Stantec

Technical Note

To:	Emma Moller (Development Manager) Brisbane Housing Company c/- EDQ Urban Development	From:	Andrew Tierney Senior Transportation Engineer
Project/File:	301050151	Date:	13 January 2022

REFERENCE: PARKSIDE YERONGA – SOCIAL AND AFFORDABLE HOUSING

PREAMBLE

A Development Application (DA) was lodged, and subsequently approved on 3 May 2022, with Economic Development Queensland – Development Assessment (EDQ – DA) for the development of a site located at 70 Park Road, Yeronga. This land is described as Lot 11 on SP300888 and is located within the Yeronga Priority Development Area (PDA).

The application was granted a PDA Preliminary Approval for a material change of use and a PDA Development Permit for a Reconfiguration of Lot (1 into 14 lots, easements and road). The Parkside Yeronga Master Plan was prepared as a design response to the Yeronga PDA Development Scheme (August 2019) to identify the potential form, function and layout of future development of the Yeronga PDA. The Master Plan provided a possible outcome for the development of the individual Lots and includes residential, community, commercial and open space land uses.

EDQ – Urban Development (EDQ-UD) commissioned Stantec in November 2020 to undertake the Transport Impact Assessment for the Master Plan Preliminary Approval and Reconfiguration of a Lot (ROL) approval (reference DEV2021/1221, dated 3 May 2022).

SOCIAL AND AFFORDABLE HOUSING PROPOSAL

A Development Application is now being sought by Brisbane Housing Company (BHC) for a Social and Affordable Housing proposal to be located on proposed Lot 3, as shown in Figure 1. The BHC development consists of 75 residential apartments, including the following breakdown of apartments:

- 18 studio apartments.
- 45 one-bedroom apartments, including 3 Platinum Standard, 39 Gold Standard and 3 Silver standard apartments.
- 12 two-bedroom units, including 2 Platinum Standard, 4 Gold Standard and 5 Silver standard apartments and 1 managers apartment.

The proposal also includes the following traffic and transport elements:

- 12 visitor car parking spaces, including 1 accessible parking space.
- 36 residential car parking spaces with 1 accessible parking space.
- Approximately 19 visitor bicycle parking spaces.
- Approximately 75 residential bicycle parking spaces.
- A vehicle crossover providing access to the Maidenhair Place cul-de-sac.

Reference: PARKSIDE YERONGA – SOCIAL AND AFFORDABLE HOUSING PROPOSAL

The proposed land use and yield in comparison to the Master Plan are outlined in Table 1. A diagram showing the location within the Master Plan is provided in Figure 1.

Table 1: Indicative Land Uses and Yield

Lots [1]	Description	Land Use	Indicative Yield (Master Plan)	BHC Proposal
1	Commercial	Office	6,000 sqm	-
3	Social Housing (High Density Residential)	Multiple Dwelling	78 dwellings	75 dwellings (-3 dwellings)
2, 6 & 10	Townhouses (Medium Density Residential)	Multiple Dwelling	38 dwellings	-
7, 8 & 9	Retirement Living	Retirement Facility Residential Care Facility	178 dwellings	-
11	Yeronga Community Centre	Community Use (Community Centre)	730 sqm	-

Figure 1: Illustrative Parkside Yeronga Master Plan

Reproduced with permission from the Parkside Yeronga Master Plan Report

Stantec has been engaged by BHC in August 2022 to undertake a traffic and transport review of the proposed development. The purpose of this assessment is to review the BHC proposal against the

requirements of the Preliminary Approval, the Yeronga PDA Development Scheme, Brisbane City Council's Transport, Access, Parking and Servicing Planning Scheme Policy (TAPS PSP) and good transport engineering practice.

A pre-lodgement meeting with EDQ regarding the proposed application (reference PRE2022/608) occurred on 10 October 2022, which included items relating to transport, access, parking and servicing. It is noted that comments provided by EDQ-DA were based on a previous iteration of the proposed development layout. Nevertheless, these have been addressed throughout the technical note. The relevant transport, access, parking and servicing items of the pre-lodgement meeting minutes have been reproduced with relevant commentary provided in Attachment A.

The proposed BHC development layout is provided in Attachment B.

ACTIVE AND PUBLIC TRANSPORT

INTERNAL PEDESTRIAN ACCESS

BHC's proposal includes visitor and residential parking within the basement providing connection via an internal lift to the ground floor lobby. An internal pedestrian connection is provided throughout the ground floor, connecting the lifts, apartment units, and the main entrance/exit to the external pedestrian network on Maidenhair Place and Park Road.

The primary internal pedestrian connection is demonstrated in Figure 2.

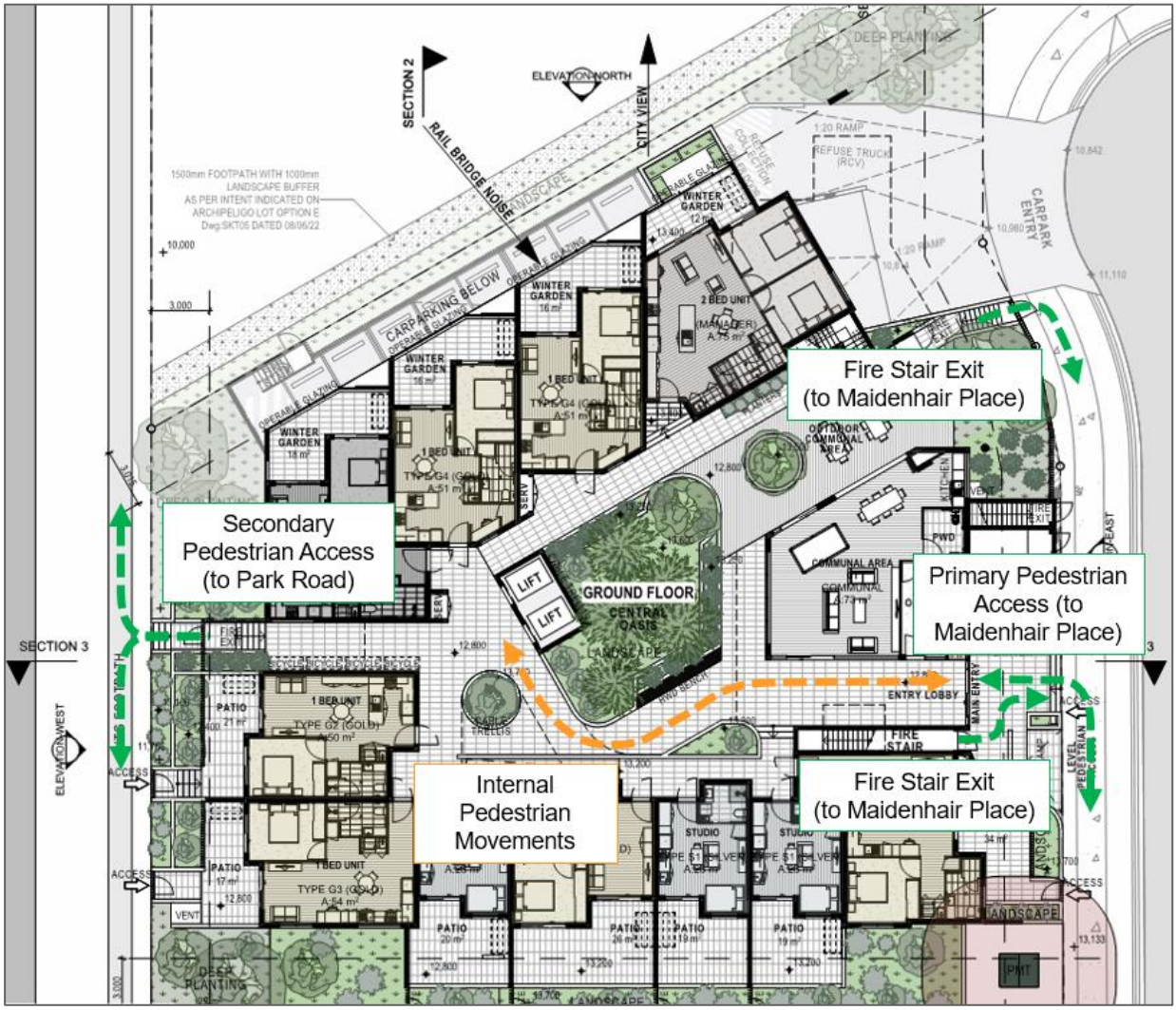
EXTERNAL PEDESTRIAN CONNECTIONS

The Parkside Yeronga Master Plan includes a high-quality pedestrian network throughout the precinct, connecting to the existing Park Road and Villa Street pedestrian network, which will facilitate pedestrian connections to the BHC proposal. The BHC proposal includes connection to the external pedestrian for residents and visitors via access on Maidenhair Place. Secondary pedestrian access for residents to Park Road is available via fire egress.

The external pedestrian connections are demonstrated in Figure 2.

Reference: PARKSIDE YERONGA – SOCIAL AND AFFORDABLE HOUSING PROPOSAL

Figure 2: Indicative Pedestrian Connections



ACTIVE TRAVEL PROVISIONS

The active travel statutory requirements for the proposed development have been detailed within the Yeronga PDA Development Scheme and the Master Plan, which are generally based on the requirements detailed within Council's TAPS PSP.

A review of the active travel statutory rates and proposed yields result in a statutory requirement for the proposed development as summarised in Table 2:

Table 2: Active Travel Statutory Requirements

Description	Land Use	Yield	Statutory Requirement	Statutory Parking Requirements
Social Housing	Multiple Dwelling	75 dwellings	1 lockable, covered, bicycle parking space per unit;	**75 lockable bicycle parking spaces;**

Description	Land Use	Yield	Statutory Requirement	Statutory Parking Requirements
			1 visitor bicycle parking space per 4 units or part thereof	**19 visitor bicycle parking**
Total				**75 lockable bicycle parking spaces;** **19 visitor bicycle parking**

Based on the information provided within Table 2, the BHC development generates a statutory bicycle parking requirements as follows:

- Residents: 75 lockable, covered, bicycle parking spaces.
- Visitors: 19 bicycle spaces (lockable).

The BHC development proposal includes the following bicycle parking provisions:

- Residents: 75 lockable, covered, bicycle parking spaces
- Visitors: 19 bicycle spaces (lockable) within the basement carpark.

It is noted that the resident bicycle parking spaces are located as follows:

- Basement level (within secure carpark) – 41 bicycle spaces
- Ground floor – 4 bicycle spaces
- First floor to Fifth floor – 6 bicycle spaces per level (30 spaces total).

These provisions are in accordance with the requirements of Council's TAPS PSP and the Parkside Yeronga Master Plan, and are considered to be acceptable.

PUBLIC TRANSPORT ACCESS

The above-mentioned pedestrian facilities are expected to provide connectivity between the BHC site and surrounding public transport options for residents and visitors.

There are no proposed impacts to the existing public transport network or public transport infrastructure, consistent with the Master Plan.

CAR PARKING CONSIDERATIONS

STATUTORY CAR PARKING REQUIREMENTS

The statutory car parking requirements for the BHC proposal have been detailed within the Yeronga PDA Development Scheme and the Master Plan, which are generally based on the requirements detailed within Council's TAPS PSP.

A review of the statutory car parking rates and proposed yields result in a statutory requirement for the proposed development as summarised in Table 3.

Table 3: Statutory Car Parking Requirements

Description	Land Use	Yield	Statutory Requirement	Statutory Parking Requirements
Social Housing	Multiple dwelling	75 dwellings	0.9 space per 1 bedroom dwelling 1.1 spaces per 2 bedroom dwelling 1.3 spaces per 3 or above bedroom dwelling 0.15 spaces per dwelling for visitor parking	70 residential parking spaces 12 visitor parking spaces
Total				**70 residential parking spaces** **12 visitor parking spaces**

Based on the information provided within Table 3, the BHC proposal results in a statutory requirement of 70 residential parking spaces and 12 visitor parking spaces.

The proposed provision of 12 visitor car parking spaces meets these requirements and is considered to be acceptable. The proposed provision of 36 resident car parking spaces fall short of these requirements and a resident car parking dispensation is to be sought.

It is widely accepted that these requirements are far above the expected car parking demands of a development of this nature. Further details are provided in the subsequent sections of this Technical note to identify appropriate car parking provisions based on demands from existing Social and Affordable Housing developments and BHC's ongoing management arrangements.

SOCIAL AND AFFORDABLE HOUSING PARKING DEMAND ASSESSMENT

A car parking demand assessment was undertaken in 2021 (prepared by Stantec, dated 24 February 2021) to review and assess resident car parking demands at existing BHC developments. This was to determine appropriate car parking supply rates and an appropriate level of parking dispensation for BHC developments.

Each of the BHC sites included in the assessment were categorised based on the following locational classifications:

- City frame (as per Council's Brisbane City Plan 2014).
- All other locations outside the City core and City frame, with excellent proximity to public transport services (less than 800m to major interchange), centre activities or other amenities.
- All other locations outside the City core and City frame, with good proximity to public transport services (400m walking distance of a public transport service), centre activities or other amenities.

For each of the sites included in the assessment, car park occupancy was recorded for a typical weekday and a typical weekend day at 1pm and 8pm, coinciding with the times of expected peak parking demand.

Based on the location of the Yeronga PDA (i.e. outside of the city frame, less than 800m from Yeronga train station), the proposed BHC development would be classified as 'all other locations – excellent accessibility'.

Table 4: Comparison of Statutory Car Parking Requirement vs Observed Parking Demand

Location	Unit Composition				Statutory Parking Requirement [1]	Observed demand as a proportion of Statutory Requirement
	Studio	1 bed	2 bed	3 bed		
Chermside	28	18	3	-	52	19% (10 spaces)
Nundah	14	39	10	4	81	14% (11 spaces)
Mitchelton	7	7	2	-	18	33% (6 spaces)

[1] Statutory requirement calculated from the Brisbane City Plan 2014 – Transport, Access, Parking and Servicing Planning Scheme Policy

With consideration of the observed levels of car parking demand as outlined in Table 4, the 'all other locations – excellent accessibility' classification corresponded with a car parking demand which resulted in a supportable car parking dispensation of approximately 60%. The result of this dispensation to the statutory car parking rates results in supportable car parking provision rates as detailed in Table 5.

Table 5: Supportable Car Parking Provision Rates

Location	Car Parking Dispensation	Car Parking Provision Rate (Resident parking spaces per dwelling)		
		Studio	1 bed	2+ bed
All other locations – excellent accessibility	60%	0.36	0.36	0.44

Based on this evaluation, a conservable dispensation of the statutory car parking rates in the order of 60% was considered appropriate for the BHC proposal, with a resident car parking provision of at least 28 resident car parking spaces considered suitable to accommodate the expected car parking demand.

We note that if the actual car parking demands recorded at the 3 existing BHC developments were applied, the anticipated car parking demands for the current proposal would be significantly lower.

It is noted that no car parking dispensation is proposed for visitor parking.

MANAGEMENT ARRANGEMENTS

BHC applies a bespoke tenancy selection process whereby car ownership is reviewed and subsequently approved prior to the award of any Tenancy Agreement. It is understood that tenants are bound by the car ownership stated within each individual contract, with specific clauses providing powers to BHC to enforce and potentially evict tenants in violation of the Agreement.

Prospective tenants are made fully aware of the limited car parking provision within each BHC building through standard BHC protocols which have been in place for a number of years. Where properties are advertised via external sources (such as realestate.com), BHC has advised that it is made very clear whether or not an allocated resident car parking bay is available with the listing. As part of the tenancy selection process, the housing manager will discuss the unique car parking arrangement of the building and will assess tenant suitability on the basis of their responses and need for an allocated parking

space (i.e. if a prospective tenant has a car and there is no space available, the tenant will not be offered the unit).

BHC's car parking demand management protocols are set out in the Special Terms and Conditions of Tenancy Agreement. The Terms specify that BHC is responsible for all decisions relating to car-parking and outline its procedure for allocating car parks to tenants. The BHC Tenant Handbook also provides additional information to tenants on the management of car parking and outlines the protocols for any tenant who is in breach of the Agreement.

The process of tenancy selection, in combination with the standard procedures and terms outlined within the Tenancy Agreement, provides the mechanism for car parking demand management within BHC developments. These are demonstrated to be successful in managing car parking demands with BHC developments.

OTHER CONSIDERATIONS – CAR SHARE SPACE

BHC have indicated the potential future inclusion of a 'car share' vehicle parking space within on-site car parking. It is understood that the provision of this space would be provided within the publicly accessible visitor car parking area, proximate to the vehicle access and enabling unrestricted access.

It is expected that the 'car share' vehicle could be utilised by both residents and visitors. This could be expected to further reduce the car parking demands associated with the proposed social and affordable housing development. In particular, the provision of a car share vehicle helps to alleviate the burden of private car ownership for residents while still allowing access to a car when absolutely needed.

Such an arrangement is considered to be generally acceptable. The 'car share' parking space is to be provided within a suitable location and provided generally in accordance with the car parking requirements of the Council's TAPS PSP, relevant Australian Standards (AS2890.1) and good transport engineering practice.

ADEQUACY OF CAR PARKING PROVISIONS

Based on the information presented within this section of the report, the provision of 36 resident car parking spaces and 12 visitor car parking spaces are considered appropriate to meet the anticipated car parking demand of the development. As such, the proposed car parking provisions are considered to be acceptable.

ACCESSIBLE CAR PARKING

As detailed within the Master Plan, accessible car parking spaces are to be provided at the rates specified in the National Construction Code (NCC). The BHC proposal (Class 2 and 7a building) requires provisions at a rate of 1 accessible space for every 100 car parking spaces or part thereof.

Based on BHC proposal provision of 48 car parking spaces, this results in a requirement for 1 accessible car parking space. The proposed provision of 2 accessible car parking spaces (with an adjacent shared bay) satisfies these requirements and is considered acceptable.

SECURITY GATE

Provision for a security gate within the ground level car park has been provided to restrict public access to residential car parking within the BHC proposal. Whilst details of the form and operation of this

security gate are yet to be confirmed, the general location within the car park has been indicated on the ground level plans.

The security gate has been provided generally in accordance with the car parking requirements of the Council's TAPS PSP, relevant Australian Standards (AS2890.1) and good transport engineering practice.

CAR PARKING LAYOUT REVIEW

The car parking layout (including internal accessways, car parking dimensional requirements, etc) has been reviewed against the requirements of the Council's TAPS PSP, relevant Australian Standards (AS2890.1 and AS2890.6) and good transport engineering practice. Details of this review are provided below in Table 6.

Table 6: Adequacy of Car Park Layout

Design Aspect	Design Element	Council Requirement (TAPS PSP)	Australian Standard Requirement (AS2890.1)	Proposed Design	Compliance
Car Parking Bays & Aisles	**Resident Parking (User class 1A)**				
	Bay width	2.6m	2.4m	2.5m	✓
	Bay length	5.4m	5.4m	5.4m	✓
	Aisle width	6.2m	5.8m	6.2m	✓
	Visitor Parking (User class 3)				
	Bay width	2.6m	2.6m	2.6m	✓
	Bay length	5.4m	5.4m	5.4m	✓
	Aisle width	6.2m	5.8m	6.2m	✓
Adjacent Structures	Walls	0.3m clearance	0.3m clearance	0.3m min.	✓
	Columns	Outside of parking envelope	Outside of parking envelope	Outside of parking envelope	✓
Access & Turnaround Facilities	Terminating aisles	Turnaround bays provided for publicly accessible carpark	Turnaround bays provided for publicly accessible carpark greater than 6 bays	Capacity for turnaround provided	✓
	Aisle extensions	2.0m aisle extension	1.0m aisle extension	0.9m aisle extension	**Performance Solution**
Parking for Persons with Disabilities	PWD bay / adjacent shared bay width	2.4m	2.4m	2.4m min.	✓
	PWD bay / adjacent shared bay length	5.4m	5.4m	5.4m	✓
Gradients	Maximum Gradient – Car parking space	1 in 20 (5%)	1 in 20 (5%)	1 in 20 (5%)	✓

Design Aspect	Design Element	Council Requirement (TAPS PSP)	Australian Standard Requirement (AS2890.1)	Proposed Design	Compliance
	Maximum Gradient – Domestic Driveway	1 in 6 (16.7%)	1 in 5 (20%) for ramps less than 20m	1 in 8 (12.5%)	✓
	Maximum Gradient - Required Transitions	Change in grade exceeding 1 in 20 (5%) over 2m	Change in grade exceeding 1 in 8 (12.5%) over 2m	Maximum change in grade of 7.5%	✓

Terminating Aisles

The provision of the security gate creates a dead-end aisle within the visitor car parking area. A swept path assessment has been undertaken to demonstrate that a B99 passenger vehicle can successfully turnaround within the visitor parking area and exit the site in a forward direction. This swept path assessment is provided in Attachment B.

Performance Solution – Aisle Extension

Based on the relevant Australian Standards (AS2890.1), an aisle extension of at least 1.0m is required beyond the final bay in a terminating aisle to allow for access to the adjacent car parking bay.

Adjacent to resident parking bay 29, an aisle extension of 0.9m has been provided for 3.2m of aisle width nearest to the bay, expanding to beyond the 1.0m minimum requirements for the remaining 3.0m of aisle width. It is noted that to access resident parking bay 29 has been confirmed via swept path assessment demonstrating that a B99 passenger vehicle can successfully enter and exit the parking bay without conflicting with adjacent features. The swept path assessment is provided in Attachment C.

SERVICING AND REFUSE COLLECTION

SERVICE BAY PROVISIONS

The Yeronga PDA Development Scheme and Council's TAPS PSP details the minimum internal design vehicle for multiple dwelling as a Refuse Collection Vehicle (RCV), with occasional access to be provided for vehicles of a size up to a 19m Articulated Vehicle (AV). Service vehicle arrangements have been detailed within the Parkside Yeronga Master Plan. These arrangements have included the accessibility of the adjacent road network to accommodate design vehicles up to and including a 10.3m Council RCV, the largest vehicle expected to regularly service the BHC development.

Council's TAPS PSP does not identify a statutory requirement for dedicated loading bays to be provided on-site. Therefore, the BHC proposal does not include any dedicated loading bays on-site, beyond the provision for onsite refuse collection.

Details of the refuse collection arrangements, including access for the RCV, are detailed in the section below.

REFUSE COLLECTION ARRANGEMENTS

Based on the Waste Management Plan (prepared by others), refuse collection for the BHC proposal is expected to be undertaken by a Council waste collection service using a 10.3m long RCV. The accessibility of the road network to accommodate the swept path of a Council 10.3m long RCV has been confirmed as part of the Parkside Yeronga Master Plan. It is understood that the refuse collection arrangements for the BHC proposal includes an RCV performing a reverse manoeuvre from the Maidenhair Place cul-de-sac into the public access driveway and standing on the northern side of the driveway clear of the pedestrian path and allowing two-way carpark access.

These arrangements have been tested by way of a swept path assessment, noting that the design vehicle has been conservatively adopted as a Council's standard 10.3m RCV. The results of the swept path are provided in Attachment C.

We note that the reverse manoeuvre of RCV's from minor roads into driveways is in line with the guidance provided within Council's Refuse PSP for multiple dwelling land uses.

We consider these proposed refuse collection arrangements to be acceptable in this instance.

VEHICLE ACCESS ARRANGEMENTS

GENERAL ACCESS

The BHC proposal includes a single crossover on the Maidenhair Place frontage, connecting to the Maidenhair Place cul-de-sac. This crossover connects to the residential and visitor car parking areas, as well as the refuse collection location.

The vehicle crossover and accessway are provided as per the Parkside Yeronga Master Plan. As such vehicle crossover has been designed based on its anticipated use (i.e., service vehicle and passenger vehicle use, minor road frontage, low/medium car parking turnover rate, residential and visitor car parking, less than 200 car parking spaces) providing two-way movement and accommodating access for an RCV design vehicle.

The vehicle access has been reviewed against the requirements detailed within the Yeronga PDA Development Scheme and Parkside Yeronga Master Plan. Details of this review are provided below in Table 7.

Table 7: Adequacy of Site Access

Design Aspect	Design Element	Council Requirement (TAPS PSP)	Statutory Requirement (Australian Standard)	Proposed Design	Compliance
Sight Distance	Sight Distance (50kph)	90m	69m	70m approx. (unrestricted to the adjacent intersection)	✓
Driveway Separation	Separation from adjacent driveways	3m along the kerb to the edge of driveway	N/A	35m approx.	✓

Design Aspect	Design Element	Council Requirement (TAPS PSP)	Statutory Requirement (Australian Standard)	Proposed Design	Compliance
	Separation from adjacent intersections	10m	10m	70m approx.	✓
Driveway Form	Driveway Type (AV)	Type B2	Category 1	Type B2	✓
	Driveway Width (AV)	7m	6.5m	8m [1]	✓
Queuing Provisions	Internal Queuing to first conflict point	2 vehicle (12m) to the first conflict point	-	Up to 1 vehicle [2]	**Performance Solution**
Gradient from boundary	Gradient from boundary	1:20 (5%) for first 6m	1:20 (5%) for first 6m	1:20 (5%) for first 6m	✓

[1] Due to the proposed access arrangement / manoeuvring requirements for refuse collection, the proposed layout does not provide a standard B2 (8m) driveway crossover. Additional width beyond the 7m requirement has been provided to facilitate the required RCV manoeuvring to access the refuse collection bay. The driveway form has been designed to accommodate these manoeuvres.

[2] The storage of an RCV on-site is expected to impact the overall driveway width. The location of the RCV is expected to stand clear of the 7m ramp width. No queuing is expected to result from the storage of an RCV within the refuse collection area.

Sight Distance

Based on the relevant Australian Standards (AS2890.1), the required sight distance for the relevant speed environment is 69m in each direction. The sight distance to the south of the site access is unrestricted to the south towards the adjacent intersection (approximately 70m distance). It is noted that the location of the site access is within a cul-de-sac which cannot accommodate a frontage speed environment of 50kmh. The frontage speed is expected to be in the order of 20kmh as approaching vehicles either access the BHC site or undertake a turnaround manoeuvre.

Regardless, the sight distance provided is in accordance with the requirements of the relevant Australian Standards (AS2890.1 and AS2890.2) and is considered acceptable.

Performance Solution – Queuing Provisions

Due to the proximity of the refuse collection bay to the vehicle access (necessitated by site layout and grades in this location), the statutory queuing provisions is not able to be achieved. The expected impact of this issue (having regard to the relative infrequency of refuse collection activities) is expected to be minimal, and the potential queuing is expected to be adequate to accommodate entering vehicles. It is noted that there is a very low vehicle demand in this location as Maidenhair Place does not accommodate through movements in this location, only vehicle movements associated with the BHC development or cul-de-sac turnaround.

As such, these are arrangements not expected to result in material impacts to the external road network or pedestrian facilities and are considered are considered to be acceptable in this instance.

TRAFFIC IMPACT REVIEW

A traffic impact assessment was prepared as part of the Parkside Yeronga Master Plan to estimate the expected traffic impacts on the surrounding road network. This included consideration of the traffic impacts at the completion of the Parkside Yeronga Master Plan delivery (i.e. each Lot developed and operational) and for a 10-year planning horizon thereafter.

The traffic impact assessment indicated that under the proposed Parkside Yeronga Master Plan yields, the road network proximate to the Yeronga PDA is expected to operation satisfactorily up to the 10-year future design horizon. The operational assessment indicated that mitigation works are not triggered by the proposed yields at the Park Road / Villa Street intersection from an operation impact perspective.

The proposed BHC development yield represents a minor reduction to the yields provided within the Parkside Yeronga Master Plan (i.e. a reduction of 3 dwellings) and the traffic impact assessment. As such, the proposed BHC development is expected to have a traffic impact which reflects that outlined within the Parkside Yeronga Master Plan and therefore warrants no further traffic impact analysis.

SUMMARY

The following is a summary of the information presented within this technical note:

- A PDA Preliminary Approval for a material change of use and PDA Development Permit for a Reconfiguration of Lot (ROL) for the Yeronga Priority Development Area have been granted to EDQ – DA (reference DEV2021/1221, dated 3 May 2022).
- The Parkside Yeronga Master Plan was prepared as a design response to the Yeronga PDA Development Scheme, identifying the potential form, function and layout of future development of the Yeronga PDA.
- Whilst the final confirmation of the RL elevations of the associated roadwork has not yet been confirmed, the RL elevations as shown in the Parkside Yeronga Preliminary Approval and ROL application, have been used as the basis of this assessment. Should these levels be amended, this Technical Note will require amendment accordingly.
- A Development Application is being sought for the BHC proposal to be located on proposed Lots 3 of the ROL of the Yeronga PDA.
- The BHC proposal comprises the provision of 75 social housing dwellings.
- The traffic and transport elements of the BHC proposal have been assessed against the requirements of the Preliminary Approval, Yeronga PDA Development Scheme, Council's TAPS PSP and relevant Australian Standards (AS2890.1, AS2890.2 and AS2890.6).
- The proposed total car parking yield of 36 resident and 12 visitor car parking spaces, including 2 accessible car parking spaces, represent a deficiency in the statutory car parking provisions detailed within the Parkside Yeronga Master Plan and the requirements of the Yeronga PDA Development Scheme.
- Based on a car parking demand assessment of existing BHC sites with a similar location / proximity to public transport, a dispensation to the statutory car parking supply of up to 60% is considered supportable to provide resident car parking provisions to adequately supply the resident car parking demand

Reference: PARKSIDE YERONGA – SOCIAL AND AFFORDABLE HOUSING PROPOSAL

- The proposed resident car parking supply of 36 car parking spaces represents a dispensation in the order of 50% and is therefore considered suitable to accommodate the expected car parking demand of the proposed BHC development
- The proposed car parking layout is provided generally in accordance with requirements of Council's TAPS PSP, relevant Australian Standards, and good transport engineering practice.
- The proposal includes a single vehicle crossover to the Maidenhair Place frontage, providing vehicle access for both residents and visitors, as well as on-site RCV servicing.
- The driveway and crossover have generally been provided in accordance with the Parkside Yeronga Master Plan, Yeronga PDA Development Scheme and Council's TAPS PSP.
- The BHC proposal development yield is not expected to have a material road network impact to that outlined within the Parkside Yeronga Master Plan and therefore warrants no further traffic impact analysis.

Naturally, should you have any questions or require any further information, please do not hesitate to contact me or Trent Williams (RPEQ #20703) at (07) 3029 5000.

Sincerely,

Stantec Australia Pty Ltd.

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Attachments:

Attachment A – Pre-lodgement Meeting Minutes Extract

Attachment B – Proposed Development Layout

Attachment C – Swept Path Assessment

Stantec

Technical Note

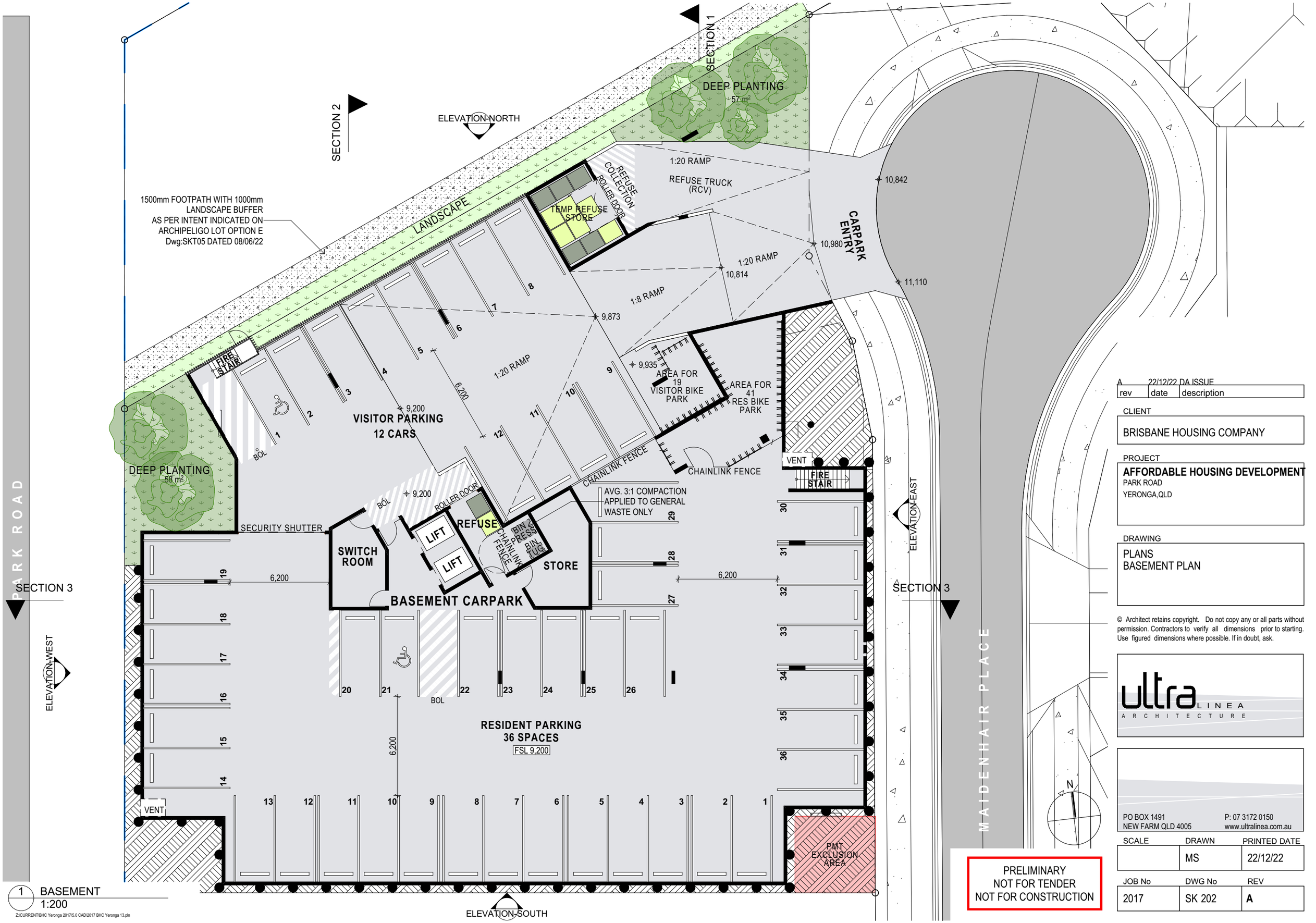
ATTACHMENT A – PRE-LODGEMENT MEETING MINUTES EXTRACT

EDQ Issue	Stantec Response
5.1 Car Parking	
The proposed carparking rates are much lower than those prescribed in the Development Scheme and presents a risk to parking capacity on the external network. Discussion during the meeting recognised there is some merit in reduced rates given tenants of social and affordable housing have typically lower car ownership. a) Provide the complete BHC study referenced in the covering letter along with other background reports to accompany a Traffic Impact Assessment (refer to separate advice below). Ensure the study details existing operational BHC sites (including number of units and typologies, tenant demographic where appropriate, site characteristics (i.e. proximity to services and public transport), parking occupancy of the sites at peak times (i.e. AM/PM or daily stats), any other information that justifies the proposed approximate 60% dispensation.	**Refer to the 'Car Parking Considerations' section within the above technical note** Relevant details of the BHC sites included within the car parking study have been provided within the above technical note with sufficient detail to justify the adequacy of car parking.
Other specific areas were identified and require further review: b) Review the parking layout for the 20 visitor bike parking spaces and demonstrate how safe access can be achieved when constrained by parking space 9 and the wall adjacent to the vehicle entry ramp. The plans show two spaces references as no.9, to remove any doubt this is referring to the eastern most space. c) Provide swept path turning manoeuvres demonstrating that a vehicle can perform a turning manoeuvre prior to the security shutter; d) Acknowledge that the current provision of PWD spaces is compliant and consider whether additional PWD spaces should be provided due to the development's provision of three platinum level units. e) Provide fully dimensioned plans showing all relevant measurements, including vertical clearance. f) Provide plans showing parking envelopes on all parking spaces and demonstrate that no structural elements are within the parking envelope, especially for resident spaces 15, 16, 18 and 19, and no walls are within 0.3m, especially for resident space 27 and visitor spaces 8 and 11. g) Check circulating aisle width is in accordance with BCC's City Plan 2014 and TAPS PSP. h) Check grade requirements for spaces on-ramp in accordance with BCC TAPS PSP.	**Refer to the 'Car Parking Considerations' section within the above technical note** The proposed development layout has been provided generally in accordance with Council's TAPS PSP, relevant Australian Standards and good transport engineering practice. Where relevant, swept path assessments have been undertaken to support the proposed layout. It is noted that issues raised by EDQ were based on a previous iteration of the design layout.
5.2 Servicing	
The covering letter states that "The refuse truck standing, and collection will not block the use of either lane of the driveway" however the swept path appears to show minor obstruction of the	**Refer to the 'Servicing and Refuse Collection' section**

exit lane of the driveway. Additionally, the swept path for the refuse truck to access the temporary collection area appears to be tight between the wall and edge of hardstand. Compliance with the Refuse PSP and TAPS PSP must be demonstrated (refer to additional advice below). a) Check queuing provision on the entrance to access driveway, noting that RCV manoeuvring is likely to be considered a conflict point. b) Demonstrate sight distance requirements at the property access, in consideration of the wall and the deep planting adjacent (a conditioned requirement of preliminary approval). Unless the walls either side of the stairs, adjoining the deep planting, are required for fire egress criteria, it is suggested as a minimum the walls are reduced to extents possible to improve driveway sightline geometry and CPTED concealment within stairs. c) Please advise the expected frequency of refuse collection activities. d) Demonstrate how a PWD will use the stairs located on north of parking 29. As a solution, a ramp along with the stairs could be incorporated;	**within the above technical note** The proposed development layout accommodates the storage of an RCV without restricting two-way access along the driveway ramp. A swept path assessment has been undertaken to demonstrate the RCV access and manoeuvring requirements. It is noted that issues raised by EDQ were based on a previous iteration of the design layout.
6.1 Traffic Management	
Prepare and submit a Traffic Impact Assessment signed by a suitably experienced RPEQ in accordance with the Brisbane City Plan 2014, including the Transport, Access, Parking, and Servicing Planning Scheme Policy. The TIA must detail matters including: a) Suitably scaled and dimensioned car parking layout plan demonstrating compliance with the Australian Standard AS 2890 Series. b) Clearly identify the swept paths of the largest anticipated vehicle to access the site including entry manoeuvres, service access areas, and exit manoeuvres from the site. The vehicle manoeuvre paths should be clear of all parking bays and storage areas and be external to structures. Vehicle manoeuvre paths are to be developed in accordance with the Australian Standard (2890 series). c) Provide a review of the traffic generated from the proposal and the impacts on the external network. Where parking rates are not consistent with TAPS PSP, provide justification and any associated data for review. d) Identify a pedestrian movement strategy/plan into and within the development site and demonstrate that the operation and configuration of the layout is adequate regarding safety of pedestrians, and parking and manoeuvring of vehicles.	**Refer to the 'Car Parking Considerations' section within the above technical note** The proposed development layout has been provided generally in accordance with Council's TAPS PSP, relevant Australian Standards and good transport engineering practice. Where relevant, swept path assessments have been undertaken to support the proposed layout

Reference: PARKSIDE YERONGA – SOCIAL AND AFFORDABLE HOUSING PROPOSAL

ATTACHMENT B – PROPOSED DEVELOPMENT LAYOUTS



1 BASEMENT
1:200

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rev	date	description
A	22/12/22	DA ISSUE

CLIENT
BRISBANE HOUSING COMPANY

PROJECT
AFFORDABLE HOUSING DEVELOPMENT
PARK ROAD
YERONGA,QLD

DRAWING
PLANS
BASEMENT PLAN

ultra LINEA ARCHITECTURE
PO BOX 1491
NEW FARM QLD 4005
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www.ultralinea.com.au

SCALE	DRAWN	PRINTED DATE
	MS	22/12/22

JOB No	DWG No	REV
2017	SK 202	A

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1 GROUND FLOOR
1:200

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rev	date	description
A	22/12/22	DA ISSUE

CLIENT
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PROJECT
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2017	SK 203	A

1 FIRST FLOOR
1:200

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PROJECT

AFFORDABLE HOUSING DEVELOPMENT
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2017	SK 204	A

1 SECOND FLOOR
1:200

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CLIENT
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PROJECT
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2017	SK 205	A

1 THIRD FLOOR
1:200

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CLIENT

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PROJECT

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PARK ROAD
YERONGA,QLD

DRAWING

PLANS
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2017	SK 206	A

1 FOURTH FLOOR
1:200

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A	22/12/22	DA ISSUE

CLIENT

BRISBANE HOUSING COMPANY

PROJECT

AFFORDABLE HOUSING DEVELOPMENT
PARK ROAD
YERONGA,QLD

DRAWING

PLANS
4th FLOOR PLAN

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	MS	22/12/22

JOB No	DWG No	REV
2017	SK 207	A

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NOT FOR TENDER
NOT FOR CONSTRUCTION

1 FIFTH FLOOR
1:200

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rev	date	description
A	22/12/22	DA ISSUE

CLIENT

BRISBANE HOUSING COMPANY

PROJECT

AFFORDABLE HOUSING DEVELOPMENT
PARK ROAD
YERONGA,QLD

DRAWING

PLANS
5th FLOOR PLAN

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JOB No	DWG No	REV
2017	SK 208	A

Stantec

Technical Note

ATTACHMENT C – SWEPT PATH ASSESSMENT

DEEP PLANTING

LANDSCAPE

FIRE STAIR

VISITOR PARKING

B99 STANDARDS 2004 (AU_NZ)

AREA FOR 19 VISITOR BIKE PARK

AREA FOR 41 RES BIKE PARK

CARPARK ENTRY

6.3

BCC-ACCO 2350 REFUSE TRUCK (RCV) GTA-QLD

SWITCH ROOM

REF

STORE

BASEMENT CARPARK

6200

RESIDENT PARKING

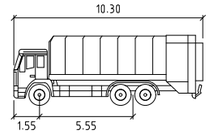
MAIDENHAIR PLACE

SWEPT PATH KEY

- VEHICLE CENTRE LINE
- VEHICLE TYRE PATH
- VEHICLE BODY PATH
- 300-500mm CLEARANCE FROM VEHICLE BODY

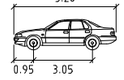
ASSUMED SPEED 5-10km/h

DESIGN VEHICLES



BCC-ACCO 2350

	meters
Width	: 2.50
Track	: 2.50
Lock to Lock Time	: 6.0
Steering Angle	: 35.7



B99

	meters
Width	: 1.94
Track	: 1.84
Lock to Lock Time	: 6.0
Steering Angle	: 33.9

Stantec

PRELIMINARY PLAN
FOR DISCUSSION PURPOSES ONLY
SUBJECT TO CHANGE WITHOUT NOTIFICATION

WARNING
BEWARE OF UNDERGROUND SERVICES
THE LOCATIONS OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN.

DESIGNED	H.TRUONG
DESIGN CHECK	A.TIERNEY
APPROVED BY	A.TIERNEY
DATE ISSUED	12 JANUARY 2023
SCALE	A3 1:200
CAD FILE NO.	301050151-SK02-P2.DWG

YERONGA - BHC
SWEPT PATH ASSESSMENT
BASEMENT LEVEL - END AISLE & REFUSE COLLECTION MANOEUVRING

DRAWING NO. 301050151-SK02 SHEET 1 OF 1 ISSUE P2

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