site impacts or risks from any foreseeable hazard scenario does not exceed the dangerous dose at the boundary of land zoned for vulnerable or sensitive land uses as described below:

## **Dangerous Dose**

- For any hazard scenario involving the release of gases or vapours:
  - i. AEGL2 (60minutes) or if not available ERPG2;
  - ii. An oxygen content in air <19.5% or >23.5% at normal atmospheric pressure.
- b. For any hazard scenario involving fire or explosion:
  - i. 7kPa overpressure;
  - ii. 4.7kW/m2 heat radiation.

If criteria E21.1 (a) or (b) cannot be achieved, then the risk of any foreseeable hazard scenario shall not exceed an individual fatality risk level of 0.5 x 10-6/year.

### E21.2

Off site impacts or risks from any foreseeable hazard scenario does not exceed the dangerous dose at the boundary of a commercial or community activity land use zone as described below:

## Dangerous Dose

- For any hazard scenario involving the release of gases or vapours:
  - AEGL2 (60minutes) or if not available ERPG2; i.
  - ii. An oxygen content in air <19.5% or >23.5% at normal atmospheric pressure.
- For any hazard scenario involving fire or explosion: b.
  - i. 7kPa overpressure;
  - ii. 4.7kW/m2 heat radiation.

If criteria E21.2 (a) or (b) cannot be achieved, then the risk of any foreseeable hazard scenario shall not exceed an individual fatality risk level of 5 x 10-6/year.

## E21.3

Off site impacts or risks from any foreseeable hazard scenario does not exceed the dangerous dose at the boundary of an industrial land use zone as described below:

## **Dangerous Dose**

- For any hazard scenario involving the release of gases or vapours:
  - i. AEGL2 (60minutes) or if not available ERPG2;
  - An oxygen content in air <19.5% or >23.5% at normal atmospheric pressure.
- b. For any hazard scenario involving fire or explosion:
  - i. 14kPa overpressure;
  - ii. 12.6kW/m2 heat radiation.

If criteria E21.3 (a) or (b) cannot be achieved, then the risk of any foreseeable hazard scenario shall not exceed an individual fatality risk level of 50 x 10-6/year. **PO22 E22** Buildings and package stores containing fire-risk Buildings and package stores containing fire-risk hazardous chemicals are designed to detect the early hazardous chemicals are provided with 24 hour monitored stages of a fire situation and notify a designated person. fire detection system for early detection of a fire event. **PO23 E23** Common storage areas containing packages of Storage areas containing packages of flammable and flammable and toxic hazardous chemicals are designed toxic hazardous chemicals are designed with spill with spill containment system(s) that are adequate to containment system(s) capable of containing a minimum contain releases, including fire fighting media. of the total aggregate capacity of all packages plus the maximum operating capacity of any fire protection system for the storage area(s) over a minimum of 60 minutes. E24.1 **PO24** Storage and handling areas, including manufacturing The base of any tank with a WC >2,500L or kg is higher areas, containing hazardous chemicals in quantities than any relevant flood height level identified in an area's greater than 2,500L or kg within a Local Government flood hazard area. Alternatively: "flood hazard area" are located and designed in a manner a. bulk tanks are anchored so they cannot float if to minimise the likelihood of inundation of flood waters submerged or inundated by water; and from creeks, rivers, lakes or estuaries. b. tank openings not provided with a liquid tight seal, i.e. an atmospheric vent, are extended above the relevant flood height level. E24.2 The lowest point of any storage area for packages >2,500L or kg is higher than any relevant flood height level identified in an area's flood hazard area. Alternatively, package stores are provided with impervious bund walls or racking systems higher than the relevant flood height level. **Emissions into Brisbane operational airspace** E25.1 **PO25** Emissions do not significantly increase air turbulence, Development does not emit a gaseous plume into the reduce visibility or compromise the operation of aircraft airport's operational airspace at a velocity exceeding

engines in Brisbane airport's operational airspace. Note - Refer to State Planning Policy December 2013 mapping to

identify Brisbane airport's operational airspace.

4.3m per second.

## E25.2

Development emitting smoke, dust, ash, steam or a gaseous plume exceeding 4.3m per second is designed and constructed to mitigate adverse impacts of emissions upon operational airspace.

## Clearing of habitat trees where not located within the Environmental areas overlay map

### **PO26**

- Development ensures that the biodiversity quality and integrity of habitats is not adversely impacted upon but maintained and protected.
- b. Development does not result in the net loss of fauna habitat. Where development does result in the loss of a habitat tree, development will provide replacement fauna nesting boxes at the following rate of 1 nest box for every hollow removed. Where hollows have not yet formed in trees > 80cm in diameter at 1.3m height, 3 nest boxes are required for every habitat tree removed.
- Development does not result in soil erosion or land degradation or leave land exposed for an unreasonable period of time but is rehabilitated in a timely manner

Note: Further guidance on habitat trees is provided in Planning scheme policy - Environmental areas

No example provided.

### Works criteria

## **Utilities**

## **PO27**

All services including water supply, sewage disposal, electricity, street lighting, telecommunications and gas (if available) are provided in accordance with Planning scheme policy - Integrated design (Appendix A).

No example provided.

### **Access**

## **PO28**

Where required, access easements contain a driveway and provision for services appropriate to the use. The easement covers all works associated with the access in accordance with Planning scheme policy - Integrated design.

No example provided.

## **PO29**

The layout of the development does not compromise:

- the development of the road network in the area; a.
- b. the function or safety of the road network;
- the capacity of the road network. C.

## E29.1

The development provides for the extension of the road network in the area in accordance with Council's road network planning.

### E29.2

Note - The road hierarchy is mapped on Overlay map -Road hierarchy.

The development does not compromise future road widening of frontage roads in accordance with the relevant standard and Council's road planning.

### E29.3

The development layout allows forward vehicular access to and from the site.

### E29.4

Vehicle access is not permitted via Foster Road for lots located in the Burpengary East Light industry precinct, as per Figure - Burpengary East Light Industry Access Restriction.

#### **PO30**

Safe access is provided for all vehicles required to access

#### E30.1

Site access and driveways are designed, located and constructed in accordance with:

- where for a Council-controlled road and associated with a Dwelling house:
  - Planning scheme policy Integrated design; i.
- where for a Council-controlled road and not b. associated with a Dwelling house:
  - AS/NZS2890.1 Parking facilities Part 1: Off street car parking;
  - AS 2890.2 Parking facilities Part 2: Off-street commercial vehicle facilities:
  - Planning scheme policy Integrated design;
  - Schedule 8 Service vehicle requirements; iv.
- where for a State-Controlled road, the Safe Intersection Sight Distance requirements in Austroads and the appropriate IPWEAQ standard drawings, or a copy of a Transport Infrastructure Act 1994, section 62 approval.

### E30.2

Internal driveways, car parks and access ways are designed and constructed with a sealed pavement and in accordance with:

- AS/NZS 2890.1 Parking Facilities Part 1: Off street a. car parking;
- AS 2890.2 Parking Facilities Part 2: Off street commercial vehicle facilities;

- C. Planning scheme policy - Integrated design; and
- d. Schedule 8 - Service vehicle requirements.

Note - This includes queue lengths (refer to Schedule 8 -Service vehicle requirements), pavement widths and construction.

#### E30.3

Access driveways, manoeuvring areas and loading facilities are sealed and provide for service vehicles listed in Schedule 8 - Service vehicle requirements for the relevant use. The on-site manoeuvring is to be in accordance with Schedule 8 - Service vehicle requirements.

## E30.4

Access driveways, manoeuvring areas and loading facilities are constructed with reinforced concrete road pavements. Concrete is to be designed in accordance with rigid road pavement design principles.

Note - Pavements are to be designed by an RPEQ.

### E30.5

Landscaping (including shade trees) is provided within car parks in accordance with Planning scheme policy -Integrated design.

## **PO31**

Sealed and flood free road access during the minor storm event is available to the site from the nearest arterial or sub-arterial road.

Editor's note - Where associated with a State-controlled road, further requirements may apply, and approvals may be required from the Department of Transport and Main Roads.

## E31

Roads or streets giving access to the development from the nearest arterial or sub-arterial road are flood free during the minor storm event and are sealed.

Note - The road network is mapped on Overlay map - Road hierarchy.

### **PO32**

Roads which provide access to the site from an arterial or sub-arterial road remain trafficable during major storm events without flooding or impacting upon residential properties or other premises.

### E32.1

Access roads to the development have sufficient longitudinal and cross drainage to remain safely trafficable during major storm (1% AEP) events.

Note - The road network is mapped on Overlay map - Road hierarchy.

Note - Refer to QUDM for requirements regarding trafficability.

#### E32.2

Culverts and causeways do not increase inundation levels or increase velocities, for all events up to the defined flood event, to upstream or downstream properties.

## Street design and layout

### **PO33**

Streets are designed and constructed in accordance with Planning scheme policy - Integrated design and Planning scheme policy - Operational works inspection, maintenance and bonding procedures. The street design and construction accommodates the following functions:

- access to premises by providing convenient vehicular movement for residents between their homes and the major road network;
- b. safe and convenient pedestrian and cycle movement;
- C. adequate on street parking;
- d. stormwater drainage paths and treatment facilities;
- efficient public transport routes; e.
- f. utility services location;
- emergency access and waste collection; g.
- h. setting and approach (streetscape, landscaping and street furniture) for adjoining residences;
- i. expected traffic speeds and volumes; and
- wildlife movement (where relevant). j.

Note - Preliminary road design (including all services, street lighting, stormwater infrastructure, access locations, street trees and pedestrian network) may be required to demonstrate compliance with this PO

Note - Refer to Planning scheme policy - Environmental areas and corridors for examples of when and where wildlife movement infrastructure is required.

No example provided.

## **PO34**

The existing road network (whether trunk or non-trunk) is upgraded where necessary to cater for the impact from the development.

## E34.1

New intersections onto existing roads are designed to accommodate traffic volumes and traffic movements taken from a date 10 years from the date of completion of the last stage of the development. Detailed design is to be in accordance with Planning scheme policy -Integrated design.

Note - An applicant may be required to submit an Integrated Transport Assessment (ITA), prepared in accordance with Planning scheme policy - Integrated transport assessment to demonstrate compliance with this PO, when any of the following occurs:

- Development is within 200m of a transport sensitive location such as a school, shopping centre, bus or train station or a large generator of pedestrian or vehicular traffic;
- Forecast traffic to/from the development exceeds 5% of the two way flow on the adjoining road or intersection in the morning or afternoon transport peak within 10 years of the development completion;
- Development access onto a sub arterial, or arterial road or within 100m of a signalised intersection;
- Residential development greater than 50 lots or dwellings;
- Offices greater than 4,000m2 Gross Floor Area (GFA);
- Retail activities including Hardware and trade supplies, Showroom, Shop or Shopping centre greater than 1.000m2 GFA:
- Warehouses and Industry greater than 6,000m<sup>2</sup> GFA;
- On-site carpark greater than 100 spaces;
- Development has a trip generation rate of 100 vehicles or more within the peak hour;
- Development which dissects or significantly impacts on an environmental area or an environmental corridor.

The ITA is to review the development's impact upon the external road network for the period of 10 years from completion of the development. The ITA is to provide sufficient information for determining the impact and the type and extent of any ameliorative works required to cater for the additional traffic. The ITA must include a future structural road layout of adjoining properties that will form part of this catchment and road connecting to these properties. The ITA is to assess the ultimate developed catchment's impacts and necessary ameliorative works, and the works or contribution required by the applicant as identified in the study.

Note - The road network is mapped on Overlay map - Road hierarchy.

Note - The primary and secondary active transport network is mapped on Overlay map - Active transport.

Note - All turns vehicular access to existing lots is to be retained at new road intersections wherever practicable.

Note - Existing on-street parking is to be retained at new road intersections and along road frontages wherever practicable.

### E34.2

Existing intersections external to the site are upgraded as necessary to accommodate increased traffic from the development. Design is in accordance with Planning scheme policy - Operational works inspection, maintenance and bonding procedures.

Note - All turns vehicular access to existing lots is to be retained at new road intersections wherever practicable.

Note - Existing on-street parking is to be retained at upgraded road intersections and along road frontages wherever practicable.

#### E 34.3

The active transport network is extended in accordance with Planning scheme policy - Integrated design.

## **PO35**

New intersections along all streets and roads are located and designed to provide safe and convenient movements for all users.

Note - Refer Planning scheme policy - Integrated design and Planning scheme policy - Operational works inspection, maintenance and bonding procedures for design and construction standards.

## E35

New intersection spacing (centreline – centreline) along a through road conforms with the following:

- where the through road provides an access function:
  - intersecting road located on the same side = i. 60 metres:

Note - An Integrated Transport Assessment (ITA) including preliminary intersection designs, prepared in accordance with Planning scheme policy - Integrated transport assessment may be required to demonstrate compliance with this PO. Intersection spacing will be determined based on the deceleration and queue storage distances required for the intersection after considering vehicle speed and present/forecast turning and through volumes.

- ii. intersecting road located on opposite side (Left Right Stagger) = 60 metres;
- iii. intersecting road located on opposite side (Right Left Stagger) = 40 metres.
- Where the through road provides a collector or b. sub-arterial function:
  - i. intersecting road located on the same side = 100 metres:
  - ii. intersecting road located on opposite side (Left Right Stagger) = 100 metres;
  - iii. intersecting road located on opposite side (Right Left Stagger) = 60 metres.
- Where the through road provides an arterial function:
  - i. intersecting road located on the same side = 300 metres:
  - intersecting road located on opposite side (Left Right Stagger) = 300 metres;
  - iii. intersecting road located on opposite side (Right Left Stagger) = 300 metres;
- d. Walkable block perimeter does not exceed 1000 metres.

Note - Based on the absolute minimum intersection spacing identified above, all turns access may not be permitted (ie. left in/left out only) at intersections with sub-arterial roads or arterial roads.

Note - The road network is mapped on Overlay map - Road hierarchy.

Note - An Integrated Transport Assessment (ITA) including preliminary intersection designs, prepared in accordance with Planning scheme policy - Integrated transport assessment may be required to demonstrate compliance with this PO. Intersection spacing will be determined based on the deceleration and queue storage distances required for the intersection after considering vehicle speed and present/forecast turning and through volumes.

### **PO36**

All Council controlled frontage roads adjoining the development are designed and constructed in accordance with Planning scheme policy - Integrated design and Planning scheme policy - Operational works inspection, maintenance and bonding procedures. All new works are extended to join any existing works within 20m.

### **E36**

Design and construct all Council controlled frontage roads in accordance with Planning scheme policy - Integrated design, Planning scheme policy - Operational works inspection, maintenance and bonding procedures and the following:

Situation

Minimum construction

Note - Frontage roads include streets where no direct lot access is provided.

Note - The road network is mapped on Overlay map - Road hierarchy.

Note - The Primary and Secondary active transport network is mapped on Overlay map - Active transport.

Note - Roads are considered to be constructed in accordance with Council's standards when there is sufficient pavement width, geometry and depth to comply with the requirements of Planning scheme policy - Integrated design and Planning scheme policy -Operational works inspection, maintenance and bonding procedures.

Frontage road unconstructed or gravel road only;

## OR

Frontage road sealed but not constructed\* to Planning scheme policy -Integrated design standard;

#### OR

Frontage road partially constructed\* to Planning scheme policy - Integrated design standard.

Construct the verge adjoining the development and the carriageway (including development side kerb and channel) to a minimum sealed width containing near side parking lane (if required), cycle lane (if required), 2 travel lanes plus 1.5m wide (full depth pavement) gravel shoulder and table drainage to the opposite side.

The minimum total travel lane width is:

- 6m for minor roads:
- 7m for major roads.

Note - Major roads are sub-arterial roads and arterial roads. Minor roads are roads that are not major roads.

Note - Construction includes all associated works (services, street lighting and linemarking).

Note - Alignment within road reserves is to be agreed with Council.

Note - \*Roads are considered to be constructed in accordance with Council standards when there is sufficient pavement width, geometry and depth to comply with the requirements of Planning scheme policy - Integrated design and Planning scheme policy - Operational works inspection, maintenance and bonding procedures. Testing of the existing pavement may be required to confirm whether the existing works meet the standards in Planning scheme policy Integrated design and Planning scheme policy - Operational works inspection, maintenance and bonding procedures.

## **Stormwater**

### **PO37**

Minor stormwater drainage systems (internal and external) have the capacity to convey stormwater flows from frequent storm events for the fully developed upstream catchment whilst ensuring pedestrian and vehicular traffic movements are safe and convenient.

## E37.1

The capacity of all minor drainage systems are designed in accordance with Planning scheme policy - Integrated design.

### E37.2

Stormwater pipe network capacity is to be calculated in accordance with the Hydraulic Grade Line method as detailed in Australian Rainfall and Runoff or QUDM.

## E37.3

Development ensures that inter-allotment drainage infrastructure is provided in accordance with the relevant level as identified in QUDM. **PO38** E38.1 Major stormwater drainage system(s) have the capacity The internal drainage system safely and adequately to safely convey stormwater flows for the 1% AEP event conveys the stormwater flows for the 1% AEP event for for the fully developed upstream catchment. the fully developed upstream catchment through the site. E38.2 The external (downstream) drainage system safely conveys the stormwater flows for the 1% AEP event for the fully developed upstream catchment without allowing the flows to encroach upon private lots. E38.3 Overland flow paths from roads and public open space areas do not pass through private lots. Drainage pathways are provided to accommodate overland flows from roads and public open space areas. E38.4 The flow velocity in all unlined or soft faced open drains is kept within acceptable limits for the type of material or lining and condition of the channel. Note - Refer to QUDM for recommended average flow velocities. **PO39** E39 Provide measures to properly manage surface flows for The stormwater drainage system is designed and the 1% AEP event (for the fully developed catchment) constructed in accordance with Planning scheme policy draining to and through the land to ensure no actionable - Integrated design. nuisance is created to any person or premises as a result of the development. The development must not result in ponding on adjacent land, redirection of surface flows to other premises or blockage of a surface flow relief path for flows exceeding the design flows for any underground system within the development. **PO40** No example provided. Stormwater run-off from the site is conveyed to a point of lawful discharge without causing actionable nuisance to any person, property or premises. Note - Refer to Planning scheme policy - Integrated design for details.

Note - A downstream drainage discharge report in accordance with Planning scheme policy - Stormwater management may be required to demonstrate achievement of this performance outcome. Note - A watercourse as defined in the Water Act may be accepted as a lawful point of discharge providing the drainage discharge from the site does not increase the downstream flood levels during events up to and including the 1% AEP storm. An afflux of +20mm may be accepted on Council controlled land and road infrastructure. No worsening is ensured when stormwater is discharged into a catchment that includes State Transport Infrastructure. PO41 No example provided. Stormwater generated from the development does not compromise the capacity of existing stormwater infrastructure downstream of the site. Note - A downstream drainage discharge report in accordance with Planning scheme policy - Stormwater management may be required to demonstrate achievement of this performance outcome. **PO42** No example provided. Where development: is for an urban purpose that involves a land area a. of 2500m<sup>2</sup> or greater; and b. will result in: i. 6 or more dwellings; or ii. an impervious area greater than 25% of the net developable area, stormwater quality management systems are designed, constructed, established and maintained to minimise the environmental impact of stormwater on surface. groundwater and receiving water environments and meet the design objectives outlined in Schedule 10 Stormwater management design objectives. Note - A site based stormwater management plan prepared by a suitably qualified professional will be required in accordance with Planning scheme policy - Stormwater management. Stormwater quality infrastructure is to be designed in accordance with Planning scheme policy - Integrated design (Appendix C). E43 **PO43** Stormwater drainage infrastructure (excluding detention and bio-retention systems) through or within private land (including inter-allotment drainage) is protected by

widths are as follows:

easements in favour of Council. Minimum easement

Stormwater drainage pipes and structures through or within private land (including inter-allotment drainage) are protected by easements in favour of Council with sufficient area for practical access for maintenance purposes.

Note - In order to achieve a lawful point of discharge, stormwater easements may also be required over temporary drainage channels/infrastructure where stormwater discharges to a balance lot prior to entering Council's stormwater drainage system.

Pipe Diameter	Minimum easement width (excluding access requirements)
Stormwater pipe up to 825mm diameter	3.0m
Stormwater pipe up to 825mm diameter with sewer pipe up to 225m diameter	4.0m
Stormwater pipe greater than 825mm diameter	Easement boundary to be 1m clear of the outside wall of the stormwater pipe (each side).

Note - Additional easement width may be required in certain circumstances in order to facilitate maintenance access to the stormwater system.

Note - Refer to Planning scheme policy - Integrated design (Appendix C) for easement requirements over open channels.

## **PO44**

Stormwater management facilities (excluding outlets) are located outside of riparian areas and prevent increased channel bed and bank erosion.

No example provided.

## Site works and construction management

## **PO45**

The site and any existing structures are maintained in a tidy and safe condition.

No example provided.

## **PO46**

All works on-site are managed to:

- minimise as far as practicable, impacts on adjoining а or adjacent premises and the streetscape in regard to erosion and sedimentation, dust, noise, safety and light;
- b. minimise as far as possible, impacts on the natural environment;
- ensure stormwater discharge is managed in a manner that does not cause actionable nuisance to any person or premises;
- d. avoid adverse impacts on street trees and their critical root zone.

## E46.1

Works incorporate temporary stormwater runoff, erosion and sediment controls and trash removal devices designed in accordance with the Urban Stormwater Quality Planning Guidelines, State Planning Policy, Schedule 10 - Stormwater management design objectives, Planning scheme policy - Stormwater management and Planning scheme policy - Integrated design, including but not limited to the following:

- a. stormwater is not discharged to adjacent properties in a manner that differs significantly from pre-existing conditions;
- b. stormwater discharged to adjoining and downstream properties does not cause scour or erosion of any kind;

- stormwater discharge rates do not exceed pre-existing conditions;
- d. minimum design storm for all temporary diversion drains and sedimentation basins in accordance with Schedule 10 - Stormwater management design objectives;
- ponding or concentration of stormwater does not occur on adjoining properties.

#### E46.2

Stormwater runoff, erosion and sediment controls are constructed in accordance with Planning scheme policy - Integrated design (Appendix C) prior to commencement of any clearing or earthworks and are maintained and adjusted as necessary at all times to ensure their ongoing effectiveness.

Note - The measures are adjusted on-site to maximise their effectiveness.

## E46.3

The completed earthworks area is stabilised using turf, established grass seeding, mulch or sprayed stabilisation techniques to control erosion and sediment and dust from leaving the property.

#### E46.4

Existing street trees are protected and not damaged during works.

Note - Where development occurs in the tree protection zone, measures and techniques as detailed in Australian Standard AS 4970 Protection of trees on development sites are adopted and implemented.

## **PO47**

Dust suppression measures are implemented during soil disturbances and construction works to protect nearby premises from unreasonable dust impacts.

## E47

No dust emissions extend beyond the boundaries of the site during soil disturbances and construction works.

## **PO48**

All development works including the transportation of material to and from the site are managed to not negatively impact the existing road network, the amenity of the surrounding area or the streetscape.

## E48.1

Construction traffic including contractor car parking is controlled in accordance with a traffic management plan, prepared in accordance with the Manual of Uniform Traffic Control Devices (MUTCD) to ensure all traffic movements to and from the site are safe.

Note - A Traffic Management Plan may be required to demonstrate compliance with this PO. A Traffic Management Plan is to be prepared in accordance with the Manual of Uniform Traffic Control Devices (MUTCD).

Note - A haulage route must be identified and approved by Council where imported or exported material is transported to the site via a road of Local Collector standard or less, and:

- the aggregate volume of imported or exported material is greater than 1000m<sup>3</sup>; or
- b. the aggregate volume of imported or exported material is greater than 200m3 per day; or
- the proposed haulage route involves a vulnerable land use C. or shopping centre.

Note - A dilapidation report (including photographs) may be required for the haulage route to demonstrate compliance with this PO.

Editor's note - Where associated with a State-controlled road, further requirements may apply, and approval may be required from the Department of Transport and Main Roads.

#### E48.2

All contractor car parking is either provided on the development site, or on an alternative site in the general locality which has been set aside for car parking. Contractors vehicles are generally not to be parked in existing roads.

#### E48.3

Any material dropped, deposited or spilled on the road(s) as a result of construction processes associated with the site are to be cleaned at all times.

#### E48.4

Construction traffic to and from the development site uses the highest classification streets or roads where a choice of access routes is available. Haul routes for the transport of imported or spoil material and gravel pavement material along Council roads below sub-arterial standard must be approved routes.

Note - The road hierarchy is mapped on Overlay map - Road hierarchy.

Note - A dilapidation report may be required to demonstrate compliance with this E.

## E48.5

Where works are carried out in existing roads, the works must be undertaken so that the existing roads are maintained in a safe and usable condition. Practical access for residents, visitors and services (including postal deliveries and refuse collection) is retained to existing lots during the construction period and after completion of the works.

Note - A traffic control plan prepared in accordance with the Manual of Uniform Traffic Control Devices (MUTCD) will be required for any works that will affect access, traffic movements or traffic safety in existing roads.

## E48.6

Access to the development site is obtained via an existing lawful access point.

## **PO49**

All disturbed areas are to be progressively stabilised during construction and the entire site rehabilitated and substantially stabilised at the completion of construction.

## E49

At completion of construction all disturbed areas of the site are to be:

Note - Refer to Planning scheme policy - Integrated design for details.

- topsoiled with a minimum compacted thickness of a. fifty (50) millimetres;
- b. stabilised using turf, established grass seeding, mulch or sprayed stabilisation techniques.

Note - These areas are to be maintained during any maintenance period to maximise grass coverage.

### **PO50**

Earthworks are undertaken to ensure that soil disturbances are staged into manageable areas.

Note - A site specific Erosion and Sediment Control Plan (ESCP) will be required to demonstrate compliance with this PO. An ESCP is to be prepared in accordance with Planning scheme policy -Stormwater management and Planning scheme policy - Integrated design (Appendix C).

## E50

Soil disturbances are staged into manageable areas of not greater than 3.5 ha.

### **PO51**

The clearing of vegetation on-site:

- is limited to the area of infrastructure works, building a. areas and other necessary areas for the works; and
- b. includes the removal of declared weeds and other materials which are detrimental to the intended use of the land:
- is disposed of in a manner which minimises C. nuisance and annoyance to existing premises.

Note - No burning of cleared vegetation is permitted.

### E51.1

All native vegetation to be retained on-site is temporarily fenced or protected prior to and during development works.

Note - No parking of vehicles or storage of machinery or goods is to occur in these areas during development works.

### E51.2

Disposal of materials is managed in one or more of the following ways:

- all cleared vegetation, declared weeds, stumps, rubbish, car bodies, scrap metal and the like are removed and disposed of in a Council land fill facility; or
- b. all native vegetation with a diameter below 400mm is to be chipped and stored on-site.

Note - The chipped vegetation must be stored in an approved location.

### **PO52**

All development works are carried out at times which minimise noise impacts to residents.

### E52

All development works are carried out within the following times:

- a. Monday to Saturday (other than public holidays) between 6:30am and 6:30pm on the same day;
- b. no work is to be carried out on Sundays or public holidays.

Note - Work outside the above hours may be approved (in writing) where it can be demonstrated that the work will not cause significant inconvenience or disruption to the public, or the work is unlikely to cause annoyance or inconvenience to occupants of adjacent properties.

### **PO53**

Any alteration or relocation in connection with or arising from the development to any service, installation, plant, equipment or other item belonging to or under the control of the telecommunications authority, electricity authorities, the Council or other person engaged in the provision of public utility services is to be carried with the development and at no cost to Council.

No example provided.

## **Earthworks**

#### **PO54**

On-site earthworks are designed to consider the visual and amenity impact as they relate to:

- a. the natural topographical features of the site;
- b. short and long-term slope stability;
- soft or compressible foundation soils; C.
- d. reactive soils:
- low density or potentially collapsing soils; e.
- f. existing fill and soil contamination that may exist on-site;
- the stability and maintenance of steep slopes and g. batters:
- excavation (cut) and fill and impacts on the amenity h. of adjoining lots (e.g. residential).

## E54.1

All cut and fill batters are provided with appropriate scour, erosion protection and run-off control measures including catch drains at the top of batters and lined batter drains as necessary.

### E54.2

Stabilisation measures are provided, as necessary, to ensure long-term stability and low maintenance of steep slopes and batters.

### E54.3

Inspection and certification of steep slopes and batters is required by a suitably qualified and experienced RPEQ.

## E54.4

All filling or excavation is contained on-site and is free draining.

## E54.5

All fill placed on-site is:

- limited to that area necessary for the approved use;
- clean and uncontaminated (i.e. no building waste, concrete, green waste, actual acid sulfate soils, potential acid sulfate soils or contaminated material etc.).

## E54.6

The site is prepared and the fill placed on-site in accordance with AS3798.

Note - The fill is to be inspected and tested in accordance with Planning scheme policy - Operational works inspection, maintenance and bonding procedures.

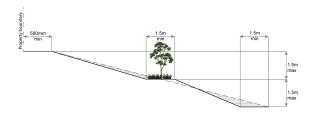
#### **PO55**

Embankments are stepped, terraced and landscaped to not adversely impact on the visual amenity of the surrounding area.

## E55

Any embankments more than 1.5 metres in height are stepped, terraced and landscaped.

Figure - Embankment



#### **PO56**

Filling or excavation is undertaken in a manner that:

- does not adversely impact on a Council or public sector entity maintained infrastructure or any drainage feature on, or adjacent to the land;
- does not preclude reasonable access to a Council b. or public sector entity maintained infrastructure or any drainage feature on, or adjacent to the land for monitoring, maintenance or replacement purposes.

Note - Public sector entity is defined in Schedule 2 of the Act.

## E56.1

No filling or excavation is undertaken in an easement issued in favour of Council or a public sector entity.

Note - Public sector entity is defined in Schedule 2 of the Act.

## E56.2

Filling or excavation that would result in any of the following is not carried out on-site:

- a reduction in cover over any Council or public a. sector entity infrastructure service to less than 600mm;
- an increase in finished surface grade over, or within 1.5m on each side of, the Council or public sector entity infrastructure above that which existed prior to the earthworks being undertaken;
- prevent reasonable access to Council or public sector entity maintained infrastructure or any drainage feature on, or adjacent to the site for monitoring, maintenance or replacement purposes.

Note - Public sector entity is defined in Schedule 2 of the Act.

Note - All building work covered by QDC MP1.4 is excluded from this provision.

## **PO57**

Filling or excavation does not result in land instability.

No example provided.

Note - Steep slopes and batters are inspected and certified for long-term stability by a suitably qualified and experienced geotechnical engineer with RPEQ qualifications. Stabilisation measures are provided, as necessary, to ensure long-term stability and low maintenance.

### **PO58**

Filling or excavation does not result in:

- adverse impacts on the hydrological and hydraulic a. capacity of the waterway or floodway:
- b. increased flood inundation outside the site:
- C. any reduction in the flood storage capacity in the floodway;
- d. any clearing of native vegetation.

Note - To demonstrate compliance with this outcome, Planning Scheme Policy - Stormwater Management provides guidance on the preparation of a site based stormwater management plan by a suitably qualified professional. Refer to Planning scheme policy -Integrated design for guidance on infrastructure design and modelling requirements.

## No example provided.

## **PO59**

Filling or excavation on the development site is undertaken in a manner which does not create or accentuate problems associated with stormwater flows and drainage systems on land adjoining the site.

### E59

Filling and excavation undertaken on the development site are shaped in a manner which does not:

- prevent stormwater surface flow which, prior to a. commencement of the earthworks, passed onto the development site, from entering the land; or
- b. redirect stormwater surface flow away from existing flow paths; or
- divert stormwater surface flow onto adjacent land, (other than a road), in a manner which:
  - concentrates the flow; or i.
  - ii. increases the flow rates of stormwater over the affected section of the adjacent land above the situation which existed prior to the diversion; or
  - iii. causes actionable nuisance to any person, property or premises.

### **PO60**

All earth retaining structures provide a positive interface with the streetscape and minimise impacts on the amenity of adjoining residents.

## E60

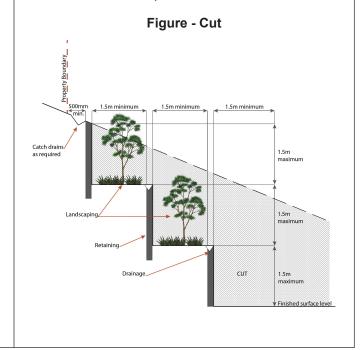
Earth retaining structures:

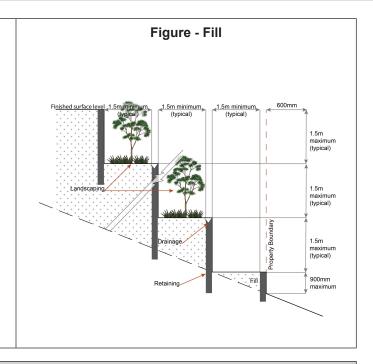
- a. are not constructed of boulder rocks or timber;
- b. where height is no greater than 900mm, are provided in accordance with Figure - Retaining on a boundary;

Note - Refer to Planning scheme policy - Residential design for guidance on how to achieve compliance with this performance outcome.

Figure - Retaining on boundary 2m maximum Finished surface level 900mm maximum

- where height is greater than 900mm but no greater C. than 1.5m, are to be setback at least the equivalent height of the retaining structure from any property boundary;
- d. where height is greater than 1.5m, are to be setback and stepped 1.5m vertical: 1.5m horizontal, terraced, landscaped and drained as shown below.





#### **Fire Services**

Note - The provisions under this heading only apply if:

- the development is for, or incorporates:
  - reconfiguring a lot for a community title scheme creating 1 or more vacant lots; or
  - material change of use for 2 or more sole occupancy units on the same lot, or within the same community titles scheme; or material change of use for a Tourist park<sup>(84)</sup> with accommodation in the form of caravans or tents; or material change of use for outdoor sales<sup>(54)</sup>, outdoor processing or outdoor storage where involving combustible materials. ii.

#### AND

- b. none of the following exceptions apply:
  - the distributor-retailer for the area has indicated, in its netserv plan, that the premises will not be served by that entity's reticulated water supply; or
  - every part of the development site is within 60m walking distance of an existing fire hydrant on the distributor-retailer's reticulated water supply network, measured around all obstructions, either on or adjacent to the site.

Note - The provisions under this heading do not apply to buildings that are required by the Building Code of Australia to have a fire hydrant system complying with Australian Standard AS 2419.1 (2005) - Fire Hydrant Installations or other fire fighting facilities which provide equivalent protection.

#### **PO61**

Development incorporates a fire fighting system that:

- satisfies the reasonable needs of the fire fighting a. entity for the area;
- is appropriate for the size, shape and topography of the development and its surrounds;
- is compatible with the operational equipment available to the fire fighting entity for the area;
- d. considers the fire hazard inherent in the materials comprising the development and their proximity to one another:

## E61.1

External fire hydrant facilities are provided on site to the standard prescribed under the relevant parts of Australian Standard AS 2419.1 (2005) – Fire Hydrant Installations.

Note - For this requirement for accepted development, the following are the relevant parts of AS 2419.1 (2005) that may be applicable:

in regard to the form of any fire hydrant - Part 8.5 and Part 3.2.2.1, with the exception that for Tourist parks  $^{(84)}$  or development comprised solely of dwellings and their associated outbuildings, single outlet above-ground hydrants or suitably signposted in-ground hydrants would be an acceptable alternative;

- e. considers the fire hazard inherent in the surrounds to the development site;
- f. is maintained in effective operating order.

Note - The Queensland Fire and Emergency Services is the entity currently providing the fire fighting function for the urban areas of the Moreton Bay Region.

- in regard to the general locational requirements for fire hydrants - Part 3.2.2.2 (a), (e), (f), (g) and (h) as well as Appendix B of AS 2419.1 (2005);
- in regard to the proximity of hydrants to buildings and other facilities - Part 3.2.2.2 (b), (c) and (d), with the exception that:
  - for dwellings and their associated outbuildings, hydrant coverage need only extend to the roof and external walls of those buildings;
  - for caravans and tents, hydrant coverage need only extend to the roof of those tents and caravans;
  - for outdoor sales (54), processing or storage facilities, hydrant coverage is required across the entire area of the outdoor sales (54), outdoor processing and outdoor storage facilities;
- d. in regard to fire hydrant accessibility and clearance requirements - Part 3.5 and, where applicable, Part 3.6.

### E61.2

A continuous path of travel having the following characteristics is provided between the vehicle access point to the site and each external fire hydrant and hydrant booster point on the land:

- an unobstructed width of no less than 3.5m;
- b. an unobstructed height of no less than 4.8m;
- C. constructed to be readily traversed by a 17 tonne HRV fire brigade pumping appliance;
- an area for a fire brigade pumping appliance to stand within 20m of each fire hydrant and 8m of each hydrant booster point.

# E61.3

On-site fire hydrant facilities are maintained in effective operating order in a manner prescribed in Australian Standard AS1851 (2012) - Routine service of fire protection systems and equipment.

#### **PO62**

On-site fire hydrants that are external to buildings, as well as the available fire fighting appliance access routes to those hydrants, can be readily identified at all times from, or at, the vehicular entry point to the development site.

#### E62

For development that contains on-site fire hydrants external to buildings:

- those external hydrants can be seen from the a. vehicular entry point to the site; or
- b. a sign identifying the following is provided at the vehicular entry point to the site:
  - the overall layout of the development (to scale);
  - ii. internal road names (where used);
  - iii. all communal facilities (where provided);
  - iv. the reception area and on-site manager's office (where provided);

- external hydrants and hydrant booster points; ٧.
- vi. physical constraints within the internal roadway system which would restrict access by fire fighting appliances to external hydrants and hydrant booster points.

Note - The sign prescribed above, and the graphics used are to be:

- in a form: а
- b. of a size:
- illuminated to a level;

which allows the information on the sign to be readily understood, at all times, by a person in a fire fighting appliance up to 4.5m from the sign.

#### **PO63**

Each on-site fire hydrant that is external to a building is signposted in a way that enables it to be readily identified at all times by the occupants of any firefighting appliance traversing the development site.

#### E63

For development that contains on-site fire hydrants external to buildings, those hydrants are identified by way of marker posts and raised reflective pavement markers in the manner prescribed in the technical note Fire hydrant indication system produced by the Queensland Department of Transport and Main Roads.

Note - Technical note Fire hydrant indication system is available on the website of the Queensland Department of Transport and Main Roads.

# Use specific criteria

### Industrial land uses

#### **PO64**

Ancillary office<sup>(53)</sup>, administration functions, retail sales and customer service components do not compromise the primary use of the site for industrial purposes or compromise the viability, role or function of the region's centres network.

#### E64

The combined area of ancillary non-industrial activities, including but not limited to offices  $^{(53)}$ , administration functions, display and retail sale of commodities, articles or goods resulting from the industrial processes on-site, does not exceed 30% of the GFA or 500m<sup>2</sup>, whichever is the lesser.

#### **PO65**

Buildings directly adjoining non-industrial zoned land:

- are compatible with the character of the adjoining a. area;
- b. minimise overlooking and overshadowing;

No example provided.

C.	maintain privacy;		
d.	do not cause significant loss of amenity to neighbouring residents by way of noise, vibration, odour, lighting, traffic generation and hours of operation.		
PO6	66	No ex	cample provided.
l	lium impact industry <sup>(47)</sup> uses only establish in the inct where:		
a.	buildings and activities are located at least 250m from a sensitive land use or sensitive zone;		
b.	not constraining the function or viability of existing or future uses in the precinct;		
C.	not adversely affecting the amenity, health or safety of employees and visitors of the surrounding uses;		
d.	not adversely affecting the amenity, health or safety of nearby sensitive land uses.		
	e - Separation distances are to be measured in a straight line, ccordance with the State policy.		
PO	7	No ex	cample provided.
Non-industrial components of buildings (including offices <sup>(53)</sup> and retail areas) are designed as high quality architectural features and incorporate entry area elements such as forecourts, awnings and the architectural treatment of roof lines and fascias.			
Car	etaker's accommodation <sup>(10)</sup>		
PO6	68	E68	
Dev	elopment of Caretaker's accommodation <sup>(10)</sup> :	Caret	aker's accommodation <sup>(10)</sup> :
a.	does not compromise the productivity of the use occurring on-site and in the surrounding area;	a.	has a maximum GFA is 80m²;
b.	is domestic in scale;		does not gain access from a separate driveway to that of the industrial use;
C.	provides adequate car parking provisions exclusive on the primary use of the site;		provides a minimum 16m² of private open space directly accessible from a habitable room;
d.	is safe for the residents;		provides car parking in accordance with Schedule 7 - Car parking.
e.	has regard to the open space and recreation needs of the residents.		L
Sale	es office <sup>(72)</sup>		
PO	9	E69	
1			

Sales office<sup>(72)</sup> remain temporary in duration and demonstrates a relationship to the land or buildings being displayed or sold.

A Sales office<sup>(72)</sup> is located on the site for no longer than 2 years.

# Home based business<sup>(35)</sup>

#### **PO70**

Home based business(s)(35):

- is subordinate in size and function to the primary use on the site being residential;
- are of a scale and intensity that does not result in b. adverse visual or nuisance impacts on the residents in adjoining or nearby dwellings;
- results in a vehicular and pedestrian traffic generation consistent with that reasonably expected in the surrounding area;
- d. are suitably screened to ensure adverse visual impacts on the residents in adjoining or nearby dwellings are minimised;
- sufficiently separated from adjoining properties so e. development does not result in adverse visual, noise, or nuisance impacts on adjoining residents.

No example provided.

#### **PO71**

On-site display and sales of goods is limited to the activities being undertaken from the site and does not result in:

- a. the display and sale of goods being viewed from outside of the site;
- overall development on the site having a b. predominantly commercial appearance.

#### E71.1

Only goods grown, produced or manufactured on-site are sold from the site.

### E71.2

Display of goods grown, produced or manufactured on-site are contained within a dwelling or on-site structure and the display of goods is not visible from the boundary of the site.

# Other Non-industrial land uses

# **PO72**

Showrooms<sup>(78)</sup> are limited to:

- Lots with frontages to district collectors, sub-arterial a. and arterial roads;
- Industry and trade related product lines; b.
- A gross floor area of 500m<sup>2</sup> C.

Note - Industry and trade related products are considered to be products used by the industry and trades in creating an end product. Example may include:

No example provided.

<ul> <li>Kitchen and bathroom showrooms<sup>(78)</sup> (i.e. Fixtures, plumbing supplies, bench tops, etc)</li> <li>Flooring showrooms<sup>(78)</sup> (i.e. Tiles, carpet, hardwood flooring supplies)</li> <li>Electrical showrooms<sup>(78)</sup></li> <li>Building and construction products</li> </ul>	
PO73	No example provided.
Food and Drink Outlets <sup>(28)</sup> are limited to a gross floor area of 100m <sup>2</sup> .	
PO74	No example provided.
With the exception of Caretaker's accommodation <sup>(10)</sup> , residential and other sensitive land uses do not establish within the precinct.	
PO75	No example provided.
Non-industrial uses:	
a. are consolidated with existing non-industrial uses in the precinct;	
b. do not compromise the viability, role or function of the region's centre network;	
c. are not subject to adverse amenity impacts or risk to health from industrial activities;	
d. do not constrain the function or viability of existing or future industrial activities in the surrounding area.	
Note - The submission of a Hazard and Nuisance Mitigation Plan may be required to justify compliance with this outcome.	
PO76	No example provided.
Where located on a local collector or access street, non-industrial uses provide only direct convenience or support services to the industrial workforce.	
Note - The road hierarchy is mapped on Overlay map - Road hierarchy	
PO77	No example provided.
Traffic generated by non-industrial uses does not detrimentally impact the operation and functionality of the external road network.	
PO78	No example provided.
The design of non-industrial buildings in the precinct:	

- adds visual interest to the streetscape (e.g. variation in materials, patterns, textures and colours, a consistent building line, blank walls that are visible from public places are treated to not negatively impact the surrounding amenity);
- b. contributes to a safe environment (e.g. through the use of lighting and not resulting in concealed recesses or potential entrapment areas);
- incorporates architectural features within the building facade at the street level to create human scale (e.g. awnings).

### **PO79**

**Building entrances:** 

- are readily identifiable from the road frontage; a.
- b. add visual interest to the streetscape;
- are designed to limit opportunities for concealment; C.
- are located and oriented to favour active and public d. transport usage by connecting to pedestrian footpaths on the street frontage and adjoining sites.

Note - The design provisions for footpaths outlined in Planning scheme policy - Integrated design may assist in demonstrating compliance with this outcome.

# E79.1

The main entrance to the building is clearly visible from and addresses the primary street frontage.

### E79.2

Where the building does not adjoin the street frontage, a dedicated and sealed pedestrian footpath is provided between the street frontage and the building entrance.

# Major electricity infrastructure<sup>(43)</sup>, Substation<sup>(80)</sup> and Utility installation<sup>(86)</sup>

### **PO80**

The development does not have an adverse impact on the visual amenity of a locality and is:

- high quality design and construction; a.
- b. visually integrated with the surrounding area;
- C. not visually dominant or intrusive;
- d. located behind the main building line;
- below the level of the predominant tree canopy or e. the level of the surrounding buildings and
- f. camouflaged through the use of colours and materials which blend into the landscape;
- g. treated to eliminate glare and reflectivity;
- h. landscaped:
- i. otherwise consistent with the amenity and character of the zone and surrounding area.

# E80.1

Development is designed to minimise surrounding land use conflicts by ensuring infrastructure, buildings, structures and other equipment:

- a. are enclosed within buildings or structures;
- are located behind the main building line; b.
- have a similar height, bulk and scale to the C. surrounding fabric;
- have horizontal and vertical articulation applied to d. all exterior walls.

#### E80.2

A minimum 3m wide strip of dense planting is provided around the outside of the fenced area, between the development and street frontage, side and rear boundaries.

# **PO81**

Infrastructure does not have an impact on pedestrian health and safety.

# E81

Access control arrangements:

do not create dead-ends or dark alleyways adjacent to the infrastructure; b. minimise the number and width of crossovers and entry points; provide safe vehicular access to the site; C. d. do not utilise barbed wire or razor wire. **PO82** E82 All activities associated with the development occur within All equipment which produces audible or non-audible sound is housed within a fully enclosed building an environment incorporating sufficient controls to ensure the facility: incorporating sound control measures sufficient to ensure noise emissions meet the objectives as set out in the a. generates no audible sound at the site boundaries Environmental Protection (Noise) Policy 2008. where in a residential setting; or b. meet the objectives as set out in the Environmental Protection (Noise) Policy 2008. Telecommunications facility<sup>(81)</sup> Editor's note - In accordance with the Federal legislation Telecommunications facilities (81) must be constructed and operated in a manner that will not cause human exposure to electromagnetic radiation beyond the limits outlined in the Radiocommunications (Electromagnetic Radiation - Human Exposure) Standard 2003 and Radio Protection Standard for Maximum Exposure Levels to Radiofrequency Fields - 3Khz **PO83** E83.1 Telecommunications facilities  $^{(81)}$  are co-located with existing telecommunications facilities  $^{(81)}$ , Utility installation  $^{(86)}$ , Major electricity infrastructure  $^{(43)}$  or Substation  $^{(80)}$  if there is already a facility in the same New telecommunication facilities (81) are co-located on existing towers with new equipment shelter and associated structures positioned adjacent to the existing shelters and structures. coverage area. E83.2 If not co-located with an existing facility, all co-location opportunities have been investigated and fully exhausted within a 2km radius of the site. **PO84** E84 A new Telecommunications facility (81) is designed and A minimum area of 45m<sup>2</sup> is available to allow for constructed to ensure co-masting or co-siting with other additional equipment shelters and associated structures carriers both on the tower or pole and at ground level is for the purpose of co-locating on the proposed facility. possible in the future. **PO85** E85 Telecommunications facilities (81) do not conflict with lawful The development results in no net reduction in the existing land uses both on and adjoining the site. minimum quantity and standard of landscaping, private or communal open space or car parking spaces required under the planning scheme or under an existing development approval.

**PO86** 

E86.1

The Telecommunications facility (81) does not have an adverse impact on the visual amenity of a locality and is:

- a. high quality design and construction;
- b. visually integrated with the surrounding area;
- not visually dominant or intrusive; C.
- d. located behind the main building line;
- below the level of the predominant tree canopy or e. the level of the surrounding buildings and structures;
- f. camouflaged through the use of colours and materials which blend into the landscape;
- treated to eliminate glare and reflectivity; g.
- h. landscaped;
- i. otherwise consistent with the amenity and character of the zone and surrounding area.

Where in an urban area, the development does not protrude more than 5m above the level of the existing treeline, prominent ridgeline or building rooftops in the surrounding townscape.

### E86.2

In all other areas towers do not exceed 35m in height.

#### E86.3

Towers, equipment shelters and associated structures are of a design, colour and material to:

- reduce recognition in the landscape;
- b. reduce glare and reflectivity.

#### E86.4

All structures and buildings are setback behind the main building line and a minimum of 10m from side and rear boundaries, except where in the Industry and Extractive industry zones, the minimum side and rear setback is 3m.

Where there is no established building line the facility is located at the rear of the site.

# E86.5

The facility is enclosed by security fencing or by other means to ensure public access is prohibited.

# E86.6

A minimum 3m wide strip of dense planting is provided around the perimeter of the fenced area, between the facility and street frontage and adjoining uses.

Note - Landscaping is provided in accordance with Planning scheme policy - Integrated design.

Note - Council may require a detailed landscaping plan, prepared by a suitably qualified person, to ensure compliance with Planning scheme policy - Integrated design.

### **PO87**

Lawful access is maintained to the site at all times that does not alter the amenity of the landscape or surrounding uses.

### E87

An Access and Landscape Plan demonstrates how 24 hour vehicular access will be obtained and maintained to the facility in a manner that is appropriate to the site's context.

### **PO88**

E88

All activities associated with the development occur within an environment incorporating sufficient controls to ensure the facility generates no audible sound at the site boundaries where in a residential setting.

All equipment comprising the Telecommunications facility<sup>(61)</sup> which produces audible or non-audible sound is housed within a fully enclosed building incorporating sound control measures sufficient to ensure no noise from this equipment can be heard, or felt at the site boundary.

#### Values and constraints criteria

Note - The relevant values and constraints criteria do not apply where the development is consistent with a current Development permit for Reconfiguring a lot or Material change of use or Operational work, where that approval has considered and addressed (e.g. through a development footprint plan (or similar in the case of Landslide hazard) or conditions of approval) the identified value or constraint under this planning scheme.

# Acid sulfate soils - (refer Overlay map - Acid sulfate soils to determine if the following assessment criteria apply)

Note - To demonstrate achievement of the performance outcome, an Acid sulfate soils (ASS) investigation report and soil management plan is prepared by a qualified engineer. Guidance for the preparation an ASS investigation report and soil management plan is provided in Planning scheme policy - Acid sulfate soils.

### **PO89**

Development avoids disturbing acid sulfate soils. Where development disturbs acid sulfate soils, development:

- is managed to avoid or minimise the release of surface or groundwater flows containing acid and metal contaminants into the environment;
- protects the environmental and ecological values b. and health of receiving waters;
- protects buildings and infrastructure from the effects C. of acid sulfate soils.

# E89

Development does not involve:

- excavation or otherwise removing of more than a. 100m<sup>3</sup> of soil or sediment where below than 5m Australian Height datum AHD; or
- filling of land of more than 500m<sup>3</sup> of material with an average depth of 0.5m or greater where below the 5m Australian Height datum AHD.

# Environmental areas (refer Overlay map - Environmental areas to determine if the following assessment criteria apply)

Note - The following are excluded from the native clearing provisions of this planning scheme:

- Clearing of native vegetation located within an approved development footprint; a.
- b. Clearing of native vegetation within 10m from a lawfully established building reasonably necessary for emergency access or immediately required in response to an accident or emergency;
- Clearing of native vegetation reasonably necessary to remove or reduce the risk vegetation poses to serious personal injury or damage C. to infrastructure;
- d Clearing of native vegetation reasonably necessary to construct and maintain a property boundary fence and not exceed 4m in width either side of the fence where in the Rural, Rural residential and Environmental Management and Conservation zones. In any other zone, clearing is not to exceed 2m in width either side of the fence;
- Clearing of native vegetation reasonably necessary for the purpose of maintenance or works within a registered easement for public e. infrastructure or drainage purposes;
- Clearing of native vegetation in accordance with a bushfire management plan prepared by a suitably qualified person, submitted to and accepted by Council;

- Clearing of native vegetation associated with removal of recognised weed species, maintaining existing open pastures and cropping g. land, windbreaks, lawns or created gardens;
- h. Grazing of native pasture by stock;
- Native forest practice where accepted development under Part 1, 1.7.7 Accepted development.

Note - Definition for native vegetation is located in Schedule 1 Definitions.

Note - Native vegetation subject to this criteria primarily comprises of matters of national environmental significance (MNES), matters of state environmental significance (MSES). They also comprise some matters of local environmental significance (MLES). A MLES is defined in Schedule 1.2, Administrative definitions. A list of the elements that apply to the mapped MSES and MLES is provided in Appendix 1 of the Planning scheme policy - Environmental areas.

Editors' Note - The accuracy of overlay mapping can be challenged through the development application process (code assessable development) or by way of a planning scheme amendment. See Council's website for details.

Editors' Note - When clearing native vegetation within a MSES area, you may still require approval from the State government.

# Vegetation clearing, ecological value and connectivity

### **PO90**

Development avoids locating in a High Value Area or a Value Offset Area. Where it is not practicable or reasonable for development to avoid establishing in these areas, development must ensure that:

- the quality and integrity of the biodiversity and a. ecological values inherent to a High Value Area and a Value Offset Area is maintained and not lost or degraded:
- on-site mitigation measures, mechanisms or b. processes are in place demonstrating the quality and integrity of the biodiversity and ecological values inherent to a High Value Area and a Value Offset Area are maintained. For example, this can be achieved through replacement, restoration or rehabilitation planting as part of any proposed covenant, the development of a Vegetation Management Plan, a Fauna Management Plan, and any other on-site mitigation options identified in the Planning scheme policy - Environmental areas\*.

\* Editor's note - This is not a requirement for an environmental offset under the Environmental Offsets Act 2014.

No example provided.

**PO91** 

Development provides for safe, unimpeded, convenient and ongoing wildlife movement and establishes and maintains habitat connectivity by:

- retaining habitat trees; a.
- providing contiguous patches of habitat; h

No example provided.

c. provide replacement and rehabilitation planting to improve connectivity;	
<ul> <li>avoiding the creation of fragmented and isolated patches of habitat;</li> </ul>	
e. providing wildlife movement infrastructure.	
Editor's note - Wildlife movement infrastructure may include refuge poles, tree boulevarding, 'stepping stone' vegetation plantings, tunnels, appropriate wildlife fencing; culverts with ledges, underpasses, overpasses, land bridges and rope bridges. Further information is provided in Planning scheme policy – Environmental areas.	
Vegetation clearing and habitat protection	
PO92	No example provided.
Development ensures that the biodiversity quality and integrity of habitats is not adversely impacted upon but maintained and protected.	
PO93	No example provided.
Development does not result in the net loss or degradation of habitat value in a High Value Area or a Value Offset Area. Where development does result in the loss or degradation of habitat value, development will:	
<ul> <li>rehabilitate, revegetate, restore and enhance an area to ensure it continues to function as a viable and healthy habitat area;</li> </ul>	
<ul> <li>b. provide replacement fauna nesting boxes in the event of habitat tree loss in accordance with Planning scheme policy - Environmental areas;</li> <li>c. undertake rehabilitation, revegetation and restoration in accordance with the South East Queensland Ecological Restoration Framework.</li> </ul>	
PO94	No example provided.
Development ensures safe, unimpeded, convenient and ongoing wildlife movement and habitat connectivity by:	
<ul><li>a. providing contiguous patches of habitat;</li><li>b. avoiding the creation of fragmented and isolated patches of habitat;</li></ul>	
<ul><li>c. providing wildlife movement infrastructure;</li><li>d. providing replacement and rehabilitation planting to improve connectivity.</li></ul>	
Vegetation clearing and soil resource stability	
PO95	No example provided.
Development does not:	

result in soil erosion or land degradation; a. b. leave cleared land exposed for an unreasonable period of time but is rehabilitated in a timely manner. Vegetation clearing and water quality **PO96** No example provided. Development maintains or improves the quality of groundwater and surface water within, and downstream, of a site by: ensuring an effective vegetated buffers and a. setbacks from waterbodies is retained to achieve natural filtration and reduce sediment loads: b. avoiding or minimising changes to landforms to maintain hydrological water flows; adopting suitable measures to exclude livestock C. from entering a waterbody where a site is being used for animal husbandry<sup>(4)</sup> and animal keeping<sup>(5)</sup> activities. **PO97** No example provided. Development minimises adverse impacts of stormwater run-off on water quality by: a. minimising flow velocity to reduce erosion; b. minimising hard surface areas; maximising the use of permeable surfaces; C. d. incorporating sediment retention devices; minimising channelled flow. e Vegetation clearing and access, edge effects and urban heat island effects **PO98** No example provided. Development retains safe and convenient public access in a manner that does not result in the adverse edge effects or the loss or degradation of biodiversity values within the environment. **PO99** No example provided. Development minimises potential adverse 'edge effects' on ecological values by: providing dense planting buffers of native vegetation between a development and environmental areas; b. retaining patches of native vegetation of greatest possible size where located between a development and environmental areas; C. restoring, rehabilitating and increasing the size of existing patches of native vegetation; d. ensuring that buildings and access (public and vehicle) are setback as far as possible from environmental areas and corridors; landscaping with native plants of local origin. e.

Editor's note - Edge effects are factors of development that go to detrimentally affecting the composition and density of natural populations at the fringe of natural areas. Factors include weed invasion, pets, public and vehicle access, nutrient loads, noise and light pollution, increased fire frequency and changes in the groundwater and surface water flow.

#### PO100

Development avoids adverse microclimate change and does not result in increased urban heat island effects. Adverse urban heat island effects are minimised by:

- a. pervious surfaces;
- b. providing deeply planted vegetation buffers and green linkage opportunities;
- C. landscaping with local native plant species to achieve well-shaded urban places;
- d. increasing the service extent of the urban forest canopy.

No example provided.

### Vegetation clearing and Matters of Local Environmental Significance (MLES) environmental offsets

#### PO101

Where development results in the unavoidable loss of native vegetation within a Value Offset Area MLES waterway buffer or a Value Offset Area MLES wetland buffer, an environmental offset is required in accordance with the environmental offset requirements identified in Planning scheme policy - Environmental areas.

Editor's note - For MSES Koala Offsets, the environmental offset provisions in schedule 11 of the Regulation, in combination with the requirements of the Environmental Offset Act 2014, apply.

No example provided.

# Extractive resources separation area (refer Overlay map - Extractive resources (separation area) to determine if the following assessment criteria apply)

Note - To demonstrate achievement of the performance outcomes, a noise impact assessment report is prepared by a suitably qualified person. Guidance to preparing noise impact assessment report is provided in Planning scheme policy - Noise.

### PO102

Development does not increase the number of people living in the Extractive Resources separation area.

### E102

One dwelling house (22) permitted per lot within separation

### PO103

# Development:

- does not introduce or increase uses that are a. sensitive to the impacts of an Extractive industry (27);
- b. is compatible with the operation of an Extractive industry (27);
- does not comprise or undermine the function and C. integrity of the separation area in providing a buffer

### E103

Development within the separation area does not include the following activities:

- Caretaker's accommodation<sup>(10)</sup>; a.
- Community residence<sup>(16)</sup>: b.
- Dual occupancy<sup>(21)</sup>; C.
- Dwelling unit<sup>(23)</sup>; d.
- Hospital (36).

between key extractive and processing activities and sensitive, incompatible uses outside the separation area.	f. Rooming accommodation <sup>(69)</sup> ; g. Multiple dwelling <sup>(49)</sup> ; h. Non-resident workforce accommodation <sup>(52)</sup> ; i. Relocatable home park <sup>(62)</sup> ; j. Residential care facility <sup>(65)</sup> ; k. Resort complex <sup>(66)</sup> ; l. Retirement facility <sup>(67)</sup> ; m. Rural workers' accommodation <sup>(71)</sup> ; n. Short-term accommodation <sup>(77)</sup> ; o. Tourist park <sup>(84)</sup> .
PO104	E104
Habitable rooms achieve the noise levels listed in Schedule 1 Acoustic Quality Objectives, Environmental Protection (Noise) Policy 2008 and provides a safe, healthy and disturbance free living environment.	All habitable rooms within the separation area are:     a. acoustically insulated to achieve the noise levels listed in Schedule 1 Acoustic Quality Objectives, Environmental Protection (Noise) Policy 2008;     b. provided with mechanical ventilation.
PO105	E105
Development provides open space areas for passive recreation in a manner where impacts from key extractive/processing activities, particularly noise, is	Private open space areas are separated from the resource processing area by buildings or a 1.8m high solid structure.
Extractive resources transport routes (refer Overlay m	nap - Extractive resources (transport route and buffer)
Extractive resources transport routes (refer Overlay methodetermine if the following assessment criteria appropriate policy)  PO106	
Extractive resources transport routes (refer Overlay methodetermine if the following assessment criteria app	ly)

# Development:

- does not adversely impact upon the efficient and effective transportation of extractive material along a transportation route;
- ensures vehicle access and egress along transportation routes are designed and located to achieve a high degree of safety, having good visibility;
- C. utilises existing vehicle access points and where existing vehicle access points are sub-standard or poorly formed, they are upgraded to an appropriate standard.

Development does not create a new vehicle access point onto an Extractive resources transport route.

### E107.2

A vehicle access point is located, designed and constructed in accordance with Planning scheme policy - Integrated design.

Heritage and landscape character (refer Overlay map - Heritage and landscape character to determine if the following assessment criteria apply)

Note - Places, including sites, objects and buildings having local cultural heritage significance, are identified on Overlay map - Heritage and landscape character and listed in Schedule 1 of Planning scheme policy - Heritage and landscape character. Places also having cultural heritage significance at a State level and being entered in the Queensland Heritage Register, are also identified in Schedule 1 of Planning scheme policy - Heritage and landscape character.

#### **PO108**

#### Development will:

- not diminish or cause irreversible damage to the cultural heritage values present on the site, and associated with a heritage site, object or building;
- protect the fabric and setting of the heritage site, b. object or building;
- be consistent with the form, scale and style of the C. heritage site, object or building;
- d. utilise similar materials to those existing, or where this is not reasonable or practicable, neutral materials and finishes;
- incorporate complementary elements, detailing and ornamentation to those present on the heritage site, object or building;
- f. retain public access where this is currently provided.

# E108

Development is for the preservation, maintenance, repair and restoration of a site, object or building of cultural heritage value.

Note - A cultural heritage conservation management plan for the preservation, maintenance, repair and restoration of a site, object or building of cultural heritage value is prepared in accordance with Planning scheme policy - Heritage and landscape character. The plan is sent to, and approved by Council prior to the commencement of any preservation, maintenance, repair and restoration works.

### **PO109**

Demolition and removal is only considered where:

- a report prepared by a suitably qualified a. conservation architect or conservation engineer demonstrates that the building is structurally unsound and is not reasonably capable of economic repair; or
- demolition is confined to the removal of b. outbuildings, extensions and alterations that are not part of the original structure; or
- limited demolition is performed in the course of C. repairs, maintenance or restoration; or
- demolition is performed following a catastrophic event which substantially destroys the building or object.

No example provided.

#### **PO110**

Where development is occurring on land adjoining a site of cultural heritage value, the development is to be sympathetic to and consistent with the cultural heritage values present on the site and not result in their values being eroded, degraded or unreasonably obscured from public view.

No example provided.

### **PO111**

Development does not adversely impact upon the health and vitality of significant trees. Where development occurs in proximity to a significant tree, construction measures and techniques as detailed in AS 4970-2009 Protection of trees on development sites are adopted to ensure a significant tree's health, wellbeing and vitality.

Significant trees are only removed where they are in a poor state of health or where they pose a health and safety risk to persons or property. A Tree Assessment report prepared by a suitably qualified arborist confirming a tree's state of health is required to demonstrate achievement of this performance outcome.

#### E111

Development does:

- not result in the removal of a significant tree; a.
- not occur within 20m of a protected tree; b.
- involve pruning of a tree in accordance with C. Australian Standard AS 4373-2007 - Pruning of Amenity Trees.

# Infrastructure buffers (refer Overlay map - Infrastructure buffers to determine if the following assessment criteria apply)

# **PO112**

Odour sensitive development is separated from Wastewater treatment plants so they are not adversely affected by odour emission or other air pollutant impacts.

# E112

The following uses are not located within a wastewater treatment site buffer:

- Caretaker's accommodation (10); a.
- Community residence (16); b.
- Dual occupancy<sup>(21)</sup>; C.
- Dwelling house<sup>(22)</sup> d.
- Dwelling unit<sup>(23)</sup>; e.
- Hospital (36): f.
- Rooming accommodation (69); g.
- Multiple dwelling (49): h.
- Non-resident workforce accommodation (52); i.
- Relocatable home park (62); j.
- Residential care facility (65): k.
- Resort complex<sup>(66)</sup>: Ι.
- Retirement facility<sup>(67)</sup>; m.
- Rural workers' accommodation<sup>(71)</sup>; n.
- Short-term accommodation<sup>(77)</sup>; Ο.
- Tourist park (84). p.

#### PO113

Habitable rooms within an Electricity supply substation buffer are located a sufficient distance from substations (80) to avoid any potential adverse impacts on personal health and wellbeing from electromagnetic fields.

# E113

Habitable rooms:

- a. are not located within an Electricity supply substation buffer; and
- proposed on a site subject to an Electricity supply supply substation<sup>(80)</sup> are acoustically insulted to b.

Note - Habitable room is defined in the Building Code of Australia (Volume 1)

achieve the noise levels listed in Schedule 1, Acoustic Quality Objectives, Environmental Protection (Noise) Policy 2008.

Note - Habitable room is defined in the Building Code of Australia (Volume 1)

#### PO114

Habitable rooms within an Electricity supply substation buffer are acoustically insulated from the noise of a substation<sup>(80)</sup> to achieve the noise levels listed in Schedule 1 Acoustic Quality Objectives, Environmental Protection (Noise) Policy 2008 and provides a safe, healthy and disturbance free living environment.

Note - To demonstrate achievement of the performance outcome, a noise impact assessment report is prepared by a suitably qualified person. Guidance to preparing an noise impact assessment report is provided in Planning scheme policy - Noise.

Note - Habitable room is defined in the Building Code of Australia (Volume 1)

No example provided.

# **PO115**

Development within a High voltage electricity line buffer provides adequate buffers to high voltage electricity lines to protect amenity and health by ensuring development:

- is located and designed to avoid any potential adverse impacts on personal health and wellbeing from electromagnetic fields in accordance with the principle of prudent avoidance;
- b. is located and designed in a manner that maintains a high level of security of supply;
- is located and design so not to impede upon the functioning and maintenance of high voltage electrical infrastructure.

### E115

Development does not involve the construction of any buildings or structures within a High voltage electricity line buffer.

# **PO116**

Development within a Pumping station buffer is located, designed and constructed to:

- ensure that odour or other air pollutant impacts on a. the amenity of the development met the air quality of objectives in the Environmental Protection (Air) Policy 2008;
- ensure that noise impacts on the amenity of the development met the indoor noise objectives set out in the Environmental Protection (Noise) Policy 2008.

# E116

Development does not involve the construction of any buildings or structures within a Pumping station buffer.

Overland flow path (refer Overlay map - Overland flow path to determine if the following assessment criteria apply)

Note - The applicable river and creek flood planning levels associated with defined flood event (DFE) within the inundation area can be obtained by requesting a flood check property report from Council.

### **PO117**

### Development:

- a. minimises the risk to persons from overland flow;
- does not increase the potential for damage from overland flow either on the premises or other premises, public land, watercourses, roads or infrastructure.

No example provided.

### **PO118**

# Development:

- maintains the conveyance of overland flow predominantly unimpeded through the premises for any event up to and including the 1% AEP for the fully developed upstream catchment;
- b. does not concentrate, intensify or divert overland flow onto an upstream, downstream or surrounding property.

Note - A report from a suitably qualified Registered Professional Engineer Queensland is required certifying that the development does not increase the potential for significant adverse impacts on an upstream, downstream or surrounding premises.

Note - Reporting to be prepared in accordance with Planning scheme policy - Flood hazard, Coastal hazard and Overland flow.

No example provided.

#### **PO119**

### Development does not:

- a. directly, indirectly or cumulatively cause any increase in overland flow velocity or level;
- increase the potential for flood damage from overland flow either on the premises or other premises, public lands, watercourses, roads or infrastructure.

Note - Open concrete drains greater than 1m in width are not an acceptable outcome, nor are any other design options that may increase scouring.

No example provided.

### **PO120**

# Development ensures that public safety and the risk to the environment are not adversely affected by a detrimental impact of overland flow on a hazardous chemical located or stored on the premises.

### E120

Development ensures that a hazardous chemical is not located or stored in an Overland flow path area.

Note - Refer to the Work Health and Safety Act 2011 and associated Regulation and Guidelines, the Environmental Protection Act 1994 and the relevant building assessment provisions under the Building Act 1975 for requirements related to the manufacture and storage of hazardous substances.

#### PO121

Development which is not in a Rural zone ensures that overland flow is not conveyed from a road or public open space onto a private lot.

#### E121

Development which is not in a Rural zone that an overland flow paths and drainage infrastructure is provided to convey overland flow from a road or public open space area away from a private lot.

#### PO122

Development ensures that inter-allotment drainage infrastructure, overland flow paths and open drains through private property cater for overland flows for a fully developed upstream catchment and are able to be easily maintained.

Note - A report from a suitably qualified Registered Professional Engineer Queensland is required certifying that the development does not increase the potential for significant adverse impacts on an upstream, downstream or surrounding premises.

Note - Reporting to be prepared in accordance with Planning scheme policy - Flood hazard, Coastal hazard and Overland flow

#### E122.1

Development ensures that roof and allotment drainage infrastructure is provided in accordance with the following relevant level as identified in QUDM:

- a. Urban area - Level III;
- Rural area N/A: b.
- Industrial area Level V; C.
- d. Commercial area - Level V.

# E122.2

Development ensures that inter-allotment drainage infrastructure is designed to accommodate any event up to and including the 1% AEP for the fully developed upstream catchment.

#### **PO123**

Development protects the conveyance of overland flow such that an easement for drainage purposes is provided over:

- a stormwater pipe if the nominal pipe diameter a. exceeds 300mm;
- b. an overland flow path where it crosses more than one premises;
- C. inter-allotment drainage infrastructure.

Note - Refer to Planning scheme policy - Integrated design for details and examples.

Note - Stormwater Drainage easement dimensions are provided in accordance with Section 3.8.5 of QUDM.

No example provided.

# Additional criteria for development for a Park (57)

# PO124

Development for a Park<sup>(57)</sup> ensures that the design and layout responds to the nature of the overland flow affecting the premises such that:

public benefit and enjoyment is maximised; a.

# E124

Development for a Park<sup>(57)</sup> ensures works are provided in accordance with the requirements set out in Appendix B of the Planning scheme policy - Integrated design.

# 6 Zones

- impacts on the asset life and integrity of park structures is minimised;
- C. maintenance and replacement costs are minimised.

# Riparian and wetland setbacks

# PO125

Development provides and maintains a suitable setback from waterways and wetlands that protects natural and environmental values. This is achieved by recognising and responding to the following matters:

- impact on fauna habitats; a.
- b. impact on wildlife corridors and connectivity;
- impact on stream integrity; C.
- d. impact of opportunities for revegetation and rehabilitation planting;
- e. edge effects.

### E125

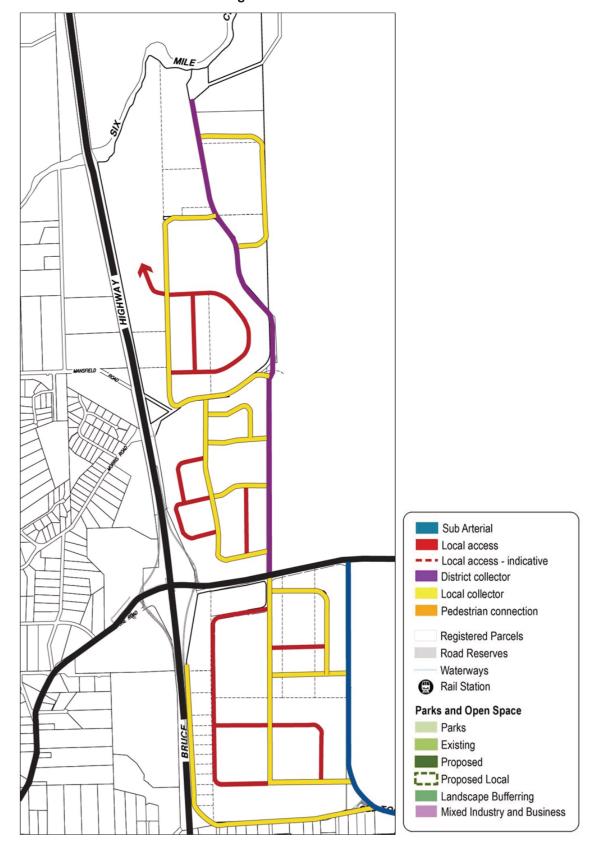
Development does not occur within:

- 50m from top of bank for W1 waterway and drainage line
- b. 30m from top of bank for W2 waterway and drainage line
- C. 20m from top of bank for W3 waterway and drainage line
- d. 100m from the edge of a Ramsar wetland, 50m from all other wetlands.

Note - W1, W2 and W3 waterway and drainage lines, and wetlands are mapped on Schedule 2, Section 2.5 Overlay Maps - Riparian and wetland setbacks.

# Movement network figures

Figure 1 - Elimbah East



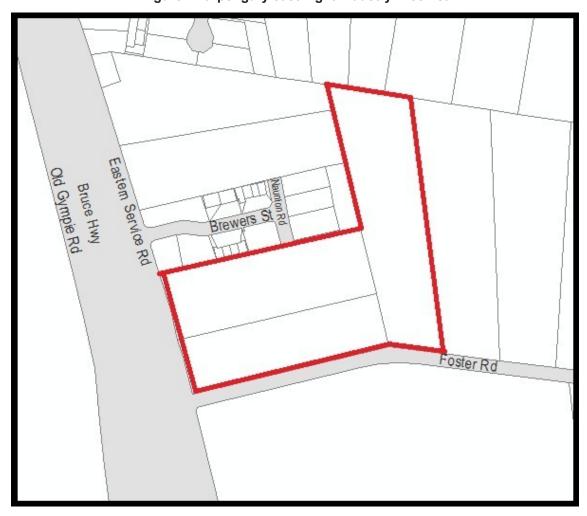


Figure - Burpengary east Light Industry Precinct

# 6.2.7.3 General industry precinct

### 6.2.7.3.1 Purpose - General industry precinct

- The purpose of the code will be achieved through the following overall outcomes for the General industry precinct:
  - A range of industrial uses and supporting activities are established which are of a scale or intensity where a. the possibility of adverse impacts on sensitive receptors requires a location sufficiently buffered from incompatible activities.
  - b. The operation and viability of existing and future industrial activities is protected from the intrusion of incompatible uses.
  - Development is located, designed and managed to: C.
    - i. maintain the health and safety of people;
    - ii. avoid significant adverse effects on the natural environment;
    - iii. minimise the possibility of adverse impacts on surrounding non-industrial uses.
  - Development has access to infrastructure and essential services and convenient access to major transport d. routes.
  - Development is designed to incorporate sustainable practices where possible, including water sensitive e. design and energy efficient building design.
  - f. The scale, character and built form of development and the resulting streetscape contribute to a high standard of visual and physical amenity and incorporates crime prevention through environmental design (CPTED) principles.
  - Non-industrial uses occurring in the precinct: g.
    - i. Do not compromise or constrain the operation or viability of existing or future industrial activities;
    - ii. Are subordinate in function and scale to all centres with in the region;
    - iii. Do not undermine the viability of existing or future centres or neighbourhood hubs;
    - iv. Are consolidated to minimize adverse impacts on the efficient functioning of industrial activities;
    - Provide a convenience service or support roll to industries and employees within the precinct only. ٧.

Note - An Economic Impact Assessment may be required to demonstrate compliance with part of the outcome/s above. Refer to Planning scheme policy - Economic impact assessment for information required.

- Low impact industry<sup>(42)</sup>, Service industry<sup>(73)</sup> and Warehouse<sup>(88)</sup> activities: h.
  - i. provide a supporting function to industries in the precinct, or are of a scale and intensity where the off-site impacts of the activity are similar to that of Medium impact industry (47);
  - ii. are not detrimentally affected by the operations of existing or future industrial activities in the precinct;
  - iii. do not compromise the operations of existing or future industrial activities in the precinct.
- High impact industry (34) activities only establish in the precinct where: i.

- there is a minimum separation distance of 500m from an existing or approved sensitive land use or i. sensitive zone:
- ii. it can be demonstrated that the use will operate without adverse impacts on the surrounding area.
- Special industry<sup>(79)</sup> does not establish within the precinct. j.
- k. Stand alone Offices do not establish within the precinct, unless on a Neighbourhood hub lot identified on Overlay map - Community activities and neighbourhood hubs.
- I. Sensitive land uses, including all forms of residential development, do not occur within the precinct.
- m. General works associated with the development achieves the following:
  - new development is provided with a high standard of services to meet and support the current and future needs of users of the site, including roads, street lighting services, telecommunications and reticulated electricity (underground wherever possible), water and sewerage (where available);
  - the development manages stormwater to: ii.
    - ensure the discharge of stormwater does not adversely affect the quality, environmental values or ecosystem functions of downstream receiving waters;
    - B. prevent stormwater contamination and the release of pollutants;
    - C. maintain or improve the structure and condition of drainage lines and riparian areas;
    - avoid off-site adverse impacts from stormwater.
  - the development does not result in unacceptable impacts on the capacity and safety of the external iii. road network;
  - iv. the development ensures the safety, efficiency and useability of access ways and parking areas;
  - site works including earthworks are managed to be safe and have minimal impacts on adjoining or adjacent premises, the streetscape or the environment.
- Activities associated with the use do not cause a nuisance by way of aerosols, fumes, light, noise, dust, n. electromagnetic interference, odour, particles or smoke.
- Noise generating uses are designed, sited and constructed to minimise the transmission of noise to appropriate levels and do not cause environmental harm or nuisance.
- Noise sensitive uses are designed, sited and constructed so as not to be subject to unacceptable levels p. of noise.
- Development avoids areas subject to constraint, limitation, or environmental value. Where development cannot avoid these identified areas, it responds by:
  - i. adopting a 'least risk, least impact' approach when designing, siting and locating development in any area subject to a constraint, limitation or environmental value to minimise the potential risk to people, property and the environment;
  - ensuring no further instability, erosion or degradation of the land, water or soil resource; ii.
  - when located within a Water buffer area, complying with the Water Quality Vision and Objectives contained in the Segwater Development Guidelines: Development Guidelines for Water Quality Management in Drinking Water Catchments 2012.
  - maintaining, restoring and rehabilitating environmental values, including natural, ecological, biological, aquatic, hydrological and amenity values, and enhancing these values through the provision of planting and landscaping, and facilitating safe wildlife movement and connectivity through:
    - A. the provision of replacement, restoration, rehabilitation planting and landscaping;
    - the location, design and management of development to avoid or minimise adverse impacts on ecological systems and processes;
    - C. the requiring of environmental offsets in accordance with the Environmental Offsets Act 2014.
  - protecting native species and protecting and enhancing species habitat; V.

- protecting and preserving the natural, aesthetic, architectural historic and cultural values of significant vi. trees, places, objects and buildings of heritage and cultural significance;
- vii. establishing effective separation distances, buffers and mitigation measures associated with identified infrastructure to minimise adverse effects on sensitive land uses from odour, noise, dust and other nuisance generating activities;
- establishing, maintaining and protecting appropriate buffers to waterways, wetlands, native vegetation and significant fauna habitat;
- ensuring it promotes and does not undermine the ongoing viability, integrity, operation, maintenance ix. and safety of identified infrastructure;
- ensuring effective and efficient disaster management response and recovery capabilities; Χ.
- where located in an overland flow path: χi.
  - development siting, built form, layout and access responds to the risk presented by the overland flow and minimises risk to personal safety;
  - development is resilient to the impacts of overland flow by ensuring the siting and design accounts B. for the potential risks to property associated with the overland flow;
  - development does not impact on the conveyance of the overland flow for any event up to and C. including the 1% AEP for the fully developed upstream catchment;
  - development directly, indirectly and cumulatively avoid an increase in the severity of overland flow and potential for damage on the premises or other premises, public lands, watercourses, roads or infrastructure.
- Development in the General industry precinct includes one or more of the following: r.

•	Agricultural supplies store <sup>(2)</sup>	•	Emergency services <sup>(25)</sup>	•	Research and technology industry <sup>(64)</sup>
•	Animal husbandry <sup>(4)</sup>	•	Food and drink outlet <sup>(28)</sup> (where does not exceed	•	Sales office <sup>(72)</sup>
•	Bulk landscape supplies (9)  Caretaker's		100m <sup>2</sup> GFA)	•	Warehouse <sup>(88)</sup>
•	accommodation <sup>(10)</sup>	•	Medium impact industry <sup>(47)</sup>	•	Where in a Neighbourhood hub:
					o Office <sup>(53)</sup>
					o Shop <sup>(75)</sup>

Development in the General industry precinct does not include any of the following: S.

	•	Air services <sup>(3)</sup>	•	Garden centre <sup>(31)</sup>	•	Permanent plantation <sup>(59)</sup>
	•	Animal keeping <sup>(5)</sup>	•	Hardware and trade supplies <sup>(32)</sup>	•	Place of worship <sup>(60)</sup>
	•	Bar <sup>(7)</sup>			•	Relocatable home park <sup>(62)</sup>
	•	Brothel <sup>(8)</sup>		Hospital <sup>(36)</sup> Hotel <sup>(37)</sup>	•	Residential care facility <sup>(65)</sup>
	•	Cemetery <sup>(12)</sup>	•		•	Resort complex <sup>(66)</sup>
	•	Community care centre <sup>(15)</sup>	•	Indoor sport and recreation <sup>(38)</sup>	•	Retirement facility <sup>(67)</sup>
	•	Community residence <sup>(16)</sup>	•	Intensive animal industry <sup>(39)</sup>	•	Roadside stall <sup>(68)</sup>
	•	Community use <sup>(17)</sup>	•	Intensive horticulture <sup>(40)</sup>	•	Rooming accommodation (69)
	•	Cropping <sup>(19)</sup>	•	Landing <sup>(41)</sup>	•	Rural industry <sup>(70)</sup>
L						

•	Detention facility <sup>(20)</sup>	•	Major sport, recreation and entertainment facility <sup>(44)</sup>	•	Rural workers' accommodation <sup>(71)</sup>
•	Dual occupancy <sup>(21)</sup> Dwelling house <sup>(22)</sup>	•	Market <sup>(46)</sup> Multiple dwelling <sup>(49)</sup>	•	Short-term accommodation <sup>(77)</sup>
•	Dwelling unit <sup>(23)</sup>	•	Nature-based tourism <sup>(50)</sup>	•	Showroom <sup>(78)</sup>
•	Educational establishment <sup>(24)</sup>	•	Nightclub entertainment facility <sup>(51)</sup>	•	Special industry <sup>(79)</sup> Theatre <sup>(82)</sup>
•	Environment facility <sup>(26)</sup> Extractive industry <sup>(27)</sup>	•	Non-resident workforce accommodation <sup>(51)</sup>	•	Tourist park <sup>(84)</sup>
•	Food and drink outlet (28)	•	Outdoor sport and	•	Veterinary services <sup>(87)</sup>
	(where exceeding 100m <sup>2</sup> GFA)	•	recreation <sup>(55)</sup> Parking station <sup>(58)</sup>	•	Wholesale nursery <sup>(89)</sup> Winery <sup>(90)</sup>
•	Function facility <sup>(29)</sup>		. animg claus.		,
•	Funeral parlour <sup>(30)</sup>				

t. Development not listed above may be considered on its merits and where it reflects and supports the outcomes of the precinct.

### 6.2.7.3.2 Criteria for assessable development

Where development is categorised as assessable development - code assessment in the Table of Assessment, and located in a precinct, the assessment benchmarks are the criteria set out in Part D, Table 6.2.7.3.1 as well as the purpose statement and overall outcomes of this code.

Where development is categorised as assessable development - impact assessment, the assessment benchmarks become the whole of the planning scheme.

# Part D—Criteria for assessable development - General industry precinct

# Table 6.2.7.3.1 Assessable development - General industry precinct

Per	formance outcomes	Examples that achieve aspects of the Performance Outcomes
	General	criteria
Site	cover	
PO'	1	No example provided.
Site	cover is limited to a proportion of a site that ensures:	
a.	A sufficient number and type of vehicle parking spaces are provided on the site to meet the parking demands and expectations of the proposed use;	
b.	Any type of vehicle expected to visit the site on a regular basis is able to access and leave the site in a forward direction with clear manoeuvring on the site;	

- C. setbacks to boundaries maximise the efficient use of the site while ensuring positive interfaces with public space or sensitive land uses;
- d. Areas of landscaping are provided to soften the built form and hard stand impacts of development whilst providing areas of natural space on a site.

# **Building height**

#### PO<sub>2</sub>

The height of buildings is in keeping with the predominant industrial character of the precinct and does not cause adverse amenity impacts on surrounding sensitive land uses and zones.

### **E2**

Building height does not exceed the maximum height identified on Overlay map - Building heights.

#### **Setbacks**

#### PO<sub>3</sub>

Street boundary setbacks:

- minimise building bulk and visual dominance from a. the street;
- b. provide areas for landscaping at the front of the site;
- C. allow for customer parking to be located at the front of the building;
- d. Provide opportunities for dense landscaping to screen at maturity any visibility of development of a site from the Bruce Highway.

#### **E3**

Buildings maintain a minimum setback of :

- 6m to the street frontage (other than the Bruce a. Highway);
- b. 3m to the secondary street frontage;
- 10m to a boundary adjoining the Bruce Highway.

# PO4

Side and rear boundary setbacks maintain views, privacy, access to natural light and the visual amenity of adjoining sensitive land uses.

#### **E4**

Where a development adjoins general residential zoned land, the building is setback a minimum of 3m from the property boundary with dense landscaping installed along the boundary to provide screening of the development with a mature height of at least 3m.

Note - Refer to Planning scheme policy - Integrated design for determining acceptable levels of landscaping for screening purposes.

# **Building appearance and design**

# PO<sub>5</sub>

Where fronting an district collector, sub-arterial or arterial road, or visible from a Park<sup>(57)</sup>, or a Centre zoned lot, buildings provide a high level of architectural design which adds visual interest to the streetscape and reduces the perceived bulk of the building, by incorporating:

a range of building materials, colours and features; a.

No example provided.

- b. facade articulation along street frontages;
- C. design features to promote customer entry points;
- d. materials that are not highly reflective.

Note - The road hierarchy is mapped on Overlay map - Road hierarchy

Note - The following examples illustrate an acceptable design response to this outcome.



### Staff recreation

### **PO6**

Staff are provided with adequate and amenable break/dining facilities to suit the nature of the activities on-site.

### **E6**

Where the nature of the activities on-site do not allow staff to eat in their work environment, the development provides an on-site recreation area for staff that:

- Includes adequate seating, tables and rubbish bins for the number of staff on-site;
- b. is adequately protected from the weather;
- is safely accessible to all staff; C.
- is separate and private from public areas; d.
- is located away from a noisy or odorous activity. e.

# Landscaping

# **PO7**

Landscaping is provided on the site to:

# **E7**

Landscaping is provided and maintained in accordance with Planning scheme policy - Integrated design.

- a. visually soften the built form, areas of hardstand, storage areas and mechanical plant associated with the on-site processes;
- b. complement the existing or desired streetscape;
- minimise the impact of industrial development on adjoining lots not zoned for industrial purposes.

# **Fencing**

### **PO8**

The provision of fencing on street frontages does not dominate the streetscape or create safety issues.

Note - The following example illustrates an acceptable design response to this outcome.



# **E8**

Where fencing is provided on the street frontage, fence sections between columns or posts have a minimum transparency of 70% spread evenly across its total surface area.

# **Public access**

# **PO9**

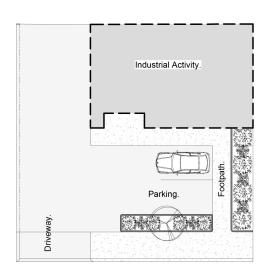
The use has a safe, clearly identifiable public access separated from service and parking areas.

Note - The following diagram illustrates an acceptable design response to this outcome.

# E9.1

Pedestrian linkages are provided from the street and customer car parking areas directly to the main entrance of the building.

# E9.2



The public access is separated from industrial service areas.

### **Movement network**

### **PO10**

Development maintains, contributes to or provides for interconnected street, pedestrian and cyclist networks.

Note - Refer to Planning scheme policy - Neighbourhood design for guidance on achieving the above outcome.

# E10.1

Development provides and maintains the connections shown on the following movement figure:

Figure 1 - Elimbah East a.

# E10.2

For areas not shown on the above movement figure, no example provided.

Note - Refer to Planning scheme policy - Neighbourhood design for guidance on achieving the Performance outcome.

# Car parking

# PO11

Car parking is provided on-site to meet the anticipated demands of employees and visitors and avoid adverse impacts on the external road network.

Note - Refer to Planning scheme policy - Integrated transport assessment for guidance on how to achieve compliance with this outcome.

# E11

Car parking is provided in accordance with Schedule 7 - Car parking.

# **PO12**

The design of car parking areas:

does not impact on the safety of the external road a. network;

# E12

All car parking areas are designed and constructed in accordance with Australian Standard AS2890.1 Parking facilities Part 1: Off-street car parking.

- b. ensures the safety of pedestrians at all times;
- C. ensures the safe movement of vehicles within the site.

# Bicycle parking and end of trip facilities

Note - Building work to which this code applies constitutes Major Development for purposes of development requirements for end of trip facilities prescribed in the Queensland Development Code MP 4.1.

#### **PO13**

- End of trip facilities are provided for employees or occupants, in the building or on-site within a reasonable walking distance, and include:
  - adequate bicycle parking and storage facilities; i. and
  - ii. adequate provision for securing belongings;
  - change rooms that include adequate showers, sanitary compartments, wash basins and mirrors.
- Notwithstanding a. there is no requirement to provide end of trip facilities if it would be unreasonable to provide these facilities having regard to:
  - i. the projected population growth and forward planning for road upgrading and development of cycle paths; or
  - ii. whether it would be practical to commute to and from the building on a bicycle, having regard to the likely commute distances and nature of the terrain; or
  - the condition of the road and the nature and amount of traffic potentially affecting the safety of commuters.

Editor's note - The intent of b above is to ensure the requirements for bicycle parking and end of trip facilities are not applied in unreasonable circumstances. For example these requirements should not, and do not apply in the Rural zone or the Rural residential zone etc.

Editor's note - This performance outcome is the same as the Performance Requirement prescribed for end of trip facilities under the Queensland Development Code. For development incorporating building work, that Queensland Development Code performance requirement cannot be altered by a local planning instrument and has been reproduced here solely for information purposes. Council's assessment in its building work concurrence agency role for end of

#### E13.1

Minimum bicycle parking facilities are provided at a rate of 1 bicycle parking space for every 3 vehicles parking spaces required by Schedule 7 - Car parking.

Editor's note - The examples for end of trip facilities prescribed under the Queensland Development Code permit a local planning instrument to prescribe facility levels higher than the default levels identified in those acceptable solutions. This example is a combination of the default levels set for end of trip facilities in the Queensland Development Code and the additional facilities required by Council.

#### E13.2

Bicycle parking is:

- provided in accordance with Austroads (2008), Guide to Traffic Management - Part 11: Parking;
- b. protected from the weather by its location or a dedicated roof structure;
- C. located within the building or in a dedicated, secure structure for residents and staff;
- adjacent to building entrances or in public areas for customers and visitors.

Note - Bicycle parking structures are to be constructed to the standards prescribed in AS2890.3.

Note - Bicycle parking and end of trip facilities provided for residential and non-residential activities may be pooled, provided they are within 100 metres of the entrance to the building.

Editor's note - The examples for end of trip facilities prescribed under the Queensland Development Code permit a local planning instrument to prescribe facility levels higher than the default levels identified in those acceptable solutions. This example is an amalgamation of the default levels set for end of trip facilities in the Queensland Development Code and the additional facilities required by Council.

### E13.3

trip facilities will be against the performance requirement in the Queensland Development Code. As it is subject to change at any time, applicants for development incorporating building work should ensure that proposals that do not comply with the examples under this heading meet the current performance requirement prescribed in the Queensland Development Code.

For non-residential uses, storage lockers:

- are provide at a rate of 1.6 per bicycle parking space (rounded up to the nearest whole number);
- b. have minimum dimensions of 900mm (height) x 300mm (width) x 450mm (depth).

Note - Storage lockers may be pooled across multiple sites and activities when within 100 metres of the entrance to the building and within 50 metres of bicycle parking and storage facilities.

Editor's note - The examples for end of trip facilities prescribed under the Queensland Development Code permit a local planning instrument to prescribe facility levels higher than the default levels identified in those acceptable solutions. This example is an amalgamation of the default levels set for end of trip facilities in the Queensland Development Code and the additional facilities required by Council.

#### E13.4

For non-residential uses, changing rooms:

- are provided at a rate of 1 per 10 bicycle parking spaces;
- b. are fitted with a lockable door or otherwise screened from public view;
- C. are provided with shower(s), sanitary compartment(s) and wash basin(s) in accordance with the table below:

Bicycle spaces provided	Male/ Female	Change rooms required	Showers required	Sanitary compartments required	Washbasins required
1-5	Male and female	1 unisex change room	1	1 closet pan	1
6-19	Female	1	1	1 closet pan	1
20 or more	Male	1	1	1 closet pan	1
more	Female	1	2, plus 1 for every 20 bicycle spaces provided thereafter	2 closet pans, plus 1 sanitary compartment for every 60 bicycle parking spaces provided thereafter	1, plus 1 for every 60 bicycle parking spaces provided thereafter
	Male	1	2, plus 1 for every 20 bicycle spaces provided thereafter	1 urinal and 1 closet pans, plus 1 sanitary compartment at the rate of 1 closet pan or 1 urinal for every 60 bicycle space provided thereafter	1, plus 1 for every 60 bicycle parking spaces provided thereafter

Note - All showers have a minimum 3-star Water Efficiency Labelling and Standards (WELS) rating shower head.

Note - All sanitary compartments are constructed in compliance with F2.3 (e) and F2.5 of BCA (Volume 1).

#### d. are provided with:

- a mirror located above each wash basin;
- a hook and bench seating within each shower compartment;
- a socket-outlet located adjacent to each wash basin.

Note - Change rooms may be pooled across multiple sites, residential and non-residential activities when within 100 metres of the entrance to the building and within 50 metres of bicycle parking and storage facilities

Editor's note - The examples for end of trip facilities prescribed under the Queensland Development Code permit a local planning instrument to prescribe facility levels higher than the default levels identified in those acceptable solutions. This example is an amalgamation of the default levels set for end of trip facilities in the Queensland Development Code and the additional facilities required

# Loading and servicing

#### **PO14**

Service areas, including loading/unloading facilities, plant areas and outdoor storage areas, are screened from the direct view from land not included in the Industry zone and sub-arterial and arterial roads.

Note - If landscaping is proposed for screening purposes, refer to Planning scheme policy - Integrated design for determining acceptable levels.

No example provided.

# Waste

# **PO15**

Bins and bin storage area/s are designed, located and managed to prevent amenity impacts on the locality.

# E15

Development is designed to meet the criteria in the Planning scheme policy - Waste and is demonstrated in a waste management program.

# **Environmental impacts**

# **PO16**

Where a use is not an environmentally relevant activity under the Environmental Protection Act, the release of any containment that may cause environmental harm is mitigated to an acceptable level.

# E16

Development achieves the standard listed in Schedule 1 Air Quality Objectives, Environmental Protection (Air) Policy 2008.

# Lighting

# **PO17**

Lighting is directed and shielded to not cause unreasonable disturbance to any person on adjoining land.

# E17

Artificial lighting on-site is directed and shielded in such a manner as not to exceed the recommended maximum values of light technical parameters for the control of

obtrusive light given in Table 2.1 of Australian Standard AS 4282 (1997) Control of Obtrusive Effects of Outdoor Lighting.

Note - "Curfewed hours" are taken to be those hours between 10pm and 7am on the following day

#### **Noise**

#### **PO18**

Noise generating uses do not adversely affect existing or potential noise sensitive uses.

Note - The use of walls, barriers or fences that are visible from or adjoin a road or public area are not appropriate noise attenuation measures unless adjoining a motorway, arterial road or rail line.

Note - A noise impact assessment may be required to demonstrate compliance with this outcome. Noise impact assessments are to be prepared in accordance with Planning scheme policy - Noise.

No example provided.

#### **PO19**

Sensitive land uses are provided with an appropriate acoustic environment within designated external private outdoor living spaces and internal areas while:

- contributing to safe and usable public spaces, a. through maintaining high levels of surveillance of parks, streets and roads that serve active transport purposes (e.g. existing or future pedestrian paths or cycle lanes etc);
- b. maintaining the amenity of the streetscape.

Note - A noise impact assessment may be required to demonstrate compliance with this PO. Noise impact assessments are to be prepared in accordance with Planning scheme policy - Noise.

Note - Refer to Planning Scheme Policy - Integrated design for details and examples of noise attenuation structures.

#### E19.1

Development is designed to meet the criteria outlined in the Planning Scheme Policy - Noise.

# E19.2

Noise attenuation structures (e.g. walls, barriers or fences):

- are not visible from an adjoining road or public area a. unless:
  - i. adjoining a motorway or rail line; or
  - ii. adjoining part of an arterial road that does not serve an existing or future active transport purpose (e.g. pedestrian paths or cycle lanes) or where attenuation through building location and materials is not possible.
- do not remove existing or prevent future active transport routes or connections to the street network;
- C. are located, constructed and landscaped in accordance with Planning scheme policy -Integrated design.

Note - Refer to Planning scheme policy - Integrated design for details and examples of noise attenuation structures.

Note - Refer to Overlay map - Active transport for future active transport routes.

# **Hazardous Chemicals**

Note - To assist in demonstrating compliance with the following performance outcomes, a Hazard Assessment Report may be required to be prepared and submitted by a suitably qualified person in accordance with 'State Planning Policy Guideline - Guidance on development involving hazardous chemicals'.

Terms used in this section are defined in State 'State Planning Policy Guideline - Guidance on development involving hazardous chemicals'.

### **PO20**

Off sites risks from foreseeable hazard scenarios involving hazardous chemicals are commensurate with the sensitivity of the surrounding land use

zones.

### E20.1

Off site impacts or risks from any foreseeable hazard scenario does not exceed the dangerous dose at the boundary of land zoned for vulnerable or sensitive land uses as described below:

### **Dangerous Dose**

- For any hazard scenario involving the release of gases or vapours:
  - AEGL2 (60minutes) or if not available ERPG2;
  - ii. An oxygen content in air <19.5% or >23.5% at normal atmospheric pressure.
- b. For any hazard scenario involving fire or explosion:
  - i. 7kPa overpressure;
  - ii. 4.7kW/m2 heat radiation.

If criteria E20.1 (a) or (b) cannot be achieved, then the risk of any foreseeable hazard scenario shall not exceed an individual fatality risk level of 0.5 x 10-6/year.

## E20.2

Off site impacts or risks from any foreseeable hazard scenario does not exceed the dangerous dose at the boundary of a commercial or community activity land use zone as described below:

# **Dangerous Dose**

- For any hazard scenario involving the release of gases or vapours:
  - AEGL2 (60minutes) or if not available ERPG2:
  - ii. An oxygen content in air <19.5% or >23.5% at normal atmospheric pressure.
- b. For any hazard scenario involving fire or explosion:

	i. 7kPa overpressure;
	ii. 4.7kW/m2 heat radiation.
	If criteria E20.2 (a) or (b) cannot be achieved, then the risk of any foreseeable hazard scenario shall not exceed an individual fatality risk level of 5 x 10-6/year.
	E20.3
	Off site impacts or risks from any foreseeable hazard scenario does not exceed the dangerous dose at the boundary of an industrial land use zone as described below:
	Dangerous Dose
	For any hazard scenario involving the release of gases or vapours:
	i. AEGL2 (60minutes) or if not available ERPG2;
	ii. An oxygen content in air <19.5% or >23.5% at normal atmospheric pressure.
	b. For any hazard scenario involving fire or explosion:
	i. 14kPa overpressure;
	ii. 12.6kW/m2 heat radiation.
	If criteria E20.3 (a) or (b) cannot be achieved, then the risk of any foreseeable hazard scenario shall not exceed an individual fatality risk level of 50 x 10-6/year.
PO21	E21
Buildings and package stores containing fire-risk hazardous chemicals are designed to detect the early stages of a fire situation and notify a designated person.	Buildings and package stores containing fire-risk hazardous chemicals are provided with 24 hour monitored fire detection system for early detection of a fire event.
PO22	E22
Common storage areas containing packages of flammable and toxic hazardous chemicals are designed with spill containment system(s) that are adequate to contain releases, including fire fighting media.	Storage areas containing packages of flammable and toxic hazardous chemicals are designed with spill containment system(s) capable of containing a minimum of the total aggregate capacity of all packages plus the maximum operating capacity of any fire protection system for the storage area(s) over a minimum of 60 minutes.
PO23	E23.1
	I.

Storage and handling areas, including manufacturing areas, containing hazardous chemicals in quantities greater than 2,500L or kg within a Local Government "flood hazard area" are located and designed in a manner to minimise the likelihood of inundation of flood waters from creeks, rivers, lakes or estuaries.

The base of any tank with a WC >2,500L or kg is higher than any relevant flood height level identified in an area's flood hazard area. Alternatively:

- a. bulk tanks are anchored so they cannot float if submerged or inundated by water; and
- b. tank openings not provided with a liquid tight seal, i.e. an atmospheric vent, are extended above the relevant flood height level.

#### E23.2

The lowest point of any storage area for packages >2,500L or kg is higher than any relevant flood height level identified in an area's flood hazard area. Alternatively, package stores are provided with impervious bund walls or racking systems higher than the relevant flood height level.

# **Emissions into Brisbane operational airspace**

### **PO24**

Emissions do not significantly increase air turbulence, reduce visibility or compromise the operation of aircraft engines in Brisbane airport's operational airspace.

Note - Refer to State Planning Policy December 2013 mapping to identify Brisbane airport's operational airspace.

### E24.1

Development does not emit a gaseous plume into the airport's operational airspace at a velocity exceeding 4.3m per second.

### E24.2

Development emitting smoke, dust, ash, steam or a gaseous plume exceeding 4.3m per second is designed and constructed to mitigate adverse impacts of emissions upon operational airspace.

# Clearing of habitat trees where not located within the Environmental areas overlay map

### **PO25**

- Development ensures that the biodiversity quality a. and integrity of habitats is not adversely impacted upon but maintained and protected.
- Development does not result in the net loss of fauna habitat. Where development does result in the loss of a habitat tree, development will provide replacement fauna nesting boxes at the following rate of 1 nest box for every hollow removed. Where hollows have not yet formed in trees > 80cm in diameter at 1.3m height, 3 nest boxes are required for every habitat tree removed.
- Development does not result in soil erosion or land degradation or leave land exposed for an unreasonable period of time but is rehabilitated in a timely manner

No example provided.

Note: Further guidance on habitat trees is provided in Planning scheme policy - Environmental areas

### Works criteria

### **Utilities**

### **PO26**

All services including water supply, sewage disposal, electricity, street lighting, telecommunications and gas (if available) are provided in accordance with Planning scheme policy - Integrated design (Appendix A).

No example provided.

#### **Access**

#### **PO27**

Where required, access easements contain a driveway and provision for services appropriate to the use. The easement covers all works associated with the access in accordance with Planning scheme policy - Integrated design.

No example provided.

### **PO28**

The layout of the development does not compromise:

- the development of the road network in the area;
- b. the function or safety of the road network;
- the capacity of the road network. C.

Note - The road hierarchy is mapped on Overlay map -Road hierarchy.

### E28.1

The development provides for the extension of the road network in the area in accordance with Council's road network planning.

# E28.2

The development does not compromise future road widening of frontage roads in accordance with the relevant standard and Council's road planning.

# E28.3

The development layout allows forward vehicular access to and from the site.

### **PO29**

Safe access is provided for all vehicles required to access the site.

# E29.1

Site access and driveways are designed, located and constructed in accordance with:

- where for a Council-controlled road and associated a. with a Dwelling house:
  - Planning scheme policy Integrated design;
- b. where for a Council-controlled road and not associated with a Dwelling house:

- i. AS/NZS2890.1 Parking facilities Part 1: Off street car parking;
- ii. AS 2890.2 - Parking facilities Part 2: Off-street commercial vehicle facilities;
- iii. Planning scheme policy - Integrated design;
- Schedule 8 Service vehicle requirements;
- where for a State-Controlled road, the Safe Intersection Sight Distance requirements in Austroads and the appropriate IPWEAQ standard drawings, or a copy of a Transport Infrastructure Act 1994, section 62 approval.

### E29.2

Internal driveways, car parks and access ways are designed and constructed with a sealed pavement and in accordance with:

- AS/NZS 2890.1 Parking Facilities Part 1: Off street a. car parking;
- b. AS 2890.2 Parking Facilities Part 2: Off street commercial vehicle facilities:
- Planning scheme policy Integrated design; and C.
- d. Schedule 8 - Service vehicle requirements.

Note - This includes queue lengths (refer to Schedule 8 -Service vehicle requirements), pavement widths and construction.

# E29.3

Access driveways, manoeuvring areas and loading facilities are sealed and provide for service vehicles listed in Schedule 8 - Service vehicle requirements for the relevant use. The on-site manoeuvring is to be in accordance with Schedule 8 - Service vehicle requirements.

# E29.4

Access driveways, manoeuvring areas and loading facilities are constructed with reinforced concrete road pavements. Concrete is to be designed in accordance with rigid road pavement design principles.

Note - Pavements are to be designed by an RPEQ.

# E29.5

Landscaping (including shade trees) is provided within car parks in accordance with Planning scheme policy -Integrated design. **PO30** E30 Sealed and flood free road access during the minor storm Roads or streets giving access to the development from the nearest arterial or sub-arterial road are flood free event is available to the site from the nearest arterial or sub-arterial road. during the minor storm event and are sealed. Editor's note - Where associated with a State-controlled road, further Note - The road network is mapped on Overlay map - Road requirements may apply, and approvals may be required from the hierarchy. Department of Transport and Main Roads. **PO31** E31.1 Roads which provide access to the site from an arterial Access roads to the development have sufficient or sub-arterial road remain trafficable during major storm longitudinal and cross drainage to remain safely events without flooding or impacting upon residential trafficable during major storm (1% AEP) events. properties or other premises. Note - The road network is mapped on Overlay map - Road hierarchy. Note - Refer to QUDM for requirements regarding trafficability. E31.2 Culverts and causeways do not increase inundation levels or increase velocities, for all events up to the defined flood event, to upstream or downstream properties.

# Street design and layout

# **PO32**

Streets are designed and constructed in accordance with Planning scheme policy - Integrated design and Planning scheme policy - Operational works inspection, maintenance and bonding procedures. The street design and construction accommodates the following functions:

- access to premises by providing convenient a. vehicular movement for residents between their homes and the major road network;
- safe and convenient pedestrian and cycle movement:
- adequate on street parking; C.
- d. stormwater drainage paths and treatment facilities;
- e. efficient public transport routes;
- f. utility services location;

No example provided.

- g. emergency access and waste collection;
- h. setting and approach (streetscape, landscaping and street furniture) for adjoining residences;
- i. expected traffic speeds and volumes; and
- į. wildlife movement (where relevant).

Note - Preliminary road design (including all services, street lighting, stormwater infrastructure, access locations, street trees and pedestrian network) may be required to demonstrate compliance with this PO.

Note - Refer to Planning scheme policy - Environmental areas and corridors for examples of when and where wildlife movement infrastructure is required.

### **PO33**

The existing road network (whether trunk or non-trunk) is upgraded where necessary to cater for the impact from the development.

Note - An applicant may be required to submit an Integrated Transport Assessment (ITA), prepared in accordance with Planning scheme policy - Integrated transport assessment to demonstrate compliance with this PO, when any of the following occurs:

- Development is within 200m of a transport sensitive location such as a school, shopping centre, bus or train station or a large generator of pedestrian or vehicular traffic;
- Forecast traffic to/from the development exceeds 5% of the two way flow on the adjoining road or intersection in the morning or afternoon transport peak within 10 years of the development completion;
- Development access onto a sub arterial, or arterial road or within 100m of a signalised intersection;
- Residential development greater than 50 lots or dwellings;
- Offices greater than 4,000m<sup>2</sup> Gross Floor Area (GFA);
- Retail activities including Hardware and trade supplies, Showroom, Shop or Shopping centre greater than 1,000m2 GFA;
- Warehouses and Industry greater than 6,000m<sup>2</sup> GFA;
- On-site carpark greater than 100 spaces;
- Development has a trip generation rate of 100 vehicles or more within the peak hour;
- Development which dissects or significantly impacts on an environmental area or an environmental corridor.

The ITA is to review the development's impact upon the external road network for the period of 10 years from completion of the development. The ITA is to provide sufficient information for determining the impact and the type and extent of any ameliorative

# E33.1

New intersections onto existing roads are designed to accommodate traffic volumes and traffic movements taken from a date 10 years from the date of completion of the last stage of the development. Detailed design is to be in accordance with Planning scheme policy -Integrated design.

Note - All turns vehicular access to existing lots is to be retained at new road intersections wherever practicable.

Note - Existing on-street parking is to be retained at new road intersections and along road frontages wherever practicable.

### E33.2

Existing intersections external to the site are upgraded as necessary to accommodate increased traffic from the development. Design is in accordance with Planning scheme policy - Operational works inspection, maintenance and bonding procedures.

Note - All turns vehicular access to existing lots is to be retained at new road intersections wherever practicable.

Note - Existing on-street parking is to be retained at upgraded road intersections and along road frontages wherever practicable.

### E33.3

The active transport network is extended in accordance with Planning scheme policy - Integrated design.

works required to cater for the additional traffic. The ITA must include a future structural road layout of adjoining properties that will form part of this catchment and road connecting to these properties. The ITA is to assess the ultimate developed catchment's impacts and necessary ameliorative works, and the works or contribution required by the applicant as identified in the study.

Note - The road network is mapped on Overlay map - Road hierarchy.

Note - The primary and secondary active transport network is mapped on Overlay map - Active transport.

### **PO34**

New intersections along all streets and roads are located and designed to provide safe and convenient movements for all users.

Note - Refer Planning scheme policy - Integrated design and Planning scheme policy - Operational works inspection, maintenance and bonding procedures for design and construction standards.

Note - An Integrated Transport Assessment (ITA) including preliminary intersection designs, prepared in accordance with Planning scheme policy - Integrated transport assessment may be required to demonstrate compliance with this PO. Intersection spacing will be determined based on the deceleration and queue storage distances required for the intersection after considering vehicle speed and present/forecast turning and through volumes.

#### E34

New intersection spacing (centreline – centreline) along a through road conforms with the following:

- where the through road provides an access function;
  - i. intersecting road located on the same side = 60 metres;
  - ii. intersecting road located on opposite side (Left Right Stagger) = 60 metres;
  - intersecting road located on opposite side iii. (Right Left Stagger) = 40 metres.
- b. Where the through road provides a collector or sub-arterial function:
  - i. intersecting road located on the same side = 100 metres:
  - ii. intersecting road located on opposite side (Left Right Stagger) = 100 metres;
  - intersecting road located on opposite side iii. (Right Left Stagger) = 60 metres.
- Where the through road provides an arterial function:
  - i. intersecting road located on the same side = 300 metres:
  - ii. intersecting road located on opposite side (Left Right Stagger) = 300 metres;
  - iii. intersecting road located on opposite side (Right Left Stagger) = 300 metres;
- d. Walkable block perimeter does not exceed 1000 metres.

Note - Based on the absolute minimum intersection spacing identified above, all turns access may not be permitted (ie. left in/left out only) at intersections with sub-arterial roads or arterial roads.

Note - The road network is mapped on Overlay map - Road hierarchy.

Note - An Integrated Transport Assessment (ITA) including preliminary intersection designs, prepared in accordance with Planning scheme policy - Integrated transport assessment may be required to demonstrate compliance with this PO. Intersection spacing will be determined based on the deceleration and queue storage distances required for the intersection after considering vehicle speed and present/forecast turning and through volumes.

### **PO35**

All Council controlled frontage roads adjoining the development are designed and constructed in accordance with Planning scheme policy - Integrated design and Planning scheme policy - Operational works inspection, maintenance and bonding procedures. All new works are extended to join any existing works within 20m.

Note - Frontage roads include streets where no direct lot access is provided.

Note - The road network is mapped on Overlay map - Road hierarchy.

Note - The Primary and Secondary active transport network is mapped on Overlay map - Active transport.

Note - Roads are considered to be constructed in accordance with Council's standards when there is sufficient pavement width, geometry and depth to comply with the requirements of Planning scheme policy - Integrated design and Planning scheme policy -Operational works inspection, maintenance and bonding procedures.

### E35

Design and construct all Council controlled frontage roads in accordance with Planning scheme policy - Integrated design, Planning scheme policy - Operational works inspection, maintenance and bonding procedures and the following:

Situation	Minimum construction	
Frontage road unconstructed or gravel road only;  OR  Frontage road sealed but not constructed* to Planning scheme policy - Integrated design standard;  OR  Frontage road partially constructed* to Planning scheme policy - Integrated design standard:	Construct the verge adjoining the development and the carriageway (including development side kerb and channel) to a minimum sealed width containing near side parking lane (if required), cycle lane (if required), 2 travel lanes plus 1.5m wide (full depth pavement) gravel shoulder and table drainage to the opposite side.  The minimum total travel lane width is:  6m for minor roads;  7m for major roads.	

Note - Major roads are sub-arterial roads and arterial roads. Minor roads are roads that are not major roads.

Note - Construction includes all associated works (services, street lighting and linemarking).

Note - Alignment within road reserves is to be agreed with Council.

Note - \*Roads are considered to be constructed in accordance with Council standards when there is sufficient pavement width, geometry and depth to comply with the requirements of Planning scheme policy - Integrated design and Planning scheme policy - Operational works inspection, maintenance and bonding procedures. Testing of the existing pavement may be required to confirm whether the existing works meet the standards in Planning scheme policy -Integrated design and Planning scheme policy - Operational works inspection, maintenance and bonding procedures.

# **Stormwater**

#### **PO36**

Minor stormwater drainage systems (internal and external) have the capacity to convey stormwater flows from frequent storm events for the fully developed upstream catchment whilst ensuring pedestrian and vehicular traffic movements are safe and convenient.

### E36.1

The capacity of all minor drainage systems are designed in accordance with Planning scheme policy - Integrated design.

### E36.2

Stormwater pipe network capacity is to be calculated in accordance with the Hydraulic Grade Line method as detailed in Australian Rainfall and Runoff or QUDM.

### E36.3

Development ensures that inter-allotment drainage infrastructure is provided in accordance with the relevant level as identified in QUDM.

# **PO37**

Major stormwater drainage system(s) have the capacity to safely convey stormwater flows for the 1% AEP event for the fully developed upstream catchment.

# E37.1

The internal drainage system safely and adequately conveys the stormwater flows for the 1% AEP event for the fully developed upstream catchment through the site.

### E37.2

The external (downstream) drainage system safely conveys the stormwater flows for the 1% AEP event for the fully developed upstream catchment without allowing the flows to encroach upon private lots.

### E37.3

Overland flow paths from roads and public open space areas do not pass through private lots. Drainage pathways are provided to accommodate overland flows from roads and public open space areas.

# E37.4

The flow velocity in all unlined or soft faced open drains is kept within acceptable limits for the type of material or lining and condition of the channel.

	Note - Refer to QUDM for recommended average flow velocities.
PO38	E38
Provide measures to properly manage surface flows for the 1% AEP event (for the fully developed catchment) draining to and through the land to ensure no actionable nuisance is created to any person or premises as a result of the development. The development must not result in ponding on adjacent land, redirection of surface flows to other premises or blockage of a surface flow relief path for flows exceeding the design flows for any underground system within the development.	The stormwater drainage system is designed and constructed in accordance with Planning scheme policy - Integrated design.
PO39	No example provided.
Stormwater run-off from the site is conveyed to a point of lawful discharge without causing actionable nuisance to any person, property or premises.	
Note - Refer to Planning scheme policy - Integrated design for details.	
Note - A downstream drainage discharge report in accordance with Planning scheme policy - Stormwater management may be required to demonstrate achievement of this performance outcome.	
Note - A watercourse as defined in the Water Act may be accepted as a lawful point of discharge providing the drainage discharge from the site does not increase the downstream flood levels during events up to and including the 1% AEP storm. An afflux of +20mm may be accepted on Council controlled land and road infrastructure. No worsening is ensured when stormwater is discharged into a catchment that includes State Transport Infrastructure.	
PO40	No example provided.
Stormwater generated from the development does not compromise the capacity of existing stormwater infrastructure downstream of the site.	
Note - A downstream drainage discharge report in accordance with Planning scheme policy - Stormwater management may be required to demonstrate achievement of this performance outcome.	
PO41	No example provided.
Where development:	
a. is for an urban purpose that involves a land area of 2500m² or greater; and	
b. will result in:	

- i. 6 or more dwellings; or
- ii. an impervious area greater than 25% of the net developable area,

stormwater quality management systems are designed, constructed, established and maintained to minimise the environmental impact of stormwater on surface. groundwater and receiving water environments and meet the design objectives outlined in Schedule 10

- Stormwater management design objectives.

Note - A site based stormwater management plan prepared by a suitably qualified professional will be required in accordance with Planning scheme policy - Stormwater management. Stormwater quality infrastructure is to be designed in accordance with Planning scheme policy - Integrated design (Appendix C).

### **PO42**

Stormwater drainage pipes and structures through or within private land (including inter-allotment drainage) are protected by easements in favour of Council with sufficient area for practical access for maintenance purposes.

Note - In order to achieve a lawful point of discharge, stormwater easements may also be required over temporary drainage channels/infrastructure where stormwater discharges to a balance lot prior to entering Council's stormwater drainage system.

### E42

Stormwater drainage infrastructure (excluding detention and bio-retention systems) through or within private land (including inter-allotment drainage) is protected by easements in favour of Council. Minimum easement widths are as follows:

Pipe Diameter	Minimum easement width (excluding access requirements)	
Stormwater pipe up to 825mm diameter	3.0m	
Stormwater pipe up to 825mm diameter with sewer pipe up to 225m diameter	4.0m	
Stormwater pipe greater than 825mm diameter	Easement boundary to be 1m clear of the outside wall of the stormwater pipe (each side).	

Note - Additional easement width may be required in certain circumstances in order to facilitate maintenance access to the stormwater system.

Note - Refer to Planning scheme policy - Integrated design (Appendix C) for easement requirements over open channels.

### **PO43**

Stormwater management facilities (excluding outlets) are located outside of riparian areas and prevent increased channel bed and bank erosion.

No example provided.

# Site works and construction management

### **PO44**

The site and any existing structures are maintained in a tidy and safe condition.

No example provided.

# **PO45**

All works on-site are managed to:

- minimise as far as practicable, impacts on adjoining or adjacent premises and the streetscape in regard to erosion and sedimentation, dust, noise, safety and light;
- b. minimise as far as possible, impacts on the natural environment;
- ensure stormwater discharge is managed in a manner that does not cause actionable nuisance to any person or premises;
- d. avoid adverse impacts on street trees and their critical root zone.

### E45.1

Works incorporate temporary stormwater runoff, erosion and sediment controls and trash removal devices designed in accordance with the Urban Stormwater Quality Planning Guidelines, State Planning Policy, Schedule 10 - Stormwater management design objectives, Planning scheme policy - Stormwater management and Planning scheme policy - Integrated design, including but not limited to the following:

- stormwater is not discharged to adjacent properties a. in a manner that differs significantly from pre-existing conditions;
- b. stormwater discharged to adjoining and downstream properties does not cause scour or erosion of any kind;
- stormwater discharge rates do not exceed C. pre-existing conditions;
- minimum design storm for all temporary diversion drains and sedimentation basins in accordance with Schedule 10 - Stormwater management design objectives;
- ponding or concentration of stormwater does not occur on adjoining properties.

### E45.2

Stormwater runoff, erosion and sediment controls are constructed in accordance with Planning scheme policy - Integrated design (Appendix C) prior to commencement of any clearing or earthworks and are maintained and adjusted as necessary at all times to ensure their ongoing effectiveness.

Note - The measures are adjusted on-site to maximise their effectiveness.

## E45.3

The completed earthworks area is stabilised using turf, established grass seeding, mulch or sprayed stabilisation techniques to control erosion and sediment and dust from leaving the property.

# E45.4

Existing street trees are protected and not damaged during works.

Note - Where development occurs in the tree protection zone, measures and techniques as detailed in Australian Standard AS 4970 Protection of trees on development sites are adopted and implemented.

### **PO46**

Dust suppression measures are implemented during soil disturbances and construction works to protect nearby premises from unreasonable dust impacts.

#### E46

No dust emissions extend beyond the boundaries of the site during soil disturbances and construction works.

### **PO47**

All development works including the transportation of material to and from the site are managed to not negatively impact the existing road network, the amenity of the surrounding area or the streetscape.

Note - A Traffic Management Plan may be required to demonstrate compliance with this PO. A Traffic Management Plan is to be prepared in accordance with the Manual of Uniform Traffic Control Devices (MUTCD).

Note - A haulage route must be identified and approved by Council where imported or exported material is transported to the site via a road of Local Collector standard or less, and:

- the aggregate volume of imported or exported material is greater than 1000m3; or
- b. the aggregate volume of imported or exported material is greater than 200m3 per day; or
- the proposed haulage route involves a vulnerable land use or shopping centre.

Note - A dilapidation report (including photographs) may be required for the haulage route to demonstrate compliance with this PO.

Editor's note - Where associated with a State-controlled road, further requirements may apply, and approval may be required from the Department of Transport and Main Roads.

#### E47.1

Construction traffic including contractor car parking is controlled in accordance with a traffic management plan, prepared in accordance with the Manual of Uniform Traffic Control Devices (MUTCD) to ensure all traffic movements to and from the site are safe.

### E47.2

All contractor car parking is either provided on the development site, or on an alternative site in the general locality which has been set aside for car parking. Contractors vehicles are generally not to be parked in existing roads.

### E47.3

Any material dropped, deposited or spilled on the road(s) as a result of construction processes associated with the site are to be cleaned at all times.

### E47.4

Construction traffic to and from the development site uses the highest classification streets or roads where a choice of access routes is available. Haul routes for the transport of imported or spoil material and gravel pavement material along Council roads below sub-arterial standard must be approved routes.

Note - The road hierarchy is mapped on Overlay map - Road hierarchy.

Note - A dilapidation report may be required to demonstrate compliance with this E.

# E47.5

Where works are carried out in existing roads, the works must be undertaken so that the existing roads are maintained in a safe and usable condition. Practical

access for residents, visitors and services (including postal deliveries and refuse collection) is retained to existing lots during the construction period and after completion of the works.

Note - A traffic control plan prepared in accordance with the Manual of Uniform Traffic Control Devices (MUTCD) will be required for any works that will affect access, traffic movements or traffic safety in existing roads.

### E47.6

Access to the development site is obtained via an existing lawful access point.

#### **PO48**

All disturbed areas are to be progressively stabilised during construction and the entire site rehabilitated and substantially stabilised at the completion of construction.

Note - Refer to Planning scheme policy - Integrated design for details.

### E48

At completion of construction all disturbed areas of the site are to be:

- topsoiled with a minimum compacted thickness of fifty (50) millimetres;
- b. stabilised using turf, established grass seeding, mulch or sprayed stabilisation techniques.

Note - These areas are to be maintained during any maintenance period to maximise grass coverage.

# **PO49**

Earthworks are undertaken to ensure that soil disturbances are staged into manageable areas.

Note - A site specific Erosion and Sediment Control Plan (ESCP) will be required to demonstrate compliance with this PO. An ESCP is to be prepared in accordance with Planning scheme policy -Stormwater management and Planning scheme policy - Integrated design (Appendix C).

# E49

Soil disturbances are staged into manageable areas of not greater than 3.5 ha.

### **PO50**

The clearing of vegetation on-site:

- is limited to the area of infrastructure works, building areas and other necessary areas for the works; and
- includes the removal of declared weeds and other b. materials which are detrimental to the intended use of the land:
- is disposed of in a manner which minimises C. nuisance and annoyance to existing premises.

Note - No burning of cleared vegetation is permitted.

### E50.1

All native vegetation to be retained on-site is temporarily fenced or protected prior to and during development works.

Note - No parking of vehicles or storage of machinery or goods is to occur in these areas during development works.

### E50.2

Disposal of materials is managed in one or more of the following ways:

all cleared vegetation, declared weeds, stumps, rubbish, car bodies, scrap metal and the like are removed and disposed of in a Council land fill facility; or

all native vegetation with a diameter below 400mm is to be chipped and stored on-site.

Note - The chipped vegetation must be stored in an approved location.

### **PO51**

All development works are carried out at times which minimise noise impacts to residents.

### E51

All development works are carried out within the following times:

- a. Monday to Saturday (other than public holidays) between 6:30am and 6:30pm on the same day;
- no work is to be carried out on Sundays or public b. holidays.

Note - Work outside the above hours may be approved (in writing) where it can be demonstrated that the work will not cause significant inconvenience or disruption to the public, or the work is unlikely to cause annoyance or inconvenience to occupants of adjacent properties.

## **PO52**

Any alteration or relocation in connection with or arising from the development to any service, installation, plant, equipment or other item belonging to or under the control of the telecommunications authority, electricity authorities, the Council or other person engaged in the provision of public utility services is to be carried with the development and at no cost to Council.

No example provided.

### **Earthworks**

### **PO53**

On-site earthworks are designed to consider the visual and amenity impact as they relate to:

- the natural topographical features of the site; a.
- b. short and long-term slope stability;
- C. soft or compressible foundation soils;
- d. reactive soils;
- low density or potentially collapsing soils; e.

### E53.1

All cut and fill batters are provided with appropriate scour, erosion protection and run-off control measures including catch drains at the top of batters and lined batter drains as necessary.

# E53.2

Stabilisation measures are provided, as necessary, to ensure long-term stability and low maintenance of steep slopes and batters.

# E53.3

- f. existing fill and soil contamination that may exist on-site;
- the stability and maintenance of steep slopes and g. batters:
- h. excavation (cut) and fill and impacts on the amenity of adjoining lots (e.g. residential).

Inspection and certification of steep slopes and batters is required by a suitably qualified and experienced RPEQ.

### E53.4

All filling or excavation is contained on-site and is free draining.

### E53.5

All fill placed on-site is:

- limited to that area necessary for the approved use;
- b. clean and uncontaminated (i.e. no building waste, concrete, green waste, actual acid sulfate soils, potential acid sulfate soils or contaminated material etc.).

### E53.6

The site is prepared and the fill placed on-site in accordance with AS3798.

Note - The fill is to be inspected and tested in accordance with Planning scheme policy - Operational works inspection, maintenance and bonding procedures.

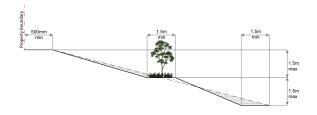
# **PO54**

Embankments are stepped, terraced and landscaped to not adversely impact on the visual amenity of the surrounding area.

# E54

Any embankments more than 1.5 metres in height are stepped, terraced and landscaped.

Figure - Embankment



### **PO55**

Filling or excavation is undertaken in a manner that:

- does not adversely impact on a Council or public sector entity maintained infrastructure or any drainage feature on, or adjacent to the land;
- does not preclude reasonable access to a Council b. or public sector entity maintained infrastructure or any drainage feature on, or adjacent to the land for monitoring, maintenance or replacement purposes.

### E55.1

No filling or excavation is undertaken in an easement issued in favour of Council or a public sector entity.

Note - Public sector entity is defined in Schedule 2 of the Act.

### E55.2

Filling or excavation that would result in any of the following is not carried out on-site:

a reduction in cover over any Council or public Note - Public sector entity is defined in Schedule 2 of the Act. sector entity infrastructure service to less than 600mm: b. an increase in finished surface grade over, or within 1.5m on each side of, the Council or public sector entity infrastructure above that which existed prior to the earthworks being undertaken; prevent reasonable access to Council or public sector entity maintained infrastructure or any drainage feature on, or adjacent to the site for monitoring, maintenance or replacement purposes. Note - Public sector entity is defined in Schedule 2 of the Act. Note - All building work covered by QDC MP1.4 is excluded from this provision. **PO56** No example provided. Filling or excavation does not result in land instability. Note - Steep slopes and batters are inspected and certified for long-term stability by a suitably qualified and experienced geotechnical engineer with RPEQ gualifications. Stabilisation measures are provided, as necessary, to ensure long-term stability and low maintenance. **PO57** No example provided. Filling or excavation does not result in: adverse impacts on the hydrological and hydraulic a. capacity of the waterway or floodway; b. increased flood inundation outside the site; C. any reduction in the flood storage capacity in the floodway; d. any clearing of native vegetation. Note - To demonstrate compliance with this outcome, Planning Scheme Policy - Stormwater Management provides guidance on the preparation of a site based stormwater management plan by a suitably qualified professional. Refer to Planning scheme policy -Integrated design for guidance on infrastructure design and modelling requirements. **PO58** E58 Filling or excavation on the development site is Filling and excavation undertaken on the development undertaken in a manner which does not create or site are shaped in a manner which does not: accentuate problems associated with stormwater flows а prevent stormwater surface flow which, prior to and drainage systems on land adjoining the site. commencement of the earthworks, passed onto the development site, from entering the land; or

- b. redirect stormwater surface flow away from existing flow paths; or
- C. divert stormwater surface flow onto adjacent land, (other than a road), in a manner which:
  - i. concentrates the flow; or
  - ii. increases the flow rates of stormwater over the affected section of the adjacent land above the situation which existed prior to the diversion; or
  - iii. causes actionable nuisance to any person, property or premises.

# **PO59**

All earth retaining structures provide a positive interface with the streetscape and minimise impacts on the amenity of adjoining residents.

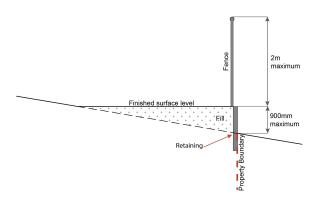
Note - Refer to Planning scheme policy - Residential design for guidance on how to achieve compliance with this performance outcome.

#### E59

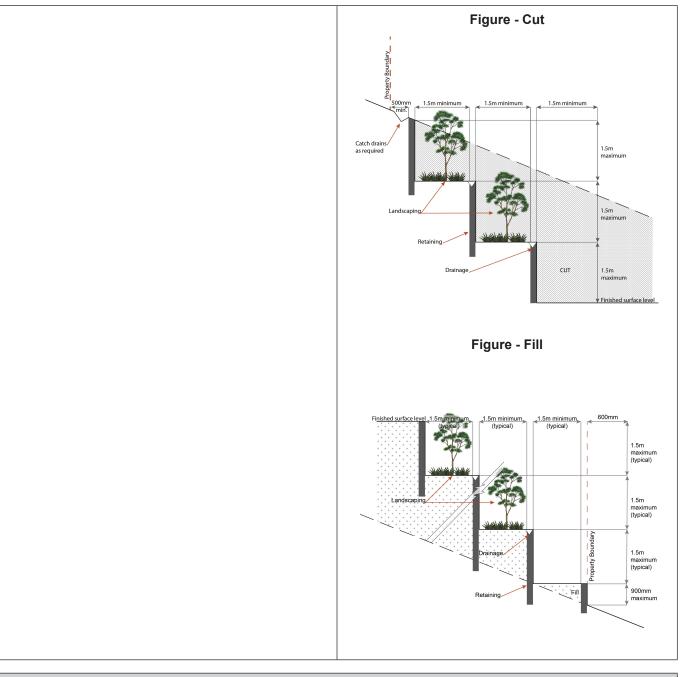
Earth retaining structures:

- are not constructed of boulder rocks or timber; a.
- where height is no greater than 900mm, are b. provided in accordance with Figure - Retaining on a boundary;

Figure - Retaining on boundary



- where height is greater than 900mm but no greater than 1.5m, are to be setback at least the equivalent height of the retaining structure from any property boundary;
- where height is greater than 1.5m, are to be setback and stepped 1.5m vertical: 1.5m horizontal, terraced, landscaped and drained as shown below.



# **Fire Services**

Note - The provisions under this heading only apply if:

- the development is for, or incorporates:
  - reconfiguring a lot for a community title scheme creating 1 or more vacant lots; or
  - material change of use for 2 or more sole occupancy units on the same lot, or within the same community titles scheme; or material change of use for a Tourist park<sup>(84)</sup> with accommodation in the form of caravans or tents; or material change of use for outdoor sales<sup>(54)</sup>, outdoor processing or outdoor storage where involving combustible materials. ii.

#### AND

- none of the following exceptions apply: b.
  - the distributor-retailer for the area has indicated, in its netserv plan, that the premises will not be served by that entity's reticulated
  - every part of the development site is within 60m walking distance of an existing fire hydrant on the distributor-retailer's reticulated water supply network, measured around all obstructions, either on or adjacent to the site.

Note - The provisions under this heading do not apply to buildings that are required by the Building Code of Australia to have a fire hydrant system complying with Australian Standard AS 2419.1 (2005) – Fire Hydrant Installations or other fire fighting facilities which provide equivalent protection.

### **PO60**

Development incorporates a fire fighting system that:

- satisfies the reasonable needs of the fire fighting a. entity for the area;
- is appropriate for the size, shape and topography b. of the development and its surrounds;
- is compatible with the operational equipment C. available to the fire fighting entity for the area;
- d. considers the fire hazard inherent in the materials comprising the development and their proximity to one another:
- considers the fire hazard inherent in the surrounds e. to the development site;
- f. is maintained in effective operating order.

Note - The Queensland Fire and Emergency Services is the entity currently providing the fire fighting function for the urban areas of the Moreton Bay Region.

### E60.1

External fire hydrant facilities are provided on site to the standard prescribed under the relevant parts of Australian Standard AS 2419.1 (2005) – Fire Hydrant Installations.

Note - For this requirement for accepted development, the following are the relevant parts of AS 2419.1 (2005) that may be applicable:

- in regard to the form of any fire hydrant Part 8.5 and Part 3.2.2.1, with the exception that for Tourist parks  $^{(84)}$  or development comprised solely of dwellings and their associated outbuildings, single outlet above-ground hydrants or suitably signposted in-ground hydrants would be an acceptable alternative;
- in regard to the general locational requirements for fire hydrants - Part 3.2.2.2 (a), (e), (f), (g) and (h) as well as Appendix B of AS 2419.1 (2005);
- in regard to the proximity of hydrants to buildings and other facilities - Part 3.2.2.2 (b), (c) and (d), with the exception that:
  - for dwellings and their associated outbuildings, hydrant coverage need only extend to the roof and external walls of those buildings;
  - for caravans and tents, hydrant coverage need only extend to the roof of those tents and caravans; for outdoor sales <sup>(54)</sup>, processing or storage facilities,
  - hydrant coverage is required across the entire area of the outdoor sales <sup>(54)</sup>, outdoor processing and outdoor storage facilities;
- in regard to fire hydrant accessibility and clearance requirements d. - Part 3.5 and, where applicable, Part 3.6.

# E60.2

A continuous path of travel having the following characteristics is provided between the vehicle access point to the site and each external fire hydrant and hydrant booster point on the land:

- an unobstructed width of no less than 3.5m; a.
- h. an unobstructed height of no less than 4.8m;
- constructed to be readily traversed by a 17 tonne HRV fire brigade pumping appliance;
- an area for a fire brigade pumping appliance to stand within 20m of each fire hydrant and 8m of each hydrant booster point.

# E60.3

On-site fire hydrant facilities are maintained in effective operating order in a manner prescribed in *Australian* Standard AS1851 (2012) - Routine service of fire protection systems and equipment.

**PO61** E61 On-site fire hydrants that are external to buildings, as well as the available fire fighting appliance access routes to those hydrants, can be readily identified at all times from, or at, the vehicular entry point to the development site.

For development that contains on-site fire hydrants external to buildings:

- those external hydrants can be seen from the vehicular entry point to the site; or
- b. a sign identifying the following is provided at the vehicular entry point to the site:
  - i. the overall layout of the development (to scale);
  - ii. internal road names (where used);
  - all communal facilities (where provided); iii.
  - the reception area and on-site manager's office iv (where provided);
  - external hydrants and hydrant booster points;
  - physical constraints within the internal roadway system which would restrict access by fire fighting appliances to external hydrants and hydrant booster points.

Note - The sign prescribed above, and the graphics used are to be:

- in a form; a.
- h of a size:
- illuminated to a level; C.

which allows the information on the sign to be readily understood, at all times, by a person in a fire fighting appliance up to 4.5m from the sign.

## **PO62**

Each on-site fire hydrant that is external to a building is signposted in a way that enables it to be readily identified at all times by the occupants of any firefighting appliance traversing the development site.

## E62

For development that contains on-site fire hydrants external to buildings, those hydrants are identified by way of marker posts and raised reflective pavement markers in the manner prescribed in the technical note Fire hydrant indication system produced by the Queensland Department of Transport and Main Roads.

Note - Technical note Fire hydrant indication system is available on the website of the Queensland Department of Transport and Main

# Use specific criteria

### Industrial uses

**PO63** 

E63

Ancillary office <sup>(53)</sup> , administration functions and customer service components do not compromise the primary use of the site or industrial activities in the precinct.		The combined area of ancillary non-industrial activities, including but not limited to offices and administration functions, does not exceed 20% of the GFA or 200m², whichever is the lesser.	
PO64  Ancillary retail or showroom <sup>(78)</sup> areas do not compromise the primary use of the site or industrial activities in the precinct and does not affect the viability, role or function of the region's centres network.		The combined area for the display and retail sale of commodities, articles or goods resulting from the industria processes on the site does not exceed 5% of the GFA or 100m², whichever is the lesser.	
Buil	dings directly adjoining non-industrial zoned land:		
a.	are compatible with the character of the adjoining area;		
b.	minimise overlooking and overshadowing;		
C.	maintain privacy;		
d.	do not cause significant loss of amenity to neighbouring residents by way of noise, vibration, odour, lighting, traffic generation and hours of operation.		
PO	66	No example provided.	
Low impact industry <sup>(42)</sup> or Service industry <sup>(73)</sup> activities:			
a.	are only located on the periphery of the precinct;		
b.	are only located on Collector, Sub-arterial or Arterial roads;		
C.	do not constrain the function or viability of existing and future industrial uses in the precinct;		
d.	do not generate excessive non-industrial traffic.		
	te - Refer to Overlay map - Road hierarchy for road ssifications.		
PO	67	No example provided.	
Higl	h impact industry <sup>(34)</sup> activities:		
a.	are located at least 500m from a sensitive land use or sensitive zone;		

b. do not compromise the function or viability of existing and future industrial uses in the precinct;	
c. do not adversely impact on the amenity, health or safety of adjoining industrial workers or sensitive land uses.	
PO68	No example provided.
Non-industrial components of buildings (including offices and retail areas) are to be located at the road frontage to assist in activating the frontage and designed as high quality architectural features incorporating entry area elements such as forecourts, awnings and the architectural treatment of roof lines and fascias.	
Home based business <sup>(35)</sup>	
PO69	No example provided.
Home based business(s) <sup>(35)</sup> :	
a. is subordinate in size and function to the primary use on the site being residential;	
b. are of a scale and intensity that does not result in adverse visual or nuisance impacts on the residents in adjoining or nearby dwellings;	
c. results in a vehicular and pedestrian traffic generation consistent with that reasonably expected in the surrounding area;	
d. are suitably screened to ensure adverse visual impacts on the residents in adjoining or nearby dwellings are minimised;	
e. sufficiently separated from adjoining properties so development does not result in adverse visual, noise, or nuisance impacts on adjoining residents.	
PO70	E70.1
On-site display and sales of goods is limited to the activities being undertaken from the site and does not result in:	Only goods grown, produced or manufactured on-site are sold from the site.
a. the display and sale of goods being viewed from outside of the site;	E70.2  Display of goods grown, produced or manufactured on site.
b. overall development on the site having a predominantly commercial appearance.	Display of goods grown, produced or manufactured on-site are contained within a dwelling or on-site structure and the display of goods is not visible from the boundary of the site.
Caretaker's accommodation <sup>(10)</sup>	
PO71	E71

# Caretaker's accommodation (10): Development of Caretaker's accommodation (10): does not compromise the productivity of the use has a maximum GFA is 80m<sup>2</sup>; occurring on-site and in the surrounding area; does not gain access from a separate driveway to that of the industrial use: b. is domestic in scale: provides a minimum 16m<sup>2</sup> of private open space C. provides adequate car parking provisions C. exclusive on the primary use of the site; directly accessible from a habitable room; d. is safe for the residents; d. provides car parking in accordance with Schedule 7 - Car parking. has regard to the open space and recreation e. needs of the residents. Sales office<sup>(72)</sup> **PO72** E72 Sales office<sup>(72)</sup> remain temporary in duration and A Sales office<sup>(72)</sup> is located on the site for no longer than demonstrates a relationship to the land or buildings 2 years. being displayed or sold. Other Non-industrial uses **PO73** No example provided. With the exception of Caretaker's accommodation (10). residential and other sensitive land uses do not establish within the precinct. **PO74** No example provided. Non-industrial uses: are consolidated with existing non-industrial uses in the precinct: do not compromise the viability, role or function b. of the region's centres network; are not subject to adverse amenity impacts, or risk to health from industrial activities; do not constrain the function or viability of existing d. or future industrial activities in the surrounding are not located on Collector or Local roads. e. Note - The submission of a Hazard and Nuisance Mitigation Plan may be required to justify compliance with this outcome. Note - Refer to Overlay map - Road hierarchy for road classifications

**PO75** 

No example provided.

Traffic generated by non-industrial uses does not detrimentally impact upon the operation and functionality of the external road network.

# Major electricity infrastructure<sup>(43)</sup>, Substation<sup>(80)</sup> and Utility installation<sup>(86)</sup>

#### **PO76**

The development does not have an adverse impact on the visual amenity of a locality and is:

- high quality design and construction; a.
- b. visually integrated with the surrounding area;
- not visually dominant or intrusive; C.
- d. located behind the main building line;
- below the level of the predominant tree canopy e. or the level of the surrounding buildings and structures:
- f. camouflaged through the use of colours and materials which blend into the landscape;
- treated to eliminate glare and reflectivity; g.
- h. landscaped;
- otherwise consistent with the amenity and character of the zone and surrounding area.

### E76.1

Development is designed to minimise surrounding land use conflicts by ensuring infrastructure, buildings. structures and other equipment:

- a. are enclosed within buildings or structures;
- b. are located behind the main building line;
- have a similar height, bulk and scale to the C. surrounding fabric;
- d. have horizontal and vertical articulation applied to all exterior walls.

### E76.2

A minimum 3m wide strip of dense planting is provided around the outside of the fenced area, between the development and street frontage, side and rear boundaries.

#### **PO77**

Infrastructure does not have an impact on pedestrian health and safety.

#### **E77**

Access control arrangements:

- do not create dead-ends or dark alleyways adjacent to the infrastructure:
- b. minimise the number and width of crossovers and entry points;
- provide safe vehicular access to the site; C.
- do not utilise barbed wire or razor wire.

### **PO78**

All activities associated with the development occur within an environment incorporating sufficient controls to ensure the facility:

- generates no audible sound at the site boundaries a. where in a residential setting; or
- meet the objectives as set out in the b. Environmental Protection (Noise) Policy 2008.

### **E78**

All equipment which produces audible or non-audible sound is housed within a fully enclosed building incorporating sound control measures sufficient to ensure noise emissions meet the objectives as set out in the Environmental Protection (Noise) Policy 2008.

# Telecommunications facility<sup>(81)</sup>

Editor's note - In accordance with the Federal legislation Telecommunications facilities (81) must be constructed and operated in a manner that will not cause human exposure to electromagnetic radiation beyond the limits outlined in the Radiocommunications (Electromagnetic Radiation - Human Exposure) Standard 2003 and Radio Protection Standard for Maximum Exposure Levels to Radiofrequency Fields - 3Khz

PO79	E79.1

Telecommunications facilities (81) are co-located with existing telecommunications facilities (81), Utility installation<sup>(86)</sup>, Major electricity infrastructure<sup>(43)</sup> or Substation<sup>(80)</sup> if there is already a facility in the same coverage area.

New telecommunication facilities (81) are co-located on existing towers with new equipment shelter and associated structures positioned adjacent to the existing shelters and structures.

### E79.2

If not co-located with an existing facility, all co-location opportunities have been investigated and fully exhausted within a 2km radius of the site.

#### **PO80**

A new Telecommunications facility (81) is designed and constructed to ensure co-masting or co-siting with other carriers both on the tower or pole and at ground level is possible in the future.

### E80

A minimum area of 45m<sup>2</sup> is available to allow for additional equipment shelters and associated structures for the purpose of co-locating on the proposed facility.

### **PO81**

Telecommunications facilities (81) do not conflict with lawful existing land uses both on and adjoining the site.

### E81

The development results in no net reduction in the minimum quantity and standard of landscaping, private or communal open space or car parking spaces required under the planning scheme or under an existing development approval.

### **PO82**

The Telecommunications facility (81) does not have an adverse impact on the visual amenity of a locality and is:

- a. high quality design and construction;
- b. visually integrated with the surrounding area:
- not visually dominant or intrusive; C.
- d. located behind the main building line;
- below the level of the predominant tree canopy e. or the level of the surrounding buildings and structures:
- f. camouflaged through the use of colours and materials which blend into the landscape;
- treated to eliminate glare and reflectivity; g.
- h. landscaped;
- otherwise consistent with the amenity and i. character of the zone and surrounding area.

### E82.1

Where in an urban area, the development does not protrude more than 5m above the level of the existing treeline, prominent ridgeline or building rooftops in the surrounding townscape.

#### E82.2

In all other areas towers do not exceed 35m in height.

# E82.3

Towers, equipment shelters and associated structures are of a design, colour and material to:

- reduce recognition in the landscape;
- reduce glare and reflectivity. b.

### E82.4

All structures and buildings are setback behind the main building line and a minimum of 10m from side and rear boundaries, except where in the Industry and Extractive industry zones, the minimum side and rear setback is 3m.

Where there is no established building line the facility is located at the rear of the site.

### E82.5

The facility is enclosed by security fencing or by other means to ensure public access is prohibited. E82.6 A minimum 3m wide strip of dense planting is provided around the perimeter of the fenced area, between the facility and street frontage and adjoining uses. Note - Landscaping is provided in accordance with Planning scheme policy - Integrated design. Note - Council may require a detailed landscaping plan, prepared by a suitably qualified person, to ensure compliance with Planning scheme policy - Integrated design. **PO83** E83 Lawful access is maintained to the site at all times that An Access and Landscape Plan demonstrates how 24 hour does not alter the amenity of the landscape or vehicular access will be obtained and maintained to the surrounding uses. facility in a manner that is appropriate to the site's context. **PO84** E84 All activities associated with the development occur All equipment comprising the Telecommunications facility<sup>(81)</sup> which produces audible or non-audible sound is within an environment incorporating sufficient controls to ensure the facility generates no audible sound at the housed within a fully enclosed building incorporating sound site boundaries where in a residential setting. control measures sufficient to ensure no noise from this equipment can be heard, or felt at the site boundary. Values and constraints criteria Note - The relevant values and constraints criteria do not apply where the development is consistent with a current Development permit for Reconfiguring a lot or Material change of use or Operational work, where that approval has considered and addressed (e.g. through a development footprint plan (or similar in the case of Landslide hazard) or conditions of approval) the identified value or constraint under this planning scheme. Acid sulfate soils - (refer Overlay map - Acid sulfate soils to determine if the following assessment criteria apply) Note - To demonstrate achievement of the performance outcome, an Acid sulfate soils (ASS) investigation report and soil management plan is prepared by a qualified engineer. Guidance for the preparation an ASS investigation report and soil management plan is provided in Planning scheme policy - Acid sulfate soils.

### **PO85**

Development avoids disturbing acid sulfate soils. Where development disturbs acid sulfate soils, development:

# E85

Development does not involve:

- is managed to avoid or minimise the release of surface or groundwater flows containing acid and metal contaminants into the environment;
- b. protects the environmental and ecological values and health of receiving waters;
- protects buildings and infrastructure from the effects of acid sulfate soils.
- excavation or otherwise removing of more than 100m<sup>3</sup> of soil or sediment where below than 5m Australian Height datum AHD; or
- filling of land of more than 500m<sup>3</sup> of material with an b. average depth of 0.5m or greater where below the 5m Australian Height datum AHD.

# Environmental areas (refer Overlay map - Environmental areas to determine if the following assessment criteria apply)

Note - The following are excluded from the native clearing provisions of this planning scheme:

- Clearing of native vegetation located within an approved development footprint;
- Clearing of native vegetation within 10m from a lawfully established building reasonably necessary for emergency access or immediately b. required in response to an accident or emergency;
- C. Clearing of native vegetation reasonably necessary to remove or reduce the risk vegetation poses to serious personal injury or damage to infrastructure;
- d Clearing of native vegetation reasonably necessary to construct and maintain a property boundary fence and not exceed 4m in width either side of the fence where in the Rural, Rural residential and Environmental Management and Conservation zones. In any other zone, clearing is not to exceed 2m in width either side of the fence;
- Clearing of native vegetation reasonably necessary for the purpose of maintenance or works within a registered easement for public e. infrastructure or drainage purposes;
- Clearing of native vegetation in accordance with a bushfire management plan prepared by a suitably qualified person, submitted to and accepted by Council;
- Clearing of native vegetation associated with removal of recognised weed species, maintaining existing open pastures and cropping g. land, windbreaks, lawns or created gardens;
- Grazing of native pasture by stock; h.
- Native forest practice where accepted development under Part 1, 1.7.7 Accepted development.

Note - Definition for native vegetation is located in Schedule 1 Definitions.

Note - Native vegetation subject to this criteria primarily comprises of matters of national environmental significance (MNES), matters of state environmental significance (MSES). They also comprise some matters of local environmental significance (MLES). A MLES is defined in Schedule 1.2, Administrative definitions. A list of the elements that apply to the mapped MSES and MLES is provided in Appendix 1 of the Planning scheme policy - Environmental areas.

Editors' Note - The accuracy of overlay mapping can be challenged through the development application process (code assessable development) or by way of a planning scheme amendment. See Council's website for details.

Editors' Note - When clearing native vegetation within a MSES area, you may still require approval from the State government.

# Vegetation clearing, ecological value and connectivity

### **PO86**

Development avoids locating in a High Value Area or a Value Offset Area. Where it is not practicable or reasonable for development to avoid establishing in these areas, development must ensure that:

the quality and integrity of the biodiversity and a. ecological values inherent to a High Value Area No example provided.

- and a Value Offset Area is maintained and not lost or degraded;
- on-site mitigation measures, mechanisms or processes are in place demonstrating the quality and integrity of the biodiversity and ecological values inherent to a High Value Area and a Value Offset Area are maintained. For example, this can be achieved through replacement, restoration or rehabilitation planting as part of any proposed covenant, the development of a Vegetation Management Plan, a Fauna Management Plan, and any other on-site mitigation options identified in the Planning scheme policy - Environmental
- \* Editor's note This is not a requirement for an environmental offset under the Environmental Offsets Act 2014.

#### **PO87**

Development provides for safe, unimpeded, convenient and ongoing wildlife movement and establishes and maintains habitat connectivity by:

- a. retaining habitat trees;
- b. providing contiguous patches of habitat;
- C. provide replacement and rehabilitation planting to improve connectivity;
- d. avoiding the creation of fragmented and isolated patches of habitat;
- providing wildlife movement infrastructure. e.

Editor's note - Wildlife movement infrastructure may include refuge poles, tree boulevarding, 'stepping stone' vegetation plantings, tunnels, appropriate wildlife fencing; culverts with ledges, underpasses, overpasses, land bridges and rope bridges. Further information is provided in Planning scheme policy – Environmental No example provided.

# Vegetation clearing and habitat protection

#### **PO88**

Development ensures that the biodiversity quality and integrity of habitats is not adversely impacted upon but maintained and protected.

No example provided.

### **PO89**

Development does not result in the net loss or degradation of habitat value in a High Value Area or a Value Offset Area. Where development does result in the loss or degradation of habitat value, development will:

rehabilitate, revegetate, restore and enhance an area to ensure it continues to function as a viable and healthy habitat area;

No example provided.

b. provide replacement fauna nesting boxes in the event of habitat tree loss in accordance with Planning scheme policy - Environmental areas; undertake rehabilitation, revegetation and C. restoration in accordance with the South East Queensland Ecological Restoration Framework. **PO90** No example provided. Development ensures safe, unimpeded, convenient and ongoing wildlife movement and habitat connectivity by: a. providing contiguous patches of habitat; avoiding the creation of fragmented and isolated b. patches of habitat; providing wildlife movement infrastructure; C. d. providing replacement and rehabilitation planting to improve connectivity. Vegetation clearing and soil resource stability **PO91** No example provided. Development does not: a. result in soil erosion or land degradation; leave cleared land exposed for an unreasonable b. period of time but is rehabilitated in a timely manner. Vegetation clearing and water quality **PO92** No example provided. Development maintains or improves the quality of groundwater and surface water within, and downstream, of a site by: ensuring an effective vegetated buffers and a. setbacks from waterbodies is retained to achieve natural filtration and reduce sediment loads: avoiding or minimising changes to landforms to b. maintain hydrological water flows; C. adopting suitable measures to exclude livestock from entering a waterbody where a site is being used for animal husbandry<sup>(4)</sup> and animal keeping<sup>(5)</sup> activities. **PO93** No example provided. Development minimises adverse impacts of stormwater run-off on water quality by: a. minimising flow velocity to reduce erosion; b. minimising hard surface areas; C. maximising the use of permeable surfaces; d. incorporating sediment retention devices; minimising channelled flow. e.

# Vegetation clearing and access, edge effects and urban heat island effects **PO94** No example provided. Development retains safe and convenient public access in a manner that does not result in the adverse edge effects or the loss or degradation of biodiversity values within the environment. **PO95** No example provided. Development minimises potential adverse 'edge effects' on ecological values by: providing dense planting buffers of native а vegetation between a development and environmental areas; b. retaining patches of native vegetation of greatest possible size where located between a development and environmental areas; restoring, rehabilitating and increasing the size C. of existing patches of native vegetation; d. ensuring that buildings and access (public and vehicle) are setback as far as possible from environmental areas and corridors; e. landscaping with native plants of local origin. Editor's note - Edge effects are factors of development that go to detrimentally affecting the composition and density of natural populations at the fringe of natural areas. Factors include weed invasion, pets, public and vehicle access, nutrient loads, noise and light pollution, increased fire frequency and changes in the groundwater and surface water flow. **PO96** No example provided. Development avoids adverse microclimate change and does not result in increased urban heat island effects. Adverse urban heat island effects are minimised by: a. pervious surfaces: b. providing deeply planted vegetation buffers and green linkage opportunities; landscaping with local native plant species to C. achieve well-shaded urban places; d. increasing the service extent of the urban forest Vegetation clearing and Matters of Local Environmental Significance (MLES) environmental offsets **PO97** No example provided. Where development results in the unavoidable loss of native vegetation within a Value Offset Area MLES waterway buffer or a Value Offset Area MLES wetland buffer, an environmental offset is required in accordance with the environmental offset requirements identified in Planning scheme policy - Environmental areas.

Editor's note - For MSES Koala Offsets, the environmental offset provisions in schedule 11 of the Regulation, in combination with the requirements of the Environmental Offset Act 2014, apply.

# Extractive resources separation area (refer Overlay map - Extractive resources (separation area) to determine if the following assessment criteria apply)

Note - To demonstrate achievement of the performance outcomes, a noise impact assessment report is prepared by a suitably qualified person. Guidance to preparing noise impact assessment report is provided in Planning scheme policy - Noise.

### **PO98**

Development does not increase the number of people living in the Extractive Resources separation area.

### E98

One dwelling house<sup>(22)</sup> permitted per lot within separation

### **PO99**

### Development:

- does not introduce or increase uses that are sensitive to the impacts of an Extractive industry<sup>(27)</sup>:
- is compatible with the operation of an Extractive b. industry<sup>(27)</sup>:
- does not comprise or undermine the function and integrity of the separation area in providing a buffer between key extractive and processing activities and sensitive, incompatible uses outside the separation area.

### E99

Development within the separation area does not include the following activities:

- Caretaker's accommodation (10); a.
- Community residence (16): b.
- Dual occupancy<sup>(21)</sup>; C.
- Dwelling unit<sup>(23)</sup>; d.
- Hospital (36): e.
- Rooming accommodation (69): f.
- Multiple dwelling<sup>(49)</sup>; g.
- Non-resident workforce accommodation (52); h.
- Relocatable home park<sup>(62)</sup>; i.
- Residential care facility<sup>(65)</sup>: j.
- Resort complex<sup>(66)</sup>; k.
- Retirement facility<sup>(67)</sup>; I.
- Rural workers' accommodation<sup>(71)</sup>; m.
- Short-term accommodation<sup>(77)</sup>; n.
- Tourist park<sup>(84)</sup>. ο.

### PO100

Habitable rooms achieve the noise levels listed in Schedule 1 Acoustic Quality Objectives, Environmental Protection (Noise) Policy 2008 and provides a safe. healthy and disturbance free living environment.

# E100

All habitable rooms within the separation area are:

- acoustically insulated to achieve the noise levels listed in Schedule 1 Acoustic Quality Objectives, Environmental Protection (Noise) Policy 2008;
- provided with mechanical ventilation. b.

# PO101

Development provides open space areas for passive recreation in a manner where impacts from key extractive/processing activities, particularly noise, is minimised.

# E101

Private open space areas are separated from the resource processing area by buildings or a 1.8m high solid structure.

Extractive resources transport routes (refer Overlay map - Extractive resources (transport route and buffer) to determine if the following assessment criteria apply)

PO102 E102

# Development:

- does not increase in the number of people living in close proximity to a transport route and being subject to the adverse effects from the transportation route;
- b. does not result in the establishment of uses that are incompatible with the operation of Extractive resources transport routes;
- adopts design and location measures to C. satisfactorily mitigate the potential adverse impacts associated with transportation routes on sensitive land uses. Such measures include, but are not limited to:
  - locating the furthest distance possible from i. the transportation route;
  - ii. habitable rooms being located the furthest from the transportation route;
  - iii. shielding and screening private outdoor recreation space from the transportation routes.

The following uses are not located within the 100m wide transport route buffer:

- Caretaker's accommodation (10), except where located a. in the Extractive industry zone;
- Community residence<sup>(16)</sup>; b.
- Dual occupancy<sup>(21)</sup>; C.
- Dwelling house<sup>(22)</sup>: d.
- Dwelling unit<sup>(23)</sup>; e.
- Hospital<sup>(36)</sup>: f.
- Rooming accommodation (69); g.
- Multiple dwelling<sup>(49)</sup>; h.
- Non-resident workforce accommodation (52); i.
- Relocatable home park (62); j.
- Residential care facility<sup>(65)</sup>; k.
- Resort complex<sup>(66)</sup>: I.
- Retirement facility<sup>(67)</sup>; m.
- Rural workers' accommodation<sup>(71)</sup>; n.
- Short-term accommodation<sup>(77)</sup>: 0.
- Tourist park<sup>(84)</sup>. p.

# PO103

# Development:

- does not adversely impact upon the efficient and a. effective transportation of extractive material along a transportation route:
- b. ensures vehicle access and egress along transportation routes are designed and located to achieve a high degree of safety, having good
- utilises existing vehicle access points and where existing vehicle access points are sub-standard or poorly formed, they are upgraded to an appropriate standard.

# E103.1

Development does not create a new vehicle access point onto an Extractive resources transport route.

# E103.2

A vehicle access point is located, designed and constructed in accordance with Planning scheme policy - Integrated design.

# Heritage and landscape character (refer Overlay map - Heritage and landscape character to determine if the following assessment criteria apply)

Note - To assist in demonstrating achievement of heritage performance outcomes, a heritage impact assessment report prepared by a suitably qualified person verifying the proposed development is in accordance with The Australia ICOMOS Burra Charter.

Note - To assist in demonstrating achievement of this performance outcome, a Tree Assessment report is prepared by a qualified arborist in accordance with Planning scheme policy - Heritage and landscape character. The tree assessment report will also detail the measures adopted in accordance with AS 4970-2009 Protection of trees on development sites.

### **PO104**

### Development will:

- not diminish or cause irreversible damage to the cultural heritage values present on the site, and associated with a heritage site, object or building;
- b. protect the fabric and setting of the heritage site, object or building;

# E104

Development is for the preservation, maintenance, repair and restoration of a site, object or building of cultural heritage value.

Note - A cultural heritage conservation management plan for the preservation, maintenance, repair and restoration of a site, object or building of cultural heritage value is prepared in accordance with

- C. be consistent with the form, scale and style of the heritage site, object or building;
- d. utilise similar materials to those existing, or where this is not reasonable or practicable, neutral materials and finishes;
- incorporate complementary elements, detailing e. and ornamentation to those present on the heritage site, object or building;
- f. retain public access where this is currently provided.

Planning scheme policy - Heritage and landscape character. The plan is sent to, and approved by Council prior to the commencement of any preservation, maintenance, repair and restoration works.

### PO105

Demolition and removal is only considered where:

- a report prepared by a suitably qualified conservation architect or conservation engineer demonstrates that the building is structurally unsound and is not reasonably capable of economic repair; or
- b. demolition is confined to the removal of outbuildings, extensions and alterations that are not part of the original structure; or
- limited demolition is performed in the course of C. repairs, maintenance or restoration; or
- d. demolition is performed following a catastrophic event which substantially destroys the building or object.

No example provided.

### PO106

Where development is occurring on land adjoining a site of cultural heritage value, the development is to be sympathetic to and consistent with the cultural heritage values present on the site and not result in their values being eroded, degraded or unreasonably obscured from public view.

No example provided.

### PO107

Development does not adversely impact upon the health and vitality of significant trees. Where development occurs in proximity to a significant tree, construction measures and techniques as detailed in AS 4970-2009 Protection of trees on development sites are adopted to ensure a significant tree's health, wellbeing and vitality.

Significant trees are only removed where they are in a poor state of health or where they pose a health and safety risk to persons or property. A Tree Assessment report prepared by a suitably qualified arborist confirming a tree's state of health is required to demonstrate achievement of this performance outcome.

### E107

Development does:

- a. not result in the removal of a significant tree;
- b. not occur within 20m of a protected tree;
- involve pruning of a tree in accordance with Australian C. Standard AS 4373-2007 – Pruning of Amenity Trees.

Infrastructure buffers (refer Overlay map - Infrastructure buffers to determine if the following assessment criteria apply)

### **PO108**

Odour sensitive development is separated from Wastewater treatment plants so they are not adversely affected by odour emission or other air pollutant impacts.

### E108

The following uses are not located within a wastewater treatment site buffer:

- Caretaker's accommodation<sup>(10)</sup>; a.
- Community residence (16); b.
- Dual occupancy<sup>(21)</sup>; C.
- Dwelling house (22) d.
- Dwelling unit<sup>(23)</sup>; e.
- Hospital (36); f.
- Rooming accommodation<sup>(69)</sup>; g.
- Multiple dwelling<sup>(49)</sup>; h.
- Non-resident workforce accommodation (52); i.
- Relocatable home park (62); j.
- Residential care facility<sup>(65)</sup>. k.
- Resort complex<sup>(66)</sup>: Ι.
- Retirement facility (67); m.
- Rural workers' accommodation<sup>(71)</sup>; n.
- Short-term accommodation<sup>(77)</sup>;
- Tourist park (84). p.

# PO109

Odour sensitive development is separated from landfill sites so they are not adversely affected by odour emission or other air pollutant impacts.

# E109

The following uses are not located within a Landfill buffer:

- Caretaker's accommodation (10); a.
- Community residence<sup>(16)</sup>: b.
- Dual occupancy<sup>(21)</sup>; C.
- Dwelling house<sup>(22)</sup>; d.
- Dwelling unit<sup>(23)</sup>; e.
- Hospital (36): f.
- Rooming accommodation (69); g.
- Multiple dwelling<sup>(49)</sup>; h.
- Non-resident workforce accommodation (52); i.
- Relocatable home park (62); j.
- Residential care facility<sup>(65)</sup>; k.
- Resort complex<sup>(66)</sup>: I.
- Retirement facility<sup>(67)</sup>; m.
- Rural workers' accommodation<sup>(71)</sup>; n.
- Short-term accommodation<sup>(77)</sup>; Ο.
- Tourist park (84). p.

# **PO110**

Habitable rooms within an Electricity supply substation buffer are located a sufficient distance from substations<sup>(80)</sup> to avoid any potential adverse impacts on personal health and wellbeing from electromagnetic fields.

Note - Habitable room is defined in the Building Code of Australia (Volume 1)

# E110

Habitable rooms:

- are not located within an Electricity supply substation buffer: and
- proposed on a site subject to an Electricity supply supply substation (80) are acoustically insulted to achieve the noise levels listed in Schedule 1, Acoustic Quality Objectives, Environmental Protection (Noise) Policy 2008.

Note - Habitable room is defined in the Building Code of Australia (Volume 1)

# PO111 No example provided. Habitable rooms within an Electricity supply substation buffer are acoustically insulated from the noise of a substation<sup>(80)</sup> to achieve the noise levels listed in Schedule 1 Acoustic Quality Objectives, Environmental Protection (Noise) Policy 2008 and provides a safe. healthy and disturbance free living environment. Note - To demonstrate achievement of the performance outcome, a noise impact assessment report is prepared by a suitably qualified person. Guidance to preparing an noise impact assessment report is provided in Planning scheme policy – Noise. Note - Habitable room is defined in the Building Code of Australia (Volume 1) PO112 E112 Development within a High voltage electricity line buffer Development does not involve the construction of any provides adequate buffers to high voltage electricity buildings or structures within a High voltage electricity line lines to protect amenity and health by ensuring buffer. development: is located and designed to avoid any potential adverse impacts on personal health and wellbeing from electromagnetic fields in accordance with the principle of prudent avoidance; is located and designed in a manner that b. maintains a high level of security of supply; is located and design so not to impede upon the C. functioning and maintenance of high voltage electrical infrastructure. PO113 E113 Development within a Pumping station buffer is located, Development does not involve the construction of any designed and constructed to: buildings or structures within a Pumping station buffer. ensure that odour or other air pollutant impacts on the amenity of the development met the air quality of objectives in the Environmental Protection (Air) Policy 2008; ensure that noise impacts on the amenity of the development met the indoor noise objectives set out in the Environmental Protection (Noise) Policy 2008. Overland flow path (refer Overlay map - Overland flow path to determine if the following assessment criteria apply) Note - The applicable river and creek flood planning levels associated with defined flood event (DFE) within the inundation area can be obtained by requesting a flood check property report from Council. PO114 No example provided.

Development:

minimises the risk to persons from overland flow; a. b. does not increase the potential for damage from overland flow either on the premises or other premises, public land, watercourses, roads or infrastructure. **PO115** No example provided. Development: maintains the conveyance of overland flow a. predominantly unimpeded through the premises for any event up to and including the 1% AEP for the fully developed upstream catchment; b. does not concentrate, intensify or divert overland flow onto an upstream, downstream or surrounding property. Note - A report from a suitably qualified Registered Professional Engineer Queensland is required certifying that the development does not increase the potential for significant adverse impacts on an upstream, downstream or surrounding premises. Note - Reporting to be prepared in accordance with Planning scheme policy - Flood hazard, Coastal hazard and Overland flow. PO116 No example provided. Development does not: directly, indirectly or cumulatively cause any a. increase in overland flow velocity or level; increase the potential for flood damage from b. overland flow either on the premises or other premises, public lands, watercourses, roads or infrastructure. Note - Open concrete drains greater than 1m in width are not an acceptable outcome, nor are any other design options that may increase scouring. **PO117** E117 Development ensures that public safety and the risk to Development ensures that a hazardous chemical is not the environment are not adversely affected by a located or stored in an Overland flow path area. detrimental impact of overland flow on a hazardous chemical located or stored on the premises. Note - Refer to the Work Health and Safety Act 2011 and associated Regulation and Guidelines, the Environmental Protection Act 1994 and the relevant building assessment provisions under the Building Act 1975 for requirements related to the manufacture and storage of hazardous substances. **PO118** E118 Development which is not in a Rural zone ensures that Development which is not in a Rural zone that an overland overland flow is not conveyed from a road or public flow paths and drainage infrastructure is provided to convey

overland flow from a road or public open space area away

from a private lot.

open space onto a private lot.

#### **PO119**

Development ensures that inter-allotment drainage infrastructure, overland flow paths and open drains through private property cater for overland flows for a fully developed upstream catchment and are able to be easily maintained.

Note - A report from a suitably qualified Registered Professional Engineer Queensland is required certifying that the development does not increase the potential for significant adverse impacts on an upstream, downstream or surrounding premises.

Note - Reporting to be prepared in accordance with Planning scheme policy - Flood hazard, Coastal hazard and Overland flow

#### E119.1

Development ensures that roof and allotment drainage infrastructure is provided in accordance with the following relevant level as identified in QUDM:

- Urban area Level III; a.
- Rural area N/A; b.
- C. Industrial area - Level V;
- d. Commercial area - Level V.

#### E119.2

Development ensures that inter-allotment drainage infrastructure is designed to accommodate any event up to and including the 1% AEP for the fully developed upstream catchment.

## PO120

Development protects the conveyance of overland flow such that an easement for drainage purposes is provided over:

- a stormwater pipe if the nominal pipe diameter exceeds 300mm;
- b. an overland flow path where it crosses more than one premises;
- inter-allotment drainage infrastructure.

Note - Refer to Planning scheme policy - Integrated design for details and examples.

Note - Stormwater Drainage easement dimensions are provided in accordance with Section 3.8.5 of QUDM.

No example provided.

# Additional criteria for development for a Park<sup>(57)</sup>

#### PO121

Development for a Park<sup>(57)</sup> ensures that the design and layout responds to the nature of the overland flow affecting the premises such that:

- a. public benefit and enjoyment is maximised;
- b. impacts on the asset life and integrity of park structures is minimised;
- C. maintenance and replacement costs are minimised.

# E121

Development for a Park<sup>(57)</sup> ensures works are provided in accordance with the requirements set out in Appendix B of the Planning scheme policy - Integrated design.

# Riparian and wetland setbacks

**PO122** 

E122

# 6 Zones

Development provides and maintains a suitable setback from waterways and wetlands that protects natural and environmental values. This is achieved by recognising and responding to the following matters:

- a. impact on fauna habitats;
- b. impact on wildlife corridors and connectivity;
- C. impact on stream integrity;
- impact of opportunities for revegetation and d. rehabilitation planting;
- edge effects. e.

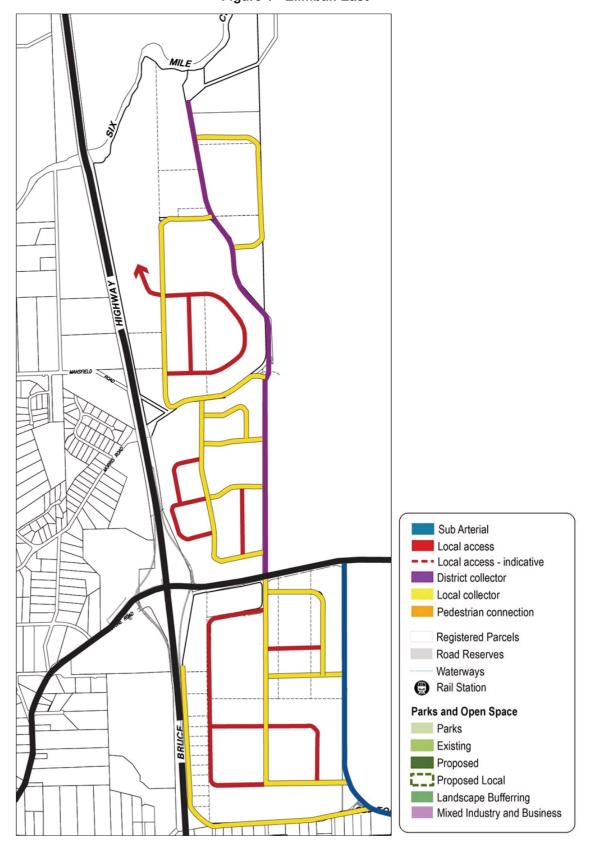
Development does not occur within:

- 50m from top of bank for W1 waterway and drainage
- b. 30m from top of bank for W2 waterway and drainage
- C. 20m from top of bank for W3 waterway and drainage
- d. 100m from the edge of a Ramsar wetland, 50m from all other wetlands.

Note - W1, W2 and W3 waterway and drainage lines, and wetlands are mapped on Schedule 2, Section 2.5 Overlay Maps - Riparian and wetland setbacks.

# Movement network figures

Figure 1 - Elimbah East



# 6.2.7.4 Restricted industry precinct

## 6.2.7.4.1 Purpose - Restricted industry precinct

- The purpose of the code will be achieved through the following overall outcomes for the Restricted industry precinct:
  - A range of industrial activities are established in the precinct which are of a scale and intensity where the potential of adverse impacts on sensitive receptors requires a location significantly separated from incompatible activities.
  - b. The operation and viability of existing and future industrial activities is protected from the intrusion of incompatible uses.
  - Industrial development is located, designed and managed to: C
    - i. maintain the health and safety of people;
    - ii. avoid significant adverse effects on the natural environment;
    - iii. minimise the possibly of adverse impacts on surrounding non-industrial uses.
  - d. Development has access to infrastructure and essential services and convenient access to major transport networks.
  - Development is designed to incorporate sustainable practices where possible, including water sensitive design and energy efficient building design.
  - Development achieves a high standard of industrial design and incorporates crime prevention through f. environmental design (CPTED) principles.
  - High impact industry (34) activities do not result in detriment or danger to other development in the locality. g.
  - Development that is able to be accommodated in other locations does not establish in this precinct and h. reduce the limited supply of land available in this precinct.
  - Special industry<sup>(79)</sup> does not establish within the precinct. i.
  - Extensions to existing Special industry (79) do not increase the scale and intensity of the use. j.
  - With the exception of Caretaker's accommodation (10), sensitive land uses, including all forms of residential k. development, do not occur within the precinct.
  - I. General works associated with the development achieves the following:
    - i. new development is provided with a high standard of services to meet and support the current and future needs of users of the site, including roads, street lighting services, telecommunications and reticulated electricity (underground wherever possible), water and sewerage (where available);
    - the development manages stormwater to: ii.
      - A. ensure the discharge of stormwater does not adversely affect the quality, environmental values or ecosystem functions of downstream receiving waters;
      - B. prevent stormwater contamination and the release of pollutants;
      - C. maintain or improve the structure and condition of drainage lines and riparian areas;
      - avoid off-site adverse impacts from stormwater.
    - the development does not result in unacceptable impacts on the capacity and safety of the external road network;
    - the development ensures the safety, efficiency and useability of access ways and parking areas; iv.
    - site works including earthworks are managed to be safe and have minimal impacts on adjoining or adjacent premises, the streetscape or the environment.

- Development does not cause a nuisance by way of aerosols, fumes, light, noise, odour, particles or smoke. m.
- Noise generating uses are designed, sited and constructed to minimise the transmission of noise to n appropriate levels and do not cause environmental harm or nuisance.
- Noise sensitive uses are designed, sited and constructed so as not to be subject to unacceptable levels of noise.
- Development avoids areas subject to constraint, limitation, or environmental value. Where development p. cannot avoid these identified areas, it responds by:
  - adopting a 'least risk, least impact' approach when designing, siting and locating development in any i. area subject to a constraint, limitation or environmental value to minimise the potential risk to people, property and the environment;
  - ii. ensuring no further instability, erosion or degradation of the land, water or soil resource;
  - when located within a Water buffer area, complying with the Water Quality Vision and Objectives contained in the Segwater Development Guidelines: Development Guidelines for Water Quality Management in Drinking Water Catchments 2012.
  - maintaining, restoring and rehabilitating environmental values, including natural, ecological, biological, iv. aquatic, hydrological and amenity values, and enhancing these values through the provision of planting and landscaping, and facilitating safe wildlife movement and connectivity through:
    - the provision of replacement, restoration, rehabilitation planting and landscaping;
    - B. the location, design and management of development to avoid or minimise adverse impacts on ecological systems and processes;
    - C. the requiring of environmental offsets in accordance with the Environmental Offsets Act 2014.
  - protecting native species and protecting and enhancing species habitat; ٧.
  - protecting and preserving the natural, aesthetic, architectural historic and cultural values of significant trees, places, objects and buildings of heritage and cultural significance;
  - establishing effective separation distances, buffers and mitigation measures associated with identified infrastructure to minimise adverse effects on sensitive land uses from odour, noise, dust and other nuisance generating activities;
  - establishing, maintaining and protecting appropriate buffers to waterways, wetlands, native vegetation viii. and significant fauna habitat;
  - ensuring it promotes and does not undermine the ongoing viability, integrity, operation, maintenance ix. and safety of identified infrastructure;
  - ensuring effective and efficient disaster management response and recovery capabilities; х.
  - where located in an overland flow path: χi.
    - development siting, built form, layout and access responds to the risk presented by the overland Α. flow and minimises risk to personal safety;
    - В. development is resilient to the impacts of overland flow by ensuring the siting and design accounts for the potential risks to property associated with the overland flow;
    - C. development does not impact on the conveyance of the overland flow for any event up to and including the 1% AEP for the fully developed upstream catchment;
    - development directly, indirectly and cumulatively avoid an increase in the severity of overland flow and potential for damage on the premises or other premises, public lands, watercourses, roads or infrastructure.
- Development in the Restricted industry precinct includes one or more of the following: q.

<ul> <li>High impact industry<sup>(34)</sup></li> </ul>	•	Medium impact industry <sup>(47)</sup>	•	Research and technology industry <sup>(64)</sup>

Development in the Restricted industry precinct does not include any of the following: r.

•	Adult store <sup>(1)</sup>	•	Funeral parlour <sup>(30)</sup>		Parking station <sup>(58)</sup>
•	Agricultural supplies store <sup>(2)</sup>	•	Garden centre <sup>(31)</sup>	•	Permanent plantation <sup>(59)</sup>
•	Air services <sup>(3)</sup>	•	Hardware and trade supplies (32)	•	Place of worship <sup>(60)</sup>
•	Animal keeping <sup>(5)</sup>	•	Health care services <sup>(33)</sup>	•	Relocatable home park <sup>(62)</sup>
•	Aquaculture <sup>(6)</sup>	•	Home based business <sup>(35)</sup>	•	Renewable energy facility <sup>(63)</sup>
•	Bar <sup>(7)</sup>			•	Residential care facility <sup>(65)</sup>
•	Brothel <sup>(8)</sup>	•	Hospital <sup>(36)</sup>	•	Resort complex <sup>(66)</sup>
•	Bulk landscape supplies <sup>(9)</sup>	•	Hotel <sup>(37)</sup>	•	Retirement facility <sup>(67)</sup>
•	Cemetery <sup>(12)</sup>	•	Indoor sport and recreation <sup>(38)</sup>	•	Roadside stall <sup>(68)</sup>
•	Child care centre <sup>(13)</sup>	•	Intensive animal industry <sup>(39)</sup>	•	Rooming accommodation (69)
•	Club <sup>(14)</sup>	•	Intensive horticulture <sup>(40)</sup>	•	Rural industry <sup>(70)</sup>
•	Community care centre (15)	•	Landing <sup>(41)</sup>	•	Rural workers' accommodation <sup>(71)</sup>
•	Community residence <sup>(16)</sup>	•	Low impact industry <sup>(42)</sup>	•	Sales office <sup>(72)</sup>
•	Community use <sup>(17)</sup>	•	Major electricity		Shop <sup>(75)</sup>
•	Cropping <sup>(19)</sup>		infrastructure <sup>(43)</sup>	•	
•	Detention facility <sup>(20)</sup>	•	Major sport, recreation and entertainment facility <sup>(44)</sup>	•	Short-term accommodation <sup>(77)</sup>
•	Dual occupancy <sup>(21)</sup>	•	Market <sup>(46)</sup>	•	Showroom <sup>(78)</sup>
•	Dwelling house <sup>(22)</sup>	•	Motor sport facility <sup>(48)</sup>	•	Special industry <sup>(79)</sup>
•	Dwelling unit <sup>(23)</sup>	•	Multiple dwelling <sup>(49)</sup>	•	Theatre <sup>(82)</sup>
•	Educational establishment <sup>(24)</sup>	•	Nature-based tourism <sup>(50)</sup>	•	Tourist attraction <sup>(83)</sup>
•	Environment facility <sup>(26)</sup>	•	Nightclub entertainment facility <sup>(51)</sup>	•	Tourist park <sup>(84)</sup>
•	Extractive industry <sup>(27)</sup>	•	Non-resident workforce	•	Veterinary services <sup>(87)</sup>
•	Food and drink outlet <sup>(28)</sup>		accommodation <sup>(52)</sup>	•	Warehouse <sup>(88)</sup>
		•	Office <sup>(53)</sup>	•	Wholesale nursery <sup>(89)</sup>
•	Function facility <sup>(29)</sup>	•	Outdoor sales <sup>(54)</sup>	•	Winery <sup>(90)</sup>
		•	Outdoor sport and recreation <sup>(55)</sup>		
				L	

Development not listed above may be considered on its merits and where it reflects and supports the s. outcomes of the precinct.

# 6.2.7.4.2 Criteria for assessable development

Where development is categorised as assessable development - code assessment in the Table of Assessment, and located in a precinct, the assessment benchmarks are the criteria set out in Part E, Table 6.2.7.4.1 as well as the purpose statement and overall outcomes of this code.

Where development is categorised as assessable development - impact assessment, the assessment benchmarks become the whole of the planning scheme.

# Part E—Criteria for assessable development - Restricted industry precinct

# Table 6.2.7.4.1 Assessable development - Restricted industry precinct

Performance outcomes	Examples that achieve aspects of the Performance Outcomes				
Genera	l criteria				
Site cover					
PO1	No example provided.				
Site cover is limited to a proportion of a site that ensures:					
A sufficient number and type of vehicle parking spaces are provided on the site to meet the parking demands and expectations of the proposed use;					
<ul> <li>Any type of vehicle expected to visit the site on a regular basis is able to access and leave the site in a forward direction with clear manoeuvring on the site;</li> </ul>					
c. setbacks to boundaries maximise the efficient use of the site while ensuring positive interfaces with public space or sensitive land uses;					
d. Areas of landscaping are provided to soften the built form and hard stand impacts of development whilst providing areas of natural space on a site.					
Building height					
PO2	E2				
The height of buildings is in keeping with the predominant industrial character of the precinct and does not cause adverse amenity impacts on surrounding sensitive land uses and zones.	Building height does not exceed the maximum height identified on Overlay map - Building heights.				
Setbacks					
PO3	E3				
Street boundary setbacks:	Buildings maintain a minimum setback of :				
a. minimise building bulk and visual dominance from the street;	a. 6m to the primary frontage (other than the Bruce Highway);				
	I				

- provide areas for landscaping at the front of the site;
- C. allow for customer parking to be located at the front of the building;
- Provide opportunities for dense landscaping to screen at maturity any visibility of development of a site from the Bruce Highway.
- b. 3m to the secondary frontage;
- C. 5m to land not included in the Industry zone;
- d. 10m to a boundary adjoining the Bruce Highway.

## **PO4**

Side and rear boundary setbacks maintain views, privacy, access to natural light and the visual amenity of adjoining sensitive land uses.

# **E4**

Where a development adjoins general residential zoned land, the building is setback a minimum of 3m from the property boundary with dense landscaping installed along the boundary to provide screening of the development with a mature height of at least 3m.

Note - Refer to Planning scheme policy - Integrated design for determining acceptable levels of landscaping for screening purposes.

# **Building appearance and design**

#### **PO5**

Where fronting an arterial or sub-arterial road, or visible from a Park<sup>(57)</sup> or centre zoned lot, buildings provide a high level of architectural design which adds visual interest to the streetscape and reduces the perceived bulk of the building, by incorporating:

- a range of building materials, colours and features; a.
- b. facade articulation along street frontages;
- design features to promote customer entry points; C.
- d. materials that are not highly reflective.

No example provided.

#### Staff recreation area

#### **PO6**

Staff are provided with adequate and amenable break/dining facilities to suit the nature of the activities on-site.

#### **E6**

Where the nature of the activities on-site do not allow staff to eat in their work environment, the development provides an on-site recreation area for staff that:

- Includes adequate seating, tables and rubbish bins a. for the number of staff on-site;
- b. is adequately protected from the weather;
- C. is safely accessible to all staff;
- d. is separate and private from public areas;
- is located away from a noisy or odorous activity. e.

# Landscaping

## **PO7**

Landscaping is provided on-site to:

- visually soften the built form, areas of hardstand, storage areas and mechanical plant associated with the on-site processes;
- b. complement the existing or desired streetscape;
- minimise the impact of industrial development on C. adjoining lots not zoned for industrial purposes.

## **E7**

Landscaping is provided and maintained in accordance with Planning scheme policy - Integrated design.

## **Fencing**

## PO8

The provision of fencing on street frontages does not dominate the streetscape or create safety issues.

Note - The following example illustrates an acceptable design response to this outcome.



## **E**8

Where fencing is provided on the street frontage, fence sections between columns or posts have a minimum transparency of 70% spread evenly across its total surface area.

## **Public access**

# PO9

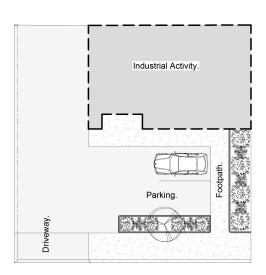
The use has a safe, clearly identifiable public access separated from service and parking areas.

Note - The following diagram illustrates an acceptable design response to this outcome.

# E9.1

Pedestrian linkages are provided from the street and customer car parking areas directly to the main entrance of the building.

# E9.2



The public access is separated from industrial service areas.

## **Movement network**

## **PO10**

Development maintains, contributes to or provides for interconnected street, pedestrian and cyclist networks.

Note - Refer to Planning scheme policy - Neighbourhood design for guidance on achieving the above outcome.

No example provided.

# Car parking

## **PO11**

Car parking is provided on-site to meet the anticipated demands of employees and visitors and avoid adverse impacts on the external road network.

Note - Refer to Planning scheme policy - Integrated transport assessment for guidance on how to achieve compliance with this outcome.

#### E11

Car parking is provided in accordance with Schedule 7 - Car parking.

#### **PO12**

The design of car parking areas:

- does not impact on the safety of the external road a. network;
- ensures the safety of pedestrians at all times; b.
- ensures the safe movement of vehicles within the C.

#### E12

All car parking areas are designed and constructed in accordance with AS2890.1 Parking facilities Part 1: Off-street car parking.

## Bicycle parking and end of trip facilities

Note - Building work to which this code applies constitutes Major Development for purposes of development requirements for end of trip facilities prescribed in the Queensland Development Code MP 4.1.

## **PO13**

- End of trip facilities are provided for employees or a. occupants, in the building or on-site within a reasonable walking distance, and include:
  - adequate bicycle parking and storage facilities; and
  - ii. adequate provision for securing belongings; and
  - iii. change rooms that include adequate showers. sanitary compartments, wash basins and mirrors.
- Notwithstanding a. there is no requirement to provide end of trip facilities if it would be unreasonable to provide these facilities having regard to:
  - i. the projected population growth and forward planning for road upgrading and development of cycle paths; or
  - ii. whether it would be practical to commute to and from the building on a bicycle, having regard to the likely commute distances and nature of the terrain; or
  - iii. the condition of the road and the nature and amount of traffic potentially affecting the safety of commuters.

Editor's note - The intent of b above is to ensure the requirements for bicycle parking and end of trip facilities are not applied in unreasonable circumstances. For example these requirements should not, and do not apply in the Rural zone or the Rural residential zone etc.

Editor's note - This performance outcome is the same as the Performance Requirement prescribed for end of trip facilities under the Queensland Development Code. For development incorporating building work, that Queensland Development Code performance requirement cannot be altered by a local planning instrument and has been reproduced here solely for information purposes. Council's assessment in its building work concurrence agency role for end of trip facilities will be against the performance requirement in the Queensland Development Code. As it is subject to change at any time, applicants for development incorporating building work should ensure that proposals that do not comply with the examples under this heading meet the current performance requirement prescribed in the Queensland Development Code.

#### E13.1

Minimum bicycle parking facilities are provided at a rate of 1 bicycle parking space for every 3 vehicles parking spaces required by Schedule 7 – Car parking.

Editor's note - The examples for end of trip facilities prescribed under the Queensland Development Code permit a local planning instrument to prescribe facility levels higher than the default levels identified in those acceptable solutions. This example is a combination of the default levels set for end of trip facilities in the Queensland Development Code and the additional facilities required by Council.

#### E13.2

Bicycle parking is:

- provided in accordance with Austroads (2008), Guide to Traffic Management - Part 11: Parking;
- protected from the weather by its location or a dedicated roof structure;
- located within the building or in a dedicated, secure C. structure for residents and staff;
- d. adjacent to building entrances or in public areas for customers and visitors.

Note - Bicycle parking structures are to be constructed to the standards prescribed in AS2890.3.

Note - Bicycle parking and end of trip facilities provided for residential and non-residential activities may be pooled, provided they are within 100 metres of the entrance to the building.

Editor's note - The examples for end of trip facilities prescribed under the Queensland Development Code permit a local planning instrument to prescribe facility levels higher than the default levels identified in those acceptable solutions. This example is an amalgamation of the default levels set for end of trip facilities in the Queensland Development Code and the additional facilities required by Council.

#### E13.3

For non-residential uses, storage lockers:

- a. are provide at a rate of 1.6 per bicycle parking space (rounded up to the nearest whole number);
- b. have minimum dimensions of 900mm (height) x 300mm (width) x 450mm (depth).

Note - Storage lockers may be pooled across multiple sites and activities when within 100 metres of the entrance to the building and within 50 metres of bicycle parking and storage facilities.

Editor's note - The examples for end of trip facilities prescribed under the Queensland Development Code permit a local planning instrument to prescribe facility levels higher than the default levels identified in those acceptable solutions. This example is an amalgamation of the default levels set for end of trip facilities in the Queensland Development Code and the additional facilities required by Council.

#### E13.4

For non-residential uses, changing rooms:

- are provided at a rate of 1 per 10 bicycle parking spaces;
- b. are fitted with a lockable door or otherwise screened from public view;
- are provided with shower(s), sanitary compartment(s) and wash basin(s) in accordance with the table below:

Bicycle spaces provided	Male/ Female	Change rooms required	Showers required	Sanitary compartments required	Washbasins required
1-5	Male and female	1 unisex change room	1	1 closet pan	1
6-19	Female	1	1	1 closet pan	1
20 or more	Male	1	1	1 closet pan	1
more	Female	1	2, plus 1 for every 20 bicycle spaces provided thereafter	2 closet pans, plus 1 sanitary compartment for every 60 bicycle parking spaces provided thereafter	1, plus 1 for every 60 bicycle parking spaces provided thereafter
	Male	1	2, plus 1 for every 20 bicycle spaces provided thereafter	1 urinal and 1 closet pans, plus 1 sanitary compartment at the rate of 1 closet pan or 1 urinal for every 60 bicycle space provided thereafter	1, plus 1 for every 60 bicycle parking spaces provided thereafter

Note - All showers have a minimum 3-star Water Efficiency Labelling and Standards (WELS) rating shower head.

Note - All sanitary compartments are constructed in compliance with F2.3 (e) and F2.5 of BCA (Volume 1).

- d. are provided with:
  - i. a mirror located above each wash basin;
  - a hook and bench seating within each shower compartment;
  - iii. a socket-outlet located adjacent to each wash basin.

Note - Change rooms may be pooled across multiple sites, residential and non-residential activities when within 100 metres of the entrance to the building and within 50 metres of bicycle parking and storage facilities

Editor's note - The examples for end of trip facilities prescribed under the Queensland Development Code permit a local planning instrument to prescribe facility levels higher than the default levels identified in those acceptable solutions. This example is an amalgamation of the default levels set for end of trip facilities in the Queensland Development Code and the additional facilities required by Council.

# Loading and servicing

## **PO14**

Service areas, including loading/unloading facilities, plant areas and outdoor storage areas, are screened from the direct view from land not included in the Industry zone and sub-arterial and arterial roads.

Note - If landscaping is proposed for screening purposes, refer to Planning scheme policy - Integrated design for determining acceptable levels.

No example provided.

## Waste

## **PO15**

Bins and bin storage area/s are designed, located and managed to prevent amenity impacts on the locality.

## E15

Development is designed to meet the criteria in the Planning scheme policy - Waste and is demonstrated in a waste management program.

## **Environmental impacts**

# **PO16**

Where a use is not an environmentally relevant activity under the Environmental Protection Act, the release of any containment that may cause environmental harm is mitigated to an acceptable level.

# E16

Development achieves the standard listed in Schedule 1 Air Quality Objectives, Environmental Protection (Air) Policy 2008.

# Lighting

## **PO17**

Lighting is directed and shielded to not cause unreasonable disturbance to any person on adjoining land.

#### E17

Artificial lighting on-site is directed and shielded in such a manner as not to exceed the recommended maximum values of light technical parameters for the control of obtrusive light given in Table 2.1 of Australian Standard AS 4282 (1997) Control of Obtrusive Effects of Outdoor Lighting.

Note - "Curfewed hours" are taken to be those hours between 10pm and 7am on the following day

#### **Noise**

#### **PO18**

Noise generating uses do not adversely affect existing or potential noise sensitive uses.

Note - The use of walls, barriers or fences that are visible from or adjoin a road or public area are not appropriate noise attenuation measures unless adjoining a motorway, arterial road or rail line.

Note - A noise impact assessment may be required to demonstrate compliance with this outcome. Noise impact assessments are to be prepared in accordance with Planning scheme policy - Noise.

No example provided.

## **PO19**

Sensitive land uses are provided with an appropriate acoustic environment within designated external private outdoor living spaces and internal areas while:

- contributing to safe and usable public spaces, through maintaining high levels of surveillance of parks, streets and roads that serve active transport purposes (e.g. existing or future pedestrian paths or cycle lanes etc);
- b. maintaining the amenity of the streetscape.

Note - A noise impact assessment may be required to demonstrate compliance with this PO. Noise impact assessments are to be prepared in accordance with Planning scheme policy - Noise.

Note - Refer to Planning Scheme Policy - Integrated design for details and examples of noise attenuation structures.

# E19.1

Development is designed to meet the criteria outlined in the Planning Scheme Policy - Noise.

## E19.2

Noise attenuation structures (e.g. walls, barriers or fences):

- a. are not visible from an adjoining road or public area unless:
  - i. adjoining a motorway or rail line; or
  - adjoining part of an arterial road that does not serve an existing or future active transport purpose (e.g. pedestrian paths or cycle lanes) or where attenuation through building location and materials is not possible.
- b. do not remove existing or prevent future active transport routes or connections to the street network:
- are located, constructed and landscaped in accordance with Planning scheme policy -Integrated design.

Note - Refer to Planning scheme policy - Integrated design for details and examples of noise attenuation structures.

Note - Refer to Overlay map - Active transport for future active transport routes.

## **Hazardous Chemicals**

Note - To assist in demonstrating compliance with the following performance outcomes, a Hazard Assessment Report may be required to be prepared and submitted by a suitably qualified person in accordance with 'State Planning Policy Guideline - Guidance on development involving hazardous chemicals'.

Terms used in this section are defined in State 'State Planning Policy Guideline - Guidance on development involving hazardous chemicals'.

## **PO20**

Off sites risks from foreseeable hazard scenarios involving hazardous chemicals are commensurate with the sensitivity of the surrounding land use

zones.

#### E20.1

Off site impacts or risks from any foreseeable hazard scenario does not exceed the dangerous dose at the boundary of land zoned for vulnerable or sensitive land uses as described below:

# **Dangerous Dose**

- For any hazard scenario involving the release of gases or vapours:
  - i. AEGL2 (60minutes) or if not available ERPG2;
  - An oxygen content in air <19.5% or >23.5% at normal atmospheric pressure.
- b. For any hazard scenario involving fire or explosion:
  - i. 7kPa overpressure;
  - 4.7kW/m2 heat radiation. ii.

If criteria E20.1 (a) or (b) cannot be achieved, then the risk of any foreseeable hazard scenario shall not exceed an individual fatality risk level of 0.5 x 10-6/year.

#### E20.2

Off site impacts or risks from any foreseeable hazard scenario does not exceed the dangerous dose at the boundary of a commercial or community activity land use zone as described below:

# Dangerous Dose

- For any hazard scenario involving the release of gases or vapours:
  - i. AEGL2 (60minutes) or if not available ERPG2;
  - An oxygen content in air <19.5% or >23.5% ii. at normal atmospheric pressure.
- b. For any hazard scenario involving fire or explosion:
  - i. 7kPa overpressure;
  - 4.7kW/m2 heat radiation. ii.

If criteria E20.2 (a) or (b) cannot be achieved, then the risk of any foreseeable hazard scenario shall not exceed an individual fatality risk level of 5 x 10-6/year.

## E20.3

Off site impacts or risks from any foreseeable hazard scenario does not exceed the dangerous dose at the boundary of an industrial land use zone as described below:

## Dangerous Dose

- For any hazard scenario involving the release of gases or vapours:
  - i. AEGL2 (60minutes) or if not available ERPG2;
  - An oxygen content in air <19.5% or >23.5% at normal atmospheric pressure.
- b. For any hazard scenario involving fire or explosion:
  - 14kPa overpressure;
  - ii. 12.6kW/m2 heat radiation.

If criteria E20.3 (a) or (b) cannot be achieved, then the risk of any foreseeable hazard scenario shall not exceed an individual fatality risk level of 50 x 10-6/year.

#### **PO21**

Buildings and package stores containing fire-risk hazardous chemicals are designed to detect the early stages of a fire situation and notify a designated person.

#### E21

Buildings and package stores containing fire-risk hazardous chemicals are provided with 24 hour monitored fire detection system for early detection of a fire event.

## **PO22**

Common storage areas containing packages of flammable and toxic hazardous chemicals are designed with spill containment system(s) that are adequate to contain releases, including fire fighting media.

## **E22**

Storage areas containing packages of flammable and toxic hazardous chemicals are designed with spill containment system(s) capable of containing a minimum of the total aggregate capacity of all packages plus the maximum operating capacity of any fire protection system for the storage area(s) over a minimum of 60 minutes.

#### **PO23**

Storage and handling areas, including manufacturing areas, containing hazardous chemicals in quantities greater than 2,500L or kg within a Local Government "flood hazard area" are located and designed in a manner to minimise the likelihood of inundation of flood waters from creeks, rivers, lakes or estuaries.

#### E23.1

The base of any tank with a WC >2,500L or kg is higher than any relevant flood height level identified in an area's flood hazard area. Alternatively:

- bulk tanks are anchored so they cannot float if a. submerged or inundated by water; and
- b. tank openings not provided with a liquid tight seal, i.e. an atmospheric vent, are extended above the relevant flood height level.

## E23.2

The lowest point of any storage area for packages >2,500L or kg is higher than any relevant flood height level identified in an area's flood hazard area. Alternatively, package stores are provided with impervious bund walls or racking systems higher than the relevant flood height level.

# **Emissions into Brisbane operational airspace**

## **PO24**

Emissions do not significantly increase air turbulence, reduce visibility or compromise the operation of aircraft engines in Brisbane airport's operational airspace.

Note - Refer to State Planning Policy December 2013 mapping to identify Brisbane airport's operational airspace

#### E24.1

Development does not emit a gaseous plume into the airport's operational airspace at a velocity exceeding 4.3m per second.

#### E25.2

Development emitting smoke, dust, ash, steam or a gaseous plume exceeding 4.3m per second is designed and constructed to mitigate adverse impacts of emissions upon operational airspace.

## Clearing of habitat trees where not located within the Environmental areas overlay map

## **PO25**

- Development ensures that the biodiversity quality and integrity of habitats is not adversely impacted upon but maintained and protected.
- b. Development does not result in the net loss of fauna habitat. Where development does result in the loss of a habitat tree, development will provide replacement fauna nesting boxes at the following rate of 1 nest box for every hollow removed. Where hollows have not yet formed in trees > 80cm in diameter at 1.3m height, 3 nest boxes are required for every habitat tree removed.
- Development does not result in soil erosion or land degradation or leave land exposed for an unreasonable period of time but is rehabilitated in a timely manner

Note: Further guidance on habitat trees is provided in Planning scheme policy - Environmental areas

No example provided.

## Works criteria

# **Utilities PO26** No example provided.

All services including water supply, sewage disposal, electricity, street lighting, telecommunications and gas (if available) are provided in accordance with Planning scheme policy - Integrated design (Appendix A).

#### **Access**

#### **PO27**

Where required, access easements contain a driveway and provision for services appropriate to the use. The easement covers all works associated with the access in accordance with Planning scheme policy - Integrated design.

No example provided.

#### **PO28**

The layout of the development does not compromise:

- the development of the road network in the area; a.
- b. the function or safety of the road network;
- C. the capacity of the road network.

Note - The road hierarchy is mapped on Overlay map -Road hierarchy.

## E28.1

The development provides for the extension of the road network in the area in accordance with Council's road network planning.

## E28.2

The development does not compromise future road widening of frontage roads in accordance with the relevant standard and Council's road planning.

#### E28.3

The development layout allows forward vehicular access to and from the site.

## **PO29**

Safe access is provided for all vehicles required to access the site.

## E29.1

Site access and driveways are designed, located and constructed in accordance with:

- where for a Council-controlled road and associated a. with a Dwelling house:
  - Planning scheme policy Integrated design;
- where for a Council-controlled road and not associated with a Dwelling house:
  - AS/NZS2890.1 Parking facilities Part 1: Off street car parking;
  - AS 2890.2 Parking facilities Part 2: Off-street ii. commercial vehicle facilities:

- iii. Planning scheme policy - Integrated design;
- iv. Schedule 8 - Service vehicle requirements;
- where for a State-Controlled road, the Safe Intersection Sight Distance requirements in Austroads and the appropriate IPWEAQ standard drawings, or a copy of a Transport Infrastructure Act 1994, section 62 approval.

#### E29.2

Internal driveways, car parks and access ways are designed and constructed with a sealed pavement and in accordance with:

- a. AS/NZS 2890.1 Parking Facilities Part 1: Off street car parking;
- b. AS 2890.2 Parking Facilities Part 2: Off street commercial vehicle facilities;
- Planning scheme policy Integrated design; and C.
- d. Schedule 8 - Service vehicle requirements.

Note - This includes queue lengths (refer to Schedule 8 -Service vehicle requirements), pavement widths and construction.

# E29.3

Access driveways, manoeuvring areas and loading facilities are sealed and provide for service vehicles listed in Schedule 8 - Service vehicle requirements for the relevant use. The on-site manoeuvring is to be in accordance with Schedule 8 - Service vehicle requirements.

# E29.4

Access driveways, manoeuvring areas and loading facilities are constructed with reinforced concrete road pavements. Concrete is to be designed in accordance with rigid road pavement design principles.

Note - Pavements are to be designed by an RPEQ.

## E29.5

Landscaping (including shade trees) is provided within car parks in accordance with Planning scheme policy -Integrated design.

**PO30** E30 Sealed and flood free road access during the minor storm event is available to the site from the nearest arterial or sub-arterial road.

Editor's note - Where associated with a State-controlled road, further requirements may apply, and approvals may be required from the Department of Transport and Main Roads.

Roads or streets giving access to the development from the nearest arterial or sub-arterial road are flood free during the minor storm event and are sealed.

Note - The road network is mapped on Overlay map - Road hierarchy.

## **PO31**

Roads which provide access to the site from an arterial or sub-arterial road remain trafficable during major storm events without flooding or impacting upon residential properties or other premises.

## E31.1

Access roads to the development have sufficient longitudinal and cross drainage to remain safely trafficable during major storm (1% AEP) events.

Note - The road network is mapped on Overlay map - Road hierarchy.

Note - Refer to QUDM for requirements regarding trafficability.

## E31.2

Culverts and causeways do not increase inundation levels or increase velocities, for all events up to the defined flood event, to upstream or downstream properties.

# Street layout and design

## **PO32**

Streets are designed and constructed in accordance with Planning scheme policy - Integrated design and Planning scheme policy - Operational works inspection. maintenance and bonding procedures. The street design and construction accommodates the following functions:

- access to premises by providing convenient a. vehicular movement for residents between their homes and the major road network;
- safe and convenient pedestrian and cycle b. movement;
- C. adequate on street parking;
- d. stormwater drainage paths and treatment facilities;
- efficient public transport routes; e
- f. utility services location;
- g. emergency access and waste collection;
- h. setting and approach (streetscape, landscaping and street furniture) for adjoining residences;

No example provided.

- i. expected traffic speeds and volumes; and
- j. wildlife movement (where relevant).

Note - Preliminary road design (including all services, street lighting, stormwater infrastructure, access locations, street trees and pedestrian network) may be required to demonstrate compliance with this PO.

Note - Refer to Planning scheme policy - Environmental areas and corridors for examples of when and where wildlife movement infrastructure is required.

## **PO33**

The existing road network (whether trunk or non-trunk) is upgraded where necessary to cater for the impact from the development.

Note - An applicant may be required to submit an Integrated Transport Assessment (ITA), prepared in accordance with Planning scheme policy - Integrated transport assessment to demonstrate compliance with this PO, when any of the following occurs:

- Development is within 200m of a transport sensitive location such as a school, shopping centre, bus or train station or a large generator of pedestrian or vehicular traffic;
- Forecast traffic to/from the development exceeds 5% of the two way flow on the adjoining road or intersection in the morning or afternoon transport peak within 10 years of the development completion;
- Development access onto a sub arterial, or arterial road or within 100m of a signalised intersection;
- Residential development greater than 50 lots or dwellings;
- Offices greater than 4,000m2 Gross Floor Area (GFA);
- Retail activities including Hardware and trade supplies, Showroom, Shop or Shopping centre greater than 1.000m2 GFA:
- Warehouses and Industry greater than 6,000m<sup>2</sup> GFA;
- On-site carpark greater than 100 spaces;
- Development has a trip generation rate of 100 vehicles or more within the peak hour;
- Development which dissects or significantly impacts on an environmental area or an environmental corridor.

The ITA is to review the development's impact upon the external road network for the period of 10 years from completion of the development. The ITA is to provide sufficient information for determining the impact and the type and extent of any ameliorative works required to cater for the additional traffic. The ITA must include a future structural road layout of adjoining properties that will form part of this catchment and road connecting to these properties. The ITA is to assess the ultimate developed catchment's impacts and necessary ameliorative works, and the works or contribution required by the applicant as identified in the study.

#### E33.1

New intersections onto existing roads are designed to accommodate traffic volumes and traffic movements taken from a date 10 years from the date of completion of the last stage of the development. Detailed design is to be in accordance with Planning scheme policy -Integrated design.

Note - All turns vehicular access to existing lots is to be retained at new road intersections wherever practicable.

Note - Existing on-street parking is to be retained at new road intersections and along road frontages wherever practicable.

## E33.2

Existing intersections external to the site are upgraded as necessary to accommodate increased traffic from the development. Design is in accordance with Planning scheme policy - Operational works inspection, maintenance and bonding procedures.

Note - All turns vehicular access to existing lots is to be retained at new road intersections wherever practicable.

Note - Existing on-street parking is to be retained at upgraded road intersections and along road frontages wherever practicable.

## E33.3

The active transport network is extended in accordance with Planning scheme policy - Integrated design.

Note - The road network is mapped on Overlay map - Road hierarchy.

Note - The primary and secondary active transport network is mapped on Overlay map - Active transport.

## **PO34**

New intersections along all streets and roads are located and designed to provide safe and convenient movements for all users.

Note - Refer Planning scheme policy - Integrated design and Planning scheme policy - Operational works inspection, maintenance and bonding procedures for design and construction standards.

Note - An Integrated Transport Assessment (ITA) including preliminary intersection designs, prepared in accordance with Planning scheme policy - Integrated transport assessment may be required to demonstrate compliance with this PO. Intersection spacing will be determined based on the deceleration and queue storage distances required for the intersection after considering vehicle speed and present/forecast turning and through volumes.

## E34

New intersection spacing (centreline – centreline) along a through road conforms with the following:

- where the through road provides an access a. function;
  - i. intersecting road located on the same side = 60 metres:
  - intersecting road located on opposite side ii. (Left Right Stagger) = 60 metres;
  - iii. intersecting road located on opposite side (Right Left Stagger) = 40 metres.
- Where the through road provides a collector or b. sub-arterial function:
  - i. intersecting road located on the same side = 100 metres:
  - ii. intersecting road located on opposite side (Left Right Stagger) = 100 metres;
  - iii. intersecting road located on opposite side (Right Left Stagger) = 60 metres.
- C. Where the through road provides an arterial function:
  - i. intersecting road located on the same side = 300 metres;
  - ii. intersecting road located on opposite side (Left Right Stagger) = 300 metres;
  - intersecting road located on opposite side iii. (Right Left Stagger) = 300 metres;
- Walkable block perimeter does not exceed 1000 metres.

Note - Based on the absolute minimum intersection spacing identified above, all turns access may not be permitted (ie. left in/left out only) at intersections with sub-arterial roads or arterial roads.

Note - The road network is mapped on Overlay map - Road hierarchy.

Note - An Integrated Transport Assessment (ITA) including preliminary intersection designs, prepared in accordance with Planning scheme policy - Integrated transport assessment may be required to demonstrate compliance with this PO. Intersection spacing will be determined based on the deceleration and queue storage distances required for the intersection after considering vehicle speed and present/forecast turning and through volumes.

#### **PO35**

All Council controlled frontage roads adjoining the development are designed and constructed in accordance with Planning scheme policy - Integrated design and Planning scheme policy - Operational works inspection, maintenance and bonding procedures. All new works are extended to join any existing works within 20m.

Note - Frontage roads include streets where no direct lot access is provided.

Note - The road network is mapped on Overlay map - Road hierarchy.

Note - The Primary and Secondary active transport network is mapped on Overlay map - Active transport.

Note - Roads are considered to be constructed in accordance with Council's standards when there is sufficient pavement width, geometry and depth to comply with the requirements of Planning scheme policy - Integrated design and Planning scheme policy -Operational works inspection, maintenance and bonding procedures.

#### E35

Design and construct all Council controlled frontage roads in accordance with Planning scheme policy - Integrated design, Planning scheme policy - Operational works inspection, maintenance and bonding procedures and the following:

Situation	Minimum construction
Frontage road unconstructed or gravel road only;  OR  Frontage road sealed but not constructed* to Planning scheme policy - Integrated design standard;  OR  Frontage road partially constructed* to Planning scheme policy - Integrated design standard.	Construct the verge adjoining the development and the carriageway (including development side kerb and channel) to a minimum sealed width containing near side parking lane (if required), cycle lane (if required), cycle lane (if required), 2 travel lanes plus 1.5m wide (full depth pavement) gravel shoulder and table drainage to the opposite side.  The minimum total travel lane width is:  6m for minor roads;  7m for major roads.

Note - Major roads are sub-arterial roads and arterial roads. Minor roads are roads that are not major roads.

Note - Construction includes all associated works (services, street lighting and linemarking).

Note - Alignment within road reserves is to be agreed with Council.

Note - \*Roads are considered to be constructed in accordance with Council standards when there is sufficient pavement width, geometry and depth to comply with the requirements of Planning scheme policy - Integrated design and Planning scheme policy - Operational works inspection, maintenance and bonding procedures. Testing of the existing pavement may be required to confirm whether the existing works meet the standards in Planning scheme policy -Integrated design and Planning scheme policy - Operational works inspection, maintenance and bonding procedures.

#### **Stormwater**

#### **PO36**

Minor stormwater drainage systems (internal and external) have the capacity to convey stormwater flows from frequent storm events for the fully developed upstream catchment whilst ensuring pedestrian and vehicular traffic movements are safe and convenient.

## E36.1

The capacity of all minor drainage systems are designed in accordance with Planning scheme policy - Integrated design.

#### E36.2

Stormwater pipe network capacity is to be calculated in accordance with the Hydraulic Grade Line method as detailed in Australian Rainfall and Runoff or QUDM.

#### E36.3

Development ensures that inter-allotment drainage infrastructure is provided in accordance with the relevant level as identified in QUDM.

#### **PO37**

Major stormwater drainage system(s) have the capacity to safely convey stormwater flows for the 1% AEP event for the fully developed upstream catchment.

#### E37.1

The internal drainage system safely and adequately conveys the stormwater flows for the 1% AEP event for the fully developed upstream catchment through the site.

#### E37.2

The external (downstream) drainage system safely conveys the stormwater flows for the 1% AEP event for the fully developed upstream catchment without allowing the flows to encroach upon private lots.

## E37.3

Overland flow paths from roads and public open space areas do not pass through private lots. Drainage pathways are provided to accommodate overland flows from roads and public open space areas.

## E37.4

The flow velocity in all unlined or soft faced open drains is kept within acceptable limits for the type of material or lining and condition of the channel.

Note - Refer to QUDM for recommended average flow velocities.

## **PO38**

Provide measures to properly manage surface flows for the 1% AEP event (for the fully developed catchment) draining to and through the land to ensure no actionable nuisance is created to any person or premises as a result of the development. The development must not result in

## **E38**

The stormwater drainage system is designed and constructed in accordance with Planning scheme policy - Integrated design.

ponding on adjacent land, redirection of surface flows to other premises or blockage of a surface flow relief path	
for flows exceeding the design flows for any underground system within the development.	
PO39	No example provided.
Stormwater run-off from the site is conveyed to a point of lawful discharge without causing actionable nuisance to any person, property or premises.	
Note - Refer to Planning scheme policy - Integrated design for details.	
Note - A downstream drainage discharge report in accordance with Planning scheme policy - Stormwater management may be required to demonstrate achievement of this performance outcome.	
Note - A watercourse as defined in the Water Act may be accepted as a lawful point of discharge providing the drainage discharge from the site does not increase the downstream flood levels during events up to and including the 1% AEP storm. An afflux of +20mm may be accepted on Council controlled land and road infrastructure. No worsening is ensured when stormwater is discharged into a catchment that includes State Transport Infrastructure.	
PO40	No example provided.
Stormwater generated from the development does not compromise the capacity of existing stormwater infrastructure downstream of the site.	
Note - A downstream drainage discharge report in accordance with Planning scheme policy - Stormwater management may be required to demonstrate achievement of this performance outcome.	
PO41	No example provided.
Where development:	
a. is for an urban purpose that involves a land area of 2500m² or greater; and	
b. will result in:	
i. 6 or more dwellings; or	
<li>ii. an impervious area greater than 25% of the net developable area,</li>	
stormwater quality management systems are designed, constructed, established and maintained to minimise the environmental impact of stormwater on surface, groundwater and receiving water environments and meet the design objectives outlined in Schedule 10 - Stormwater management design objectives.	

Note - A site based stormwater management plan prepared by a suitably qualified professional will be required in accordance with Planning scheme policy - Stormwater management. Stormwater quality infrastructure is to be designed in accordance with Planning scheme policy - Integrated design (Appendix C).

## **PO42**

Stormwater drainage pipes and structures through or within private land (including inter-allotment drainage) are protected by easements in favour of Council with sufficient area for practical access for maintenance purposes.

Note - In order to achieve a lawful point of discharge, stormwater easements may also be required over temporary drainage channels/infrastructure where stormwater discharges to a balance lot prior to entering Council's stormwater drainage system.

#### E42

Stormwater drainage infrastructure (excluding detention and bio-retention systems) through or within private land (including inter-allotment drainage) is protected by easements in favour of Council. Minimum easement widths are as follows:

Pipe Diameter	Minimum easement width (excluding access requirements)
Stormwater pipe up to 825mm diameter	3.0m
Stormwater pipe up to 825mm diameter with sewer pipe up to 225m diameter	4.0m
Stormwater pipe greater than 825mm diameter	Easement boundary to be 1m clear of the outside wall of the stormwater pipe (each side).

Note - Additional easement width may be required in certain circumstances in order to facilitate maintenance access to the stormwater system.

Note - Refer to Planning scheme policy - Integrated design (Appendix C) for easement requirements over open channels.

## **PO43**

Stormwater management facilities (excluding outlets) are located outside of riparian areas and prevent increased channel bed and bank erosion.

No example provided.

Site works and construction management				
PO44	No example provided.			
The site and any existing structures are maintained in a tidy and safe condition.				
PO45	E45.1			
All works on-site are managed to:	Works incorporate temporary stormwater runoff, erosion and sediment controls and trash removal devices designed in accordance with the Urban Stormwater			

- minimise as far as practicable, impacts on adjoining or adjacent premises and the streetscape in regard to erosion and sedimentation, dust, noise, safety and light;
- minimise as far as possible, impacts on the natural environment:
- C. ensure stormwater discharge is managed in a manner that does not cause actionable nuisance to any person or premises;
- d. avoid adverse impacts on street trees and their critical root zone.

Quality Planning Guidelines, State Planning Policy, Schedule 10 - Stormwater management design objectives, Planning scheme policy - Stormwater management and Planning scheme policy - Integrated design, including but not limited to the following:

- stormwater is not discharged to adjacent properties in a manner that differs significantly from pre-existing conditions;
- b. stormwater discharged to adjoining and downstream properties does not cause scour or erosion of any kind;
- stormwater discharge rates do not exceed C. pre-existing conditions;
- minimum design storm for all temporary diversion drains and sedimentation basins in accordance with Schedule 10 - Stormwater management design objectives;
- ponding or concentration of stormwater does not occur on adjoining properties.

#### E45.2

Stormwater runoff, erosion and sediment controls are constructed in accordance with Planning scheme policy - Integrated design (Appendix C) prior to commencement of any clearing or earthworks and are maintained and adjusted as necessary at all times to ensure their ongoing effectiveness.

Note - The measures are adjusted on-site to maximise their effectiveness.

# E45.3

The completed earthworks area is stabilised using turf, established grass seeding, mulch or sprayed stabilisation techniques to control erosion and sediment and dust from leaving the property.

## E45.4

Existing street trees are protected and not damaged during works.

Note - Where development occurs in the tree protection zone, measures and techniques as detailed in Australian Standard AS 4970 Protection of trees on development sites are adopted and implemented.

**PO46 E46**  Dust suppression measures are implemented during soil disturbances and construction works to protect nearby premises from unreasonable dust impacts.

No dust emissions extend beyond the boundaries of the site during soil disturbances and construction works.

## **PO47**

All development works including the transportation of material to and from the site are managed to not negatively impact the existing road network, the amenity of the surrounding area or the streetscape.

Note - A Traffic Management Plan may be required to demonstrate compliance with this PO. A Traffic Management Plan is to be prepared in accordance with the Manual of Uniform Traffic Control Devices (MUTCD).

Note - A haulage route must be identified and approved by Council where imported or exported material is transported to the site via a road of Local Collector standard or less, and:

- the aggregate volume of imported or exported material is a. greater than 1000m3; or
- b. the aggregate volume of imported or exported material is greater than 200m3 per day; or
- the proposed haulage route involves a vulnerable land use C. or shopping centre.

Note - A dilapidation report (including photographs) may be required for the haulage route to demonstrate compliance with this PO.

Editor's note - Where associated with a State-controlled road, further requirements may apply, and approval may be required from the Department of Transport and Main Roads.

## E47.1

Construction traffic including contractor car parking is controlled in accordance with a traffic management plan. prepared in accordance with the Manual of Uniform Traffic Control Devices (MUTCD) to ensure all traffic movements to and from the site are safe.

#### E47.2

All contractor car parking is either provided on the development site, or on an alternative site in the general locality which has been set aside for car parking. Contractors vehicles are generally not to be parked in existing roads.

#### E47.3

Any material dropped, deposited or spilled on the road(s) as a result of construction processes associated with the site are to be cleaned at all times.

## E47.4

Construction traffic to and from the development site uses the highest classification streets or roads where a choice of access routes is available. Haul routes for the transport of imported or spoil material and gravel pavement material along Council roads below sub-arterial standard must be approved routes.

Note - The road hierarchy is mapped on Overlay map - Road hierarchy.

Note - A dilapidation report may be required to demonstrate compliance with this E.

## E47.5

Where works are carried out in existing roads, the works must be undertaken so that the existing roads are maintained in a safe and usable condition. Practical access for residents, visitors and services (including postal deliveries and refuse collection) is retained to existing lots during the construction period and after completion of the works.

Note - A traffic control plan prepared in accordance with the Manual of Uniform Traffic Control Devices (MUTCD) will be required for any works that will affect access, traffic movements or traffic safety in existing roads.

## E47.6

Access to the development site is obtained via an existing lawful access point.

## **PO48**

All disturbed areas are to be progressively stabilised during construction and the entire site rehabilitated and substantially stabilised at the completion of construction.

Note - Refer to Planning scheme policy - Integrated design for details.

## E48

At completion of construction all disturbed areas of the site are to be:

- topsoiled with a minimum compacted thickness of a. fifty (50) millimetres:
- b. stabilised using turf, established grass seeding, mulch or sprayed stabilisation techniques.

Note - These areas are to be maintained during any maintenance period to maximise grass coverage.

#### **PO49**

Earthworks are undertaken to ensure that soil disturbances are staged into manageable areas.

Note - A site specific Erosion and Sediment Control Plan (ESCP) will be required to demonstrate compliance with this PO. An ESCP is to be prepared in accordance with Planning scheme policy -Stormwater management and Planning scheme policy - Integrated design (Appendix C).

## E49

Soil disturbances are staged into manageable areas of not greater than 3.5 ha.

## **PO50**

The clearing of vegetation on-site:

- is limited to the area of infrastructure works, building areas and other necessary areas for the works; and
- includes the removal of declared weeds and other b. materials which are detrimental to the intended use of the land:
- is disposed of in a manner which minimises C. nuisance and annoyance to existing premises.

Note - No burning of cleared vegetation is permitted.

## E50.1

All native vegetation to be retained on-site is temporarily fenced or protected prior to and during development works.

Note - No parking of vehicles or storage of machinery or goods is to occur in these areas during development works.

# E50.2

Disposal of materials is managed in one or more of the following ways:

- all cleared vegetation, declared weeds, stumps, rubbish, car bodies, scrap metal and the like are removed and disposed of in a Council land fill facility; or
- b. all native vegetation with a diameter below 400mm is to be chipped and stored on-site.

Note - The chipped vegetation must be stored in an approved location.

#### **PO51**

All development works are carried out at times which minimise noise impacts to residents.

#### E51

All development works are carried out within the following times:

- a. Monday to Saturday (other than public holidays) between 6:30am and 6:30pm on the same day;
- b. no work is to be carried out on Sundays or public holidays.

Note - Work outside the above hours may be approved (in writing) where it can be demonstrated that the work will not cause significant inconvenience or disruption to the public, or the work is unlikely to cause annoyance or inconvenience to occupants of adjacent properties.

#### **PO52**

Any alteration or relocation in connection with or arising from the development to any service, installation, plant, equipment or other item belonging to or under the control of the telecommunications authority, electricity authorities, the Council or other person engaged in the provision of public utility services is to be carried with the development and at no cost to Council.

No example provided.

## **Earthworks**

# **PO53**

On-site earthworks are designed to consider the visual and amenity impact as they relate to:

- the natural topographical features of the site; a.
- b. short and long-term slope stability;
- soft or compressible foundation soils; C.
- d. reactive soils:
- low density or potentially collapsing soils; e.
- f. existing fill and soil contamination that may exist on-site;
- the stability and maintenance of steep slopes and g. batters:
- h. excavation (cut) and fill and impacts on the amenity of adjoining lots (e.g. residential).

# E53.1

All cut and fill batters are provided with appropriate scour, erosion protection and run-off control measures including catch drains at the top of batters and lined batter drains as necessary.

#### E53.2

Stabilisation measures are provided, as necessary, to ensure long-term stability and low maintenance of steep slopes and batters.

## E53.3

Inspection and certification of steep slopes and batters is required by a suitably qualified and experienced RPEQ.

## E53.4

All filling or excavation is contained on-site and is free draining.

## E53.5

All fill placed on-site is:

- a. limited to that area necessary for the approved use;
- clean and uncontaminated (i.e. no building waste, b. concrete, green waste, actual acid sulfate soils, potential acid sulfate soils or contaminated material etc.).

## E53.6

The site is prepared and the fill placed on-site in accordance with AS3798.

Note - The fill is to be inspected and tested in accordance with Planning scheme policy - Operational works inspection, maintenance and bonding procedures.

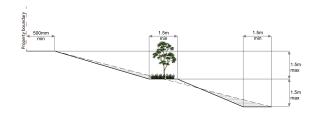
#### **PO54**

Embankments are stepped, terraced and landscaped to not adversely impact on the visual amenity of the surrounding area.

## E54

Any embankments more than 1.5 metres in height are stepped, terraced and landscaped.

Figure - Embankment



## **PO55**

Filling or excavation is undertaken in a manner that:

- does not adversely impact on a Council or public sector entity maintained infrastructure or any drainage feature on, or adjacent to the land;
- does not preclude reasonable access to a Council b. or public sector entity maintained infrastructure or any drainage feature on, or adjacent to the land for monitoring, maintenance or replacement purposes.

Note - Public sector entity is defined in Schedule 2 of the Act.

## E55.1

No filling or excavation is undertaken in an easement issued in favour of Council or a public sector entity.

Note - Public sector entity is defined in Schedule 2 of the Act.

## E55.2

Filling or excavation that would result in any of the following is not carried out on-site:

- a reduction in cover over any Council or public a. sector entity infrastructure service to less than 600mm;
- b. an increase in finished surface grade over, or within 1.5m on each side of, the Council or public sector entity infrastructure above that which existed prior to the earthworks being undertaken;
- C. prevent reasonable access to Council or public sector entity maintained infrastructure or any drainage feature on, or adjacent to the site for monitoring, maintenance or replacement purposes.

Note - Public sector entity is defined in Schedule 2 of the Act. Note - All building work covered by QDC MP1.4 is excluded from this provision. **PO56** No example provided. Filling or excavation does not result in land instability. Note - Steep slopes and batters are inspected and certified for long-term stability by a suitably qualified and experienced geotechnical engineer with RPEQ qualifications. Stabilisation measures are provided, as necessary, to ensure long-term stability and low maintenance. **PO57** No example provided. Filling or excavation does not result in: adverse impacts on the hydrological and hydraulic capacity of the waterway or floodway; b. increased flood inundation outside the site; C. any reduction in the flood storage capacity in the floodway; d. any clearing of native vegetation. Note - To demonstrate compliance with this outcome, Planning Scheme Policy - Stormwater Management provides guidance on the preparation of a site based stormwater management plan by a suitably qualified professional. Refer to Planning scheme policy -Integrated design for guidance on infrastructure design and modelling requirements. **PO58** E58 Filling or excavation on the development site is Filling and excavation undertaken on the development undertaken in a manner which does not create or site are shaped in a manner which does not: accentuate problems associated with stormwater flows prevent stormwater surface flow which, prior to а and drainage systems on land adjoining the site. commencement of the earthworks, passed onto the development site, from entering the land; or b. redirect stormwater surface flow away from existing flow paths; or divert stormwater surface flow onto adjacent land, (other than a road), in a manner which: i. concentrates the flow; or increases the flow rates of stormwater over the affected section of the adjacent land above the situation which existed prior to the diversion; or causes actionable nuisance to any person,

property or premises.

## **PO59**

All earth retaining structures provide a positive interface with the streetscape and minimise impacts on the amenity of adjoining residents.

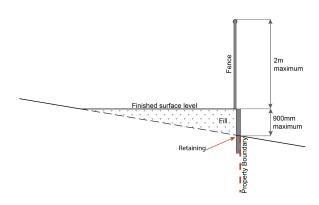
Note - Refer to Planning scheme policy - Residential design for guidance on how to achieve compliance with this performance outcome.

## E59

Earth retaining structures:

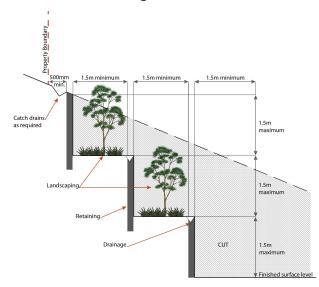
- a. are not constructed of boulder rocks or timber;
- b. where height is no greater than 900mm, are provided in accordance with Figure - Retaining on a boundary;

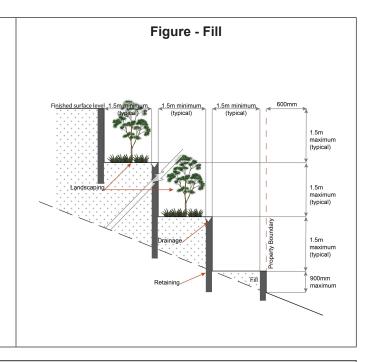
Figure - Retaining on boundary



- where height is greater than 900mm but no greater than 1.5m, are to be setback at least the equivalent height of the retaining structure from any property boundary;
- where height is greater than 1.5m, are to be setback d. and stepped 1.5m vertical: 1.5m horizontal, terraced, landscaped and drained as shown below.

Figure - Cut





#### **Fire Services**

Note - The provisions under this heading only apply if:

- the development is for, or incorporates:
  - reconfiguring a lot for a community title scheme creating 1 or more vacant lots; or
  - material change of use for 2 or more sole occupancy units on the same lot, or within the same community titles scheme; or material change of use for a Tourist park<sup>(84)</sup> with accommodation in the form of caravans or tents; or material change of use for outdoor sales<sup>(54)</sup>, outdoor processing or outdoor storage where involving combustible materials. ii.

#### AND

- b. none of the following exceptions apply:
  - the distributor-retailer for the area has indicated, in its netserv plan, that the premises will not be served by that entity's reticulated water supply; or
  - every part of the development site is within 60m walking distance of an existing fire hydrant on the distributor-retailer's reticulated water supply network, measured around all obstructions, either on or adjacent to the site.

Note - The provisions under this heading do not apply to buildings that are required by the Building Code of Australia to have a fire hydrant system complying with Australian Standard AS 2419.1 (2005) - Fire Hydrant Installations or other fire fighting facilities which provide equivalent protection.

#### **PO60**

Development incorporates a fire fighting system that:

- satisfies the reasonable needs of the fire fighting a. entity for the area;
- is appropriate for the size, shape and topography of the development and its surrounds;
- is compatible with the operational equipment available to the fire fighting entity for the area;
- d. considers the fire hazard inherent in the materials comprising the development and their proximity to one another:

# E60.1

External fire hydrant facilities are provided on site to the standard prescribed under the relevant parts of Australian Standard AS 2419.1 (2005) – Fire Hydrant Installations.

Note - For this requirement for accepted development, the following are the relevant parts of AS 2419.1 (2005) that may be applicable:

in regard to the form of any fire hydrant - Part 8.5 and Part 3.2.2.1, with the exception that for Tourist parks  $^{(84)}$  or development comprised solely of dwellings and their associated outbuildings, single outlet above-ground hydrants or suitably signposted in-ground hydrants would be an acceptable alternative;

- e. considers the fire hazard inherent in the surrounds to the development site;
- f. is maintained in effective operating order.

Note - The Queensland Fire and Emergency Services is the entity currently providing the fire fighting function for the urban areas of the Moreton Bay Region.

- in regard to the general locational requirements for fire hydrants - Part 3.2.2.2 (a), (e), (f), (g) and (h) as well as Appendix B of AS 2419.1 (2005);
- in regard to the proximity of hydrants to buildings and other facilities - Part 3.2.2.2 (b), (c) and (d), with the exception that:
  - for dwellings and their associated outbuildings, hydrant coverage need only extend to the roof and external walls of those buildings;
  - for caravans and tents, hydrant coverage need only extend to the roof of those tents and caravans;
  - for outdoor sales (54), processing or storage facilities, hydrant coverage is required across the entire area of the outdoor sales (54), outdoor processing and outdoor storage facilities;
- d. in regard to fire hydrant accessibility and clearance requirements - Part 3.5 and, where applicable, Part 3.6.

## E60.2

A continuous path of travel having the following characteristics is provided between the vehicle access point to the site and each external fire hydrant and hydrant booster point on the land:

- an unobstructed width of no less than 3.5m;
- b. an unobstructed height of no less than 4.8m;
- C. constructed to be readily traversed by a 17 tonne HRV fire brigade pumping appliance;
- an area for a fire brigade pumping appliance to stand within 20m of each fire hydrant and 8m of each hydrant booster point.

# E60.3

On-site fire hydrant facilities are maintained in effective operating order in a manner prescribed in Australian Standard AS1851 (2012) - Routine service of fire protection systems and equipment.

# **PO61**

On-site fire hydrants that are external to buildings, as well as the available fire fighting appliance access routes to those hydrants, can be readily identified at all times from, or at, the vehicular entry point to the development site.

#### E61

For development that contains on-site fire hydrants external to buildings:

- those external hydrants can be seen from the a. vehicular entry point to the site; or
- b. a sign identifying the following is provided at the vehicular entry point to the site:
  - the overall layout of the development (to scale);
  - ii. internal road names (where used);
  - iii. all communal facilities (where provided);
  - iv. the reception area and on-site manager's office (where provided);

external hydrants and hydrant booster points; V. vi. physical constraints within the internal roadway system which would restrict access by fire fighting appliances to external hydrants and hydrant booster points. Note - The sign prescribed above, and the graphics used are to be: in a form: а b. of a size: illuminated to a level; which allows the information on the sign to be readily understood, at all times, by a person in a fire fighting appliance up to 4.5m from the sign. **PO62** E62 Each on-site fire hydrant that is external to a building is For development that contains on-site fire hydrants signposted in a way that enables it to be readily identified external to buildings, those hydrants are identified by at all times by the occupants of any firefighting appliance way of marker posts and raised reflective pavement traversing the development site. markers in the manner prescribed in the technical note Fire hydrant indication system produced by the Queensland Department of Transport and Main Roads. Note - Technical note Fire hydrant indication system is available on the website of the Queensland Department of Transport and Main Roads. Use specific criteria **Industrial Land Uses PO63** E63 Ancillary office $^{(53)}$ , administration functions, retail sales, showroom $^{(78)}$  and customer service components do not The combined area of ancillary non-industrial activities, including but not limited to administration and retail compromise the primary use of the site or other industrial functions, does not exceed 10% of the GFA or 200m<sup>2</sup>, activities in the precinct, or affect the viability, role or whichever is the lesser. function of the region's centres network. **PO64** No example provided. High impact industry (34) uses maintain a minimum separation of at least 500m from a sensitive land use. Note - Separation distance is to be measured in a straight line, in accordance with the State policy. **PO65** No example provided.

	ecial industry <sup>(79)</sup> uses do not establish within the tricted industry precinct.			
РО	66	No example provided.		
zon	es that can be readily accommodated within other es or precincts do not compromise the availability of d within the restricted industry precinct.			
abl	te - Low impact industry <sup>(42)</sup> Medium impact industry <sup>(47)</sup> , Service ustry <sup>(73)</sup> and Warehouse <sup>(88)</sup> land uses are considered to be e to be readily accommodated within other precincts of the ustry Zone.			
Car	retaker's accommodation <sup>(10)</sup>			
PO	67	E67		
Dev	velopment of Caretaker's accommodation <sup>(10)</sup> :	Caretaker's accommodation <sup>(10)</sup> :		
a.	does not compromise the productivity of the use occurring on-site and in the surrounding area;	a. has a maximum GFA is 80m²;		
b.	is domestic in scale;	b. does not gain access from a separate driveway to that of the industrial use;		
C.	provides adequate car parking provisions exclusive on the primary use of the site;	c. provides a minimum 16m² of private open space directly accessible from a habitable room;		
d.	is safe for the residents;	d. provides car parking in accordance with Schedule 7 - Car parking.		
e.	has regard to the open space and recreation needs of the residents.			
Sal	es office <sup>(72)</sup>			
PO	68	E68		
den	es office <sup>(72)</sup> remain temporary in duration and nonstrates a relationship to the land or buildings being blayed or sold.	A Sales office <sup>(72)</sup> is located on the site for no longer than 2 years.		
Maj	or electricity infrastructure <sup>(43)</sup> , Substation <sup>(80)</sup> and	Utility installation <sup>(86)</sup>		
PO	69	E69.1		
the	e development does not have an adverse impact on visual amenity of a locality and is:	Development is designed to minimise surrounding land use conflicts by ensuring infrastructure, buildings, structures and other equipment:		
a. b. c.	high quality design and construction; visually integrated with the surrounding area; not visually dominant or intrusive;	<ul><li>a. are enclosed within buildings or structures;</li><li>b. are located behind the main building line;</li></ul>		
d. e.	located behind the main building line; below the level of the predominant tree canopy or the level of the surrounding buildings and	<ul><li>c. have a similar height, bulk and scale to the surrounding fabric;</li><li>d. have horizontal and vertical articulation applied to all exterior walls</li></ul>		

all exterior walls.

E69.2

structures;

g.

camouflaged through the use of colours and

materials which blend into the landscape;

treated to eliminate glare and reflectivity;

<ul><li>h. landscaped;</li><li>i. otherwise consistent with the amenity and characte of the zone and surrounding area.</li></ul>	A minimum 3m wide strip of dense planting is provided around the outside of the fenced area, between the development and street frontage, side and rear boundaries.
PO70	E70
Infrastructure does not have an impact on pedestrian health and safety.	<ul> <li>Access control arrangements:</li> <li>a. do not create dead-ends or dark alleyways adjacent to the infrastructure;</li> <li>b. minimise the number and width of crossovers and entry points;</li> <li>c. provide safe vehicular access to the site;</li> <li>d. do not utilise barbed wire or razor wire.</li> </ul>
P071	E71
All activities associated with the development occur within an environment incorporating sufficient controls to ensure the facility:  a. generates no audible sound at the site boundaries where in a residential setting; or  b. meet the objectives as set out in the Environmental Protection (Noise) Policy 2008.	sound is housed within a fully enclosed building incorporating sound control measures sufficient to ensure noise emissions meet the objectives as set out in the Environmental Protection (Noise) Policy 2008.
that will not cause human exposure to electromagnetic radiation be	unications facilities <sup>(81)</sup> must be constructed and operated in a manner yond the limits outlined in the Radiocommunications (Electromagnetic Standard for Maximum Exposure Levels to Radiofrequency Fields - 3Khz
PO72	E72.1
Telecommunications facilities <sup>(81)</sup> are co-located with existing telecommunications facilities <sup>(81)</sup> , Utility installation <sup>(86)</sup> , Major electricity infrastructure <sup>(43)</sup> or Substation <sup>(80)</sup> if there is already a facility in the same coverage area.	New telecommunication facilities <sup>(81)</sup> are co-located on existing towers with new equipment shelter and associated structures positioned adjacent to the existing shelters and structures.
	E72.2
	If not co-located with an existing facility, all co-location opportunities have been investigated and fully exhausted within a 2km radius of the site.
P073	E73
A new Telecommunications facility <sup>(81)</sup> is designed and constructed to ensure co-masting or co-siting with othe carriers both on the tower or pole and at ground level is possible in the future.	
P074	E74

Telecommunications facilities (81) do not conflict with lawful existing land uses both on and adjoining the site.

The development results in no net reduction in the minimum quantity and standard of landscaping, private or communal open space or car parking spaces required under the planning scheme or under an existing development approval.

### **PO75**

The Telecommunications facility<sup>(81)</sup> does not have an adverse impact on the visual amenity of a locality and is:

- a. high quality design and construction;
- b. visually integrated with the surrounding area;
- C. not visually dominant or intrusive;
- d. located behind the main building line;
- e. below the level of the predominant tree canopy or the level of the surrounding buildings and structures:
- f. camouflaged through the use of colours and materials which blend into the landscape;
- g. treated to eliminate glare and reflectivity;
- h. landscaped;
- i. otherwise consistent with the amenity and character of the zone and surrounding area.

### E75.1

Where in an urban area, the development does not protrude more than 5m above the level of the existing treeline, prominent ridgeline or building rooftops in the surrounding townscape.

#### E75.2

In all other areas towers do not exceed 35m in height.

## E75.3

Towers, equipment shelters and associated structures are of a design, colour and material to:

- a. reduce recognition in the landscape;
- b. reduce glare and reflectivity.

### E75.4

All structures and buildings are setback behind the main building line and a minimum of 10m from side and rear boundaries, except where in the Industry and Extractive industry zones, the minimum side and rear setback is 3m.

Where there is no established building line the facility is located at the rear of the site.

## E75.5

The facility is enclosed by security fencing or by other means to ensure public access is prohibited.

### E75.6

A minimum 3m wide strip of dense planting is provided around the perimeter of the fenced area, between the facility and street frontage and adjoining uses.

Note - Landscaping is provided in accordance with Planning scheme policy - Integrated design.

Note - Council may require a detailed landscaping plan, prepared by a suitably qualified person, to ensure compliance with Planning scheme policy - Integrated design.

## **PO76**

### **E76**

Lawful access is maintained to the site at all times that does not alter the amenity of the landscape or surrounding uses.

An Access and Landscape Plan demonstrates how 24 hour vehicular access will be obtained and maintained to the facility in a manner that is appropriate to the site's context.

### **PO77**

## All activities associated with the development occur within an environment incorporating sufficient controls to ensure the facility generates no audible sound at the site boundaries where in a residential setting.

### **E77**

All equipment comprising the Telecommunications facility<sup>(81)</sup> which produces audible or non-audible sound is housed within a fully enclosed building incorporating sound control measures sufficient to ensure no noise from this equipment can be heard, or felt at the site boundary.

### Values and constraints criteria

Note - The relevant values and constraints criteria do not apply where the development is consistent with a current Development permit for Reconfiguring a lot or Material change of use or Operational work, where that approval has considered and addressed (e.g. through a development footprint plan (or similar in the case of Landslide hazard) or conditions of approval) the identified value or constraint under this planning scheme.

## Acid sulfate soils - (refer Overlay map - Acid sulfate soils to determine if the following assessment criteria apply)

Note - To demonstrate achievement of the performance outcome, an Acid sulfate soils (ASS) investigation report and soil management plan is prepared by a qualified engineer. Guidance for the preparation an ASS investigation report and soil management plan is provided in Planning scheme policy - Acid sulfate soils.

### **PO78**

Development avoids disturbing acid sulfate soils. Where development disturbs acid sulfate soils, development:

- is managed to avoid or minimise the release of a. surface or groundwater flows containing acid and metal contaminants into the environment;
- protects the environmental and ecological values b. and health of receiving waters;
- protects buildings and infrastructure from the effects C. of acid sulfate soils.

## **E78**

Development does not involve:

- excavation or otherwise removing of more than a. 100m<sup>3</sup> of soil or sediment where below than 5m Australian Height datum AHD; or
- b. filling of land of more than 500m<sup>3</sup> of material with an average depth of 0.5m or greater where below the 5m Australian Height datum AHD.

## Environmental areas (refer Overlay map - Environmental areas to determine if the following assessment criteria apply)

Note - The following are excluded from the native clearing provisions of this planning scheme:

- Clearing of native vegetation located within an approved development footprint;
- h Clearing of native vegetation within 10m from a lawfully established building reasonably necessary for emergency access or immediately required in response to an accident or emergency;
- Clearing of native vegetation reasonably necessary to remove or reduce the risk vegetation poses to serious personal injury or damage C. to infrastructure:

- d Clearing of native vegetation reasonably necessary to construct and maintain a property boundary fence and not exceed 4m in width either side of the fence where in the Rural, Rural residential and Environmental Management and Conservation zones. In any other zone, clearing is not to exceed 2m in width either side of the fence;
- Clearing of native vegetation reasonably necessary for the purpose of maintenance or works within a registered easement for public e. infrastructure or drainage purposes;
- Clearing of native vegetation in accordance with a bushfire management plan prepared by a suitably qualified person, submitted to and accepted by Council;
- Clearing of native vegetation associated with removal of recognised weed species, maintaining existing open pastures and cropping a. land, windbreaks, lawns or created gardens;
- Grazing of native pasture by stock; h.
- Native forest practice where accepted development under Part 1, 1.7.7 Accepted development.

Note - Definition for native vegetation is located in Schedule 1 Definitions.

Note - Native vegetation subject to this criteria primarily comprises of matters of national environmental significance (MNES), matters of state environmental significance (MSES). They also comprise some matters of local environmental significance (MLES). A MLES is defined in Schedule 1.2, Administrative definitions. A list of the elements that apply to the mapped MSES and MLES is provided in Appendix 1 of the Planning scheme policy - Environmental areas.

Editors' Note - The accuracy of overlay mapping can be challenged through the development application process (code assessable development) or by way of a planning scheme amendment. See Council's website for details.

Editors' Note - When clearing native vegetation within a MSES area, you may still require approval from the State government.

## Vegetation clearing, ecological value and connectivity

## **PO79**

**PO80** 

Development avoids locating in a High Value Area or a Value Offset Area. Where it is not practicable or reasonable for development to avoid establishing in these areas, development must ensure that:

- the quality and integrity of the biodiversity and ecological values inherent to a High Value Area and a Value Offset Area is maintained and not lost or degraded;
- on-site mitigation measures, mechanisms or processes are in place demonstrating the quality and integrity of the biodiversity and ecological values inherent to a High Value Area and a Value Offset Area are maintained. For example, this can be achieved through replacement, restoration or rehabilitation planting as part of any proposed covenant, the development of a Vegetation Management Plan, a Fauna Management Plan, and any other on-site mitigation options identified in the Planning scheme policy - Environmental areas\*.

\* Editor's note - This is not a requirement for an environmental offset under the Environmental Offsets Act 2014.

No example provided.

No example provided.

Development provides for safe, unimpeded, convenient and ongoing wildlife movement and establishes and maintains habitat connectivity by: retaining habitat trees; a. b. providing contiguous patches of habitat; provide replacement and rehabilitation planting to C. improve connectivity; d. avoiding the creation of fragmented and isolated patches of habitat; providing wildlife movement infrastructure. e. Editor's note - Wildlife movement infrastructure may include refuge poles, tree boulevarding, 'stepping stone' vegetation plantings, tunnels, appropriate wildlife fencing; culverts with ledges, underpasses, overpasses, land bridges and rope bridges. Further information is provided in Planning scheme policy – Environmental Vegetation clearing and habitat protection **PO81** No example provided. Development ensures that the biodiversity quality and integrity of habitats is not adversely impacted upon but maintained and protected. **PO82** No example provided. Development does not result in the net loss or degradation of habitat value in a High Value Area or a Value Offset Area. Where development does result in the loss or degradation of habitat value, development will: a. rehabilitate, revegetate, restore and enhance an area to ensure it continues to function as a viable and healthy habitat area; b. provide replacement fauna nesting boxes in the event of habitat tree loss in accordance with Planning scheme policy - Environmental areas; undertake rehabilitation, revegetation and restoration in accordance with the South East Queensland Ecological Restoration Framework. **PO83** No example provided. Development ensures safe, unimpeded, convenient and ongoing wildlife movement and habitat connectivity by: providing contiguous patches of habitat; a. h. avoiding the creation of fragmented and isolated patches of habitat;

## Vegetation clearing and soil resource stability

to improve connectivity.

providing wildlife movement infrastructure;

providing replacement and rehabilitation planting

C.

## **PO84** No example provided. Development does not: result in soil erosion or land degradation; b. leave cleared land exposed for an unreasonable period of time but is rehabilitated in a timely manner. Vegetation clearing and water quality **PO85** No example provided. Development maintains or improves the quality of groundwater and surface water within, and downstream, of a site by: ensuring an effective vegetated buffers and a. setbacks from waterbodies is retained to achieve natural filtration and reduce sediment loads; b. avoiding or minimising changes to landforms to maintain hydrological water flows; C. adopting suitable measures to exclude livestock from entering a waterbody where a site is being used for animal husbandry (4) and animal keeping (5) activities. **PO86** No example provided. Development minimises adverse impacts of stormwater run-off on water quality by: a. minimising flow velocity to reduce erosion; b. minimising hard surface areas; C. maximising the use of permeable surfaces; d. incorporating sediment retention devices; minimising channelled flow. Vegetation clearing and access, edge effects and urban heat island effects **PO87** No example provided. Development retains safe and convenient public access in a manner that does not result in the adverse edge effects or the loss or degradation of biodiversity values within the environment. **PO88** No example provided. Development minimises potential adverse 'edge effects' on ecological values by: providing dense planting buffers of native vegetation a. between a development and environmental areas; b. retaining patches of native vegetation of greatest possible size where located between a development and environmental areas; restoring, rehabilitating and increasing the size of C. existing patches of native vegetation;

6 Zones				
<ul> <li>d. ensuring that buildings and access (public and vehicle) are setback as far as possible from environmental areas and corridors;</li> <li>e. landscaping with native plants of local origin.</li> <li>Editor's note - Edge effects are factors of development that go to detrimentally affecting the composition and density of natural populations at the fringe of natural areas. Factors include weed invasion, pets, public and vehicle access, nutrient loads, noise and light pollution, increased fire frequency and changes in the groundwater and surface water flow.</li> </ul>				
PO89  Development avoids adverse microclimate change and does not result in increased urban heat island effects. Adverse urban heat island effects are minimised by:  a. pervious surfaces; b. providing deeply planted vegetation buffers and green linkage opportunities; c. landscaping with local native plant species to achieve well-shaded urban places; d. increasing the service extent of the urban forest canopy.	No example provided.			
Vegetation clearing and Matters of Local Environmen	ntal Significance (MLES) environmental offsets			
Where development results in the unavoidable loss of native vegetation within a Value Offset Area MLES waterway buffer or a Value Offset Area MLES wetland buffer, an environmental offset is required in accordance with the environmental offset requirements identified in Planning scheme policy - Environmental areas.  Editor's note - For MSES Koala Offsets, the environmental offset provisions in schedule 11 of the Regulation, in combination with the requirements of the Environmental Offset Act 2014, apply.	No example provided.			
Heritage and landscape character (refer Overlay map - Heritage and landscape character to determine if the following assessment criteria apply)  Note - To assist in demonstrating achievement of heritage performance outcomes, a Cultural heritage impact assessment report is prepared by a suitably qualified person verifying the proposed development is in accordance with The Australia ICOMOS Burra Charter.				

Note - To assist in demonstrating achievement of this performance outcome, a Tree assessment report is prepared by a qualified arborist in accordance with Planning scheme policy – Heritage and landscape character. The Tree assessment report will also detail the measures adopted in accordance with AS 4970-2009 Protection of trees on development sites.

Note - Places, including sites, objects and buildings having local cultural heritage significance, are identified on Overlay map - Heritage and landscape character and listed in Schedule 1 of Planning scheme policy - Heritage and landscape character. Places also having cultural heritage significance at a State level and being entered in the Queensland Heritage Register, are also identified in Schedule 1 of Planning scheme policy - Heritage and landscape character.

PO91	E91

## Development will:

- not diminish or cause irreversible damage to the cultural heritage values present on the site, and associated with a heritage site, object or building;
- b. protect the fabric and setting of the heritage site. object or building;
- be consistent with the form, scale and style of the C. heritage site, object or building;
- utilise similar materials to those existing, or where d. this is not reasonable or practicable, neutral materials and finishes;
- incorporate complementary elements, detailing and ornamentation to those present on the heritage site, object or building;
- f. retain public access where this is currently provided.

Development is for the preservation, maintenance, repair and restoration of a site, object or building of cultural heritage value.

Note - A cultural heritage conservation management plan for the preservation, maintenance, repair and restoration of a site, object or building of cultural heritage value is prepared in accordance with Planning scheme policy - Heritage and landscape character. The plan is sent to, and approved by Council prior to the commencement of any preservation, maintenance, repair and restoration works.

### **PO92**

Demolition and removal is only considered where:

- a report prepared by a suitably qualified conservation architect or conservation engineer demonstrates that the building is structurally unsound and is not reasonably capable of economic repair: or
- b. demolition is confined to the removal of outbuildings, extensions and alterations that are not part of the original structure; or
- limited demolition is performed in the course of C. repairs, maintenance or restoration; or
- demolition is performed following a catastrophic event which substantially destroys the building or object.

No example provided.

## **PO93**

Where development is occurring on land adjoining a site of cultural heritage value, the development is to be sympathetic to and consistent with the cultural heritage values present on the site and not result in their values being eroded, degraded or unreasonably obscured from public view.

No example provided.

### **PO94**

Development does not adversely impact upon the health and vitality of significant trees. Where development occurs in proximity to a significant tree, construction measures and techniques as detailed in AS 4970-2009 Protection of trees on development sites are adopted to ensure a significant tree's health, wellbeing and vitality.

Significant trees are only removed where they are in a poor state of health or where they pose a health and safety risk to persons or property. A Tree Assessment report prepared by a suitably qualified arborist confirming a tree's state of health is required to demonstrate achievement of this performance outcome.

### E94

Development does:

- not result in the removal of a significant tree; a.
- not occur within 20m of a protected tree; b.
- C. involve pruning of a tree in accordance with Australian Standard AS 4373-2007 - Pruning of Amenity Trees.

## Overland flow path (refer Overlay map - Overland flow path to determine if the following assessment criteria apply)

Note - The applicable river and creek flood planning levels associated with defined flood event (DFE) within the inundation area can be obtained by requesting a flood check property report from Council.

## **PO95** No example provided. Development: minimises the risk to persons from overland flow; a. does not increase the potential for damage from overland flow either on the premises or other premises, public land, watercourses, roads or infrastructure. **PO96** No example provided. Development: maintains the conveyance of overland flow predominantly unimpeded through the premises for any event up to and including the 1% AEP for the fully developed upstream catchment; b. does not concentrate, intensify or divert overland flow onto an upstream, downstream or surrounding property. Note - A report from a suitably qualified Registered Professional Engineer Queensland is required certifying that the development does not increase the potential for significant adverse impacts on an upstream, downstream or surrounding premises. Note - Reporting to be prepared in accordance with Planning scheme policy - Flood hazard, Coastal hazard and Overland flow. **PO97** No example provided. Development does not: a. directly, indirectly or cumulatively cause any increase in overland flow velocity or level; b. increase the potential for flood damage from overland flow either on the premises or other premises, public lands, watercourses, roads or infrastructure. Note - Open concrete drains greater than 1m in width are not an acceptable outcome, nor are any other design options that may increase scouring. **PO98 E98** Development ensures that public safety and the risk to Development ensures that a hazardous chemical is not the environment are not adversely affected by a located or stored in an Overland flow path area. detrimental impact of overland flow on a hazardous chemical located or stored on the premises.

	Note - Refer to the Work Health and Safety Act 2011 and associated Regulation and Guidelines, the Environmental Protection Act 1994 and the relevant building assessment provisions under the Building Act 1975 for requirements related to the manufacture and storage of hazardous substances.
PO99  Development which is not in a Rural zone ensures that overland flow is not conveyed from a road or public open space onto a private lot.	E99  Development which is not in a Rural zone that an overland flow paths and drainage infrastructure is provided to convey overland flow from a road or public open space area away from a private lot.
PO100  Development ensures that inter-allotment drainage infrastructure, overland flow paths and open drains through private property cater for overland flows for a fully developed upstream catchment and are able to be easily maintained.  Note - A report from a suitably qualified Registered Professional Engineer Queensland is required certifying that the development does not increase the potential for significant adverse impacts on an upstream, downstream or surrounding premises.  Note - Reporting to be prepared in accordance with Planning scheme policy – Flood hazard, Coastal hazard and Overland flow	E100.1  Development ensures that roof and allotment drainage infrastructure is provided in accordance with the following relevant level as identified in QUDM:  a. Urban area – Level III; b. Rural area – N/A; c. Industrial area – Level V; d. Commercial area – Level V.  E100.2  Development ensures that inter-allotment drainage infrastructure is designed to accommodate any event up to and including the 1% AEP for the fully developed upstream catchment.
PO101  Development protects the conveyance of overland flow such that an easement for drainage purposes is provided over:  a. a stormwater pipe if the nominal pipe diameter exceeds 300mm;  b. an overland flow path where it crosses more than one premises;  c. inter-allotment drainage infrastructure.  Note - Refer to Planning scheme policy - Integrated design for details and examples.  Note - Stormwater Drainage easement dimensions are provided in accordance with Section 3.8.5 of QUDM.	No example provided.
Additional criteria for development for a Park <sup>(57)</sup>	
PO102	E102

Development for a Park<sup>(57)</sup> ensures that the design and layout responds to the nature of the overland flow affecting the premises such that:

- a. public benefit and enjoyment is maximised;
- b. impacts on the asset life and integrity of park structures is minimised;
- C. maintenance and replacement costs are minimised.

Development for a Park<sup>(57)</sup> ensures works are provided in accordance with the requirements set out in Appendix B of the Planning scheme policy - Integrated design.

### Riparian and wetland setbacks

### PO103

Development provides and maintains a suitable setback from waterways and wetlands that protects natural and environmental values. This is achieved by recognising and responding to the following matters:

- impact on fauna habitats; a.
- b. impact on wildlife corridors and connectivity;
- C. impact on stream integrity;
- d. impact of opportunities for revegetation and rehabilitation planting;
- edge effects. e.

### E103

Development does not occur within:

- 50m from top of bank for W1 waterway and drainage line
- 30m from top of bank for W2 waterway and b. drainage line
- 20m from top of bank for W3 waterway and C. drainage line
- d. 100m from the edge of a Ramsar wetland, 50m from all other wetlands.

Note - W1, W2 and W3 waterway and drainage lines, and wetlands are mapped on Schedule 2, Section 2.5 Overlay Maps – Riparian and wetland setbacks.

## 6.2.7.5 Marine industry precinct

### 6.2.7.5.1 Purpose - Marine industry precinct

- The purpose of the code will be achieved through the following overall outcomes for the Marine Industry Precinct:
  - Development in the precinct supports the continued viability of waterfront-based industry in the region, through the co-location of Port services<sup>(61)</sup>, Marine industry<sup>(45)</sup> and related activities which support industry a. and its supply chain.
  - b. Development in the precinct avoids land-use activities which:
    - i. compromise or sterilise existing or future waterfront based industrial activities in the precinct;
    - ii. undermine the investment made in waterfront and marine infrastructure, including marinas and access roads:
    - iii. occupy large land areas and do not require waterfront access.
  - Development for non-industrial uses including Caretaker's accommodation (10), Food and drink outlets (28) C and community activities may be established in the precinct where they require access to a navigable waterway or provide support or complementary services to maritime activities.
  - The scale, character and built form of development has a high standard of commercial and industrial design d. which reflects the maritime character of the precinct and incorporates crime prevention through environmental design (CPTED) principles.
  - Development is located, designed and managed to maintain the health and safety of people, avoid significant adverse effects on the natural environment and minimise the possibility of adverse impacts on nearby non-industrial uses.
  - f. Development has access to infrastructure and essential services and convenient access to major transport routes.
  - Sensitive land uses in the precinct do not compromise existing or future industrial activities. g.
  - Special industry<sup>(79)</sup> does not establish within the precinct. h.
  - Service industry, Warehouse (88), Low impact industry (42) and Medium impact industry (47) uses only occur i. in the precinct where:
    - i. there is a direct nexus with maritime activities occurring in the precinct;
    - ii. Involving manufacturing, repair, processing, storage or maintenance activities associated with watercraft or seafood;
    - iii. appropriate separation distances are maintained to sensitive land uses.
  - Built form including height of buildings used for the storage or repair of medium to large scale vessels j. contribute to a high standard of amenity and are sensitively located to minimise any adverse impacts on adjoining properties.
  - Development incorporates best practice responses to the environmental constraints and values of it's k. location adjacent to coastal areas and waterways.
  - I. Development does not compromise the safe and efficient operation of adjacent waterways.
  - Development in the Scarborough Harbour: m.
    - incorporates a range of waterfront industrial and related commercial activities which support the i. continued growth of the harbour;

- may include activities which do not require waterfront access or have a nexus with Marine industry (45), ii. only where these activities enhance the competitive advantage of the Marine industry (45) cluster and ensure the area is an attractive place to work and do business;
- may only incorporate sensitive land uses where these uses are appropriately separated from existing and future industrial activities and do not compromise the long-term development of the harbour.
- General works associated with the development achieves the following:
  - i. new development is provided with a high standard of services to meet and support the current and future needs of users of the site, including roads, street lighting services, telecommunications and reticulated electricity (underground wherever possible), water and sewerage (where available);
  - the development manages stormwater to: ii.
    - A. ensure the discharge of stormwater does not adversely affect the quality, environmental values or ecosystem functions of downstream receiving waters;
    - B. prevent stormwater contamination and the release of pollutants;
    - C. maintain or improve the structure and condition of drainage lines and riparian areas;
    - D. avoid off-site adverse impacts from stormwater.
  - the development does not result in unacceptable impacts on the capacity and safety of the external road network;
  - iv. the development ensures the safety, efficiency and useability of access ways and parking areas;
  - site works including earthworks are managed to be safe and have minimal impacts on adjoining or ٧. adjacent premises, the streetscape or the environment.
- Activities associated with the use do not cause a nuisance by way of aerosols, fumes, light, noise, odour, Ο. particles or smoke.
- Noise generating uses are designed, sited and constructed to minimise the transmission of noise to p. appropriate levels and do not cause environmental harm or nuisance.
- Noise sensitive uses are designed, sited and constructed so as not to be subject to unacceptable levels q. of noise.
- Development avoids areas subject to constraint, limitation, or environmental value. Where development r. cannot avoid these identified areas, it responds by:
  - i. adopting a 'least risk, least impact' approach when designing, siting and locating development in any area subject to a constraint, limitation or environmental value to minimise the potential risk to people. property and the environment;
  - ensuring no further instability, erosion or degradation of the land, water or soil resource; ii.
  - when located within a Water buffer area, complying with the Water Quality Vision and Objectives contained in the Segwater Development Guidelines: Development Guidelines for Water Quality Management in Drinking Water Catchments 2012.
  - maintaining, restoring and rehabilitating environmental values, including natural, ecological, biological, aquatic, hydrological and amenity values, and enhancing these values through the provision of planting and landscaping, and facilitating safe wildlife movement and connectivity through:
    - the provision of replacement, restoration, rehabilitation planting and landscaping; Α.
    - the location, design and management of development to avoid or minimise adverse impacts on В. ecological systems and processes;
    - C. the requiring of environmental offsets in accordance with the Environmental Offsets Act 2014.
  - protecting native species and protecting and enhancing species habitat;
  - protecting and preserving the natural, aesthetic, architectural historic and cultural values of significant trees, places, objects and buildings of heritage and cultural significance;
  - establishing effective separation distances, buffers and mitigation measures associated with identified vii. infrastructure to minimise adverse effects on sensitive land uses from odour, noise, dust and other nuisance generating activities;

- establishing, maintaining and protecting appropriate buffers to waterways, wetlands, native vegetation and significant fauna habitat;
- ix. ensuring it promotes and does not undermine the ongoing viability, integrity, operation, maintenance and safety of identified infrastructure;
- ensuring effective and efficient disaster management response and recovery capabilities; Χ.
- xi. where located in an overland flow path:
  - A. development siting, built form, layout and access responds to the risk presented by the overland flow and minimises risk to personal safety;
  - development is resilient to the impacts of overland flow by ensuring the siting and design accounts B. for the potential risks to property associated with the overland flow;
  - development does not impact on the conveyance of the overland flow for any event up to and C. including the 1% AEP for the fully developed upstream catchment;
  - D. development directly, indirectly and cumulatively avoid an increase in the severity of overland flow and potential for damage on the premises or other premises, public lands, watercourses, roads or infrastructure.
- Development in the Marine industry precinct includes one or more of the following: S.

•	Aquaculture <sup>(6)</sup> -if in a	•	Environment facility <sup>(26)</sup>	•	Marine industry <sup>(45)</sup>
	building	•	Food and drink outlet <sup>(28)</sup> -	•	Port services <sup>(61)</sup>
•	Caretaker's accommodation <sup>(10)</sup>		if a maximum GFA of 100m <sup>2</sup>	•	Sales office <sup>(72)</sup>
•	Emergency services <sup>(25)</sup>	•	Landing <sup>(41)</sup>		

t. Development in the Marine industry precinct does not include any of the following:

•	Adult store <sup>(1)</sup>	•	Extractive industry <sup>(27)</sup>	•	Parking station <sup>(58)</sup>
•	Agricultural supplies store <sup>(2)</sup>	•	Function facility <sup>(29)</sup>	•	Permanent plantation <sup>(59)</sup>
•	Air services <sup>(3)</sup> - if not in	•	Funeral parlour <sup>(30)</sup>	•	Place of worship <sup>(60)</sup>
	Scarborough Harbour	•	Garden centre <sup>(31)</sup>	•	Relocatable home park <sup>(62)</sup>
•	Animal husbandry <sup>(4)</sup>	•	Health care services (33)	•	Renewable energy facility <sup>(63)</sup>
•	Animal keeping <sup>(5)</sup>	•	Hospital <sup>(36)</sup>	•	Residential care facility <sup>(65)</sup>
•	Bar <sup>(7)</sup>	•	Hotel <sup>(37)</sup>	•	Resort complex <sup>(66)</sup>
•	Brothel <sup>(8)</sup>		Indoor sport and	•	Retirement facility <sup>(67)</sup>
•	Cemetery <sup>(12)</sup>		recreation <sup>(38)</sup>		Roadside stall <sup>(68)</sup>
•	Child care centre <sup>(13)</sup>	•	Intensive animal industry <sup>(39)</sup>	•	
•	Club <sup>(14)</sup> - if not in	•	Intensive horticulture <sup>(40)</sup>	•	Rooming accommodation <sup>(69)</sup>
	Scarborough Harbour	•	Major electricity	•	Rural industry <sup>(70)</sup>
•	Community care centre <sup>(15)</sup>		infrastructure <sup>(43)</sup>	•	Rural workers' accommodation <sup>(71)</sup>
•	Community residence <sup>(16)</sup>	•	Major sport, recreation and	•	Shopping centre
•	Community use <sup>(17)</sup>		entertainment facility <sup>(44)</sup>	•	Shopping centre

•	Crematorium <sup>(18)</sup>	•	Motor sport facility <sup>(48)</sup>	•	Short-term accommodation <sup>(77)</sup> - if not in
•	Cropping <sup>(19)</sup>	•	Multiple dwelling <sup>(49)</sup>		Scarborough Harbour
•	Detention facility <sup>(20)</sup>	•	Nature-based tourism <sup>(50)</sup>	•	Showroom <sup>(78)</sup>
•	Dual occupancy <sup>(21)</sup>	•	Non-resident workforce accommodation	•	Special industry <sup>(79)</sup>
•	Dwelling house <sup>(22)</sup>			•	Theatre <sup>(82)</sup>
•	Dwelling unit <sup>(23)</sup>	•	Nightclub entertainment facility <sup>(51)</sup>	•	Tourist park <sup>(84)</sup>
•	Educational establishment <sup>(24)</sup>	•	Office <sup>(53)</sup>	•	Veterinary services <sup>(87)</sup>
	Cotabilorimont	•	Outdoor sport and	•	Wholesale nursery <sup>(89)</sup>
			recreation <sup>(55)</sup>	•	Winery <sup>(90)</sup>

Development not listed above may be considered on its merits and where it reflects and supports the outcomes of the precinct.

## 6.2.7.5.2 Criteria for assessable development

Where development is categorised as assessable development - code assessment in the Table of Assessment, and located in a precinct, the assessment benchmarks are the criteria set out in Part F, Table 6.2.7.5.1 as well as the purpose statement and overall outcomes of this code.

Where development is categorised as assessable development - impact assessment, the assessment benchmarks become the whole of the planning scheme.

## Part F—Criteria for assessable development - Marine industry precinct

Table 6.2.7.5.1 Assessable development - Marine industry precinct

Performance outcomes	Examples that achieve aspects of the Performance Outcomes
General	l criteria
Development in the Marine industry precinct general	ly
PO1	No example provided.
Development in the precinct is for marine-based industrial activities or commercial activities which have a direct nexus with maritime activities in the precinct.	
PO2	E2
Development does not compromise the role of Scarborough harbour providing public facilities for boat launching and access to deep water.	Development does not obstruct existing public access to boat launching facilities.
PO3	No example provided.

Watercraft traffic generated by the development remains within the capacity of the adjacent waterways and and navigational facilities. Site cover **PO4** No example provided. Site cover is limited to a proportion of a site that ensures: A sufficient number and type of vehicle parking spaces are provided on the site to meet the parking demands and expectations of the proposed use; b. Any type of vehicle expected to visit the site on a regular basis is able to access and leave the site in a forward direction with clear manoeuvring on the site: C. setbacks to boundaries maximise the efficient use of the site while ensuring positive interfaces with public space or sensitive land uses; Areas of landscaping are provided to soften the built form and hard stand impacts of development whilst providing areas of natural space on a site. **Building height PO5 E5** The height of buildings is in keeping with the predominant Building height does not exceed the maximum height marine industrial character of the precinct and does not identified on Overlay map - Building heights. cause adverse amenity impacts on sensitive land uses and zones. **Setbacks PO6** Street boundary setbacks: Buildings maintain a minimum setback of : minimise building bulk and visual dominance from 6m to the street frontage (other than the Bruce the street: Highway); b. provide areas for landscaping at the front of the b. 3m to the secondary street frontage; C. 10m to a boundary adjoining the Bruce Highway. allow for customer parking to be located at the front C. of the building. **PO7 E7** Building setbacks allow access to the waterway and do Buildings are setback 4m from the waters edge,

not compromise future marine industries and port

services from accessing the waters edge.

measured from the top edge of bank.

### **PO8**

Side and rear boundary setbacks maintain views, privacy, access to natural light and the visual amenity of adjoining sensitive land uses.

### **E**8

Where a development adjoins general residential zoned land, the building is setback a minimum of 3m from the property boundary with dense landscaping installed along the boundary to provide screening of the development with a mature height of at least 3m.

Note - Refer to Planning scheme policy - Integrated design for determining acceptable levels of landscaping for screening purposes.

## **Building appearance and design**

### **PO9**

Buildings on highly visible sites incorporate a high standard of industrial design and construction, which adds visual interest to the streetscape and reduces the perceived bulk of the building from the street.

No example provided.

### Staff recreation

### **PO10**

Staff are provided with adequate and amendable break/dining facilities to suit the nature of the activities on-site.

### E10

Where the nature of the activities on-site do not allow staff to eat in their work environment, the development provides an on-site recreation area for staff that:

- Includes adequate seating, tables and rubbish bins for the number of staff on-site;
- b. is adequately protected from the weather;
- C. is safely accessible to all staff;
- d. is separate and private from public areas;
- is located away from a noisy or odorous activity.

## Landscaping

### **PO11**

Landscaping is provided to:

- visually soften the built form, areas of hardstand, a. storage areas and mechanical plant associated with the on-site processes;
- b. complement the existing or desired streetscape;
- minimise the impact of industrial development on C. adjoining lots not zoned for industrial purposes.

### E11

Landscaping is provided and maintained in accordance with Planning scheme policy - Integrated design.

### **Fencing**

**PO12** 

E12

The provision of fencing on street frontages does not dominate the street or create safety issues.

Note - The following example illustrates an acceptable design response to this outcome.



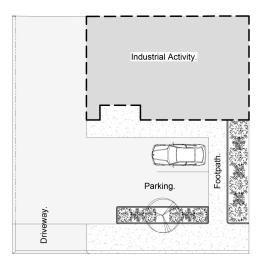
Where fencing is provided on the street frontage, fence sections between columns or posts have a minimum transparency of 70% spread evenly across its total surface area.

### **Public access**

### **PO13**

The use has safe, clearly identifiable public access separated from service and parking areas.

Note - The following example illustrates an acceptable design response to this outcome.



### E13.1

Pedestrian linkages are provided from the street and customer car parking areas directly to the main entrance of the building.

### E13.2

The public access is separated from industrial service areas.

### Movement network

## **PO14**

Development maintains, contributes to or provides for interconnected street, pedestrian and cyclist networks. No example provided.

Note - Refer to Planning scheme policy - Neighbourhood design for guidance on achieving the above outcome.

## Car parking

### **PO15**

Car parking is provided on-site to meet the anticipated demand for employees and visitors and avoid adverse impacts on the external road network.

Note - Refer to Planning scheme policy - Integrated transport assessment for guidance on how to achieve compliance with this outcome.

### E15

Car parking is provided in accordance with Schedule 7 Car parking.

### **PO16**

The design of car parking areas:

- does not impact on the safety of the external road network:
- b. ensures the safety of pedestrians at all times;
- ensures the safe movement of vehicles within the C. site.

### E16

All car parking areas are designed and constructed in accordance with Australian Standard AS2890.1 Parking facilities Part 1: Off-street car parking.

## Bicycle parking and end of trip facilities

Note - Building work to which this code applies constitutes Major Development for purposes of development requirements for end of trip facilities prescribed in the Queensland Development Code MP 4.1.

### **PO17**

- End of trip facilities are provided for employees or occupants, in the building or on-site within a reasonable walking distance, and include:
  - adequate bicycle parking and storage i. facilities; and
  - ii. adequate provision for securing belongings;
  - iii. change rooms that include adequate showers, sanitary compartments, wash basins and mirrors.
- Notwithstanding a. there is no requirement to provide end of trip facilities if it would be unreasonable to provide these facilities having regard to:
  - the projected population growth and forward planning for road upgrading and development of cycle paths; or

### E17.1

Minimum bicycle parking facilities are provided at a rate of 1 bicycle parking space for every 3 vehicles parking spaces required by Schedule 7 - Car parking.

Editor's note - The examples for end of trip facilities prescribed under the Queensland Development Code permit a local planning instrument to prescribe facility levels higher than the default levels identified in those acceptable solutions. This example is a combination of the default levels set for end of trip facilities in the Queensland Development Code and the additional facilities required by Council.

### E17.2

Bicycle parking is:

- provided in accordance with Austroads (2008), Guide to Traffic Management - Part 11: Parking;
- protected from the weather by its location or a b. dedicated roof structure;

- ii. whether it would be practical to commute to and from the building on a bicycle, having regard to the likely commute distances and nature of the terrain: or
- iii. the condition of the road and the nature and amount of traffic potentially affecting the safety of commuters.

Editor's note - The intent of b above is to ensure the requirements for bicycle parking and end of trip facilities are not applied in unreasonable circumstances. For example these requirements should not, and do not apply in the Rural zone or the Rural residential zone etc.

Editor's note - This performance outcome is the same as the Performance Requirement prescribed for end of trip facilities under the Queensland Development Code. For development incorporating building work, that Queensland Development Code performance requirement cannot be altered by a local planning instrument and has been reproduced here solely for information purposes. Council's assessment in its building work concurrence agency role for end of trip facilities will be against the performance requirement in the Queensland Development Code. As it is subject to change at any time, applicants for development incorporating building work should ensure that proposals that do not comply with the examples under this heading meet the current performance requirement prescribed in the Queensland Development Code.

- located within the building or in a dedicated, secure structure for residents and staff;
- d. adjacent to building entrances or in public areas for customers and visitors.

Note - Bicycle parking structures are to be constructed to the standards prescribed in AS2890.3.

Note - Bicycle parking and end of trip facilities provided for residential and non-residential activities may be pooled, provided they are within 100 metres of the entrance to the building.

Editor's note - The examples for end of trip facilities prescribed under the Queensland Development Code permit a local planning instrument to prescribe facility levels higher than the default levels identified in those acceptable solutions. This example is an amalgamation of the default levels set for end of trip facilities in the Queensland Development Code and the additional facilities required by Council.

### E17.3

For non-residential uses, storage lockers:

- are provide at a rate of 1.6 per bicycle parking a. space (rounded up to the nearest whole number);
- b. have minimum dimensions of 900mm (height) x 300mm (width) x 450mm (depth).

Note - Storage lockers may be pooled across multiple sites and activities when within 100 metres of the entrance to the building and within 50 metres of bicycle parking and storage facilities.

Editor's note - The examples for end of trip facilities prescribed under the Queensland Development Code permit a local planning instrument to prescribe facility levels higher than the default levels identified in those acceptable solutions. This example is an amalgamation of the default levels set for end of trip facilities in the Queensland Development Code and the additional facilities required by Council.

### E17.4

For non-residential uses, changing rooms:

- are provided at a rate of 1 per 10 bicycle parking a. spaces;
- b. are fitted with a lockable door or otherwise screened from public view;
- are provided with shower(s), sanitary compartment(s) and wash basin(s) in accordance with the table below:

Bicycle spaces provided	Male/ Female	Change rooms required	Showers required	Sanitary compartments required	Washbasins required
-------------------------------	-----------------	-----------------------------	------------------	--------------------------------------	---------------------

1-5	Male and female	1 unisex change room	1	1 closet pan	1
6-19	Female	1	1	1 closet pan	1
20 or more	Male	1	1	1 closet pan	1
more	Female	1	2, plus 1 for every 20 bicycle spaces provided thereafter	2 closet pans, plus 1 sanitary compartment for every 60 bicycle parking spaces provided thereafter	1, plus 1 for every 60 bicycle parking spaces provided thereafter
	Male	1	2, plus 1 for every 20 bicycle spaces provided thereafter	1 urinal and 1 closet pans, plus 1 sanitary compartment at the rate of 1 closet pan or 1 urinal for every 60 bicycle space provided thereafter	1, plus 1 for every 60 bicycle parking spaces provided thereafter

Note - All showers have a minimum 3-star Water Efficiency Labelling and Standards (WELS) rating shower head.

Note - All sanitary compartments are constructed in compliance with F2.3 (e) and F2.5 of BCA (Volume 1).

#### d. are provided with:

- i. a mirror located above each wash basin;
- ii. a hook and bench seating within each shower compartment;
- a socket-outlet located adjacent to each wash iii. basin.

Note - Change rooms may be pooled across multiple sites, residential and non-residential activities when within 100 metres of the entrance to the building and within 50 metres of bicycle parking and storage facilities

Editor's note - The examples for end of trip facilities prescribed under the Queensland Development Code permit a local planning instrument to prescribe facility levels higher than the default levels identified in those acceptable solutions. This example is an amalgamation of the default levels set for end of trip facilities in the Queensland Development Code and the additional facilities required by Council.

## Loading and servicing

## **PO18**

Service areas, including loading/unloading facilities, plant areas and outdoor storage areas, are screened from the direct view from land not included in the Industry zone and sub-arterial and arterial roads.

Note - If landscaping is proposed for screening purposes, refer to Planning scheme policy - Integrated design for determining acceptable levels.

No example provided.

## Waste **PO19** E19 Bins and bin storage area/s are designed, located and Development is designed to meet the criteria in the managed to prevent amenity impacts on the locality. Planning scheme policy - Waste and is demonstrated in a waste management program. **Environmental impacts PO20** E20 Where a use is not an environmentally relevant activity Development achieves the standard listed in Schedule under the Environmental Protection Act, the release of 1 Air Quality Objectives, Environmental Protection (Air) any containment that may cause environmental harm is Policy 2008. mitigated to an acceptable level. **PO21** E21.1 Development does not adversely impact surrounding The development does not discharge pollutants into ecological system features, including: adjacent waterways. Water quality; a. E21.2 b. Air quality; Soil quality; C. The development does not cause an environmental d. Disturbance to marine habitat. nuisance or harm to marine habitat. E21.3 Where involving a marina, the development is capable of providing sewer facilities for the disposal of sewage, liquid waste and contaminated bilge water. Lighting **PO22 E22** Lighting is directed and shielded to not cause Artificial lighting on-site is directed and shielded in such unreasonable disturbance to any person on adjoining a manner as not to exceed the recommended maximum land. values of light technical parameters for the control of obtrusive light given in Table 2.1 of Australian Standard AS 4282 (1997) Control of Obtrusive Effects of Outdoor Lighting. Note - "Curfewed hours" are taken to be those hours between 10pm and 7am on the following day Noise **PO23** No example provided. Noise generating uses do not adversely affect existing noise sensitive uses.

Note - The use of walls, barriers or fences that are visible from or adjoin a road or public area are not appropriate noise attenuation measures unless adjoining a motorway, arterial road or rail line.

Note - A noise impact assessment may be required to demonstrate compliance with this PO. Noise impact assessments are to be prepared in accordance with Planning scheme policy - Noise.

### **PO24**

Sensitive land uses are provided with an appropriate acoustic environment within designated external private outdoor living spaces and internal areas while:

- contributing to safe and usable public spaces, through maintaining high levels of surveillance of parks, streets and roads that serve active transport purposes (e.g. existing or future pedestrian paths or cycle lanes etc);
- maintaining the amenity of the streetscape. b.

Note - A noise impact assessment may be required to demonstrate compliance with this PO. Noise impact assessments are to be prepared in accordance with Planning scheme policy - Noise.

Note - Refer to Planning Scheme Policy - Integrated design for details and examples of noise attenuation structures.

### E24.1

Development is designed to meet the criteria outlined in the Planning Scheme Policy - Noise.

### E24.2

Noise attenuation structures (e.g. walls, barriers or fences):

- a. are not visible from an adjoining road or public area unless:
  - i. adjoining a motorway or rail line; or
  - adjoining part of an arterial road that does not serve an existing or future active transport purpose (e.g. pedestrian paths or cycle lanes) or where attenuation through building location and materials is not possible.
- do not remove existing or prevent future active transport routes or connections to the street network;
- are located, constructed and landscaped in accordance with Planning scheme policy -Integrated design.

Note - Refer to Planning scheme policy - Integrated design for details and examples of noise attenuation structures.

Note - Refer to Overlay map - Active transport for future active transport routes.

### **Emissions into Brisbane operational airspace**

## **PO25**

Emissions do not significantly increase air turbulence, reduce visibility or compromise the operation of aircraft engines in Brisbane airport's operational airspace.

Note - Refer to State Planning Policy December 2013 mapping to identify Brisbane airport's operational airspace.

## E25.1

Development does not emit a gaseous plume into the airport's operational airspace at a velocity exceeding 4.3m per second.

### E25.2

Development emitting smoke, dust, ash, steam or a gaseous plume exceeding 4.3m per second is designed and constructed to mitigate adverse impacts of emissions upon operational airspace.

### **Hazardous Chemicals**

Note - To assist in demonstrating compliance with the following performance outcomes, a Hazard Assessment Report may be required to be prepared and submitted by a suitably qualified person in accordance with 'State Planning Policy Guideline - Guidance on development involving hazardous chemicals'.

Terms used in this section are defined in State 'State Planning Policy Guideline - Guidance on development involving hazardous chemicals'.

### **PO26**

Off sites risks from foreseeable hazard scenarios involving hazardous chemicals are commensurate with the sensitivity of the surrounding land use zones.

### E26.1

Off site impacts or risks from any foreseeable hazard scenario does not exceed the dangerous dose at the boundary of land zoned for vulnerable or sensitive land uses as described below:

## **Dangerous Dose**

- For any hazard scenario involving the release of gases or vapours:
  - AEGL2 (60minutes) or if not available ERPG2;
  - An oxygen content in air <19.5% or >23.5% at normal atmospheric pressure.
- For any hazard scenario involving fire or explosion: b.
  - i. 7kPa overpressure;
  - 4.7kW/m2 heat radiation. ii.

If criteria E26.1 (a) or (b) cannot be achieved, then the risk of any foreseeable hazard scenario shall not exceed an individual fatality risk level of 0.5 x 10-6/year.

### E26.2

Off site impacts or risks from any foreseeable hazard scenario does not exceed the dangerous dose at the boundary of a commercial or community activity land use zone as described below:

## Dangerous Dose

- For any hazard scenario involving the release of gases or vapours:
  - AEGL2 (60minutes) or if not available ERPG2; i.
  - An oxygen content in air <19.5% or >23.5% at normal atmospheric pressure.
- b. For any hazard scenario involving fire or explosion:

	i. 7kPa overpressure;
	' '
	ii. 4.7kW/m2 heat radiation.
	If criteria E26.2 (a) or (b) cannot be achieved, then the risk of any foreseeable hazard scenario shall not exceed an individual fatality risk level of 5 x 10-6/year.
	E26.3
	Off site impacts or risks from any foreseeable hazard scenario does not exceed the dangerous dose at the boundary of an industrial land use zone as described below:
	Dangerous Dose
	For any hazard scenario involving the release of gases or vapours:
	i. AEGL2 (60minutes) or if not available ERPG2;
	ii. An oxygen content in air <19.5% or >23.5% at normal atmospheric pressure.
	b. For any hazard scenario involving fire or explosion:
	i. 14kPa overpressure;
	ii. 12.6kW/m2 heat radiation.
	If criteria E26.3 (a) or (b) cannot be achieved, then the risk of any foreseeable hazard scenario shall not exceed an individual fatality risk level of 50 x 10-6/year.
PO27	E27
Buildings and package stores containing fire-risk hazardous chemicals are designed to detect the early stages of a fire situation and notify a designated person.	Buildings and package stores containing fire-risk hazardous chemicals are provided with 24 hour monitored fire detection system for early detection of a fire event.
PO28	E28
Common storage areas containing packages of flammable and toxic hazardous chemicals are designed with spill containment system(s) that are adequate to contain releases, including fire fighting media.	Storage areas containing packages of flammable and toxic hazardous chemicals are designed with spill containment system(s) capable of containing a minimum of the total aggregate capacity of all packages plus the maximum operating capacity of any fire protection system for the storage area(s) over a minimum of 60 minutes.
PO29	E29.1

Storage and handling areas, including manufacturing areas, containing hazardous chemicals in quantities greater than 2,500L or kg within a Local Government "flood hazard area" are located and designed in a manner to minimise the likelihood of inundation of flood waters from creeks, rivers, lakes or estuaries.

The base of any tank with a WC >2,500L or kg is higher than any relevant flood height level identified in an area's flood hazard area. Alternatively:

- a. bulk tanks are anchored so they cannot float if submerged or inundated by water; and
- b. tank openings not provided with a liquid tight seal, i.e. an atmospheric vent, are extended above the relevant flood height level.

### E29.2

The lowest point of any storage area for packages >2,500L or kg is higher than any relevant flood height level identified in an area's flood hazard area. Alternatively, package stores are provided with impervious bund walls or racking systems higher than the relevant flood height level.

## Clearing of habitat trees where not located within the Environmental areas overlay map

### **PO30**

- Development ensures that the biodiversity quality a. and integrity of habitats is not adversely impacted upon but maintained and protected.
- b. Development does not result in the net loss of fauna habitat. Where development does result in the loss of a habitat tree, development will provide replacement fauna nesting boxes at the following rate of 1 nest box for every hollow removed. Where hollows have not yet formed in trees > 80cm in diameter at 1.3m height, 3 nest boxes are required for every habitat tree removed.
- Development does not result in soil erosion or land degradation or leave land exposed for an unreasonable period of time but is rehabilitated in a timely manner

Note: Further guidance on habitat trees is provided in Planning scheme policy - Environmental areas

No example provided.

## Works criteria

## **Utilities**

### **PO31**

All services including water supply, sewage disposal, electricity, street lighting, telecommunications and gas (if available) are provided in accordance with Planning scheme policy - Integrated design (Appendix A).

No example provided.

Access	
PO32  Where required, access easements contain a driveway and provision for services appropriate to the use. The easement covers all works associated with the access in accordance with Planning scheme policy - Integrated design.	No example provided.
The layout of the development does not compromise:  a. the development of the road network in the area;  b. the function or safety of the road network;  c. the capacity of the road network.	E33.1  The development provides for the extension of the road network in the area in accordance with Council's road network planning.  E33.2  The development does not compromise future road widening of frontage roads in accordance with the
Note - The road hierarchy is mapped on Overlay map - Road hierarchy.	relevant standard and Council's road planning.  E33.3  The development layout allows forward vehicular access to and from the site.
PO34  Safe access is provided for all vehicles required to access the site.	E34.1  Site access and driveways are designed, located and constructed in accordance with:  a. where for a Council-controlled road and associated with a Dwelling house:  i. Planning scheme policy - Integrated design;  b. where for a Council-controlled road and not associated with a Dwelling house:  i. AS/NZS2890.1 Parking facilities Part 1: Off street car parking;  ii. AS 2890.2 - Parking facilities Part 2: Off-street commercial vehicle facilities;  iii. Planning scheme policy - Integrated design;  iv. Schedule 8 - Service vehicle requirements;  c. where for a State-Controlled road, the Safe Intersection Sight Distance requirements in Austroads and the appropriate IPWEAQ standard drawings, or a copy of a Transport Infrastructure Act 1994, section 62 approval.

### E34.2

Internal driveways, car parks and access ways are designed and constructed with a sealed pavement and in accordance with:

- AS/NZS 2890.1 Parking Facilities Part 1: Off street car parking;
- b. AS 2890.2 Parking Facilities Part 2: Off street commercial vehicle facilities;
- Planning scheme policy Integrated design; and C.
- d. Schedule 8 - Service vehicle requirements.

Note - This includes queue lengths (refer to Schedule 8 -Service vehicle requirements), pavement widths and construction.

### E34.3

Access driveways, manoeuvring areas and loading facilities are sealed and provide for service vehicles listed in Schedule 8 - Service vehicle requirements for the relevant use. The on-site manoeuvring is to be in accordance with Schedule 8 - Service vehicle requirements.

### E34.4

Access driveways, manoeuvring areas and loading facilities are constructed with reinforced concrete road pavements. Concrete is to be designed in accordance with rigid road pavement design principles.

Note - Pavements are to be designed by an RPEQ.

### E34.5

Landscaping (including shade trees) is provided within car parks in accordance with Planning scheme policy -Integrated design.

## **PO35**

Sealed and flood free road access during the minor storm event is available to the site from the nearest arterial or sub-arterial road.

Editor's note - Where associated with a State-controlled road, further requirements may apply, and approvals may be required from the Department of Transport and Main Roads.

## E35

Roads or streets giving access to the development from the nearest arterial or sub-arterial road are flood free during the minor storm event and are sealed.

Note - The road network is mapped on Overlay map - Road hierarchy.

### **PO36**

E36.1

Roads which provide access to the site from an arterial or sub-arterial road remain trafficable during major storm events without flooding or impacting upon residential properties or other premises.

Access roads to the development have sufficient longitudinal and cross drainage to remain safely trafficable during major storm (1% AEP) events.

Note - The road network is mapped on Overlay map - Road hierarchy.

Note - Refer to QUDM for requirements regarding trafficability.

### E36.2

Culverts and causeways do not increase inundation levels or increase velocities, for all events up to the defined flood event, to upstream or downstream properties.

## Street design and layout

### **PO37**

Streets are designed and constructed in accordance with Planning scheme policy - Integrated design and Planning scheme policy - Operational works inspection, maintenance and bonding procedures. The street design and construction accommodates the following functions:

- access to premises by providing convenient a. vehicular movement for residents between their homes and the major road network;
- b. safe and convenient pedestrian and cycle movement:
- adequate on street parking; C.
- d. stormwater drainage paths and treatment facilities;
- e. efficient public transport routes;
- f. utility services location;
- emergency access and waste collection; g.
- h. setting and approach (streetscape, landscaping and street furniture) for adjoining residences;
- i. expected traffic speeds and volumes; and
- į. wildlife movement (where relevant).

Note - Preliminary road design (including all services, street lighting, stormwater infrastructure, access locations, street trees and pedestrian network) may be required to demonstrate compliance with this PO.

Note - Refer to Planning scheme policy - Environmental areas and corridors for examples of when and where wildlife movement infrastructure is required.

No example provided.

### **PO38**

The existing road network (whether trunk or non-trunk) is upgraded where necessary to cater for the impact from the development.

Note - An applicant may be required to submit an Integrated Transport Assessment (ITA), prepared in accordance with Planning scheme policy - Integrated transport assessment to demonstrate compliance with this PO, when any of the following occurs:

- Development is within 200m of a transport sensitive location such as a school, shopping centre, bus or train station or a large generator of pedestrian or vehicular traffic;
- Forecast traffic to/from the development exceeds 5% of the two way flow on the adjoining road or intersection in the morning or afternoon transport peak within 10 years of the development completion;
- Development access onto a sub arterial, or arterial road or within 100m of a signalised intersection;
- Residential development greater than 50 lots or dwellings;
- Offices greater than 4,000m<sup>2</sup> Gross Floor Area (GFA);
- Retail activities including Hardware and trade supplies, Showroom, Shop or Shopping centre greater than 1,000m2 GFA;
- Warehouses and Industry greater than 6,000m<sup>2</sup> GFA;
- On-site carpark greater than 100 spaces;
- Development has a trip generation rate of 100 vehicles or more within the peak hour;
- Development which dissects or significantly impacts on an environmental area or an environmental corridor.

The ITA is to review the development's impact upon the external road network for the period of 10 years from completion of the development. The ITA is to provide sufficient information for determining the impact and the type and extent of any ameliorative works required to cater for the additional traffic. The ITA must include a future structural road layout of adjoining properties that will form part of this catchment and road connecting to these properties. The ITA is to assess the ultimate developed catchment's impacts and necessary ameliorative works, and the works or contribution required by the applicant as identified in the study.

Note - The road network is mapped on Overlay map - Road hierarchy.

Note - The primary and secondary active transport network is mapped on Overlay map - Active transport.

### E38.1

New intersections onto existing roads are designed to accommodate traffic volumes and traffic movements taken from a date 10 years from the date of completion of the last stage of the development. Detailed design is to be in accordance with Planning scheme policy -Integrated design.

Note - All turns vehicular access to existing lots is to be retained at new road intersections wherever practicable.

Note - Existing on-street parking is to be retained at new road intersections and along road frontages wherever practicable.

### E38.2

Existing intersections external to the site are upgraded as necessary to accommodate increased traffic from the development. Design is in accordance with Planning scheme policy - Operational works inspection, maintenance and bonding procedures.

Note - All turns vehicular access to existing lots is to be retained at new road intersections wherever practicable.

Note - Existing on-street parking is to be retained at upgraded road intersections and along road frontages wherever practicable.

### E38.3

The active transport network is extended in accordance with Planning scheme policy - Integrated design.

### **PO39**

New intersections along all streets and roads are located and designed to provide safe and convenient movements for all users.

### E39

New intersection spacing (centreline – centreline) along a through road conforms with the following:

Note - Refer Planning scheme policy - Integrated design and Planning scheme policy - Operational works inspection, maintenance and bonding procedures for design and construction standards.

Note - An Integrated Transport Assessment (ITA) including preliminary intersection designs, prepared in accordance with Planning scheme policy - Integrated transport assessment may be required to demonstrate compliance with this PO. Intersection spacing will be determined based on the deceleration and queue storage distances required for the intersection after considering vehicle speed and present/forecast turning and through volumes.

- a. where the through road provides an access function;
  - intersecting road located on the same side = i. 60 metres:
  - ii. intersecting road located on opposite side (Left Right Stagger) = 60 metres;
  - intersecting road located on opposite side iii. (Right Left Stagger) = 40 metres.
- b. Where the through road provides a collector or sub-arterial function:
  - i. intersecting road located on the same side = 100 metres;
  - intersecting road located on opposite side (Left Right Stagger) = 100 metres;
  - intersecting road located on opposite side iii. (Right Left Stagger) = 60 metres.
- Where the through road provides an arterial C. function:
  - i. intersecting road located on the same side = 300 metres;
  - intersecting road located on opposite side (Left Right Stagger) = 300 metres;
  - iii. intersecting road located on opposite side (Right Left Stagger) = 300 metres;
- d. Walkable block perimeter does not exceed 1000 metres.

Note - Based on the absolute minimum intersection spacing identified above, all turns access may not be permitted (ie. left in/left out only) at intersections with sub-arterial roads or arterial roads.

Note - The road network is mapped on Overlay map - Road hierarchy.

Note - An Integrated Transport Assessment (ITA) including preliminary intersection designs, prepared in accordance with Planning scheme policy - Integrated transport assessment may be required to demonstrate compliance with this PO. Intersection spacing will be determined based on the deceleration and queue storage distances required for the intersection after considering vehicle speed and present/forecast turning and through volumes.

**PO40** E40 All Council controlled frontage roads adjoining the development are designed and constructed in accordance with Planning scheme policy - Integrated design and Planning scheme policy - Operational works inspection, maintenance and bonding procedures. All new works are extended to join any existing works within 20m.

Note - Frontage roads include streets where no direct lot access is provided.

Note - The road network is mapped on Overlay map - Road hierarchy.

Note - The Primary and Secondary active transport network is mapped on Overlay map - Active transport.

Note - Roads are considered to be constructed in accordance with Council's standards when there is sufficient pavement width, geometry and depth to comply with the requirements of Planning scheme policy - Integrated design and Planning scheme policy Operational works inspection, maintenance and bonding procedures.

Design and construct all Council controlled frontage roads in accordance with Planning scheme policy - Integrated design, Planning scheme policy - Operational works inspection, maintenance and bonding procedures and the following:

Situation	Minimum construction
Frontage road unconstructed or gravel road only;  OR  Frontage road sealed but not constructed* to Planning scheme policy - Integrated design standard;  OR  Frontage road partially constructed* to Planning scheme policy - Integrated design standard;	Construct the verge adjoining the development and the carriageway (including development side kerb and channel) to a minimum sealed width containing near side parking lane (if required), cycle lane (if required), 2 travel lanes plus 1.5m wide (full depth pavement) gravel shoulder and table drainage to the opposite side.  The minimum total travel lane width is:  6m for minor roads;  7m for major roads.

Note - Major roads are sub-arterial roads and arterial roads. Minor roads are roads that are not major roads.

Note - Construction includes all associated works (services, street lighting and linemarking).

Note - Alignment within road reserves is to be agreed with Council.

Note - \*Roads are considered to be constructed in accordance with Council standards when there is sufficient pavement width, geometry and depth to comply with the requirements of Planning scheme policy - Integrated design and Planning scheme policy - Operational works inspection, maintenance and bonding procedures. Testing of the existing pavement may be required to confirm whether the existing works meet the standards in Planning scheme policy -Integrated design and Planning scheme policy - Operational works inspection, maintenance and bonding procedures.

# **Stormwater** E41.1 **PO41** The capacity of all minor drainage systems are designed in accordance with Planning scheme policy - Integrated design.

Minor stormwater drainage systems (internal and external) have the capacity to convey stormwater flows from frequent storm events for the fully developed upstream catchment whilst ensuring pedestrian and vehicular traffic movements are safe and convenient.

### E41.2

Stormwater pipe network capacity is to be calculated in accordance with the Hydraulic Grade Line method as detailed in Australian Rainfall and Runoff or QUDM.

### E41.3

Development ensures that inter-allotment drainage infrastructure is provided in accordance with the relevant level as identified in QUDM.

#### **PO42**

Major stormwater drainage system(s) have the capacity to safely convey stormwater flows for the 1% AEP event for the fully developed upstream catchment.

### E42.1

The internal drainage system safely and adequately conveys the stormwater flows for the 1% AEP event for the fully developed upstream catchment through the site.

#### E42.2

The external (downstream) drainage system safely conveys the stormwater flows for the 1% AEP event for the fully developed upstream catchment without allowing the flows to encroach upon private lots.

### E42.3

Overland flow paths from roads and public open space areas do not pass through private lots. Drainage pathways are provided to accommodate overland flows from roads and public open space areas.

### E42.4

The flow velocity in all unlined or soft faced open drains is kept within acceptable limits for the type of material or lining and condition of the channel.

Note - Refer to QUDM for recommended average flow velocities.

### **PO43**

Provide measures to properly manage surface flows for the 1% AEP event (for the fully developed catchment) draining to and through the land to ensure no actionable nuisance is created to any person or premises as a result of the development. The development must not result in ponding on adjacent land, redirection of surface flows to other premises or blockage of a surface flow relief path for flows exceeding the design flows for any underground system within the development.

### E43

The stormwater drainage system is designed and constructed in accordance with Planning scheme policy - Integrated design.

### **PO44**

No example provided.

Stormwater run-off from the site is conveyed to a point of lawful discharge without causing actionable nuisance to any person, property or premises. Note - Refer to Planning scheme policy - Integrated design for details. Note - A downstream drainage discharge report in accordance with Planning scheme policy - Stormwater management may be required to demonstrate achievement of this performance outcome. Note - A watercourse as defined in the Water Act may be accepted as a lawful point of discharge providing the drainage discharge from the site does not increase the downstream flood levels during events up to and including the 1% AEP storm. An afflux  $\,$ of +20mm may be accepted on Council controlled land and road infrastructure. No worsening is ensured when stormwater is discharged into a catchment that includes State Transport Infrastructure. **PO45** No example provided. Stormwater generated from the development does not compromise the capacity of existing stormwater infrastructure downstream of the site. Note - A downstream drainage discharge report in accordance with Planning scheme policy - Stormwater management may be required to demonstrate achievement of this performance outcome. **PO46** No example provided. Where development: is for an urban purpose that involves a land area of 2500m<sup>2</sup> or greater; and will result in: b. i. 6 or more dwellings; or ii. an impervious area greater than 25% of the net developable area, stormwater quality management systems are designed, constructed, established and maintained to minimise the environmental impact of stormwater on surface, groundwater and receiving water environments and meet the design objectives outlined in Schedule 10 - Stormwater management design objectives. Note - A site based stormwater management plan prepared by a suitably qualified professional will be required in accordance with

Planning scheme policy - Stormwater management. Stormwater quality infrastructure is to be designed in accordance with Planning

scheme policy - Integrated design (Appendix C).

### **PO47**

Stormwater drainage pipes and structures through or within private land (including inter-allotment drainage) are protected by easements in favour of Council with sufficient area for practical access for maintenance purposes.

Note - In order to achieve a lawful point of discharge, stormwater easements may also be required over temporary drainage channels/infrastructure where stormwater discharges to a balance lot prior to entering Council's stormwater drainage system.

### E47

Stormwater drainage infrastructure (excluding detention and bio-retention systems) through or within private land (including inter-allotment drainage) is protected by easements in favour of Council. Minimum easement widths are as follows:

Pipe Diameter	Minimum easement width (excluding access requirements)
Stormwater pipe up to 825mm diameter	3.0m
Stormwater pipe up to 825mm diameter with sewer pipe up to 225m diameter	4.0m
Stormwater pipe greater than 825mm diameter	Easement boundary to be 1m clear of the outside wall of the stormwater pipe (each side).

Note - Additional easement width may be required in certain circumstances in order to facilitate maintenance access to the stormwater system.

Note - Refer to Planning scheme policy - Integrated design (Appendix C) for easement requirements over open channels.

## **PO48**

Stormwater management facilities (excluding outlets) are located outside of riparian areas and prevent increased channel bed and bank erosion.

No example provided.

## **Site Works and Construction Management**

## **PO49**

The site and any existing structures are maintained in a tidy and safe condition.

No example provided.

## **PO50**

All works on-site are managed to:

- minimise as far as practicable, impacts on adjoining or adjacent premises and the streetscape in regard to erosion and sedimentation, dust, noise, safety and light;
- minimise as far as possible, impacts on the natural environment;

## E50.1

Works incorporate temporary stormwater runoff, erosion and sediment controls and trash removal devices designed in accordance with the Urban Stormwater Quality Planning Guidelines, State Planning Policy, Schedule 10 - Stormwater management design objectives, Planning scheme policy - Stormwater management and Planning scheme policy - Integrated design, including but not limited to the following:

- ensure stormwater discharge is managed in a manner that does not cause actionable nuisance to any person or premises;
- d. avoid adverse impacts on street trees and their critical root zone.
- a. stormwater is not discharged to adjacent properties in a manner that differs significantly from pre-existing conditions;
- b. stormwater discharged to adjoining and downstream properties does not cause scour or erosion of any kind;
- C. stormwater discharge rates do not exceed pre-existing conditions;
- minimum design storm for all temporary diversion drains and sedimentation basins in accordance with Schedule 10 - Stormwater management design objectives;
- ponding or concentration of stormwater does not occur on adjoining properties.

## E50.2

Stormwater runoff, erosion and sediment controls are constructed in accordance with Planning scheme policy - Integrated design (Appendix C) prior to commencement of any clearing or earthworks and are maintained and adjusted as necessary at all times to ensure their ongoing effectiveness.

Note - The measures are adjusted on-site to maximise their effectiveness.

### E50.3

The completed earthworks area is stabilised using turf, established grass seeding, mulch or sprayed stabilisation techniques to control erosion and sediment and dust from leaving the property.

## E50.4

Existing street trees are protected and not damaged during works.

Note - Where development occurs in the tree protection zone, measures and techniques as detailed in Australian Standard AS 4970 Protection of trees on development sites are adopted and implemented.

## **PO51**

Dust suppression measures are implemented during soil disturbances and construction works to protect nearby premises from unreasonable dust impacts.

## E51

No dust emissions extend beyond the boundaries of the site during soil disturbances and construction works.

## **PO52**

E52.1

All development works including the transportation of material to and from the site are managed to not negatively impact the existing road network, the amenity of the surrounding area or the streetscape.

Note - A Traffic Management Plan may be required to demonstrate compliance with this PO. A Traffic Management Plan is to be prepared in accordance with the Manual of Uniform Traffic Control Devices (MUTCD).

Note - A haulage route must be identified and approved by Council where imported or exported material is transported to the site via a road of Local Collector standard or less, and:

- the aggregate volume of imported or exported material is greater than 1000m3; or
- the aggregate volume of imported or exported material is b. greater than 200m3 per day; or
- the proposed haulage route involves a vulnerable land use C. or shopping centre.

Note - A dilapidation report (including photographs) may be required for the haulage route to demonstrate compliance with this PO.

Editor's note - Where associated with a State-controlled road, further requirements may apply, and approval may be required from the Department of Transport and Main Roads.

Construction traffic including contractor car parking is controlled in accordance with a traffic management plan, prepared in accordance with the Manual of Uniform Traffic Control Devices (MUTCD) to ensure all traffic movements to and from the site are safe.

## E52.2

All contractor car parking is either provided on the development site, or on an alternative site in the general locality which has been set aside for car parking. Contractors vehicles are generally not to be parked in existing roads.

## E52.3

Any material dropped, deposited or spilled on the road(s) as a result of construction processes associated with the site are to be cleaned at all times.

## E52.4

Construction traffic to and from the development site uses the highest classification streets or roads where a choice of access routes is available. Haul routes for the transport of imported or spoil material and gravel pavement material along Council roads below sub-arterial standard must be approved routes.

Note - The road hierarchy is mapped on Overlay map - Road hierarchy.

Note - A dilapidation report may be required to demonstrate compliance with this E.

## E52.5

Where works are carried out in existing roads, the works must be undertaken so that the existing roads are maintained in a safe and usable condition. Practical access for residents, visitors and services (including postal deliveries and refuse collection) is retained to existing lots during the construction period and after completion of the works.

Note - A traffic control plan prepared in accordance with the Manual of Uniform Traffic Control Devices (MUTCD) will be required for any works that will affect access, traffic movements or traffic safety in existing roads.

#### E52.6

Access to the development site is obtained via an existing lawful access point.

**PO53** E53 All disturbed areas are to be progressively stabilised during construction and the entire site rehabilitated and substantially stabilised at the completion of construction.

Note - Refer to Planning scheme policy - Integrated design for details.

At completion of construction all disturbed areas of the site are to be:

- topsoiled with a minimum compacted thickness of a. fifty (50) millimetres;
- b. stabilised using turf, established grass seeding, mulch or sprayed stabilisation techniques.

Note - These areas are to be maintained during any maintenance period to maximise grass coverage.

#### **PO54**

Earthworks are undertaken to ensure that soil disturbances are staged into manageable areas.

Note - A site specific Erosion and Sediment Control Plan (ESCP) will be required to demonstrate compliance with this PO. An ESCP is to be prepared in accordance with Planning scheme policy -Stormwater management and Planning scheme policy - Integrated design (Appendix C).

## E54

Soil disturbances are staged into manageable areas of not greater than 3.5 ha.

### **PO55**

The clearing of vegetation on-site:

- is limited to the area of infrastructure works, building a. areas and other necessary areas for the works; and
- includes the removal of declared weeds and other b. materials which are detrimental to the intended use of the land:
- is disposed of in a manner which minimises nuisance and annoyance to existing premises.

Note - No burning of cleared vegetation is permitted.

### E55.1

All native vegetation to be retained on-site is temporarily fenced or protected prior to and during development works.

Note - No parking of vehicles or storage of machinery or goods is to occur in these areas during development works.

## E55.2

Disposal of materials is managed in one or more of the following ways:

- all cleared vegetation, declared weeds, stumps, rubbish, car bodies, scrap metal and the like are removed and disposed of in a Council land fill facility; or
- b. all native vegetation with a diameter below 400mm is to be chipped and stored on-site.

Note - The chipped vegetation must be stored in an approved location.

### **PO56**

### E56

All development works are carried out within the following times:

All development works are carried out at times which minimise noise impacts to residents.

- a. Monday to Saturday (other than public holidays) between 6:30am and 6:30pm on the same day;
- b. no work is to be carried out on Sundays or public holidays.

Note - Work outside the above hours may be approved (in writing) where it can be demonstrated that the work will not cause significant inconvenience or disruption to the public, or the work is unlikely to cause annoyance or inconvenience to occupants of adjacent properties.

#### **PO57**

Any alteration or relocation in connection with or arising from the development to any service, installation, plant, equipment or other item belonging to or under the control of the telecommunications authority, electricity authorities, the Council or other person engaged in the provision of public utility services is to be carried with the development and at no cost to Council.

No example provided.

#### **Earthworks**

#### **PO58**

On-site earthworks are designed to consider the visual and amenity impact as they relate to:

- the natural topographical features of the site; a.
- b. short and long-term slope stability;
- soft or compressible foundation soils; C.
- d. reactive soils;
- low density or potentially collapsing soils; e.
- f. existing fill and soil contamination that may exist on-site:
- the stability and maintenance of steep slopes and g.
- excavation (cut) and fill and impacts on the amenity h. of adjoining lots (e.g. residential).

### E58.1

All cut and fill batters are provided with appropriate scour, erosion protection and run-off control measures including catch drains at the top of batters and lined batter drains as necessary.

### E58.2

Stabilisation measures are provided, as necessary, to ensure long-term stability and low maintenance of steep slopes and batters.

#### E58.3

Inspection and certification of steep slopes and batters is required by a suitably qualified and experienced RPEQ.

## E58.4

All filling or excavation is contained on-site and is free draining.

## E58.5

All fill placed on-site is:

- a. limited to that area necessary for the approved use;
- clean and uncontaminated (i.e. no building waste, b. concrete, green waste, actual acid sulfate soils, potential acid sulfate soils or contaminated material etc.).

#### E58.6

The site is prepared and the fill placed on-site in accordance with AS3798.

Note - The fill is to be inspected and tested in accordance with Planning scheme policy - Operational works inspection, maintenance and bonding procedures.

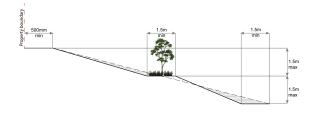
#### **PO59**

Embankments are stepped, terraced and landscaped to not adversely impact on the visual amenity of the surrounding area.

### E59

Any embankments more than 1.5 metres in height are stepped, terraced and landscaped.

Figure - Embankment



## **PO60**

Filling or excavation is undertaken in a manner that:

- does not adversely impact on a Council or public sector entity maintained infrastructure or any drainage feature on, or adjacent to the land;
- does not preclude reasonable access to a Council b. or public sector entity maintained infrastructure or any drainage feature on, or adjacent to the land for monitoring, maintenance or replacement purposes.

Note - Public sector entity is defined in Schedule 2 of the Act.

## E60.1

No filling or excavation is undertaken in an easement issued in favour of Council or a public sector entity.

Note - Public sector entity is defined in Schedule 2 of the Act.

## E60.2

Filling or excavation that would result in any of the following is not carried out on-site:

- a reduction in cover over any Council or public a. sector entity infrastructure service to less than 600mm;
- b. an increase in finished surface grade over, or within 1.5m on each side of, the Council or public sector entity infrastructure above that which existed prior to the earthworks being undertaken;
- C. prevent reasonable access to Council or public sector entity maintained infrastructure or any drainage feature on, or adjacent to the site for monitoring, maintenance or replacement purposes.

Note - Public sector entity is defined in Schedule 2 of the Act. Note - All building work covered by QDC MP1.4 is excluded from this provision. **PO61** No example provided. Filling or excavation does not result in land instability. Note - Steep slopes and batters are inspected and certified for long-term stability by a suitably qualified and experienced geotechnical engineer with RPEQ qualifications. Stabilisation measures are provided, as necessary, to ensure long-term stability and low maintenance. **PO62** No example provided. Filling or excavation does not result in: adverse impacts on the hydrological and hydraulic capacity of the waterway or floodway; b. increased flood inundation outside the site; C. any reduction in the flood storage capacity in the floodway; d. any clearing of native vegetation. Note - To demonstrate compliance with this outcome, Planning Scheme Policy - Stormwater Management provides guidance on the preparation of a site based stormwater management plan by a suitably qualified professional. Refer to Planning scheme policy -Integrated design for guidance on infrastructure design and modelling requirements. **PO63** E63 Filling or excavation on the development site is Filling and excavation undertaken on the development undertaken in a manner which does not create or site are shaped in a manner which does not: accentuate problems associated with stormwater flows prevent stormwater surface flow which, prior to а and drainage systems on land adjoining the site. commencement of the earthworks, passed onto the development site, from entering the land; or b. redirect stormwater surface flow away from existing flow paths; or divert stormwater surface flow onto adjacent land, (other than a road), in a manner which: i. concentrates the flow; or increases the flow rates of stormwater over the affected section of the adjacent land above the situation which existed prior to the diversion; or causes actionable nuisance to any person,

property or premises.

### **PO64**

All earth retaining structures provide a positive interface with the streetscape and minimise impacts on the amenity of adjoining residents.

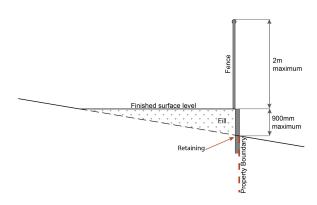
Note - Refer to Planning scheme policy - Residential design for guidance on how to achieve compliance with this performance outcome.

### E64.1

Earth retaining structures:

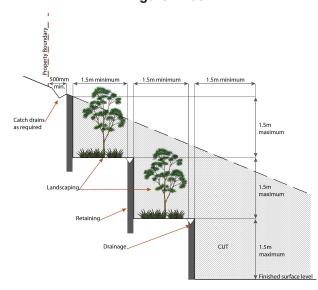
- a. are not constructed of boulder rocks or timber;
- b. where height is no greater than 900mm, are provided in accordance with Figure - Retaining on a boundary;

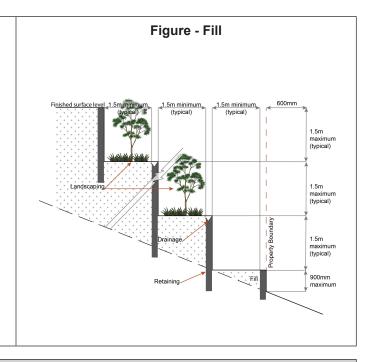
Figure - Retaining on boundary



- where height is greater than 900mm but no greater than 1.5m, are to be setback at least the equivalent height of the retaining structure from any property boundary;
- d. where height is greater than 1.5m, are to be setback and stepped 1.5m vertical: 1.5m horizontal, terraced, landscaped and drained as shown below.

Figure - Cut





#### **Fire Services**

Note - The provisions under this heading only apply if:

- the development is for, or incorporates:
  - reconfiguring a lot for a community title scheme creating 1 or more vacant lots; or
  - ii.

  - material change of use for 2 or more sole occupancy units on the same lot, or within the same community titles scheme; or material change of use for a Tourist park<sup>(84)</sup> with accommodation in the form of caravans or tents; or material change of use for outdoor sales<sup>(54)</sup>, outdoor processing or outdoor storage where involving combustible materials.

#### AND

- b. none of the following exceptions apply:
  - the distributor-retailer for the area has indicated, in its netserv plan, that the premises will not be served by that entity's reticulated water supply; or
  - every part of the development site is within 60m walking distance of an existing fire hydrant on the distributor-retailer's reticulated water supply network, measured around all obstructions, either on or adjacent to the site.

Note - The provisions under this heading do not apply to buildings that are required by the Building Code of Australia to have a fire hydrant system complying with Australian Standard AS 2419.1 (2005) - Fire Hydrant Installations or other fire fighting facilities which provide equivalent protection.

#### **PO65**

Development incorporates a fire fighting system that:

- satisfies the reasonable needs of the fire fighting a. entity for the area;
- is appropriate for the size, shape and topography of the development and its surrounds;
- is compatible with the operational equipment available to the fire fighting entity for the area;
- d. considers the fire hazard inherent in the materials comprising the development and their proximity to one another:

## E65.1

External fire hydrant facilities are provided on site to the standard prescribed under the relevant parts of Australian Standard AS 2419.1 (2005) – Fire Hydrant Installations.

Note - For this requirement for accepted development, the following are the relevant parts of AS 2419.1 (2005) that may be applicable:

in regard to the form of any fire hydrant - Part 8.5 and Part 3.2.2.1, with the exception that for Tourist parks  $^{(84)}$  or development comprised solely of dwellings and their associated outbuildings, single outlet above-ground hydrants or suitably signposted in-ground hydrants would be an acceptable alternative;

- e. considers the fire hazard inherent in the surrounds to the development site;
- f. is maintained in effective operating order.

Note - The Queensland Fire and Emergency Services is the entity currently providing the fire fighting function for the urban areas of the Moreton Bay Region.

- in regard to the general locational requirements for fire hydrants - Part 3.2.2.2 (a), (e), (f), (g) and (h) as well as Appendix B of AS 2419.1 (2005);
- in regard to the proximity of hydrants to buildings and other facilities - Part 3.2.2.2 (b), (c) and (d), with the exception that:
  - for dwellings and their associated outbuildings, hydrant coverage need only extend to the roof and external walls of those buildings;
  - for caravans and tents, hydrant coverage need only extend to the roof of those tents and caravans;
  - for outdoor sales (54), processing or storage facilities, hydrant coverage is required across the entire area of the outdoor sales (54), outdoor processing and outdoor storage facilities;
- d. in regard to fire hydrant accessibility and clearance requirements - Part 3.5 and, where applicable, Part 3.6.

### E65.2

A continuous path of travel having the following characteristics is provided between the vehicle access point to the site and each external fire hydrant and hydrant booster point on the land:

- an unobstructed width of no less than 3.5m;
- b. an unobstructed height of no less than 4.8m;
- C. constructed to be readily traversed by a 17 tonne HRV fire brigade pumping appliance;
- an area for a fire brigade pumping appliance to stand within 20m of each fire hydrant and 8m of each hydrant booster point.

## E65.3

On-site fire hydrant facilities are maintained in effective operating order in a manner prescribed in Australian Standard AS1851 (2012) - Routine service of fire protection systems and equipment.

## **PO66**

On-site fire hydrants that are external to buildings, as well as the available fire fighting appliance access routes to those hydrants, can be readily identified at all times from, or at, the vehicular entry point to the development site.

### **E66**

For development that contains on-site fire hydrants external to buildings:

- those external hydrants can be seen from the a. vehicular entry point to the site; or
- b. a sign identifying the following is provided at the vehicular entry point to the site:
  - the overall layout of the development (to scale);
  - ii. internal road names (where used);
  - iii. all communal facilities (where provided);
  - iv. the reception area and on-site manager's office (where provided);

external hydrants and hydrant booster points; V. vi. physical constraints within the internal roadway system which would restrict access by fire fighting appliances to external hydrants and hydrant booster points. Note - The sign prescribed above, and the graphics used are to be: in a form: а b. of a size: illuminated to a level; which allows the information on the sign to be readily understood, at all times, by a person in a fire fighting appliance up to 4.5m from the sign. **PO67** E67 Each on-site fire hydrant that is external to a building is For development that contains on-site fire hydrants signposted in a way that enables it to be readily identified external to buildings, those hydrants are identified by at all times by the occupants of any firefighting appliance way of marker posts and raised reflective pavement traversing the development site. markers in the manner prescribed in the technical note Fire hydrant indication system produced by the Queensland Department of Transport and Main Roads. Note - Technical note Fire hydrant indication system is available on the website of the Queensland Department of Transport and Main Roads. Use specific criteria Industrial land uses **PO68 E68** Ancillary office, administration functions, retail sales and The combined area of ancillary non-industrial activities, customer service components do not compromise the including but not limited to administration and retail primary use of the site or marine activities in the precinct. functions, does not exceed 10% of the GFA or 200m<sup>2</sup>, whichever is the lesser. **PO69** No example provided. Buildings directly adjoining non-industrial zoned land: are compatible with the character of the adjoining areas: b. minimise overlooking and overshadowing;

C.	maintain privacy;			
d.	do not cause significant loss of amenity to neighbouring residents by way of noise, vibration, odour, lighting, traffic generation and hours of operation.			
PO70		No example provided.		
Medium impact industry <sup>(47)</sup> uses only establish in the precinct where:				
a.	not constraining the function or viability of existing or future uses in the precinct;			
b.	not adversely affecting the amenity, health or safety of employees and visitors of the surrounding uses;			
C.	not adversely affecting the amenity, health or safety of nearby sensitive land uses.			
	e - Separation distances are to be measured in a straight line, ccordance with the State policy.			
PO71		No example provided.		
Non-industrial components of buildings (including offices and retail areas) are designed as high quality architectural features and incorporate entry area elements such as forecourts, awnings and the architectural treatment of roof lines and fascias.				
Non-industrial uses				
PO7	2	No example provided.		
Non-industrial components of buildings (including offices and retail areas) are to be located at the road frontage to assist in activating the frontage and designed as high quality architectural features incorporating entry area elements such as forecourts, awnings and the architectural treatment of roof lines and fascias.				
PO73		No example provided.		
With the exception of Caretaker's accommodation <sup>(10)</sup> , residential and other sensitive land uses do not establish within the precinct.				
PO74		No example provided.		
Non-industrial uses:				
a.	are consolidated with existing non-industrial uses in the precinct;			

b.	do not compromise the viability, role or function of the region's centres network;	
C.	are not subject to adverse amenity impacts or risk to health from industrial activities;	
d.	do not constrain the function of viability of existing of future industrial activities in the surrounding area.	
Note - The submission of a Hazard and Nuisance Mitigation Plan may be required to justify compliance with this outcome.		
Note - An Economic Impact Assessment may be required to demonstrate compliance with part of the outcome/s above. Refer to Planning scheme policy - Economic impact assessment for information required.		
PO75		No example provided.
Traffic generated by non-industrial uses does not detrimentally impact the operation and functionality of the external road network.		
PO76		No example provided.
The design of non-industrial buildings in the precinct:		
a.	adds visual interest to the streetscape (e.g. variation in materials, patterns, textures and colours, a consistent building line, blank walls that are visible from public places are treated to not negatively impact the surrounding amenity);	
b.	contributes to a safe environment (e.g. through the use of lighting and not resulting in concealed recesses or potential entrapment areas);	
C.	incorporates architectural features within the building facade at the street level to create human scale (e.g. awnings).	
PO77		E77.1
Buil	ding entrances:	The main entrance to the building is clearly visible from and addresses the primary street frontage.
a.	are readily identifiable from the road frontage;	
b.	add visual interest to the streetscape;	E77.2
C.	are designed to limit opportunities for concealment;	Where the building does not adjoin the street frontage, a dedicated and sealed pedestrian footpath is provided between the street frontage and the building entrance.
d.	are located and oriented to favour active and public	

Note - The design provisions for footpaths outlined in Planning scheme policy - Integrated design may assist in demonstrating compliance with this outcome.

# Caretaker's accommodation<sup>(10)</sup>

#### **PO78**

Development of Caretaker's accommodation (10):

- does not compromise the productivity of the use a. occurring on-site and in the surrounding area;
- b. is domestic in scale;
- provides adequate car parking provisions exclusive C. on the primary use of the site;
- d. is safe for the residents;
- has regard to the open space and recreation needs e. of the residents.

#### **E78**

Caretaker's accommodation (10):

- has a maximum GFA is 80m<sup>2</sup>;
- b. does not gain access from a separate driveway to that of the industrial use:
- provides a minimum 16m<sup>2</sup> of private open space C. directly accessible from a habitable room;
- d. provides car parking in accordance with Schedule 7 - Car parking.

# Sales office<sup>(72)</sup>

#### **PO79**

Sales office<sup>(72)</sup> remain temporary in duration and demonstrates a relationship to the land or buildings being displayed or sold.

#### E79

A Sales office<sup>(72)</sup> is located on the site for no longer than 2 years.

# Major electricity infrastructure<sup>(43)</sup>, Substation<sup>(80)</sup> and Utility installation<sup>(86)</sup>

#### **PO80**

The development does not have an adverse impact on the visual amenity of a locality and is:

- high quality design and construction; a.
- b. visually integrated with the surrounding area;
- not visually dominant or intrusive; C.
- located behind the main building line; d.
- below the level of the predominant tree canopy or e. the level of the surrounding buildings and structures;
- f. camouflaged through the use of colours and materials which blend into the landscape;
- treated to eliminate glare and reflectivity; g.
- landscaped; h.
- i. otherwise consistent with the amenity and character of the zone and surrounding area.

## E80.1

Development is designed to minimise surrounding land use conflicts by ensuring infrastructure, buildings, structures and other equipment:

- are enclosed within buildings or structures; a.
- b. are located behind the main building line;
- have a similar height, bulk and scale to the C. surrounding fabric;
- d. have horizontal and vertical articulation applied to all exterior walls.

## E80.2

A minimum 3m wide strip of dense planting is provided around the outside of the fenced area, between the development and street frontage, side and rear boundaries.

### **PO81**

Infrastructure does not have an impact on pedestrian health and safety.

### E81

Access control arrangements:

## do not create dead-ends or dark alleyways adjacent to the infrastructure; b. minimise the number and width of crossovers and entry points; provide safe vehicular access to the site; C. d. do not utilise barbed wire or razor wire. **PO82** E82 All activities associated with the development occur within All equipment which produces audible or non-audible sound is housed within a fully enclosed building an environment incorporating sufficient controls to ensure the facility: incorporating sound control measures sufficient to ensure noise emissions meet the objectives as set out in the a. generates no audible sound at the site boundaries Environmental Protection (Noise) Policy 2008. where in a residential setting; or meet the objectives as set out in the Environmental Protection (Noise) Policy 2008. Telecommunications facility<sup>(81)</sup> Editor's note - In accordance with the Federal legislation Telecommunications facilities (81) must be constructed and operated in a manner that will not cause human exposure to electromagnetic radiation beyond the limits outlined in the Radiocommunications (Electromagnetic Radiation - Human Exposure) Standard 2003 and Radio Protection Standard for Maximum Exposure Levels to Radiofrequency Fields - 3Khz **PO83** E83.1 Telecommunications facilities $^{(81)}$ are co-located with existing telecommunications facilities $^{(81)}$ , Utility installation $^{(86)}$ , Major electricity infrastructure $^{(43)}$ or Substation $^{(80)}$ if there is already a facility in the same New telecommunication facilities (81) are co-located on existing towers with new equipment shelter and associated structures positioned adjacent to the existing shelters and structures. coverage area. E83.2 If not co-located with an existing facility, all co-location opportunities have been investigated and fully exhausted within a 2km radius of the site. **PO84** E84 A new Telecommunications facility (81) is designed and A minimum area of 45m<sup>2</sup> is available to allow for constructed to ensure co-masting or co-siting with other additional equipment shelters and associated structures carriers both on the tower or pole and at ground level is for the purpose of co-locating on the proposed facility. possible in the future. **PO85** E85 Telecommunications facilities (81) do not conflict with lawful The development results in no net reduction in the existing land uses both on and adjoining the site. minimum quantity and standard of landscaping, private or communal open space or car parking spaces required under the planning scheme or under an existing development approval.

E86.1

**PO86** 

The Telecommunications facility (81) does not have an adverse impact on the visual amenity of a locality and is:

- high quality design and construction; a.
- b. visually integrated with the surrounding area;
- C. not visually dominant or intrusive;
- d. located behind the main building line:
- below the level of the predominant tree canopy or e. the level of the surrounding buildings and structures:
- f. camouflaged through the use of colours and materials which blend into the landscape;
- treated to eliminate glare and reflectivity; g.
- h. landscaped:
- i. otherwise consistent with the amenity and character of the zone and surrounding area.

Where in an urban area, the development does not protrude more than 5m above the level of the existing treeline, prominent ridgeline or building rooftops in the surrounding townscape.

### E86.2

In all other areas towers do not exceed 35m in height.

#### E86.3

Towers, equipment shelters and associated structures are of a design, colour and material to:

- reduce recognition in the landscape;
- b. reduce glare and reflectivity.

#### E86.4

All structures and buildings are setback behind the main building line and a minimum of 10m from side and rear boundaries, except where in the Industry and Extractive industry zones, the minimum side and rear setback is 3m.

Where there is no established building line the facility is located at the rear of the site.

## E86.5

The facility is enclosed by security fencing or by other means to ensure public access is prohibited.

## E86.6

A minimum 3m wide strip of dense planting is provided around the perimeter of the fenced area, between the facility and street frontage and adjoining uses.

Note - Landscaping is provided in accordance with Planning scheme policy - Integrated design.

Note - Council may require a detailed landscaping plan, prepared by a suitably qualified person, to ensure compliance with Planning scheme policy - Integrated design.

## **PO87**

Lawful access is maintained to the site at all times that does not alter the amenity of the landscape or surrounding uses.

### E87

An Access and Landscape Plan demonstrates how 24 hour vehicular access will be obtained and maintained to the facility in a manner that is appropriate to the site's context.

### **PO88**

**E88** 

All activities associated with the development occur within an environment incorporating sufficient controls to ensure the facility generates no audible sound at the site boundaries where in a residential setting.

All equipment comprising the Telecommunications facility<sup>(61)</sup> which produces audible or non-audible sound is housed within a fully enclosed building incorporating sound control measures sufficient to ensure no noise from this equipment can be heard, or felt at the site boundary.

#### Values and constraints criteria

Note - The relevant values and constraints criteria do not apply where the development is consistent with a current Development permit for Reconfiguring a lot or Material change of use or Operational work, where that approval has considered and addressed (e.g. through a development footprint plan (or similar in the case of Landslide hazard) or conditions of approval) the identified value or constraint under this planning scheme.

## Acid sulfate soils - (refer Overlay map - Acid sulfate soils to determine if the following assessment criteria apply)

Note - To demonstrate achievement of the performance outcome, an Acid sulfate soils (ASS) investigation report and soil management plan is prepared by a qualified engineer. Guidance for the preparation an ASS investigation report and soil management plan is provided in Planning scheme policy - Acid sulfate soils.

### **PO89**

Development avoids disturbing acid sulfate soils. Where development disturbs acid sulfate soils, development:

- is managed to avoid or minimise the release of surface or groundwater flows containing acid and metal contaminants into the environment;
- protects the environmental and ecological values b. and health of receiving waters;
- protects buildings and infrastructure from the effects C. of acid sulfate soils.

## E89

Development does not involve:

- excavation or otherwise removing of more than a. 100m<sup>3</sup> of soil or sediment where below than 5m Australian Height datum AHD; or
- filling of land of more than 500m<sup>3</sup> of material with an average depth of 0.5m or greater where below the 5m Australian Height datum AHD.

## Environmental areas (refer Overlay map - Environmental areas to determine if the following assessment criteria apply)

Note - The following are excluded from the native clearing provisions of this planning scheme:

- Clearing of native vegetation located within an approved development footprint; a.
- b. Clearing of native vegetation within 10m from a lawfully established building reasonably necessary for emergency access or immediately required in response to an accident or emergency;
- Clearing of native vegetation reasonably necessary to remove or reduce the risk vegetation poses to serious personal injury or damage C. to infrastructure;
- Clearing of native vegetation reasonably necessary to construct and maintain a property boundary fence and not exceed 4m in width d either side of the fence where in the Rural, Rural residential and Environmental Management and Conservation zones. In any other zone, clearing is not to exceed 2m in width either side of the fence;
- Clearing of native vegetation reasonably necessary for the purpose of maintenance or works within a registered easement for public e. infrastructure or drainage purposes;
- Clearing of native vegetation in accordance with a bushfire management plan prepared by a suitably qualified person, submitted to and accepted by Council;

- Clearing of native vegetation associated with removal of recognised weed species, maintaining existing open pastures and cropping g. land, windbreaks, lawns or created gardens;
- h. Grazing of native pasture by stock;
- Native forest practice where accepted development under Part 1, 1.7.7 Accepted development.

Note - Definition for native vegetation is located in Schedule 1 Definitions.

Note - Native vegetation subject to this criteria primarily comprises of matters of national environmental significance (MNES), matters of state environmental significance (MSES). They also comprise some matters of local environmental significance (MLES). A MLES is defined in Schedule 1.2, Administrative definitions. A list of the elements that apply to the mapped MSES and MLES is provided in Appendix 1 of the Planning scheme policy - Environmental areas.

Editors' Note - The accuracy of overlay mapping can be challenged through the development application process (code assessable development) or by way of a planning scheme amendment. See Council's website for details.

Editors' Note - When clearing native vegetation within a MSES area, you may still require approval from the State government.

## Vegetation clearing, ecological value and connectivity

### **PO90**

Development avoids locating in a High Value Area or a Value Offset Area. Where it is not practicable or reasonable for development to avoid establishing in these areas, development must ensure that:

- the quality and integrity of the biodiversity and a. ecological values inherent to a High Value Area and a Value Offset Area is maintained and not lost or degraded:
- b. on-site mitigation measures, mechanisms or processes are in place demonstrating the quality and integrity of the biodiversity and ecological values inherent to a High Value Area and a Value Offset Area are maintained. For example, this can be achieved through replacement, restoration or rehabilitation planting as part of any proposed covenant, the development of a Vegetation Management Plan, a Fauna Management Plan, and any other on-site mitigation options identified in the Planning scheme policy - Environmental areas\*.

\* Editor's note - This is not a requirement for an environmental offset under the Environmental Offsets Act 2014.

No example provided.

**PO91** 

Development provides for safe, unimpeded, convenient and ongoing wildlife movement and establishes and maintains habitat connectivity by:

- retaining habitat trees; a.
- b. providing contiguous patches of habitat;

No example provided.

<ul> <li>c. provide replacement and rehabilitation planting to improve connectivity;</li> <li>d. avoiding the creation of fragmented and isolated patches of habitat;</li> <li>e. providing wildlife movement infrastructure.</li> <li>Editor's note - Wildlife movement infrastructure may include refuge poles, tree boulevarding, 'stepping stone' vegetation plantings, tunnels, appropriate wildlife fencing; culverts with ledges, underpasses, overpasses, land bridges and rope bridges. Further information is provided in Planning scheme policy – Environmental areas.</li> </ul>			
Vegetation clearing and habitat protection			
PO92	No example provided.		
Development ensures that the biodiversity quality and integrity of habitats is not adversely impacted upon but maintained and protected.			
PO93	No example provided.		
Development does not result in the net loss or degradation of habitat value in a High Value Area or a Value Offset Area. Where development does result in the loss or degradation of habitat value, development will:  a. rehabilitate, revegetate, restore and enhance an			
<ul> <li>a. rehabilitate, revegetate, restore and enhance an area to ensure it continues to function as a viable and healthy habitat area;</li> <li>b. provide replacement fauna nesting boxes in the event of habitat tree loss in accordance with Planning scheme policy - Environmental areas;</li> <li>c. undertake rehabilitation, revegetation and restoration in accordance with the South East Queensland Ecological Restoration Framework.</li> </ul>			
PO94	No example provided.		
Development ensures safe, unimpeded, convenient and ongoing wildlife movement and habitat connectivity by:			
<ul> <li>a. providing contiguous patches of habitat;</li> <li>b. avoiding the creation of fragmented and isolated patches of habitat;</li> <li>c. providing wildlife movement infrastructure;</li> <li>d. providing replacement and rehabilitation planting to improve connectivity.</li> </ul>			
Vegetation clearing and soil resource stability			
PO95	No example provided.		
Development does not:			

result in soil erosion or land degradation; a. b. leave cleared land exposed for an unreasonable period of time but is rehabilitated in a timely manner. Vegetation clearing and water quality **PO96** No example provided. Development maintains or improves the quality of groundwater and surface water within, and downstream, of a site by: ensuring an effective vegetated buffers and a. setbacks from waterbodies is retained to achieve natural filtration and reduce sediment loads: b. avoiding or minimising changes to landforms to maintain hydrological water flows; adopting suitable measures to exclude livestock C. from entering a waterbody where a site is being used for animal husbandry<sup>(4)</sup> and animal keeping<sup>(5)</sup> activities. **PO97** No example provided. Development minimises adverse impacts of stormwater run-off on water quality by: a. minimising flow velocity to reduce erosion; b. minimising hard surface areas; maximising the use of permeable surfaces; C. d. incorporating sediment retention devices; minimising channelled flow. e Vegetation clearing and access, edge effects and urban heat island effects **PO98** No example provided. Development retains safe and convenient public access in a manner that does not result in the adverse edge effects or the loss or degradation of biodiversity values within the environment. **PO99** No example provided. Development minimises potential adverse 'edge effects' on ecological values by: providing dense planting buffers of native vegetation between a development and environmental areas; retaining patches of native vegetation of greatest b. possible size where located between a development and environmental areas; C. restoring, rehabilitating and increasing the size of existing patches of native vegetation; d. ensuring that buildings and access (public and vehicle) are setback as far as possible from environmental areas and corridors; landscaping with native plants of local origin. e.

Editor's note - Edge effects are factors of development that go to detrimentally affecting the composition and density of natural populations at the fringe of natural areas. Factors include weed invasion, pets, public and vehicle access, nutrient loads, noise and light pollution, increased fire frequency and changes in the groundwater and surface water flow.

#### PO100

Development avoids adverse microclimate change and does not result in increased urban heat island effects. Adverse urban heat island effects are minimised by:

- a. pervious surfaces;
- b. providing deeply planted vegetation buffers and green linkage opportunities;
- landscaping with local native plant species to C. achieve well-shaded urban places;
- d. increasing the service extent of the urban forest canopy.

No example provided.

### Vegetation clearing and Matters of Local Environmental Significance (MLES) environmental offsets

#### PO101

Where development results in the unavoidable loss of native vegetation within a Value Offset Area MLES waterway buffer or a Value Offset Area MLES wetland buffer, an environmental offset is required in accordance with the environmental offset requirements identified in Planning scheme policy - Environmental areas.

Editor's note - For MSES Koala Offsets, the environmental offset provisions in schedule 11 of the Regulation, in combination with the requirements of the Environmental Offset Act 2014, apply.

No example provided.

## Heritage and landscape character (refer Overlay map - Heritage and landscape character to determine if the following assessment criteria apply)

Note - To assist in demonstrating achievement of heritage performance outcomes, a Cultural heritage impact assessment report is prepared by a suitably qualified person verifying the proposed development is in accordance with The Australia ICOMOS Burra Charter.

Note - To assist in demonstrating achievement of this performance outcome, a Tree assessment report is prepared by a qualified arborist in accordance with Planning scheme policy - Heritage and landscape character. The Tree assessment report will also detail the measures adopted in accordance with AS 4970-2009 Protection of trees on development sites.

Note - Places, including sites, objects and buildings having local cultural heritage significance, are identified on Overlay map - Heritage and landscape character and listed in Schedule 1 of Planning scheme policy - Heritage and landscape character. Places also having cultural heritage significance at a State level and being entered in the Queensland Heritage Register, are also identified in Schedule 1 of Planning scheme policy - Heritage and landscape character.

## PO102

## Development will:

not diminish or cause irreversible damage to the cultural heritage values present on the site, and associated with a heritage site, object or building;

## E102

Development is for the preservation, maintenance, repair and restoration of a site, object or building of cultural heritage value.

- b. protect the fabric and setting of the heritage site, object or building;
- C. be consistent with the form, scale and style of the heritage site, object or building;
- d. utilise similar materials to those existing, or where this is not reasonable or practicable, neutral materials and finishes;
- incorporate complementary elements, detailing and ornamentation to those present on the heritage site, object or building;
- f. retain public access where this is currently provided.

Note - A cultural heritage conservation management plan for the preservation, maintenance, repair and restoration of a site, object or building of cultural heritage value is prepared in accordance with Planning scheme policy - Heritage and landscape character. The plan is sent to, and approved by Council prior to the commencement of any preservation, maintenance, repair and restoration works.

#### PO103

Demolition and removal is only considered where:

- а a report prepared by a suitably qualified conservation architect or conservation engineer demonstrates that the building is structurally unsound and is not reasonably capable of economic repair; or
- demolition is confined to the removal of outbuildings, extensions and alterations that are not part of the original structure; or
- C. limited demolition is performed in the course of repairs, maintenance or restoration; or
- d. demolition is performed following a catastrophic event which substantially destroys the building or object.

No example provided.

## PO104

Where development is occurring on land adjoining a site of cultural heritage value, the development is to be sympathetic to and consistent with the cultural heritage values present on the site and not result in their values being eroded, degraded or unreasonably obscured from public view.

No example provided.

## **PO105**

Development does not adversely impact upon the health and vitality of significant trees. Where development occurs in proximity to a significant tree, construction measures and techniques as detailed in AS 4970-2009 Protection of trees on development sites are adopted to ensure a significant tree's health, wellbeing and vitality.

Significant trees are only removed where they are in a poor state of health or where they pose a health and safety risk to persons or property. A Tree Assessment report prepared by a suitably qualified arborist confirming a tree's state of health is required to demonstrate achievement of this performance outcome.

## E105

Development does:

- not result in the removal of a significant tree; a.
- not occur within 20m of a protected tree; b.
- involve pruning of a tree in accordance with C. Australian Standard AS 4373-2007 - Pruning of Amenity Trees.

Overland flow path (refer Overlay map - Overland flow path to determine if the following assessment criteria apply)

Note - The applicable river and creek flood planning levels associated with defined flood event (DFE) within the inundation area can be obtained by requesting a flood check property report from Council.

### **PO106**

### Development:

- a. minimises the risk to persons from overland flow;
- does not increase the potential for damage from overland flow either on the premises or other premises, public land, watercourses, roads or infrastructure.

No example provided.

## **PO107**

## Development:

- maintains the conveyance of overland flow predominantly unimpeded through the premises for any event up to and including the 1% AEP for the fully developed upstream catchment;
- b. does not concentrate, intensify or divert overland flow onto an upstream, downstream or surrounding property.

Note - A report from a suitably qualified Registered Professional Engineer Queensland is required certifying that the development does not increase the potential for significant adverse impacts on an upstream, downstream or surrounding premises.

Note - Reporting to be prepared in accordance with Planning scheme policy - Flood hazard, Coastal hazard and Overland flow.

No example provided.

#### **PO108**

### Development does not:

- a. directly, indirectly or cumulatively cause any increase in overland flow velocity or level;
- increase the potential for flood damage from overland flow either on the premises or other premises, public lands, watercourses, roads or infrastructure.

Note - Open concrete drains greater than 1m in width are not an acceptable outcome, nor are any other design options that may increase scouring.

No example provided.

### **PO109**

## Development ensures that public safety and the risk to the environment are not adversely affected by a detrimental impact of overland flow on a hazardous chemical located or stored on the premises.

### E109

Development ensures that a hazardous chemical is not located or stored in an Overland flow path area.

Note - Refer to the Work Health and Safety Act 2011 and associated Regulation and Guidelines, the Environmental Protection Act 1994 and the relevant building assessment provisions under the Building Act 1975 for requirements related to the manufacture and storage of hazardous substances.

#### **PO110**

Development which is not in a Rural zone ensures that overland flow is not conveyed from a road or public open space onto a private lot.

#### E110

Development which is not in a Rural zone that an overland flow paths and drainage infrastructure is provided to convey overland flow from a road or public open space area away from a private lot.

#### PO111

Development ensures that inter-allotment drainage infrastructure, overland flow paths and open drains through private property cater for overland flows for a fully developed upstream catchment and are able to be easily maintained.

Note - A report from a suitably qualified Registered Professional Engineer Queensland is required certifying that the development does not increase the potential for significant adverse impacts on an upstream, downstream or surrounding premises.

Note - Reporting to be prepared in accordance with Planning scheme policy - Flood hazard, Coastal hazard and Overland flow

#### E111.1

Development ensures that roof and allotment drainage infrastructure is provided in accordance with the following relevant level as identified in QUDM:

- a. Urban area - Level III:
- b. Rural area - N/A:
- Industrial area Level V; C.
- d. Commercial area - Level V.

## E111.2

Development ensures that inter-allotment drainage infrastructure is designed to accommodate any event up to and including the 1% AEP for the fully developed upstream catchment.

#### PO112

Development protects the conveyance of overland flow such that an easement for drainage purposes is provided over:

- a stormwater pipe if the nominal pipe diameter a. exceeds 300mm;
- b. an overland flow path where it crosses more than one premises;
- C. inter-allotment drainage infrastructure.

Note - Refer to Planning scheme policy - Integrated design for details and examples.

Note - Stormwater Drainage easement dimensions are provided in accordance with Section 3.8.5 of QUDM.

No example provided.

# Additional criteria for development for a Park (57)

## PO113

Development for a Park<sup>(57)</sup> ensures that the design and layout responds to the nature of the overland flow affecting the premises such that:

public benefit and enjoyment is maximised; a.

## E113

Development for a Park<sup>(57)</sup> ensures works are provided in accordance with the requirements set out in Appendix B of the Planning scheme policy - Integrated design.

# 6 Zones

- b. impacts on the asset life and integrity of park structures is minimised;
- C. maintenance and replacement costs are minimised.

## Riparian and wetland setbacks

## PO114

Development provides and maintains a suitable setback from waterways and wetlands that protects natural and environmental values. This is achieved by recognising and responding to the following matters:

- impact on fauna habitats; a.
- b. impact on wildlife corridors and connectivity;
- impact on stream integrity; C.
- d. impact of opportunities for revegetation and rehabilitation planting;
- e. edge effects.

### E114

Development does not occur within:

- 50m from top of bank for W1 waterway and a. drainage line
- b. 30m from top of bank for W2 waterway and drainage line
- C. 20m from top of bank for W3 waterway and drainage line
- d. 100m from the edge of a Ramsar wetland, 50m from all other wetlands.

Note - W1, W2 and W3 waterway and drainage lines, and wetlands are mapped on Schedule 2, Section 2.5 Overlay Maps - Riparian and wetland setbacks.