gtk consulting
traffic management
and car parking solutions

Traffic and Car Parking Assessment

Proposed Residential Flat Building

124-128 Killeaton Street, St Ives

Version 2

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1 INTRODUCTION

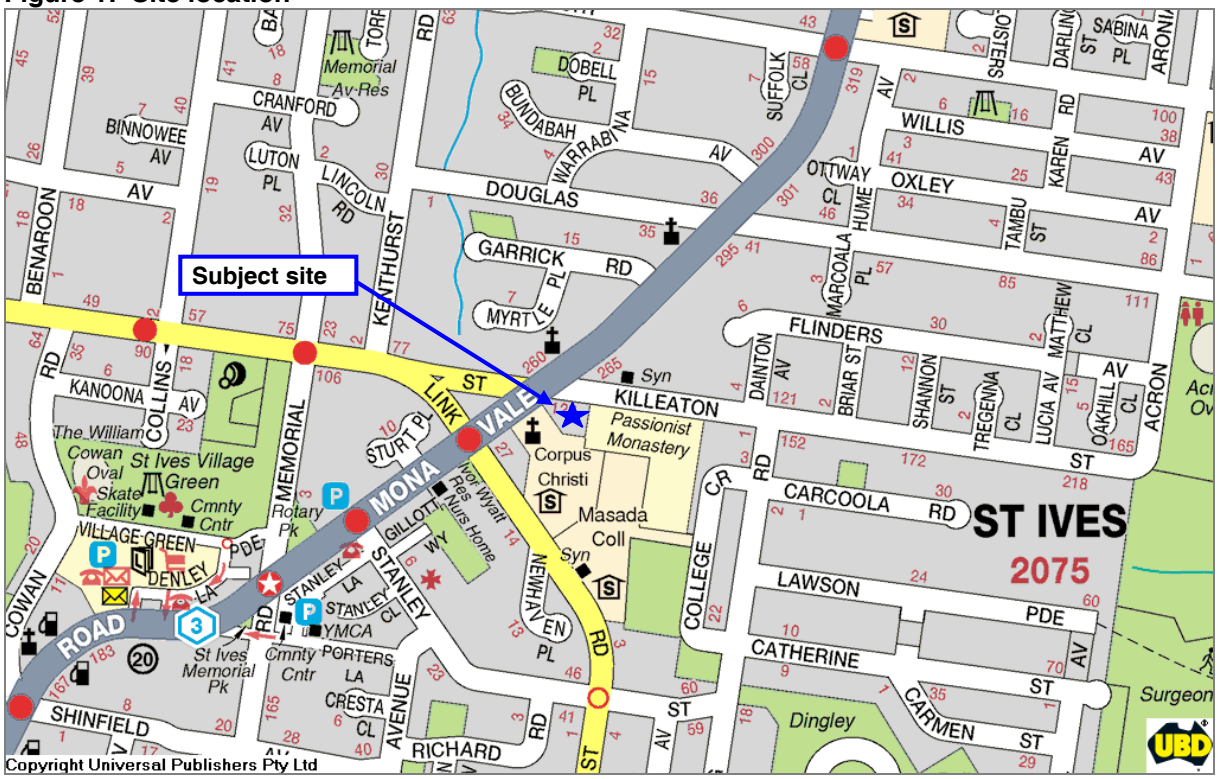
gtk consulting has been engaged by Develotek Property Group Pty Limited to undertake a traffic and car parking assessment for a proposal to demolish 3 existing residential dwellings and construct 74 residential units at 124-128 Killeaton Street, St Ives (**Figures 1** & **2**).

This report provides:

- A description of the site and the proposal.
- A description of the road network serving the site.
- An assessment of the potential traffic implications.
- An assessment of car parking requirements.

This assessment was undertaken by Garry Kennedy, Director gtk consulting pty ltd. Garry has extensive (42 years) experience in Traffic Engineering, Road Safety and Car Parking. Garry chaired a Local Traffic Committee for seventeen years at a major metropolitan Council. In 2006 Garry established gtk consulting and since that time has undertaken many traffic and car parking assessments and studies for Local and State Government Agencies and private developers. Garry provides expert evidence in the NSW Land and Environment Court, Local Magistrates Court and District Court. Garry's court experience covers a wide range of traffic activities, such as, the suitability of development proposals, traffic accident liabilities, heavy vehicle prosecutions, parking offences and many other offences under the Local Government Act and the Roads Act.

Figure 1: Site location



Source: UBD Australian City Streets v6.0 (licensed to gtk consulting)

Figure 2: Aerial view of site

Source: NSW Land and Property Information

2 THE SITE, SURROUNDING USE AND ADJACENT STREETS

The site and existing dwellings are located on the southern side of Killeaton Street on the corner of Mona Vale Road. The site is approximately 500 metres from St Ives Village. A Catholic Church and Corpus Christi Catholic Primary School lie immediately south of the site and a child care centre is located on the northern side of Killeaton Street.

Killeaton Street is 11.5 metres wide between kerbs in front of No.128 Killeaton Street, however, widens to 18.0 metres at the intersection with Mona Vale Road (**Photo1** and **2**). Killeaton Street is a local road under the care, control and responsibility of Ku-ring-gai Municipal Council and Mona Vale Road is a classified arterial road under the care, control and responsibility of Roads and Maritime Services.

Photo 1: Killeaton St looking west

Source: gtk consulting 2014

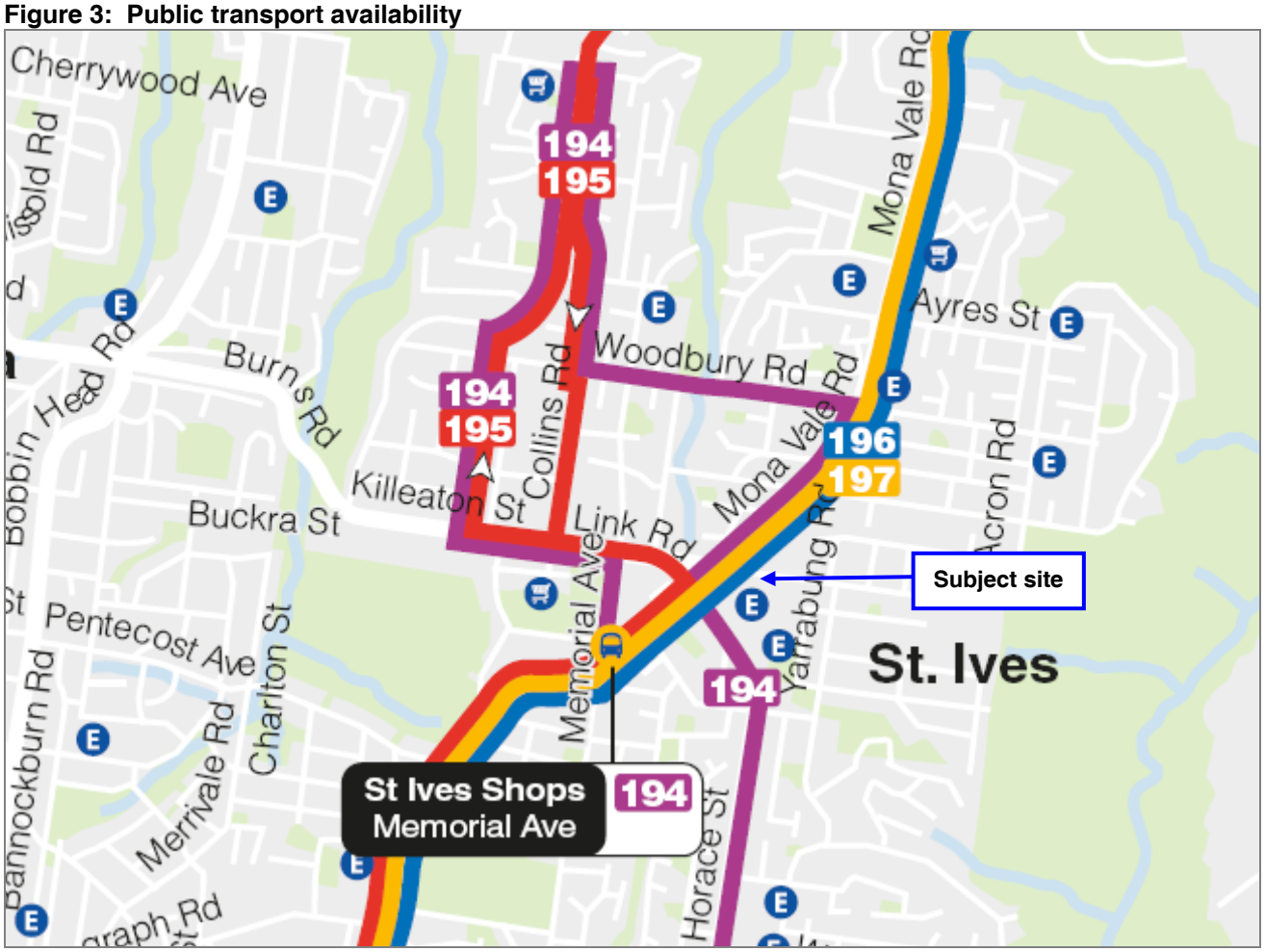
Photo 3: Killeaton St looking east

Source: gtk consulting 2014

3 PUBLIC TRANSPORT

The site is located immediately adjacent to regular bus services on Mona Vale Road and in easy walking distance to services on Link Road (**Figure 3**).

Figure 3: Public transport availability



Source: Transport Infoline 2014

4 THE PROPOSAL

The proposed development involves the demolition of 3 existing residential dwellings and construction of 74 residential units comprising:

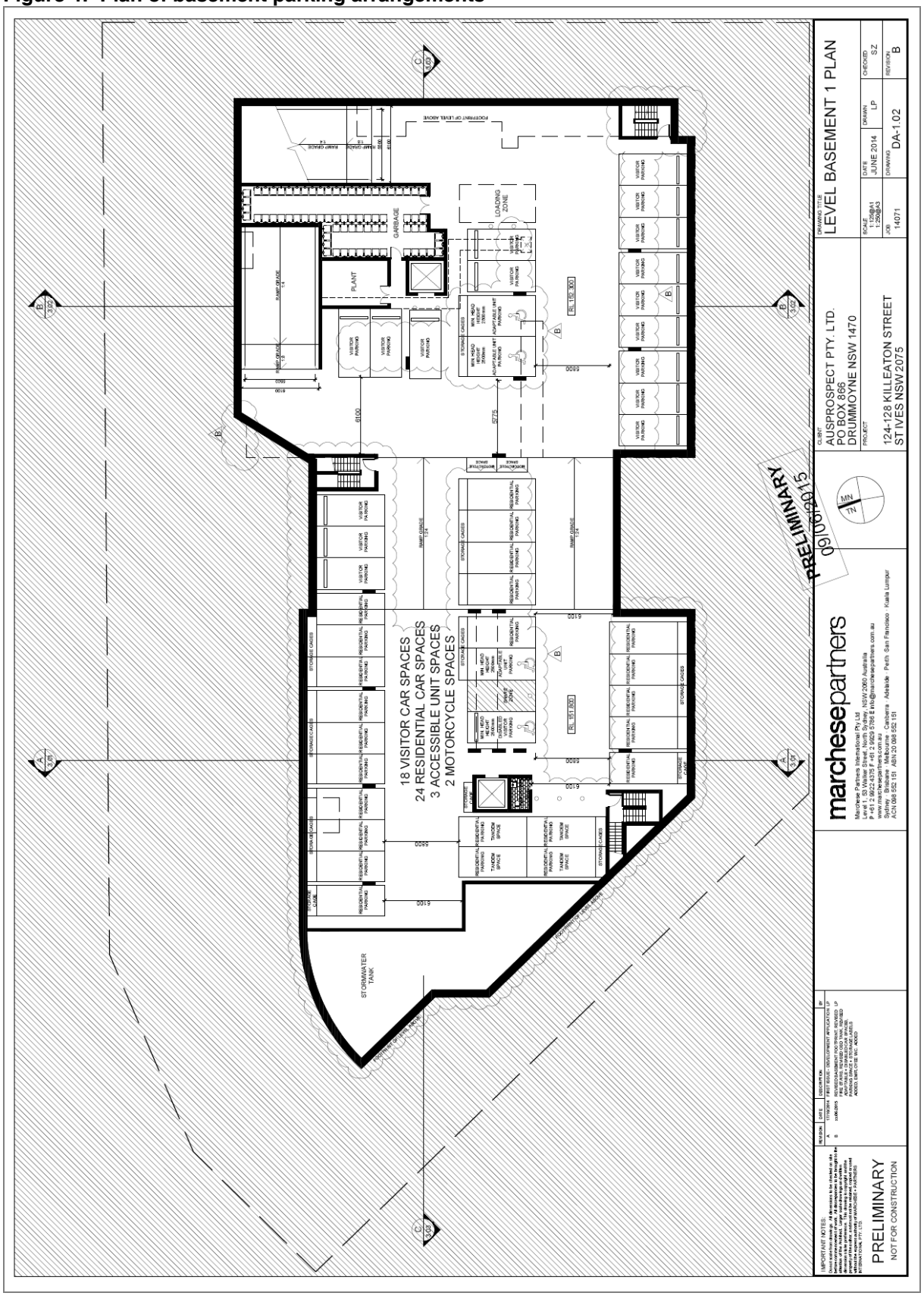
- 17 x 1 bedroom units
- 48 x 2 bedroom units
- 9 x 3 bedroom units

The basement level provides parking for 97 vehicles including 9 spaces for persons with a disability. The access driveway is 6.0 metres wide at the property boundary on the north-eastern corner of the site.

The internal traffic aisles are minimum 5.8 metres wide and car parking spaces are minimum 2.5 metres wide x 5.4 metres long. Where spaces are located against a wall, they have been widened 0.30 metres in accordance with the requirements of AS 2890.1:2004.

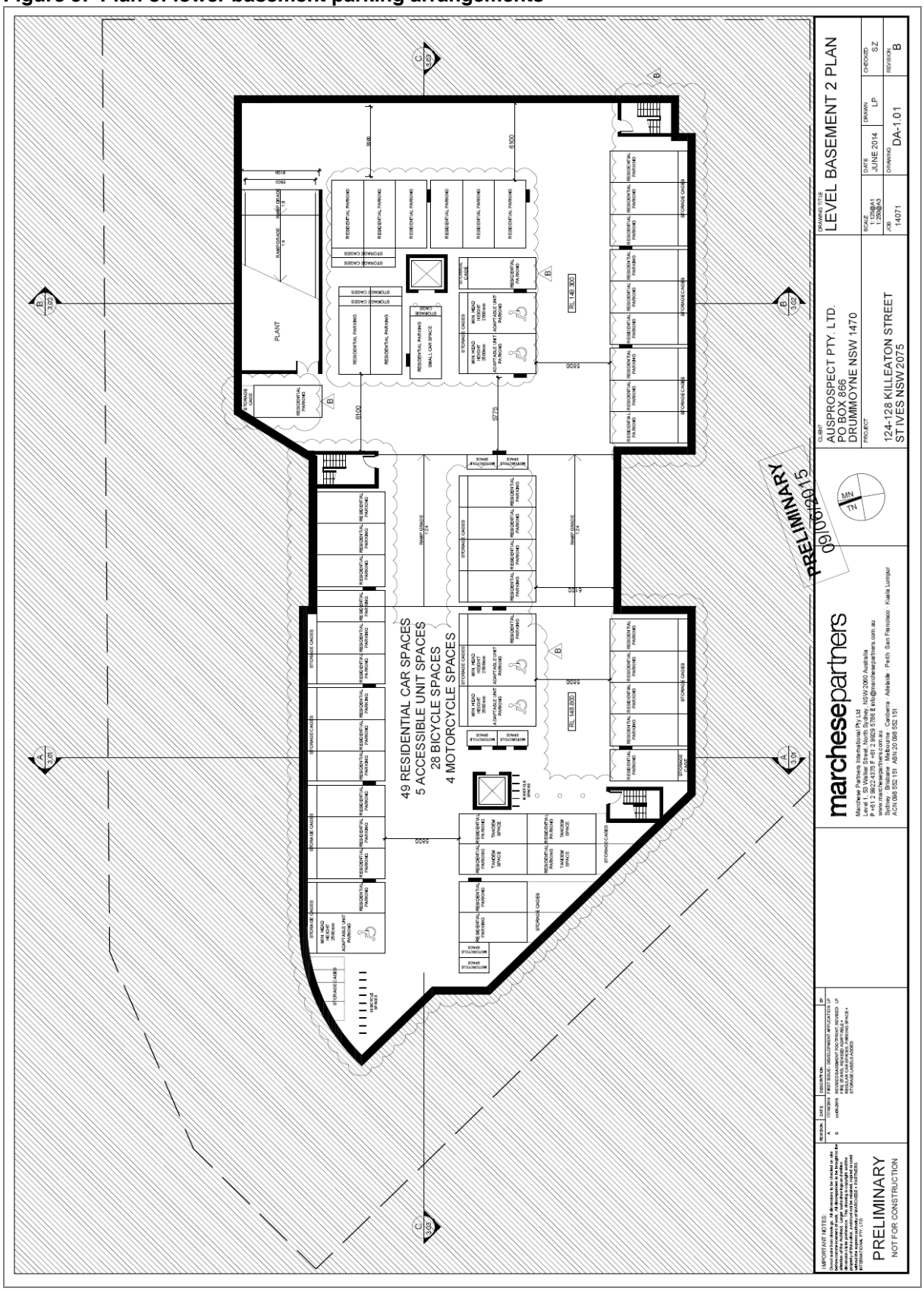
Details of the proposed parking arrangements are provided on the architectural plans prepared by Marchese Partners International Pty Ltd in **Figures 4** & **5**:

Figure 4: Plan of basement parking arrangements



Source: Marchese Partners International Pty Ltd 2015

Figure 5: Plan of lower basement parking arrangements



Source: Marchese Partners International Pty Ltd 2015

5 SITE ACCESS

The subject site has frontage to Mona Vale Road which is a "classified road". Clause 101 (a) of the State Environmental Planning Policy (Infrastructure) states that:

> *"The consent authority must not grant consent to development on land that has a frontage to a classified road unless it is satisfied that:*
>
> *(a) where practicable, vehicular access to the land is provided by a road other than the classified road, and*
>
> *(b) the safety, efficiency and ongoing operation of the classified road will not be adversely affected by the development as a result of:*
>
> *(i) the design of the vehicular access to the land, or*
> *(ii) the emission of smoke or dust from the development, or*
> *(iii) the nature, volume or frequency of vehicles using the classified road to gain access to the land, and*
>
> *(c) the development is of a type that is not sensitive to traffic noise or vehicle emissions, or is appropriately located and designed, or includes measures, to ameliorate potential traffic noise or vehicle emissions within the site of the development."*

The subject site also has frontage to Killeaton Street which is an unclassified road and, therefore, access is not proposed to Mona Vale Road.

6 TRAFFIC GENERATION

Roads and Maritime Services (RMS) provide average traffic generation rates for a range of different land uses in their publication *Guide to Traffic Generating Developments* 2002. The rates are based on extensive surveys undertaken throughout the Sydney Metropolitan Area. In 2012, RMS undertook surveys of 10 high density residential unit sites in the Sydney Metropolitan Area, upgrading the 2002 guidelines. The surveys revealed the maximum peak vehicle trips generated for high density residential flats is 0.19 peak hour vehicle trips (phvt) per unit in the AM and 0.15 phvt in the PM.

The maximum peak vehicle trips for the proposed development are, therefore:

74 units x 0.19	=	14 phvt in the AM
74 units x 0.15	=	11 phvt in the PM

Traffic volumes of this magnitude:

- Are minimal and will have no impact on existing traffic flows, intersection capacities or neighbourhood amenity.
- Will not present any unsatisfactory traffic safety or capacity issues on the surrounding road network.

7 PARKING

7.1 CAR PARKING

The proposed residential development will provide 97 on-site car parking spaces, comprising:

- 79 resident spaces, including 8 spaces for persons with a disability; and,
- 18 visitor spaces which include 1 space for persons with a disability.

Ku-ring-gai Municipal Council's 2012 Local Centres Development Control – *Volume C Part 2R.2*, provides a schedule of car parking requirements for various land use activities. The car parking rates for the proposed residential development are set out in **Table 1** and these are used to calculate the parking requirements for the proposal.

Table 1: Car parking requirements residential flat development

Unit Type	DCP Car Parking Rates	Number of Units Proposed	Spaces Required
I bedroom unit	1.0 space per unit	17 units	**17.0 parking spaces**
2 bedroom unit	1.0 space per unit	48 units	**48.0 parking spaces**
3 bedroom unit	1.5 spaces per unit	9 units	**13.5 parking spaces**
Visitor parking	1 space per 4 units	74 units	**18.5 parking spaces**
		TOTAL	**97 parking spaces**

Source: Ku-ring-gai Municipal Council 2012

The two basement parking levels will provide parking for 99 vehicles including 8 spaces for residents with a disability and 1 space for visitors with a disability. The proposed car parking provision, therefore, meets the DCP requirements.

The proposed car parking spaces are 2.5 metres wide and 5.4 metres long. Internal aisles are minimum 5.8 metres wide. These dimensions comply with the requirements of AS 2890.1:2004, RMS *Guide to Traffic Generating Developments* and Ku-ring-gai Municipal Council's DCP. The proposed parking spaces for persons with a disability comply with AS 2890.6:2009 *Off-Street Parking for People with a Disability* for the visitor space and AS 4299-1995 *Adaptable Housing Class C* for residents with a disability.

The floor to ceiling height within the basement car parking areas is variable, however, provides:

- 2.3 metre clearance on ramps and car parking aisles; and,
- 2.5 metre clearance above the parking spaces for persons with a disability, as required by AS 4299-1995 and AS 2890.6:2009.

These heights include clearance to air conditioning services, plumbing, etc.

A check of swept paths has been undertaken of the ramp intersections using a B99 vehicle (refer **Figures 6** & **7**). As discussed with Mr Ross Guerrera, Senior Development Engineer Ku-ring-gai Council on 25 June 2015, these intersections are designed for use by one vehicle at a time as permitted under Section 2.5.2 (c) of AS 2890.1:2004. To assist drivers turning into the ramps, convex mirrors will be strategically placed to enhance sight lines to any vehicle on the ramp. A sign will be prominently displayed stating "Give Way to Vehicles on Ramp". It should be noted that only residents, who will be familiar with the car parking environment, will access the ramps to the lower basement level.

7.2 SERVICE VEHICLES

A loading bay is provided within the basement parking area adjacent to the garbage room. The loading bay is 3.5 metres wide and 6.0 metres long.

7.3 BICYCLE PARKING

Ku-ring-gai Municipal Council's *Local Centres Development Control – Volume A Part 7B.2*, provides the bicycle parking requirements for various land use activities. The bicycle parking rates for the proposed residential flat development are set out in **Table 2** and these are used to calculate the parking requirements for the proposal.

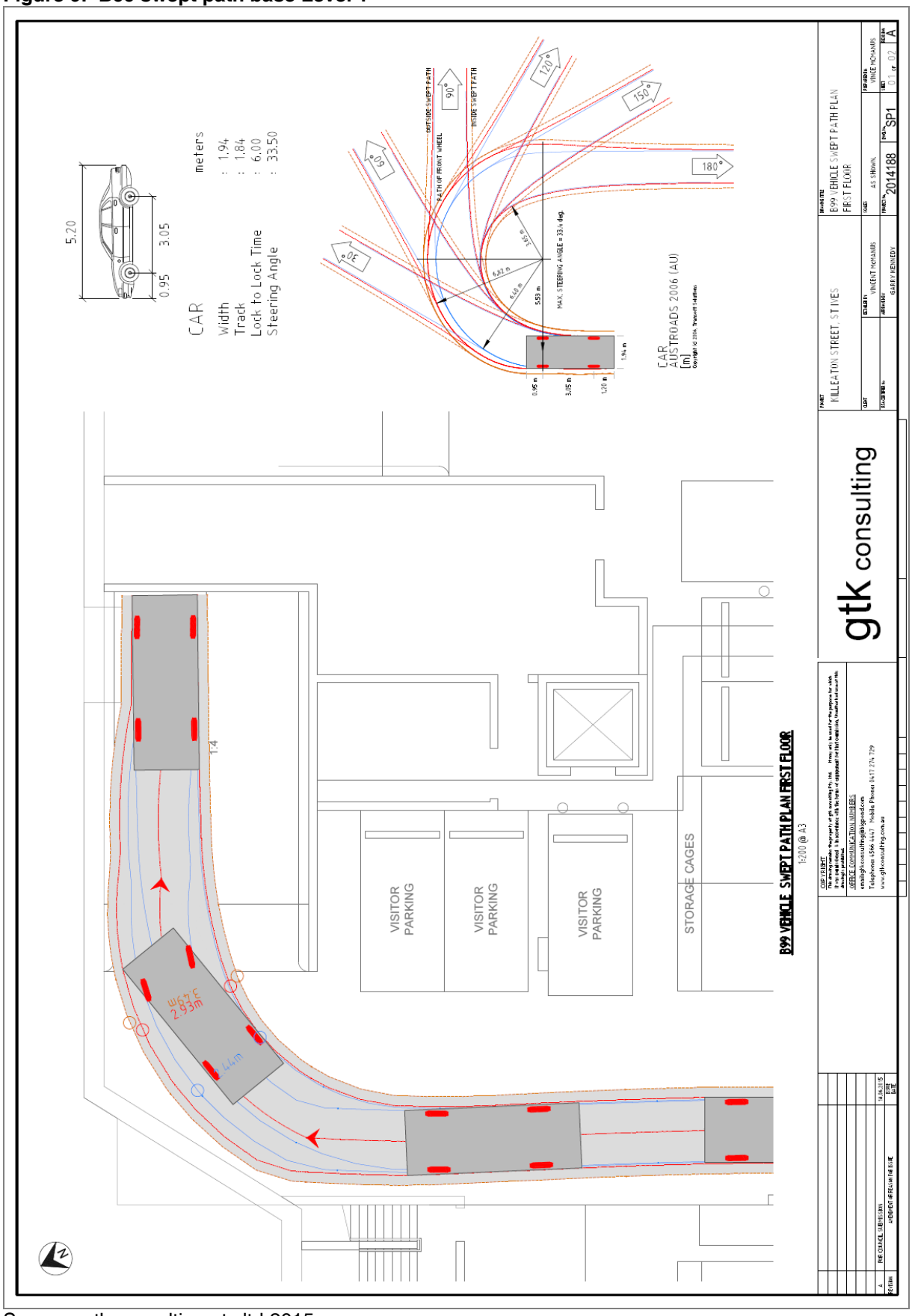
Table 2: Bicycle parking requirements residential flat development

Bicycle Parking for High Density	DCP Bicycle Parking Rates	Number of Units Proposed	Spaces Required
Residential	1.0 space per 5 units	74 units	**15 spaces**
Visitors	1.0 space per 10 units	74 units	**8 spaces**
		TOTAL	**23 spaces**

Source: Ku-ring-gai Council 2012

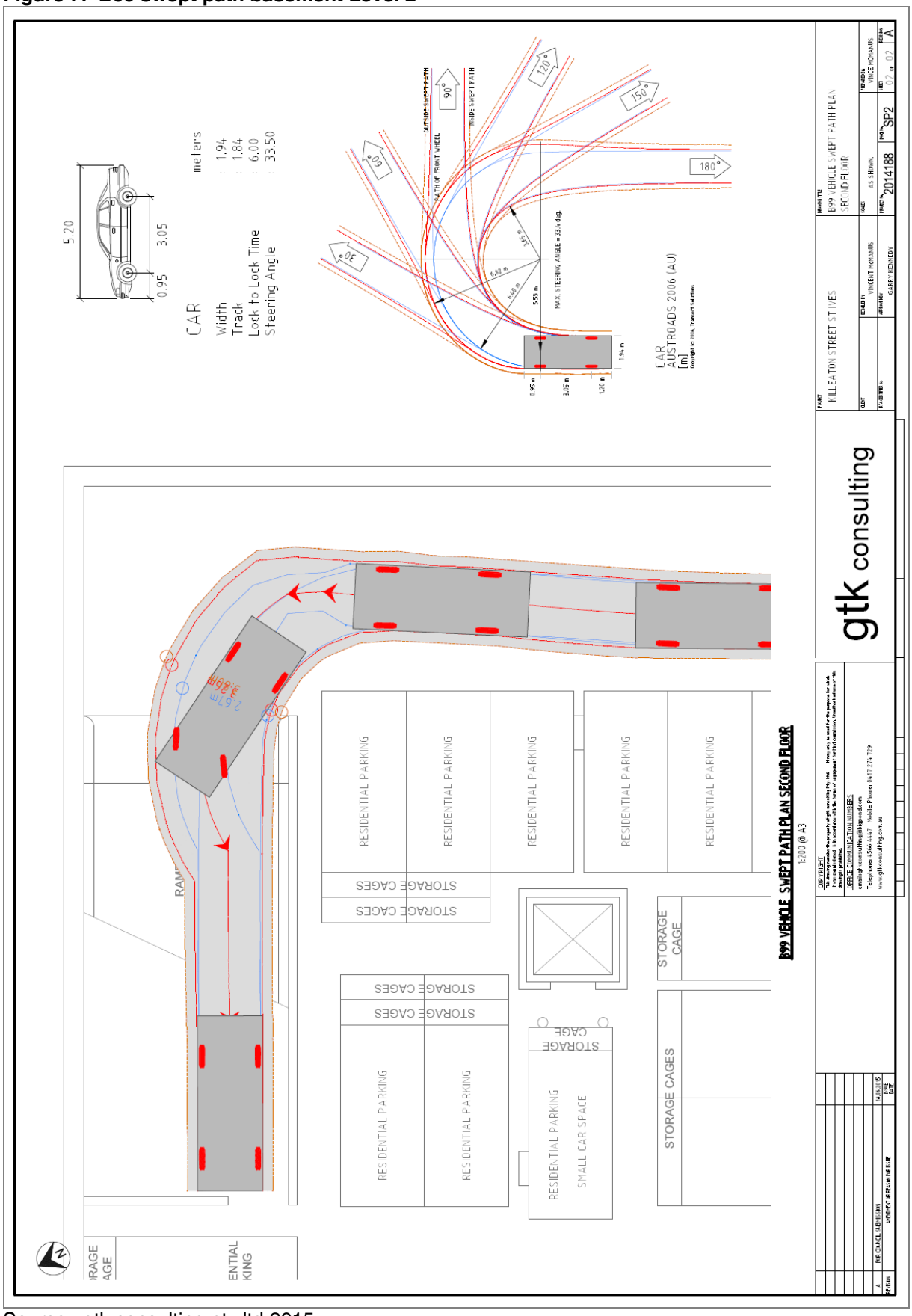
The architectural plans prepared by Marchese Partners International Pty Ltd (refer **Figures 4** & **5**) shows the location of 24 bicycle parking spaces for the proposed development which meets the requirements of Council's DCP.

Figure 6: B99 swept path base Level 1



Source: gtk consulting pty ltd 2015

Figure 7: B99 swept path basement Level 2



Source: gtk consulting pty ltd 2015

8 CONCLUSION

The proposed residential development at 124-128 Killeaton Road St Ives has been assessed to determine the suitability of the proposal in relation to Council's DCP, Australian Standards, RMS guidelines and the likely traffic impacts on the surrounding road network.

Assessment of the proposal indicates that:

- The proposed car parking provision meets the requirements of Council's DCP.
- The proposed bicycle parking provision meets the requirements of Council's DCP,
- The proposed internal car parking layout meets the requirements of AS 2890.1:2004, AS 2890.6:2009. AS 4299-1995, Council's DCP and RMS *Guide to Traffic Generating Developments*.
- The traffic generated by the proposed development will not present any unsatisfactory traffic safety or capacity issues on the existing road network.

This assessment concludes that the traffic, road safety and car parking elements of the proposed residential development comply with Ku-ring-gai Municipal Council's DCP, and the relevant standards and guidelines for such developments.

Garry Kennedy

Director