

A.1 Economic Development Queensland - PDA Guideline no. 10 May 2015 - Industry and Business areas

Subdivision Layout

Structure	• May include a service core of finer grained retail and commercial activities that act as a focus for the entire area. • A service core is generally located on a major road adjacent to the main entry to the area and with good access by public transport. • Higher intensity uses and uses with high employment ratios (employee to site area) are located close to the service core. • Access to the area is available from a connector or higher order road, and does not require heavy vehicles to pass through residential areas. • Main entry (or entries) provides a legible and attractive entry statement and identity for the area, and is characterised by high quality, attractive development. • Higher impact uses are generally located centrally within the area to provide maximum separation from sensitive uses* outside the area. • Intensity of uses and scale of built form generally reduce towards the edge of the area, particularly where adjoining sensitive uses. • Lots generally have access from the internal street network only. • Where a rail service is available, the structure should maximise benefits of rail access by maximising length of rail sidings and area of land with direct rail access.	Comment: The proposal includes a retail / commercial area in the area near Central Ave and adjoining the proposed trunk connector. In this area, it is in proximity to the District Centre (as identified in the Master Plan), the main connecting roads in the area (including the proposed highway interchange) and bus stops. Access will be available to Precinct 13 area via the Bruce Highway and the proposed Trunk Connector (once the interchange is complete) which will avoid the need for vehicles to travel through residential areas. Access to the east can also be accommodated via Central Ave. The subdivision layout is such that higher densities are provided internal to the Precinct 13 area and all lots are able to be accessed via an internal road layout.
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Internal street network	• Highly connected, legible and permeable grid. Network promotes safe movements and provides direct pedestrian and cyclist access to the service core. • All streets should have wide carriageways to accommodate multiple transport modes and large design vehicles (semi-trailers and possibly B-doubles). • Streets should accommodate on-street parking and vehicle movements without compromising walking and cycling safety and amenity. • Cul-de-sacs are undesirable and will be accepted only where no other solution is practicable and are limited in length to 120m. • Where used, cul-de-sacs must be provided with a circular turning area with suitable radius to allow uninterrupted turning movement by maximum anticipated vehicle, and the space reserved for services should not be reduced to accommodate increased area of roadway.	The proposed internal street layout will provide for a legible, grid street layout with a single cul-de-sac provided as a temporary measure until the trunk connector road is fully completed. The single temporary turning head proposed will be sized to accommodate vehicles that will be using the area (B-doubles as discussed in Appendix K). The internal streets are sized as 22m wide industrial internal access streets, and shared pathways and footpaths are provided throughout the site to accommodate alternative modes of transport.
Internal street types	• Grid network of industry connector streets and industry access streets (Refer to Appendix A for more detail on indicative street types). • Streets should be designed to accommodate all activities that take place in the street (such as bus stops, cycle lanes, on-street parking and emergency vehicle access), not just the roadway or vehicle movements. • Servicing is undertaken internally to each site.	As per the assessment above, internal streets are proposed as 22m wide industrial access streets. Shared pathways and footpaths are provided throughout the site to accommodate alternative modes of transport.
Lot layouts	• Lots should be regular in shape capable of containing the intended form of development. • Each area should be provided with a variety of lot sizes to accommodate a wide range of potential uses, including some large lots to facilitate future reconfigurations to meet emerging demands. • Smaller lots preferably clustered near service centre, and larger lots located either centrally to accommodate high impact activities or on edges adjacent to sensitive uses to provide sufficient area for extensive buffering and appropriate allocation of activities on site.	The proposed lots are all generally of regular shape with some larger lots of slightly irregular shape proposed only to accommodate the shape of the underlying site and a safe and efficient road layout.
Lot sizes (minimum area and frontage)	• 1000sqm/20 metres	Proposed industry and business lots are greater than 1000m² and there are no lots with frontage smaller than 30m. The proposed telecommunications tower lot will be less than 1000m² and 30m frontage, however this is

		appropriate to the specific phone tower use proposed. There is provision in the PoD for further subdivision as compliance assessment but the requirements in the PoD also align with these provisions.
Public realm	• There are no specific requirements to provide parks or other open space within industry and business areas. However where there are significant waterways or other natural features, these should be protected and retained as a feature of the area and incorporated into the broader open space network including any cycle or pedestrian network. • The service core should include a small plaza (in private ownership) with outdoor seating and dining opportunities to cater for the needs of the catchment workforce. • Street trees are provided at the rate of a minimum of 1 per 20 metres of road length (excluding the width of crossovers) to all road frontages with a minimum of 1 tree per lot.	The proposed layout provides for a linear park and a 3m shared path adjoining the conservation area to the north. A 3m shared path will also be continued along the partially formed portion of the trunk connector road with further paths to be provided along the road once it is fully completed (by others). No final designs are proposed at this stage for the service core but there is sufficient space to accommodate a range of designs that will be controlled by the PoD. Street trees will be provided in general accordance with the landscaping plan Master Plan of Appendix F with further refinement to be provided at the post development stage.

Built form

Maximum site cover	75 per cent	The PoD applicable to the subdivision area sets a max site cover of 70%.
Building height	15 metres maximum (unless taller structure required for specific industrial process) Suitability of building heights will be assessed on the appearance from and impact on the streetscape and nearby sensitive uses. Transitioning of building heights to be compatible with existing/proposed heights in affected areas will be required.	The PoD sets a maximum height requirement for buildings of 15m.
Building setback - street frontages	Buildings with office, showroom or customer service component may be set to the front alignment (0.0 metres) for a maximum of 50 per cent of the frontage (see Figure 2). Blank walls and facades are setback a minimum of 6 metres	The PoD sets front setbacks at minimum of 6m for all lots while a variety of other building design controls are introduced through the PoD including that office facades are distinctly different to other facades of the building and that the external facade materials of buildings include a mix of two or more materials. Such controls will contribute to avoiding blank facades.
Building setback - side and rear	0.0 metres	The PoD details a minimum side and rear setback of 0m aside from lots larger than 3,500m ² . In this situation a 2m setback is proposed for side boundaries and a 1.5m for rear boundaries unless with built to boundary wall, in which case no setback requirement applies.
Building setback - where any part of the side or rear boundary adjoins a	Setback and buffering requirements to be determined in accordance with PDA Guideline No.18 - Development interfaces. Minimum 6 metres intensively landscaped setback which includes deep planting and appropriate acoustic treatment	The proposed retail/commercial or light industrial/commercial areas of the subject site do not directly adjoin any sensitive land uses.

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sensitive land use		
Orientation	Buildings address the street frontage or frontages by: » being aligned generally parallel to the street » providing clear, legible entry points for both pedestrians and vehicles » maximising opportunities for overlooking and casual surveillance of streets, public spaces, parking areas and pedestrian/cycling paths. (See Figure 4)	As per the PoD standards detailed within Appendix D, the orientation of buildings is not specifically controlled; however, buildings are required to provide entrance awnings, corner sites must address the street and frontages are to be absent of fencing which will assist in achieving this design.
Corner lots	Buildings on corners should address both street frontages, and express a strong visual appearance. (See Figure 4)	The PoD requires that corners sites address the street frontage.
Materials	All parts of buildings (other than roofs) that are visible from connector or higher order roads, residential areas, parks or centres are constructed predominantly of brick, painted concrete or masonry, and do not incorporate highly reflective materials.	The PoD includes design standards that seek to provide shading devices to protect glazed areas of buildings and that require buildings to be constructed with a mix of materials. It is noted that reflectivity is not specifically addressed beyond shading devices; however, there will be vegetated buffers adjoining the Bruce Highway for the purpose of visual screening.
Graffiti prevention	Buildings and other structures should be designed to minimise potential for graffiti by: » avoiding extensive unbroken surface areas » access control measures including lighting, vegetation, fencing » graffiti deterrent surface treatments	The PoD incorporates several design requirements to break up the facades of buildings at street frontages.
Roofs	Roof forms should be kept simple and integrated as part of the building design. Plant rooms and other roof top equipment are screened from view from adjoining streets and noise sensitive areas	The PoD requires that plant rooms and other roof top equipment are screened from view from adjoining streets and noise sensitive areas.
Signage	» signs attached to buildings are integrated into the building design » each lot is limited to one freestanding pole sign on each street frontage no greater than 6.0m in height. Freestanding signs may include multiple panels with one panel per occupancy (see Figure 5)	The PoD requires that signage attached to buildings is integrated into the building design.

Environment and safety

Emissions	Emissions (including air, water and soil pollutants, noise, vibration, heat, light, radioactivity and electromagnetic radiation) and hazards must be managed in accordance with: » the Environmental Protection (Air) Policy 2008 » the Environmental Protection (Noise) Policy 2008 » the Dangerous Goods Safety Management Act 2001 and the Dangerous Goods Safety Management Regulation 2001.	The PoD specifically addresses emissions and pollutants requiring that stormwater drainage plans are provided and that emissions are controlled in accordance with: • the Environmental Protection (Air) Policy 2008 • the Environmental Protection (Noise) Policy 2008 • Australian Standard A S4282 Control of the Obtrusive Effects of Outdoor Lighting
Energy efficiency	Buildings must be oriented to incorporate appropriate passive solar design and day lighting, while avoiding unwanted heat gain: » all external glazing must comply with Building Code Australia Energy Efficiency Provisions - Volume Two - J2.4 using glazing calculation Method 2 Energy Index Option B » design external shading devices to protect glazed areas on the north, east, and west sides of the building » external wall insulation to be minimum total R-Value of R1.0 for all non-air-conditioned spaces and R2.0 for all air-conditioned spaces. Metal external wall sheeting to be insulated from metal studs or frames by a minimum R0.2 thermal break » external wall colours and roof colour to have a solar absorbance not more than 0.45 (i.e. avoid excess use of dark colours and zincalume) » concrete block or slab external walls must be painted » roof insulation to be minimum total R-value of R1.5 » where appropriate, buildings must include provisions for natural ventilation, such as roof ventilators and operable windows	The PoD does not specifically control the orientation of buildings; however, shading devices are required to protect glazed areas on the north, east, and west buildings to avoid unwanted heat. Roof colours with a solar absorbance not more than 0.45 (i.e. avoid excessive use of dark colours and zincalume).
End of trip facilities	» End of trip facilities are provided in accordance with the Queensland Development Code MP4.1 - Sustainable Buildings	End of trip facilities are not specifically controlled by the PoD; however, there is nothing preventing future developers from incorporating them into building designs.

Landscaping/fencing

General	» landscaping themes should be simple and demonstrate a level of consistency across the entire area and include use of semi-mature trees » existing trees that would contribute to the landscaping theme should be retained » large trees and spreading ground covers are incorporated in all landscape areas » large screening shrubs to complement the scale of building are provided in areas where screening is a priority » landscaped areas located within front setbacks should be mounded, where the lot is greater than 5,000m² » landscaping should apply water sensitive urban design (WSUD) principles and use endemic and drought tolerant species where possible » automated watering systems are required for landscaped areas adjacent to street frontages, and are encouraged in all other areas » the use of wall and rooftop gardens is encouraged where practicable	The PoD sets landscaping expectations across the full development area particularly at lot frontages. The PoD requirements encourage the establishment of large trees and shade trees.
Minimum landscape area	5 per cent of the area of the site.	The PoD requires a minimum landscaped area of 10% if the site is larger than 2500m ² and 5% if the site is smaller than 2500m ² .

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Landscaping to street frontages

- » tree planting will achieve a minimum 50 per cent canopy spread over the landscape area within 5 years of planting
- » landscaping is designed with CPTED principles in mind to reduce areas of possible concealment (see Figure 6) close to footpaths, parking areas and other publicly accessible spaces

The PoD does not control the canopy spread of landscaping following its implementation, but it does encourage deep planting strips to accommodate larger trees. Furthermore, the PoD incorporates CPTED principles through the avoidance of fencing at the front boundaries, or the implementation of visually permeable fencing only where fencing is required.

Landscaping for sensitive uses

Landscaping within the buffer areas adjacent to sensitive uses consists of tall trees and shrubs that will form a dense visual screen with a minimum height of 4 metres within 3 years of planting

The subject site will not establish development adjoining sensitive uses and development internal to the site will be well buffered. Landscaping requirements in the PoD will ensure an acceptable visual outcome.

Fencing

- » street frontages should be unfenced (see Figure 7) where possible with the location of fences consistent with or behind building setbacks
- » where street frontage fencing is required for security purposes it should be transparent (minimum 70 per cent open) (see Figure 8)
- » side fencing between the street frontage and the building should also be transparent wherever possible
- » side and rear fences adjoining a sensitive use should be solid, low maintenance and have noise attenuating properties

As discussed already the PoD requires street frontages to be unfenced or fencing is required for security purposes it is to be transparent (minimum 70% open).

Lighting

- » all premises should provide external lighting to ensure adequate site security.
- » lighting should be located and directed to limit light spill beyond the site boundary. Australian Standard AS-4282 1997 Control of the obtrusive effects of outdoor lighting provides guidance on the use of directional lighting

In accordance with the PoD, light emanating from any source complies with Australian Standard A S4282.

Control of the Obtrusive Effects of Outdoor Lighting, as amended.

Outdoor areas and activities

Amenity	» external on-site activity, storage and parking areas should be screened from view from sensitive uses and external roads. Screening can be achieved by buildings and/or landscaping including landscaped mounds (see Figure 9) » all external areas are landscaped or sealed » external on-site activity areas are located to maximise distance from sensitive uses	Landscaping is required in accordance with the PoD. In this regard, at least 10% of each site must be landscaped, a soft landscape strip with a minimum width of 2m is required within the site boundaries adjacent to all street frontages, and shade trees must be planted in car parks at a rate of one (1) tree per six (6) car parking spaces. Both will assist in improving amenity for the site.
Parking	» the number of on-site car parks complies with the requirements in the relevant development scheme or, where the development scheme does not specify a requirement, the local authority planning scheme » on-site parking areas are located close to a building entrance and provided with appropriate night lighting (where the use is likely to operate at night) » external parking areas have at least one shade tree per 6 parking spaces with 15m² of deep soil and permeable surface per tree	The parking requirements in the PoD have been copied from other successful precincts within Aura (i.e., Precinct 4 Stage 22A) and are considered appropriate for the intended uses. Additionally, in accordance with the PoD shade trees must be planted at a rate of one (1) tree per six (6) car parking spaces.
Engineering standards	On-site parking, circulation and service areas are designed and constructed to meet the relevant local authority standards	These matters will be largely controlled by the PoD. In particular, parking areas will be required to be in accordance with the standards in the PoD, and sufficient area will also need to be provided for manoeuvring and collection areas for outdoor waste storage in accordance with the PoD. The lots sizes established by the subdivision will be of sufficient size to that these matters can be addressed in any forthcoming build.

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Staff recreation space	Outdoor eating and recreation areas are provided on-site for employees and: » include seating, tables, water supply and rubbish disposal » adequate shade and weather protection » reasonable amenity (e.g. located away from noisy or unpleasant activities)	These matters can be accommodated by future development within each site. Each site is of sufficient size to provide flexibility for such matters to be accommodated.
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