M^CLAREN TRAFFIC ENGINEERING

Address: Shop 7, 720 Old Princes Highway Sutherland NSW 2232
Postal: P.O Box 66 Sutherland NSW 1499

Telephone: +61 2 8355 2440
Fax: +61 2 9521 7199
Web: www.mclarentraffic.com.au
Email: admin@mclarentraffic.com.au

Division of RAMTRANS Australia ABN: 45067491678 RPEQ: 19457

Transport Planning, Traffic Impact Assessments, Road Safety Audits, Expert Witness

12th November 2020 Reference: 200818.02FA

Investec Australia Limited
Level 23, The Chifley Tower,
2 Chifley Square
Sydney NSW 2000
Attention: Ivan Goodman

LETTER OF RESPONSE TO COUNCIL COMMENTS FOR WOOLSTORE MASTERPLAN DEVELOPMENT AT 57 ANNIE STREET, WICKHAM

Dear Ivan,

Reference is made to your request to provide a response to the City of Newcastle Council's comments for the Woolstore Masterplan Development at 57 Annie Street, Wickham (Concept Site layout in **Annexure A**). This letter is in response to the City of Newcastle Council's comments within an email sent by Amanda Gale, a Senior Development Officer (Planning) on Thursday, 5th November 2020 for DA Number 2017/01338. The comments made by Council relevant to traffic and parking are shown below (italicised) with *M^CLaren Traffic Engineering*'s (MTE) response thereafter.

> ***Traffic matters***
>
> ***Vehicular Access, Driveway Design and Crossing Location***
>
> *Heavy Rigid Vehicle (HRV)*
>
> *The submitted letter of Advice Traffic Impact Assessment submitted by Maclaren Traffic Engineering Ref: 190045.01FA dated 12/02/2019 has been re-reviewed in terms of the Heavy Rigid Vehicle movements within the site.*
>
> *It is noted that the manoeuvring templates provided in Annexure E of the statement is for the internal access road between Woolstores 1 and 2 leading to the exit driveway on Milford St. The manoeuvring templates have recommended changes to the landscaping and civil aspects of the design to sustain the HRV movements, which will need to be addressed.*

MTE Response: In relation to the undertaken swept path assessment, it is important to maintain consideration for the early and conceptual nature of the proposed masterplan, including the internal laneway/road layout. In this regard, the swept path assessment within the referenced document was undertaken to provide an indication of the ability of HRV's to access the site, rather than providing more detailed assessment to definitively determine success or failure of HRV access which would be more appropriate at the detailed design stage of the development. The undertaken swept paths

indicated that HRV's can successfully access the proposed road layout, subject to what are considered to be minor modifications to landscaping and kerbs of the masterplan road layout. It is considered unreasonable to require such changes to be made on the masterplan plans for the project and instead, it is recommended that these matters can be raised as consent conditions to be addressed during detailed design of the development.

> *Heavy Rigid Vehicle (HRV)*
>
> *…Furthermore, it seems that there is an overhead pedestrian link between Woolstore 3 and Building 4. The height clearance for this link will need to be confirmed.*
>
> *Request for Information*
>
> 1. *Manoeuvring plans for HRV access for the remaining access roads will need to be provided to demonstrate HRV manoeuvring can be achieved and impacts of HRV movements on the proposal can be analysed.*
> 2. *Height clearance for the overhead pedestrian link between Woolstore 3 and Building 4 to be confirmed. HRV clearance is minimum 4.5m*

MTE Response: No HRV access is proposed to be undertaken along the lane located between Woolstore 3 and Building 4, such that satisfying a height clearance of 4.5m to this overhead pedestrian link is not necessary.

HRV access will only be required to the wider site access the proposed loading bay located between Building 5 and Woolstore 1 for residential waste collection. It has been advised that there will be waste holding areas provided within each of the residential buildings. When the time comes for waste collection, the building or site manager will arrange for the waste to be transported to the loading bay near Building 5 for collection. Loading and servicing for retail and commercial uses of the site will be undertaken by vehicles up to and including 8.8m long Medium Rigid Vehicles via loading bays on the eastern side of building 4 and within the parking area of Woolstore 3.

The previous Letter of Advice completed by MTE with document reference of 190045.01FA and dated 12th February 2019 (henceforth referred to as "2019 MTE Letter**"**) addressed the ability of HRV's to enter the site from Annie Street via the internal road between Woolstore 1 and 2, turn left onto the internal road running east-west of the masterplan then enter and exit the loading bay before exiting onto Milford Street.

In addition to the previously addressed manoeuvres from the 2019 MTE Letter, it is proposed that vehicles can approach the loading bay via the internal roads located between Woolstores 2 and 3 and to the east of Building 5. From these laneways the HRV's will then approach the loading bay along the laneway running east-west in the middle of the site, then circulate and exit the site as per the manoevures addressed in **2019 MTE Letter** assessment. Whilst it is noted that the internal road to the east of Building 4 is not proposed to be utilised for HRV access, manoevures of HRV's entering and circulating this roadway have been provided to address Councils request for HRV access for the "*remaining access roads*".

Swept path testing has been undertaken to assess the ability of HRV's to access the proposed loading bay from the road network, with results reproduced in **Annexure B**. The swept path testing has been undertaken using the *AutoTURN 11* software package with a design vehicle of a 12.5m long Heavy Rigid Vehicle (HRV) in accordance with *AS2890.2:2018*. The results indicate that HRV's

can successfully enter the site via almost all the proposed routes and circulate the internal roads of the site, subject to minor landscaping and localised roadway widening changes near the intersection of the internal roads. This is with the exception of a HRV making a left turn from The Avenue to the internal road located to the east of Building 5. Due to the existing road layout of The Avenue, the required manoeuvre by a HRV would encroach past the centreline of The Avenue which is unacceptable.

The landscaping and intersection splaying changes identified above are considered minor modifications that can be adequately addressed during the detailed design stage of development. It is important to note that the masterplan plans of the development are conceptual in nature.
It is usual and expected that a design certificate be required at the construction certificate stage to ensure the required design changes mentioned above are made, and to account for any further design changes during the following Development Application process. As a result of the undertaken swept paths, and subject to the minor modification of landscaping and roadways within the site, it is considered that a HRV waste collection vehicle can successfully enter and exit the subject site. The routes available for HRV access of the site can be detailed within the Waste Management Plan for each of the relevant buildings of the site.

Parking Demand for Woolstore 3 (W3)

The revised proposed for Woolstore 3 is for commercial (7,248m2 GFA) and Retail (785m2 GFA). A total of 165 off-street car parking is required based on CN DCP for W3. The revised proposed building use therefore lacks 104 car parking spaces and is a matter of concern and needs to be addressed.

The impact of such a massive car parking deficiency for a commercial/retail use could likely impact on the demand for parking within the on-site access roads and on-street parking.

Although the overall parking seems to balance out, it needs to be demonstrated how the commercial development proposal for W3 will be sustained in the overall development without causing unsustainable impact on the surrounds of the development and the local roads.

- *The major issue to resolve is the lack of parking for the commercial Woolshed 3 building (104 spaces). The deficiency on this one building (W3) is a sensitive matter which needs to be addressed.*
- *Concern is raised in regard to the potential parking impacts if W3 is allocated any surplus parking spaces from the residential stages of the development. In this regard, if such a proposal is tabled, then the applicants will need to address any parking allocations from the residential components and if there are any impacts on the allocated parking and operational management of the relevant building/s.*
- *The parking management within the private roads (on-site Street Parking) operation and management could be impacted by the lack of parking for W3. The applicants will therefore need to demonstrate how the parking turnover will be managed (Refer to AS2890.1 Table 1.1 for User Class) to demonstrate how on-site on road car parking will be managed to ensure peak parking demands can be managed without impacting the local on-street parking network.*

MTE Response: It is noted that the proposed scale of commercial area within Woolstore 3 is 8,470m^2 NLA which is different than the 7,248m^2 GFA that is quoted in Councils request. Following

the above comments by Council, the quantity of parking has been modified, with an additional 10 car parking spaces proposed to be provided on the laneway to the north of Building 4 and an additional six (**6**) spaces accommodated within the parking area of Woolstore 3. The updated car parking requirements for the wider masterplan are summarised within a table provided in **Annexure C**, which indicates that the site's car parking provision (including on-site laneway parking) exceeds the minimum parking requirements by two (**2**) car parking spaces.

Whilst this exceeding of the minimum requirements indicates that all car parking associated with the development will be accommodated for within the subject site (such that it will not adversely impact the local on-road network as suggested by the third point in Councils request), it is important to manage the parking allocation of the site's parking areas effectively to ensure an acceptable operation. With consideration for the land uses of the site all residential car parking spaces should be provided within the car parking areas located inside the buildings. Staff spaces for retail areas should also be provided within the building areas. Parking which is convenient for retail visitors should be prioritised as part of the on-site parking management. This can be accommodated within the laneway parking near the retail uses through 1 hour or similar period-restricted parking marked with signposting, which will increase the possibility that suitable and convenient parking is available in close proximity to the retail uses for visitors. With respect to the volume of parking used by retail staff and visitors it is typical to assess this as a 50% / 50% split of the total retail parking requirement.

For the commercial uses of the site, the parking demand generated by these uses is predominately by the staff of the commercial uses or the occasional visitor, depending on the specific commercial use. These users generally have a low parking turnover with parking all-day a common occurrence by staff and longer parking for any visitors compared to retail visitors. As such, it is considered reasonable that commercial staff and visitors would accept less convenient parking spaces than retail users, as long as the car parking spaces are provided within a reasonable walking distance, which is provided within the bounds of the subject site.

To effectively manage the allocation of car parking within the site, the effective reallocation of retail visitors to the laneway parking areas from the internal parking areas, as suggested by the table in **Annexure C** should be considered. An updated summary of parking provisions is summarised in **Table 1** below.

TABLE 1: CAR PARKING REQUIREMENTS

Building or Land Use	Scale	Required Car Parking	Provided Car Parking	Difference
Woolstore 1 - Totals		**120**	**121**	**+1**
Residential	100 units	120(1)		
Woolstore 2 - Totals		**119**	**125**	**+6**
Residential	99 units	119(1)		
Woolstore 3 - Totals		**178**	**66**	**-112**
Retail STAFF	672m^2 GFA	8.4(2)		
Commercial	8470m^2 NLA	169.4		
Building 4 Totals		**69**	**73**	**+4**
Retail STAFF	1585m^2 GFA	15.9(2)		
Commercial	2644m^2 GFA	52.9		
Building 5 Totals		**85**	**109**	**+24**
Residential	69 units	82.8		
Retail STAFF	181m^2 GFA	2.25(2)		
Total Onsite Street Parking		**27**	**104**	**+77**
Woolstore 3 Retail VISITORS	672m^2 GFA	8.4(2)		
Building 4 Retail VISITORS	1585m^2 GFA	15.9(2)		
Building 5 Retails VISITORS	181m^2 GFA	2.25		
TOTAL		**598**	**598**	**0(3)**

Notes:

(1) Includes visitor car parking;

(2) Calculated as half of total retail parking required

(3) Variance of number from that in **Annexure C** is as a result of rounding differences between different calculations.

In accordance with the results of **Table 1**, where a building contains a quantity of car parking greater than the minimum requirements of the Council's DCP, the numerical excess of car parking spaces shall be allocated to the commercial staff of Woolstore 3. For example, one (1) space in the Woolstore 1 parking area should be allocated to commercial staff, six (6) spaces in the Woolstore 2 should be similarly allocated etc.

The allocation of these spaces can be outlined and designated within the relevant documents for each commercial tenancy and/or building where the parking is provided. Any managerial requirements can be outlined within a Plan of Management for the site, which can be required under consent conditions and addressed at the Construction Certification stage of development. It is reiterated that this project is currently in a masterplan stage, such that further details will be required for suitable management procedures to be detailed. The commercial tenancies or users who are proposed to have access to the spaces shall be given keycards or access codes to access the allocated spaces in each building. Inside each building, all car parking spaces should be signposted and or linemarked to indicate the allocation of the space (residential unit number, retail store, commercial tenancy etc) to ensure that all car parking spaces are appropriately used and minimise any confusion.

As each land use will comply with the minimum car parking requirements of the City of Newcastle DCP, it is not expected that the allocation of excess car parking spaces will impact the residential or other users of the car parking areas. Allocations of car parking spaces such as these are common practice in mixed-use developments such that it is not expected that there will be any adverse impacts on the operation of these parking areas.

As recommended earlier, the parking demand of retail visitors should be accommodated through 1 hour period restricted signposting for on-site spaces provided within the laneway. These numbers of spaces identified in **Table 1** for each building (totalling at least 27 spaces) should be signposted close to the relevant access points for the associated retail stores for convenience of the retail users. The location of these signposting restrictions can be detailed further during the Construction Certificate stage of development once the relevant access points for the retail areas are detailed further.

With regard for Council's concern that "*The applicants will therefore need to demonstrate how the parking turnover will be managed (Refer to AS2890.1 Table 1.1 for User Class) to demonstrate how on-site on road car parking will be managed to ensure peak parking demands can be managed without impacting the local on-street parking network.";* as stated previously, all car parking demands expected to be generated by the proposed development will be accommodated on-site such that it is not expected that any kerbside parking spaces of the surrounding "*local on-street parking network*" will be required for use under the proposed masterplan.

With consideration for parking turnover, there is expected to be a parking demand of **27** car parking spaces for the high turnover parking demand use of retail visitors. Assuming a parking space turnover every 30 minutes of these retail spaces, and that every space is being constantly utilised, a traffic generation of **108** trips for the high turnover retail spaces of the laneway or approximately one trip in the laneways every 30 seconds, which will be spread across the multiple internal roads of the site. The remaining land uses of the site (being commercial or residential) are expected to generate comparatively low-turnover parking demand. Whilst there may be some temporary delays to through traffic along the internal laneways of the site whilst drivers manoeuvre their vehicles into / out of laneway parking spaces, these short delays will be comparative to kerbside parking within town centre areas. As such, long queues are not expected to form as a result of these manoeuvres, and accordingly, no adverse impacts to the local road network surrounding the site are expected to occur.

Please contact Mr. Laen Stewart or the undersigned on 8355 2440 should you require further information or assistance.

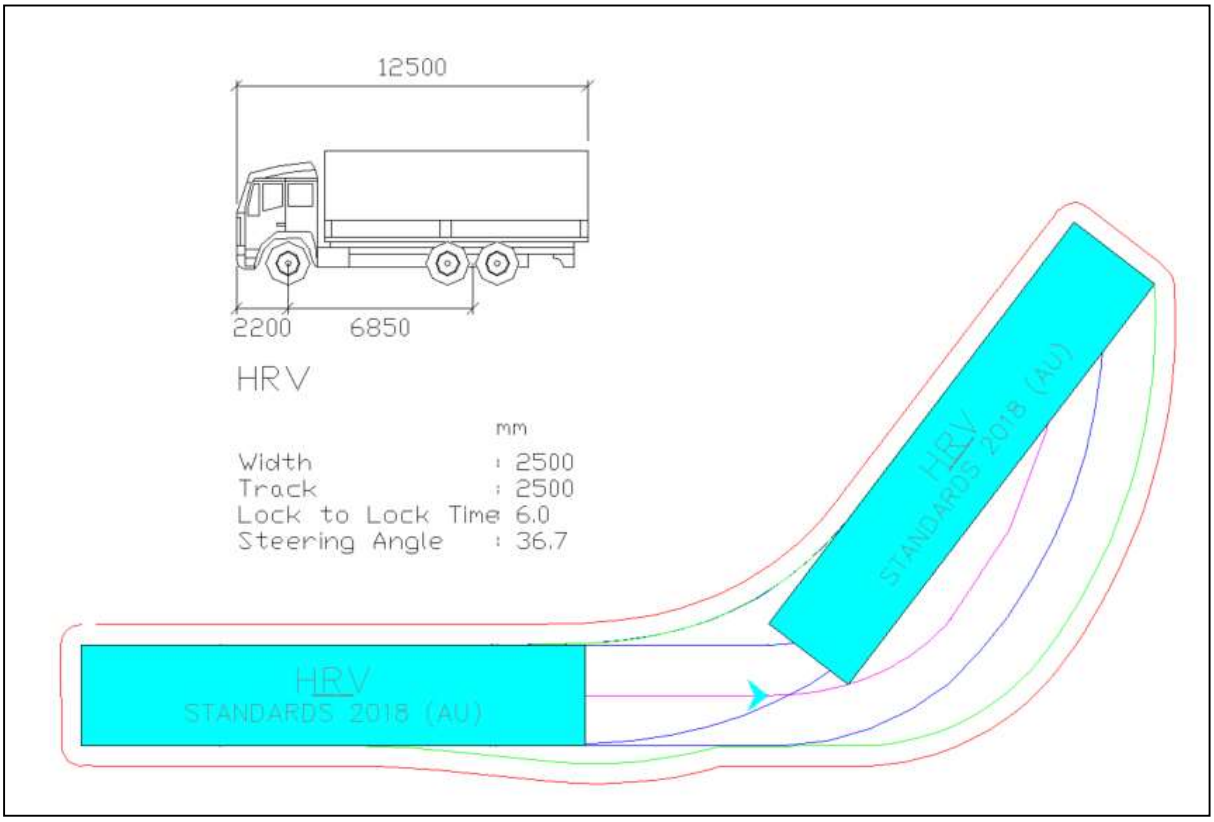
Yours faithfully
McLaren Traffic Engineering

Craig McLaren
Director
BE Civil, Grad Dip (Transport Engineering), MAITPM, MITE
RPEQ 19457
RMS Accredited Level 3 Road Safety Auditor [1998]
RMS Accredited Traffic Management Plan Designer [2018]

ANNEXURE A: CONCEPT SITE PLAN

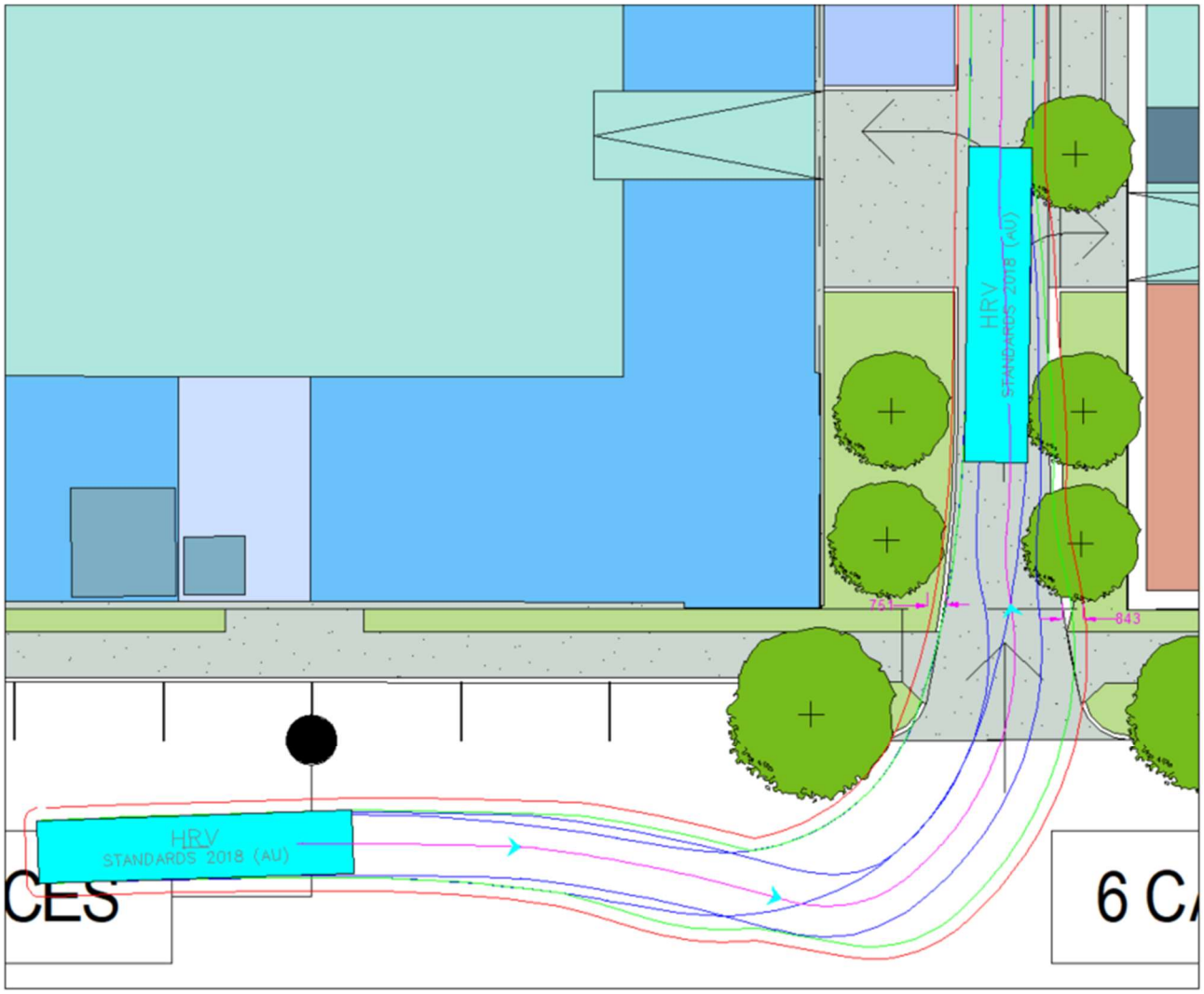
ANNEXURE B: SWEPT PATH TESTING

(Sheet 1 of 10)



AUSTRALIAN STANDARD HEAVY RIGID VEHICLE (HRV)

Blue – Tyre Path
Green – Vehicle Body
Red – 500mm Clearance

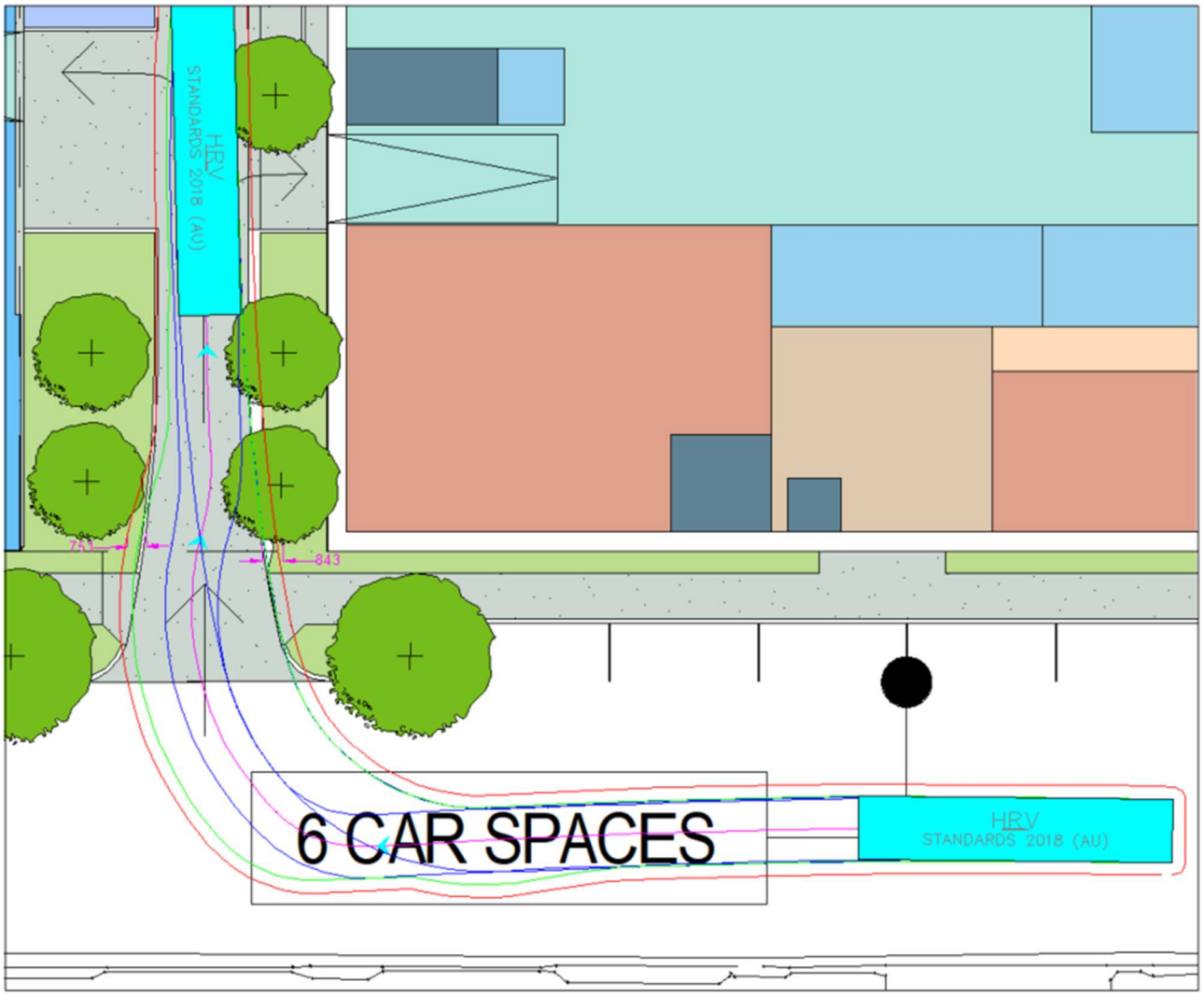


HRV LEFT TURN FROM ANNIE STREET TO INTERNAL ROAD BETWEEN WOOLSTORES 2 AND 3

Successful – *subject to minor landscaping and driveway changes which can be addressed at the detailed design stage.*

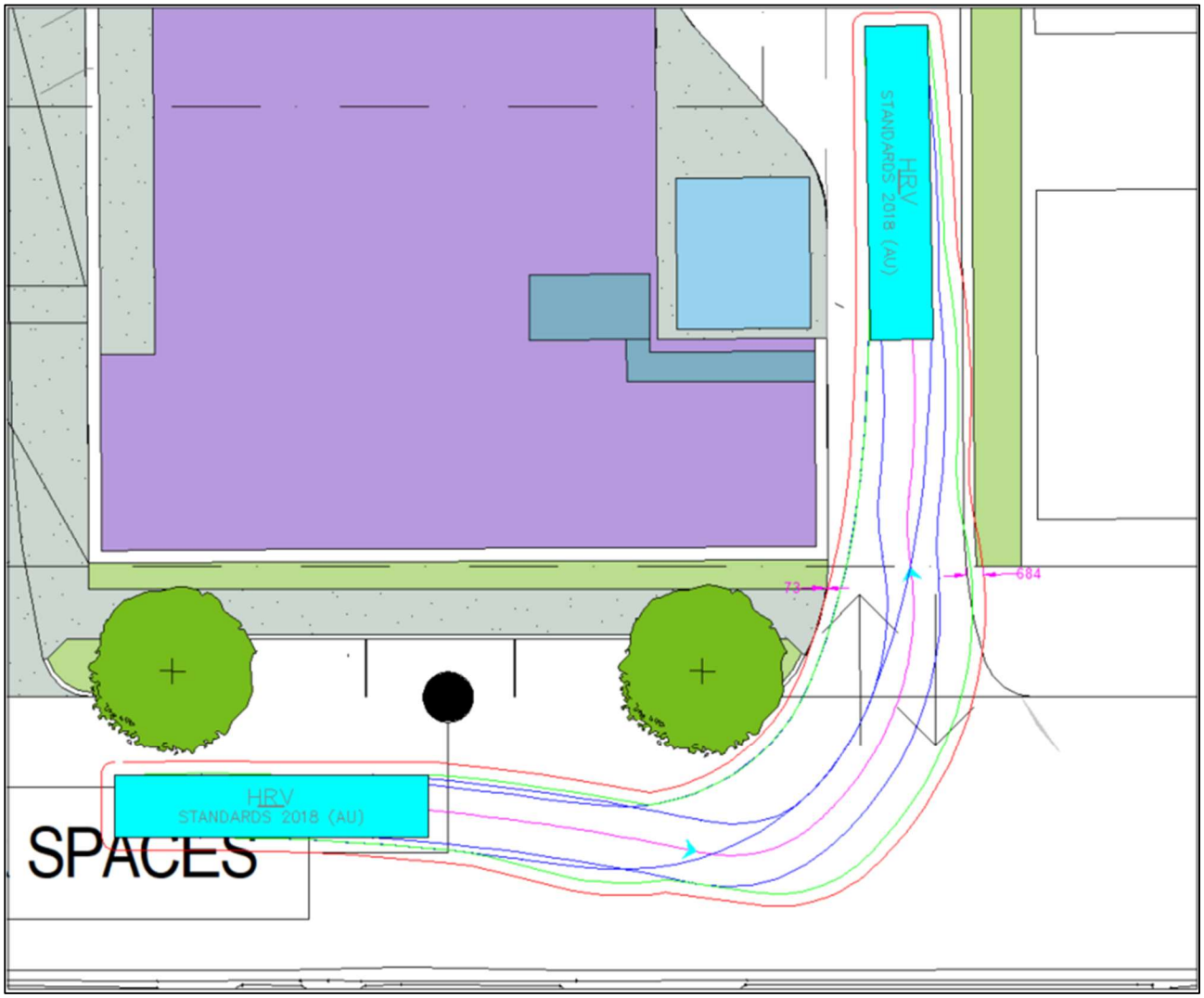
ANNEXURE B: SWEPT PATH TESTING

(Sheet 3 of 10)



HRV RIGHT TURN FROM ANNIE STREET TO INTERNAL ROAD BETWEEN WOOLSTORES 2 AND 3

Successful – *subject to minor landscaping and driveway changes which can be addressed at the detailed design stage.*



HRV LEFT TURN FROM ANNIE STREET TO INTERNAL ROAD AT THE EAST OF BUILDING 4

Successful – *subject to minor landscaping and driveway changes which can be addressed at the detailed design stage.*

Note: This internal road is not proposed to be used for HRV access, but these swept paths are included regardless to address Council request for HRV access of “remaining access roads”.

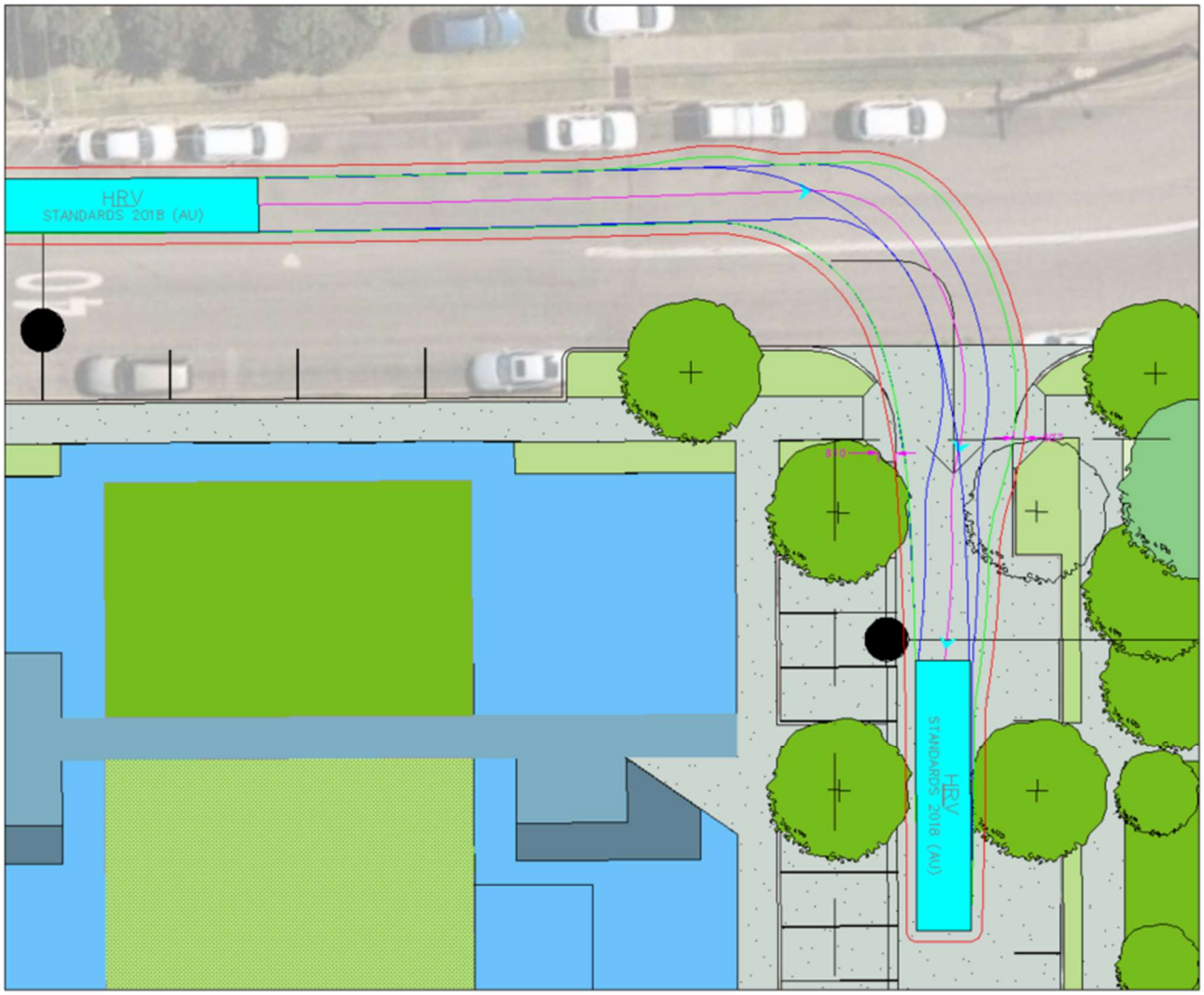
ANNEXURE B: SWEPT PATH TESTING

(Sheet 5 of 10)

HRV RIGHT TURN FROM ANNIE STREET TO INTERNAL ROAD AT THE EAST OF BUILDING 4

Successful – *subject to minor landscaping and driveway changes which can be addressed at the detailed design stage.*

Note: This internal road is not proposed to be used for HRV access, but these swept paths are included regardless to address Council request for HRV access of “remaining access roads”.

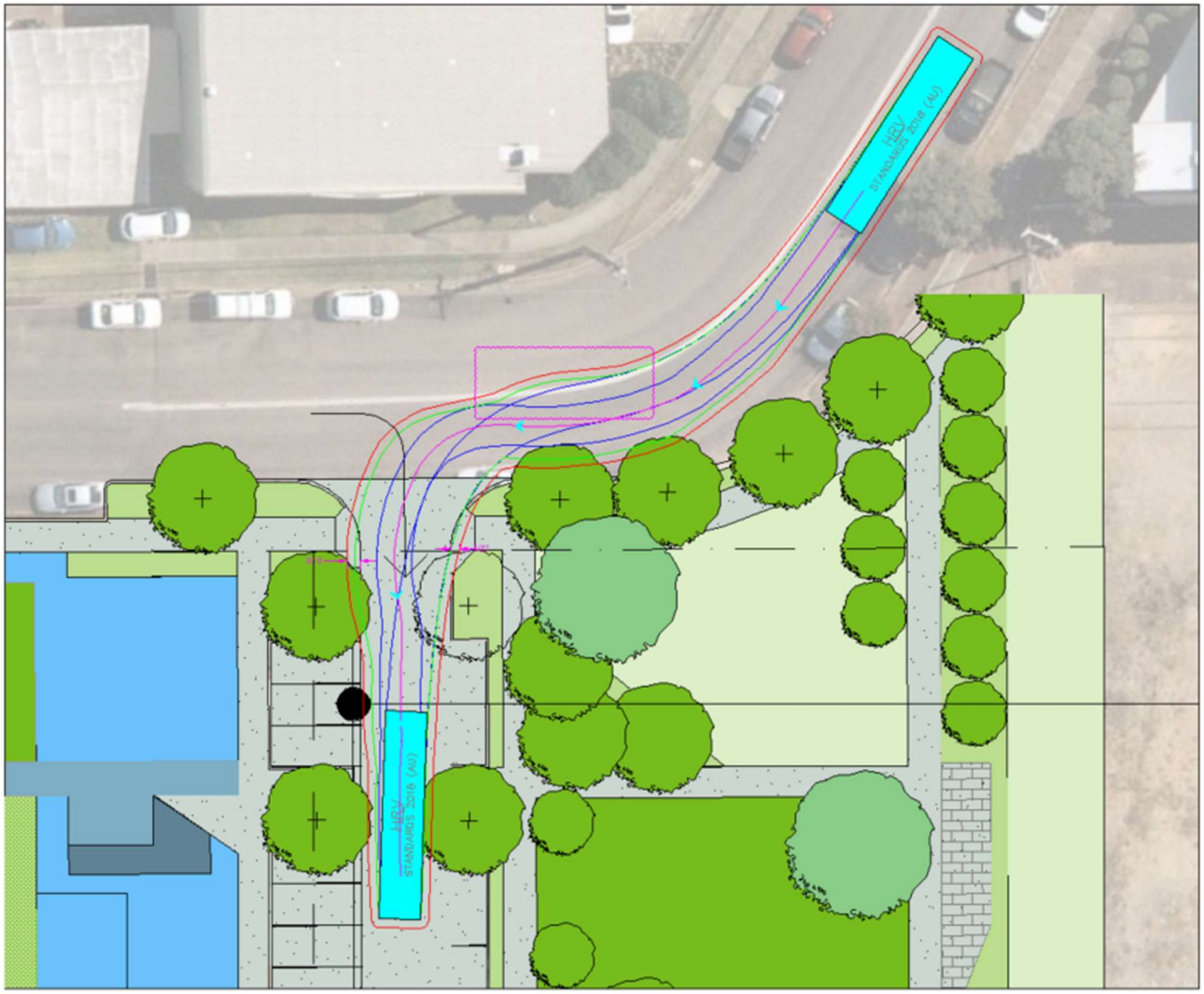


HRV RIGHT TURN FROM THE AVENUE TO INTERNAL ROAD TO THE EAST OF BUILDING 5

Successful – *subject to minor landscaping and driveway changes which can be addressed at the detailed design stage.*

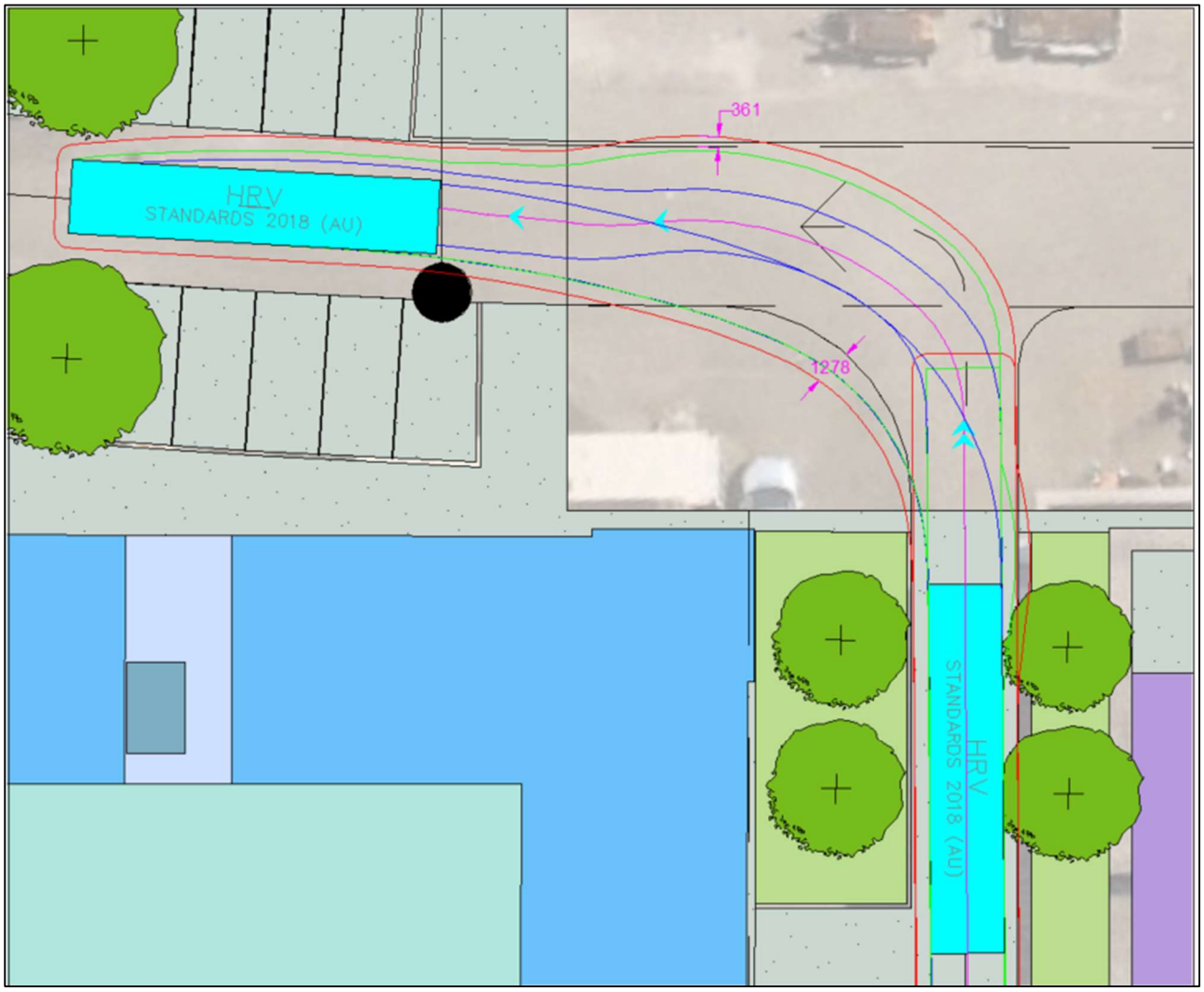
ANNEXURE B: SWEPT PATH TESTING

(Sheet 7 of 10)



HRV LEFT TURN FROM THE AVENUE TO INTERNAL ROAD TO THE EAST OF BUILDING 5

Unsuccessful – *crosses centreline of The Avenue*

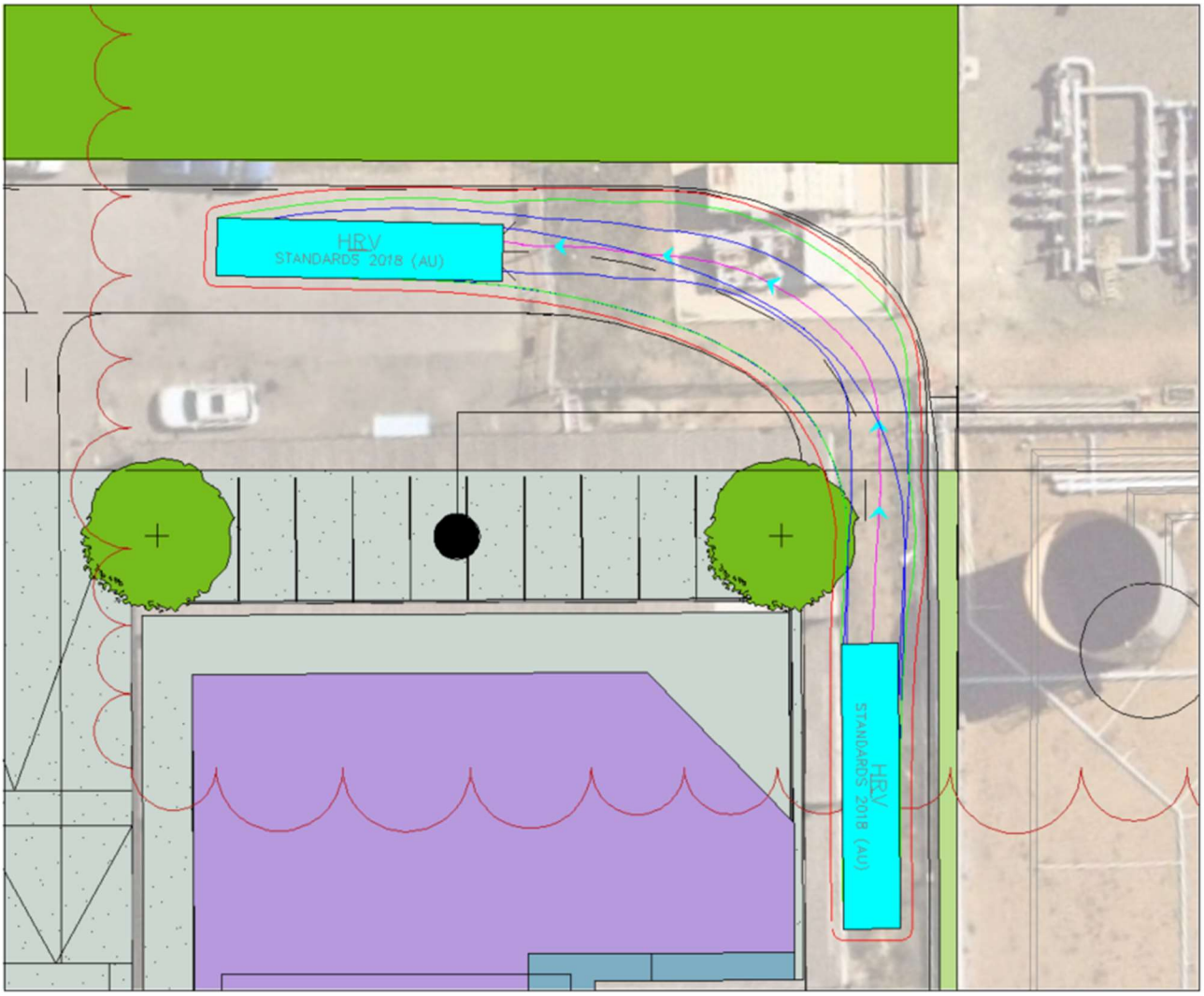


HRV LEFT TURN FROM INTERNAL ROAD BETWEEN WOOLSTORES 2 AND 3 TO THE EAST-WEST INTERNAL ROAD

Successful – *subject to minor landscaping and intersection changes which can be addressed at the detailed design stage.*

ANNEXURE B: SWEPT PATH TESTING

(Sheet 9 of 10)



HRV LEFT TURN FROM INTERNAL ROAD LOCATED EAST OF BUILDING 4 TO THE EAST-WEST INTERNAL ROAD

Successful

Note: This internal road is not proposed to be used for HRV access, but these swept paths are included regardless to address Council request for HRV access of “remaining access roads”.

HRV RIGHT TURN FROM INTERNAL ROAD LOCATED EAST OF BUILDING 5 TO THE EAST-WEST INTERNAL ROAD

Successful– *subject to minor landscaping and intersection changes which can be addressed at the detailed design stage.*

ANNEXURE C: PARKING REQUIREMENTS TABLE
(1 SHEET)

BUILDING			REQUIRED PARKING						PROVIDED PARKING				TOTALS (REQUIRED MINUS PROVIDED)			
			CAR	VISITOR CAR	CAR INC. VISITOR	MOTORBIKE	BICYCLE	SERVICE VEHICLE	CAR INC. VISITOR	MOTORBIKE*	BICYCLE*	SERVICE VEHICLE	CAR INC. VISITOR	MOTORBIKE	BICYCLE	SERVICE VEHICLE
WOOL 1 - TOTALS			100	20	120	5	110	2	121	25	100	0	1	20	0	0
RESIDENTIAL	100	apartments	100.0	20.0	120.0	5.0	110.0	2.0								
WOOL 2 - TOTALS			99	20	119	5	109	2	125	25	100	0	6	20	0	0
RESIDENTIAL	99	apartments	99.0	20.0	120.0	5.0	110.0	2.0								
WOOL 3 - TOTALS			186	0	186	9	45	5	66	10	21	2	-120	1	-24	-3
RESIDENTIAL	0	apartments	0.0	0.0	0.0	0.0	0.0	0.0								
RETAIL	672	gfa m^2	16.8		16.8	0.8	6.7	2.0								
COMMERCIAL	10517	gfa m^2	210.3		210.3	10.5	52.6	2.6								
COMMERCIAL	8470	nla m^2	169.4													
BUILDING 4 - TOTALS			85		85	5	22	5	73	6	54	11	-12	1	32	6
RETAIL	1585	gfa m^2	31.7		31.7	1.6	15.8	3.0								
COMMERCIAL	2644	gfa m^2	52.9		52.9	2.6	13.2	2.0								
BUILDING 5 - TOTALS			74	12	86	4	78	2	109	7	93	2	23	3	15	0
RESIDENTIAL RESIDENTIAL	69	apartments	69.0	13.8	82.8	3.5	75.9	1.4								
RETAIL	181	gfa m^2	4.5		4.5	0.2	1.8	0.5								
STREET PARKING - TOTALS																
TOTAL ONSITE STREET PARKING			(excluding off-site street parking to Annie St, Milford St and The Avenue)						104							
TOTAL OFF-SITE STREET PARKING									46							
ONSITE SITE PARKING - TOTALS **			544	52	596	28	364	16	598	73	368	15	2	45	4	-1

EXCESS

SHORTFALL

TOTAL USE SUMMARY

TOTAL RETAIL	2551	gfa m^2
TOTAL COMMERCIAL	13160	gfa m^2
TOTAL RESIDENTIAL AREA	32043	gfa m^2
TOTAL APARTMENTS	268	no apartments
TOTAL CAR PARKING EXCESS	**2**	**(ONSITE ONLY)****

* Motorbike and Bicycle street parking included in related building totals

** Excluding off site street parking which totals 46 spaces

Car parking rates		
Residential parking	1	dwelling per space
Residential visitor parking	5	dwellings per space
Retail parking	40	m^2 GFA per space
Commercial parking	50	m^2 GFA per space