

Figure 28: 2018 PM One-hour Peak Intersection Flows

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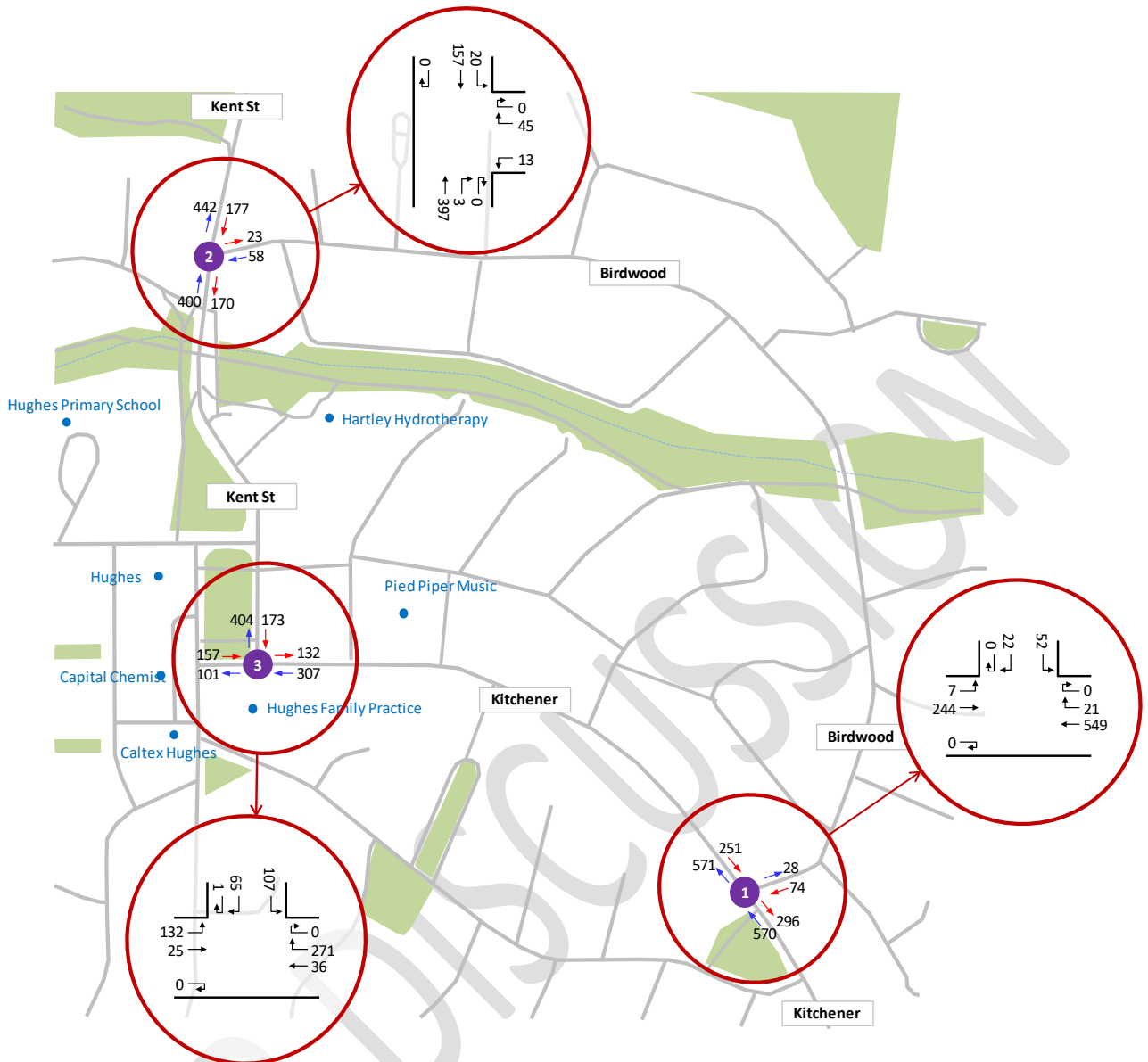


Figure 29: 2019 AM One-hour Peak Intersection Flows

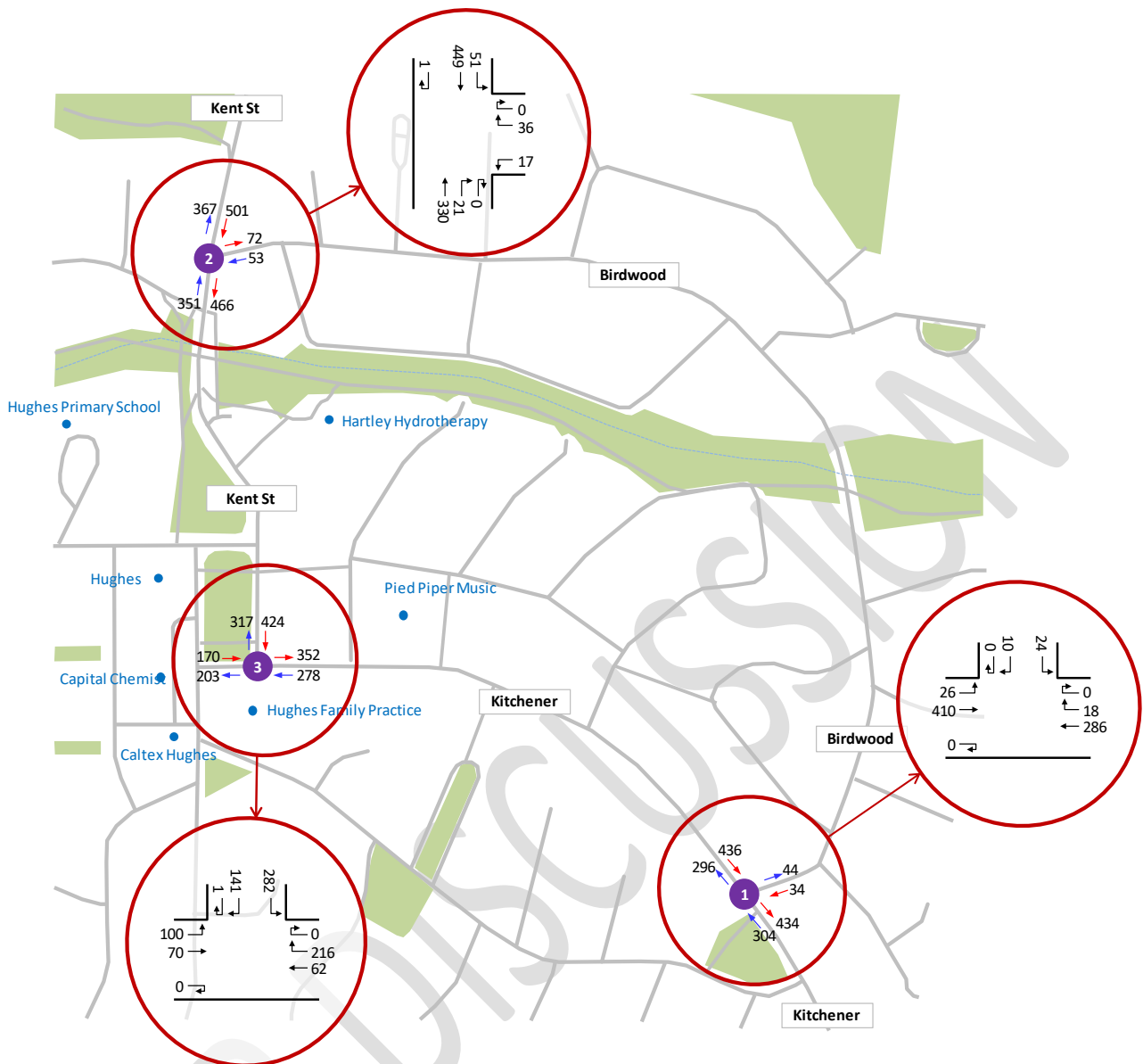


Figure 30: 2019 PM One-hour Peak Intersection Flows

Outside of the town centres, the CSTM is very general in its treatment of individual roads, with capacity dictated by lane count, speed and intersection density. The type of intersections and operating environment are too detailed for a strategic transport model. As such, in some cases the capacity defined in the CSTM will differ from the observed capacity of a road. A particular case that is present in this study is Kent Street, which carries close to 700 vehicles/hour in the 2031 scenario models (its defined capacity in the CSTM), while it is observed to carry almost 1,000 vph in the 2018 AM peak. This might suggest that the road is close to or at capacity in 2018, however the CSTM is best used to determine differences in traffic flow between two scenarios rather than absolute traffic volumes.

## 5.1 Intersections

### 5.1.1 Mugga Way/Stonehaven Crescent – Gowrie Drive/Melbourne Avenue

The primary traffic flow at this intersection is east-west along Mugga Way and Stonehaven Crescent. Very little traffic uses Gowrie Drive. The CSTM modelling shows a small increase in traffic in Scenario 5 and an insignificant amount of additional traffic in Scenarios 6 and 7, which would have no impact at this intersection. Austroads *Guide to Traffic Management* suggests that a roundabout at this location is likely to be an appropriate solution, offering low delays and some traffic calming. However, the very heavy flows along Stonehaven Crescent in both AM and PM peak periods could

lead to increased delay on the Gowrie Drive and Melbourne Avenue approaches. Further monitoring and assessment of this intersection might be required.

#### 5.1.2 Gilmore Crescent – Brereton Street

The traffic at this intersection is reasonably low, with 2018 AM and PM peak volumes of 537 and 442 vehicles respectively. The proposed development causes no significant increase in traffic in any of Scenarios 5, 6 or 7. Austroads suggests that a give way control at this location is appropriate. Traffic volumes at this intersection are quite low in both peaks and there are not expected to be any significant delays.

#### 5.1.3 Kitchener Street – Gilmore Crescent

The traffic at this intersection is moderate, with 2018 AM and PM peak volumes of 945 and 785 vehicles respectively. No additional traffic uses this intersection in Scenario 5. Some additional traffic uses this intersection in Scenarios 6 and 7, but the increase is modest and should not have a significant impact. Austroads suggests that a roundabout is appropriate at this location. The relatively balanced traffic volumes on each approach will reduce the likelihood that a single approach would dominate the intersection and increase delays on other approaches.

#### 5.1.4 Kent Street – Carruthers Street

There is currently a large amount of traffic using this intersection. The total 2018 AM and PM peak volumes are 1671 and 1354 respectively and there is a small increase in traffic at this intersection for all of Scenarios 5, 6 and 7. The right turn out of Carruthers Street is quite small which might reflect the difficulty of executing this movement during peak periods. Signalisation of this intersection would therefore likely change the pattern of turning movements by improving performance of those that currently have low priority. Austroads suggests that priority control of this intersection is not appropriate and it would be better managed with signals or a roundabout. The crash analysis also suggested that this intersection is not operating safely and some intervention is required, both for performance and safety reasons.

#### 5.1.5 Kent Street – Strickland Crescent

Considering its design, there is currently a large amount of traffic using this intersection. The total 2018 AM and PM peak volumes are 1,863 and 1,682 respectively. It is likely operating at or close to its capacity during the peak periods, and the additional traffic generated by the Section 66 development could potentially impact the performance, although the forecast additional traffic volumes are low in the three full developments scenarios. While the current intersection control type is appropriate according to Austroads, signalisation of this intersection could improve capacity and performance. Signalisation would also improve pedestrian and bicycle access through the area, which is important so close to the Deakin employment area.

#### 5.1.6 Gowrie Drive – Red Hill Drive

There is very little traffic at this intersection – 24 vehicles in 2018 AM and 68 in 2018 PM. The Wednesday midday period saw 81 vehicles using the intersection, of which half are travelling to or from the lookout at the end of Red Hill Drive. This very low level of traffic contributes to the low number of crashes. However, the crash rate per vehicle and crash severity is much higher than other intersections in the area and interventions at the intersection should be investigated. Previous concepts developed by AECOM in 2014 did not meet Austroads sight line requirements due to challenging grades and had high costs. Since that assessment, there have been two injury-causing crashes at the intersection. In both Scenario 6 and 7, Gowrie Drive is closed, which would remove any risks at this intersection. In Scenario 5, this intersection is the primary access to Section 56, Red Hill, which approximately doubles the traffic volumes on Gowrie Drive. Austroads suggests that the intersection is best controlled by a stop or give-way sign.

#### 5.1.7 Kitchener Street – Birdwood Street

The traffic surveys showed little traffic at this intersection in 2019. It is unlikely that any vehicle at the intersection would experience significant delay now or in the future. Austroads suggests that priority control of this intersection is appropriate. There is no additional traffic at this intersection in Scenario 5. There is only a small amount of additional traffic on Kitchener Street in Scenarios 6 and 7, but this is unlikely to cause any significant issues.

### 5.1.8 Kent Street – Birdwood Street

The traffic at this intersection is moderate, with 2019 AM and PM peak volumes of 635 and 904 vehicles respectively. Vehicles turning out of Birdwood Street, particularly in the PM peak period, could experience some delays. The developments in Scenarios 5, 6 and 7 would lead to a small increase in traffic along Kent Street, which could further increase delays. Austroads suggests that priority or roundabout control at this location would be appropriate. Further monitoring and assessment might be required to confirm that delays are acceptable.

### 5.1.9 Kent Street – Kitchener Street

The traffic at this intersection is moderate, with 2019 AM and PM peak volumes of 637 and 872 vehicles respectively. The CSTM modelling showed that a small amount of additional traffic would use this intersection in Scenarios 5, 6 and 7. However, the small roundabout should have sufficient capacity. Austroads suggests that roundabout control is appropriate at this location.

## 5.2 Roads

### 5.2.1 Brereton Street

The intersection counts indicate 2018 AM and PM peak volumes of 187 and 185 vehicles respectively, or approximately 1,860 vehicles per day. There would be no additional traffic on this road in Scenarios 5, 6 or 7. Brereton Street has sporadic cycle lane markings and a footpath on one side. However, the footpath is narrow and often interrupted by driveway ramps and pram ramps. Close hedges along one side of the footpath mean that it can also be blocked by wheelie bins on rubbish collection day. There are no significant capacity concerns on this road.

### 5.2.2 Gilmore Crescent

Gilmore Crescent between Brereton and Kitchener Streets carries approximately 480 vehicles in 2018 AM and 365 in 2018 PM, or an approximate daily volume of 4,220 vpd. No additional traffic uses Gilmore Crescent in Scenarios 6 or 7, while there is an insignificant increase in Scenario 5. There are no capacity concerns in this location.

### 5.2.3 Kent Street

In both peak periods, traffic demand is greatest between Carruthers Street and Strickland Crescent, coinciding with the concentration of land uses along this section of the road. The additional land use at Section 66 Deakin accesses the network between these two points, adding a small load to a section of road that is likely already congested.

The counted traffic volumes on this section of Kent Street exceed the nominal capacity of Kent Street in the CSTM by up to 270 veh/hr northbound and 90 veh/hr southbound, indicating that it operates somewhat more efficiently in reality than the basic assumption for this category of road in the CSTM, which would be due to a number of factors, not least being the level of conflict with driveways and intersecting streets. It is likely that increasing the capacity to reflect this would continue to show it operating at capacity, however this would have to be tested to be sure.

### 5.2.4 Birdwood Street

In 2019, Birdwood Street carried between 81-102 veh/hr in the AM peak and 78-125 veh/hr in the PM peak. In the future scenarios, Birdwood Street would carry slightly more traffic in Scenario 6, slightly less traffic in Scenario 7 and would experience no change in Scenario 5. The volumes in this location do not suggest any capacity issues, except for the possible congestion at the intersection of Birdwood Street and Kent Street, as discussed earlier.

### 5.2.5 Kitchener Street

Kitchener Street, between Kent Street and Birdwood Street, carried 439-822 veh/hr in the 2019 AM peak and 630-732 veh/hr in the 2019 PM peak. It appears that some local traffic management has been implemented by line-marking narrow lanes, presumably to manage speed. The volumes along Kitchener Street do not suggest serious capacity concerns, although there could be minor delays to side streets. The small traffic increases modelled in the future scenarios do not suggest any serious capacity or performance issues.

## 6 Suitability of Proposed Access Locations

The three full development scenarios assessed in this report require varying amounts of road construction through different locations around the study area. A brief assessment has been carried out to identify major constraints that may impact the feasibility of constructing these roads. Note that this is not intended to be a detailed or comprehensive feasibility study, but is a brief desktop assessment.

### 6.1.1 Scenario 5 (Access via Gowrie Drive)

Gowrie Drive is currently a narrow and low grade road that serves the Federal Golf Club adequately, though not without posing safety issues. The midblock experiences a rate of traffic crashes no greater than the average for the area, however it is possible that its current users are familiar with the road and drive more carefully when using it. However, the intersection with Red Hill Drive has a very high crash rate and would need to be upgraded. A previous study by AECOM (*Red Hill Drive / Gowrie Drive Intersection – Analysis of options*, May 2014) identified four upgrade options for this intersection but none were able to meet Austroads sight distance requirements and some did not adequately accommodate large emergency vehicles or trucks.

There are a number of significant trees around the intersection of Gowrie Drive and Red Hill Drive that would further complicate upgrades of this road. A brief review of Significant Species, Vegetation Communities and Registered Trees using ACTmapi indicates that Gowrie Drive is surrounded by the following ecological constraints:

- Button Wrinklewort
- Drooping Sheoak
- ACT Listed Box Gum Woodland
- EPBC Listed Box Gum Woodland

### 6.1.2 Scenario 6 (Access via Birdwood Street)

Scenario 6 includes a relatively short road running west from Section 56, Red Hill, through the golf course and connecting to Birdwood Street. Possible issues for this access option include:

- Loss of potentially significant trees, particularly around the proposed intersection with Birdwood Street
- Construction of a new road in an overland flow path
- Proposed intersection is at the location of an existing grade separated pedestrian crossing, with the overland flow path under Birdwood Street
- Loss of open space and possible impact on green corridor
- Possible impact on trunk water mains associated with reservoirs on Red Hill
- Community resistance to a new road in open space directly behind current residences

### 6.1.3 Scenario 7 (Access via Kitchener Street)

Scenario 7 includes a relatively long access road running along the eastern side of the Federal Golf Course and connecting to Kitchener Street. Possible issues for this alignment include:

- Impact on Spotted-tailed Quoll (ACTmapi: Significant Species, Vegetation Communities and Registered Trees)
- Loss of potentially significant trees
- Possible impact on sewer/electricity services behind residences on Brereton Street and Ingamells Street
- Community resistance to a new road in open space directly behind current residences
- Possible impact on the Scout hall or its driveway and car park

## 7 Comparison of Access Options

This report and SMEC's 2018 assessment considered five potential road access options for Section 56, Red Hill and assessed them in a number of ways. These options have been rated against the following criteria:

- Carriageway width
- Safety
- Road capacity
- Proportional increase on existing traffic
- Proportion of proposed traffic compared to maximum capacity for that classification/road type
- Is reclassification required?
- Intersection operation/feasibility
- Pedestrian access (could be along a separate route)
- Impact on residents (number and proximity)
- Ease of design/construction

The outcomes of the assessment against these criteria included:

- **Kitchener Street:**
  - Width: Kitchener Street is approximately 10.2 metres between kerbs north of Gilmore Crescent (north) and 12.5 metres between kerbs south of Gilmore Crescent (north). Kitchener Street has on-road bus stops, marked cycle lanes and parking areas.
  - Safety: The intersections where traffic increases are expected have better than average safety records, for the area.
  - Road capacity: Kitchener Street operates at approximately 45% of capacity in the 2031 Base Case so there is plenty of spare capacity
  - Proportional increase on existing traffic: Traffic volumes increase by approximately 14% in Scenario 7.
  - Proportion of proposed traffic compared to maximum capacity for that classification/road type: Kitchener Street is classified as a Major Collector, which has a capacity up to 6,000vpd. In Scenario 7, the daily traffic is approximately 59% of this capacity..
  - Is reclassification required? No
  - Intersection operation/feasibility: No issues identified
  - Pedestrian access (could be along a separate route): Route is slightly circuitous
  - Impact on residents (number and proximity): New road would be constructed directly behind approximately 50 residences on Brereton Street and Ingamells Street
  - Ease of design/construction: Some minor issues identified with services and access to scout hall
- **Birdwood Street:**
  - Width: Birdwood Street is approximately 7.3 metres between kerbs. There are no bus stops, cycle lanes or marked car parking spaces along its length.
  - Safety: The intersections where traffic increases are expected have better than average safety records, for the area.
  - Road capacity: Birdwood Street operates at approximately 11% of capacity in the 2031 Base Case, so there is plenty of spare capacity.
  - Proportional increase on existing traffic: Traffic increases by 21% in Scenario 6.
  - Proportion of proposed traffic compared to maximum capacity for that classification/road type: Birdwood Street is classified as a Minor Collector, which has a capacity of 3,000vpd. In Scenario 6, the daily traffic volume is approximately 26% of this capacity.
  - Is reclassification required? No
  - Intersection operation/feasibility: Scenario 6 has an increase in traffic at the intersection of Birdwood Street and Kent Street, where some capacity issues were noted.

- Pedestrian access (could be along a separate route): Relatively direct access from Section 56, Red Hill to Hughes Shops.
- Impact on residents (number and proximity): New road would be constructed behind approximately 20 residences.
- Ease of design/construction: Issues with levels and grade at the proposed connection to Birdwood Street (pedestrian and overland flow underpass).
- Brereton Street:
  - Width: Brereton Street is approximately 10.2 metres between kerbs for its length. There are intermittent marked cycle lanes around intersections and in some midblock sections.
  - Safety: The intersections where traffic increases are expected have better than average safety records, for the area.
  - Road capacity: Brereton Street operates at approximately 16% of capacity in the Base Case
  - Proportional increase on existing traffic: traffic on Brereton Street increases by 76% in Scenario 2.
  - Proportion of proposed traffic compared to maximum capacity for that classification/road type: Brereton Street is classified as a Minor Collector, which has a capacity of 3,000vpd. In Scenario 2, the daily traffic volume is approximately 55% of this capacity.
  - Is reclassification required? No
  - Intersection operation/feasibility: No issues noted
  - Pedestrian access (could be along a separate route): Brereton Street currently has some pedestrian access issues. These would need to be addressed or a new pedestrian route constructed.
  - Impact on residents (number and proximity): All residents (approximately 90 residences) on Brereton Street would have an increase in traffic along an existing road
  - Ease of design/construction: Scenario 2 uses existing roadways, except for a short link to the golf course. .
- Gowrie Drive:
  - Width: Gowrie Drive is approximately 5 metres wide. There are no formed shoulders or kerbs.
  - Safety: Traffic increases are expected at a very dangerous intersection
  - Road capacity: Gowrie Drive operates at 7% of its capacity in the 2031 Base Case.
  - Proportional increase on existing traffic: Traffic is expected to increase by 72% in Scenario 1.
  - Proportion of proposed traffic compared to maximum capacity for that classification/road type: Gowrie Drive is an Access Street, which has a capacity of 1,000vpd. In Scenario 1, the daily traffic volume is approximately 71% of this capacity.
  - Is reclassification required? No
  - Intersection operation/feasibility: The intersection of Gowrie Drive and Red Hill Road is a poor design with serious sightline and safety issues. Higher volumes through the intersection may not operate well and would certainly be unsafe.
  - Pedestrian access (could be along a separate route): Poor access from the proposed development to local shops and centres.
  - Impact on residents (number and proximity): There are no local residents along this route.
  - Ease of design/construction: Gowrie Drive may require widening to operate safely. The intersection of Gowrie Drive and Red Hill Drive would need to be upgraded. An earlier study of this intersection by AECOM was not able to find a design that met Austroads sightline requirements due to level and grade issues.
- Gowrie Drive/Brereton Street:
  - Width: Brereton Street is approximately 10.2 metres between kerbs for its length. There are intermittent marked cycle lanes around intersections and in some midblock sections. Gowrie Drive is approximately 5 metres wide. There are no formed shoulders or kerbs.
  - Safety: Very large traffic increases are expected at a very dangerous intersection
  - Road capacity: Gowrie Drive operates at 7% of capacity and Brereton Drive operates at 16% of capacity in the Base Case.
  - Proportional increase on existing traffic: In Scenario 3, traffic increases by 931% on Gowrie Drive and 446% on Brereton Street.

- Proportion of proposed traffic compared to maximum capacity for that classification/road type: Gowrie Drive is an Access Street, which has a capacity of 1,000vpd and Brereton Street is a Minor Collector, which has a capacity of 3,000vpd. In Scenario 3, Gowrie Drive would operate at 425% of capacity and Brereton Street would operate at 169% of capacity.
- Is reclassification required? Yes. Both Gowrie Drive and Brereton Street would need to be upgraded to Major Collector.
- Intersection operation/feasibility: Existing intersections would need to be upgraded.
- Pedestrian access (could be along a separate route): Poor access from the proposed development to local shops and centres.
- Impact on residents (number and proximity): Major increase in traffic for all residents (approximately 90 residences) on existing Brereton Street
- Ease of design/construction: It would be extremely difficult or impossible to upgrade Gowrie Drive and Brereton Street to Major Collector standard. The intersection of Gowrie Drive and Red Hill Drive would need to be upgraded. An earlier study of this intersection by AECOM was not able to find a design that met Austroads sightline requirements due to level and grade issues.

Table 12: Relative Rating of Access Options

CRITERIA	KITCHENER STREET LONG ACCESS	KITCHENER STREET SHORT ACCESS	BIRDWOOD STREET	BRERETON STREET	GOWRIE DRIVE	GOWRIE DRIVE/ BRERETON STREET
Width	10.2-12.5 (L)		7.3 (M)	10.2 (L)	5 (H)	5-10.2 (H)
Safety	L		L	L	H	H
Capacity	M		L	L	L	L
Proportional traffic increase	L		L	M	M	H
Proportion of maximum capacity	M		L	M	H	H
Reclassification	L		L	L	L	H
Intersection operation	L		M	L	H	H
Pedestrian access	M		L	M	H	H
Impact on residents	H		H	L	L	H
Ease of design/construction	M		H	L	H	H
<b>Total Good</b>	<b>5</b>		<b>6</b>	<b>7</b>	<b>3</b>	<b>1</b>
<b>Total Neutral</b>	<b>4</b>		<b>2</b>	<b>3</b>	<b>1</b>	<b>0</b>
<b>Total Poor</b>	<b>1</b>		<b>2</b>	<b>0</b>	<b>6</b>	<b>9</b>
<b>Final Rank</b>	<b>3</b>		<b>2</b>	<b>1</b>	<b>4</b>	<b>5</b>

Of the five possible access points considered, using the criteria discussed above, access via Brereton Street is marginally preferred over Birdwood Street or Kitchener Street. Access via Gowrie Drive, or a combination of Gowrie Drive and Brereton Street, is not preferred, primarily due to safety issues at the intersection of Gowrie Drive and Red Hill Drive, and impact to local residents if Brereton Street is connected via Gowrie Drive to the wider road network in Forrest and Deakin.

The assessment carried out here used a limited set of criteria to compare the identified options. The assessment has shown that the Gowrie Drive options should not be considered further. However, the other three options have similar scores and should all be considered in more detail. In particular, the cost and environmental impact of construction of new roadways through green spaces has not been considered here but applies to the Birdwood Street and Kitchener Street options. While the Brereton Street option increases traffic on existing roads, the increased traffic does not exceed the capacity of the roads or require reclassification of the roads in the network hierarchy.

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## 8 Conclusion

### 8.1 Summary

Each proposed development results in a modest increase in traffic at a local level, with no major impacts coming from proposed access points to the road network. Section 56, Red Hill generates a minimal amount of additional traffic and thus its impact on the network is minor. Connecting to either Birdwood Street or Kitchener Street is unlikely to have any substantial impact on congestion, apart from adding trips to already identified local area streets with volume constraints.

The CSTM suggests that Kent Street will already be close to its nominal capacity in 2031. The modest additional traffic generated by Section 66, Deakin results in some minor traffic diversions, particularly along Denison Street in the PM peak, as existing Kent Street traffic is displaced by the new development traffic and the volume increase on Kent Street reflects this redistribution. This will have implications for many of the intersections on Kent Street, particularly the low speed roundabouts at Strickland Crescent and Equinox and the give-way intersection with Carruthers Street. If there is significant through traffic on Kent Street heading towards the Adelaide Avenue eastbound on-ramp, traffic calming measures could encourage these vehicles to shift to Yarra Glen, probably via Carruthers Street.

It is likely that the Kent Street – Carruthers Street intersection would require signal control, however the Kent Street – Strickland Crescent intersection is situated amongst residences and this might cause some complications. The road reserve appears capable of supporting the necessary infrastructure, but the light from the signals themselves and the constant sound of the audio-tactile pedestrian pushbuttons would cause problems for the surrounding residents. However, this might be acceptable due to the improvement to pedestrian safety it would provide. Traffic calming could be achieved through the use of rubber speed cushions, which could be designed to reduce the attractiveness of the route for general traffic while minimally impacting buses or emergency vehicles.

A preliminary crash analysis was conducted using crash data records obtained from the dataACT Open Data Portal. The analysis indicated that the intersection of Gowrie Drive with Red Hill Drive has the highest crash rate. For both scenarios tested in this report, Gowrie Drive is assumed to be closed, which would remove traffic from this dangerous intersection. The location with the next highest crash rate is the intersection of Carruthers Street and Kent Street with 0.55 crashes per million vehicle movements. This intersection has high traffic volumes and requires turning vehicles to cross multiple lanes of traffic. Interventions at this location should be considered.

A brief assessment of crashes over time, by road condition, by time of day and by severity was also carried out. No intersection showed a clear trend of increases in crashes but the intersection of Kitchener Street and Birdwood Street appeared to show a decrease since 2012 and no crashes were recorded since 2015. No intersection showed a clear increase in crashes during wet weather. The intersection of Kent Street and Kitchener Street showed an abnormally high proportion of crashes at night, which might indicate need for better lighting at this location. While all other intersection had less than 10% of crashes resulting in injury or fatality, the intersection of Gowrie Drive with Red Hill Drive had 100% of crashes resulting in injury. While this is an extremely small sample size, the risks at this intersection are clearly demonstrated.

Access to public transport for the proposed development and surrounding areas was assessed using the new Network 19, which came into effect on 29 April, 2019. Section 66, Deakin has a bus stop adjacent to the development, providing access to Civic and Woden. Section 56, Red Hill has no access to public transport. The areas surrounding the development generally have reasonable access but the northern part of Brereton Street does not have any access.

The active travel network around the proposed developments is well connected. However, the footpath on Brereton Street providing access to Section 56, Red Hill is narrow and has many interruptions. It is recommended that good walking and cycling access be provided on either of the new roads proposed in Scenario 6 or 7.

For the intersections assessed in this report, the following comments were made:

- The Mugga Way/Stonehaven Crescent – Gowrie Drive/Melbourne Avenue intersection performance is unlikely to be affected by the proposed development and access in the scenarios tested in this report. Unbalanced flows at this intersection could lead to high delays for some approaches and further monitoring or assessment of this intersection might be required.
- The Gilmore Crescent – Brereton Street intersection currently has a low level of traffic and would experience no change in the scenarios tested in this report.
- The Kitchener Street – Gilmore Crescent intersection currently carries moderate levels of traffic and its volumes would only increase slightly in the scenarios tested in this report. There are not expected to be any issues at this location.
- The Kent Street – Carruthers Street intersection currently experiences a significant amount of traffic, with performance for low priority movements likely to be poor during the peak periods and risky behaviour might be increased. Austroads standards suggest that an intersection of this type should not be priority controlled and signalisation should be considered to better control the performance and safety at this intersection.
- The Kent Street – Strickland Crescent intersection also currently experiences a significant amount of traffic, especially considering its current roundabout configuration. It is likely operating close to its capacity during the peak periods and the additional traffic generated by Deakin Section 66 could be enough to push it to an unacceptable level of performance. Signalisation might be necessary to manage performance and improve access for pedestrians and cyclists in the area.
- The Gowrie Drive – Red Hill Drive intersection carries very little traffic. The busiest period is the Wednesday midday golf course peak of 81 vehicles per hour, of which only half are travelling to or from the golf course. This very low level of traffic likely contributes to the low number of accidents, although the accident rate is very much higher than other intersections in the area. For the scenarios tested in this report, it is assumed that Gowrie Drive is closed. If this does not occur, interventions should be undertaken to improve safety at this location.
- The intersection of Kitchener Street and Birdwood Street is generally low and only increases slightly for both scenarios tested. It is unlikely that any interventions would be required at this intersection.
- Traffic volumes at the intersection of Kent Street with Birdwood Street are moderate, and there could be some delays for traffic turning out of Birdwood Street, particularly in the PM peak. If Scenario 6 is adopted, some upgrades at this intersection might be necessary.
- Traffic at the intersection of Kent Street and Kitchener Street is moderate and a small amount of additional traffic would use this intersection in both scenarios. However, it is likely that the existing intersection would have sufficient capacity.

For the road sections assessed in this report, the following comments were made:

- Brereton Street carries very little traffic, currently fewer than 2,000 vehicles per day. No additional traffic would use this road in either scenario tested in this report.
- Gilmore Crescent between Brereton and Kitchener Streets currently carries just over 4,000 vpd, by which classification it operates as a major collector. No additional traffic would use this road in either scenario tested in this report.
- Kent Street carries a lot of traffic, with demand greatest between Carruthers Street and Strickland Crescent, due to the concentration of trip generators within this section. The additional land use at Section 66 Deakin accesses the network between these two points, adding additional load to a section of road that is likely already congested.
- Birdwood Street, while narrow, does not currently carry substantial traffic and the development scenarios would not significantly increase traffic. The volumes on this road do not suggest any capacity issues, except for the possible congestion at the intersection of Birdwood Street and Kent Street.
- Kitchener Street carries a moderate amount of traffic, and some traffic calming has already been implemented. In the scenarios tested in this report, there is a small increase in traffic but this is not expected to lead to any serious performance issues.

## 8.2 Challenges

The following challenges are noted:

- Kent Street traffic is heavy, which is likely to cause problems at some intersections, particularly Carruthers Street and Strickland Crescent
- The Section 66 Deakin development would increase delay on Kent Street and lead to a small diversion in traffic onto Denison Street

A map of the challenges is included in Figure 31.

## 8.3 Recommendations

Based on the outcomes of the transport modelling and analysis, SMEC recommends the following:

- Adopt Scenario 2 (access via Brereton Street) as the preferred option for further analysis, noting that the Kitchener Street and Birdwood Street options should not be discounted at this stage. All three options should undergo further assessment of considerations outside the scope of this report, including environmental impact, impact on adjacent residents, construction cost and constructability.
- Investigation of upgrade options for intersections on Kent Street, to address both performance and safety concerns, including:
  - Assess lighting at the intersection of Kent Street and Kitchener Street
  - Assess capacity improvements at Birdwood Street, Carruthers Street, Strickland Crescent
- Investigation of options to improve the performance and/or reduce the attractiveness of the Kent Street corridor to encourage traffic to use Yarra Glen and Adelaide Avenue for north/south travel. Possible options include speed reduction or construction of one or more roundabouts to reduce the priority for north-south traffic along the corridor. Any changes to the corridor should also consider Light Rail Stage 2, which is expected to run along the Adelaide Avenue/Yarra Glen corridor.
- Closure or upgrade of the intersection of Gowrie Drive and Red Hill Drive (dependant on whether Scenario 6, 7 or another option is selected)
- Any new road(s) provided for the preferred option should include good active travel facilities and meet relevant emergency services design standards
- Cost estimates for road and intersection upgrades
- Discuss options to improve access to public transport for residents of Brereton Street with TCCS PT team, noting that the number of residents not served by public transport is relatively small.
- Ensure good pedestrian access to the Kent Street bus stops from Section 66, Deakin

A map of the recommendations is included in Figure 32.

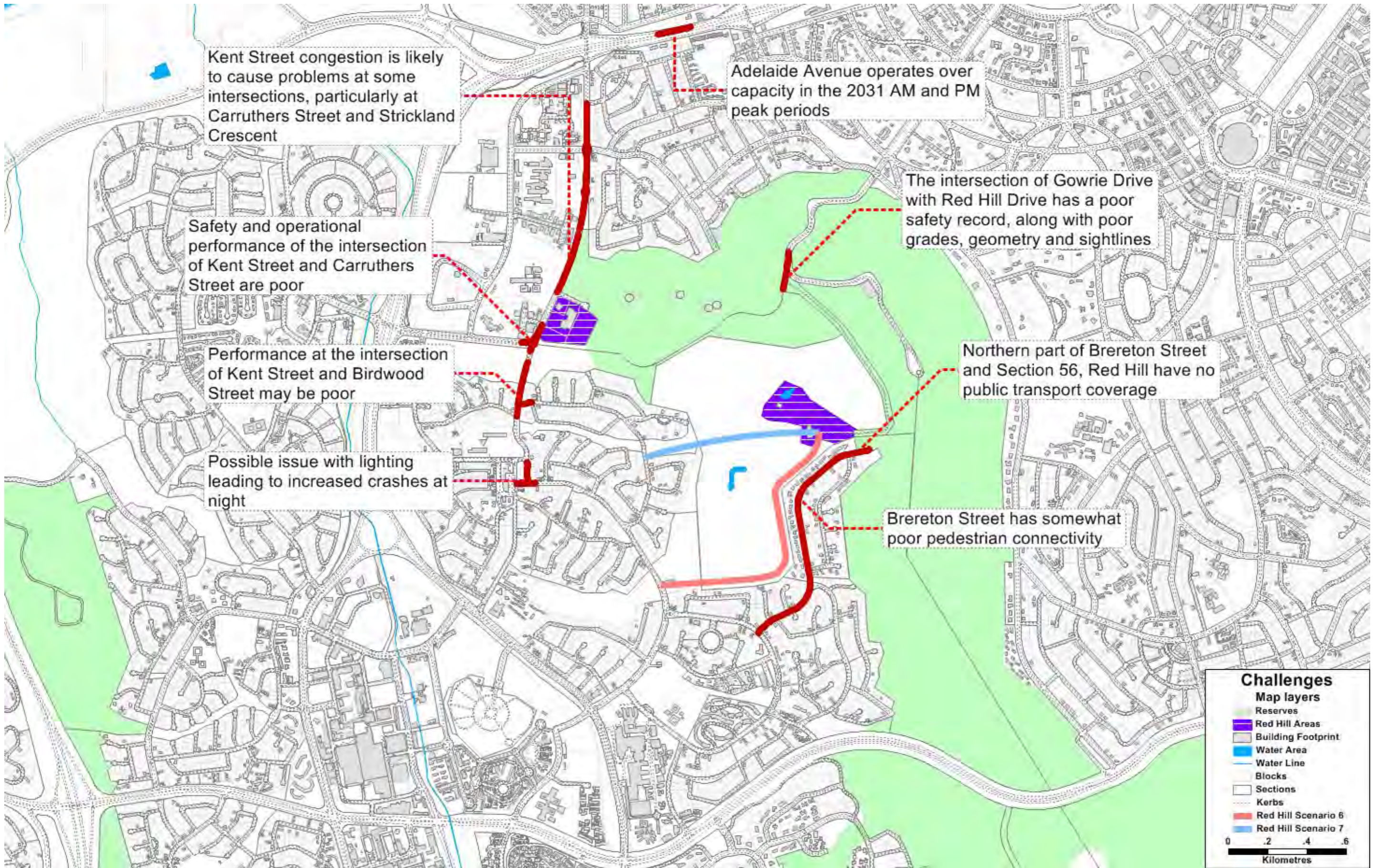


Figure 31: Red Hill Reserve Surrounds Challenges

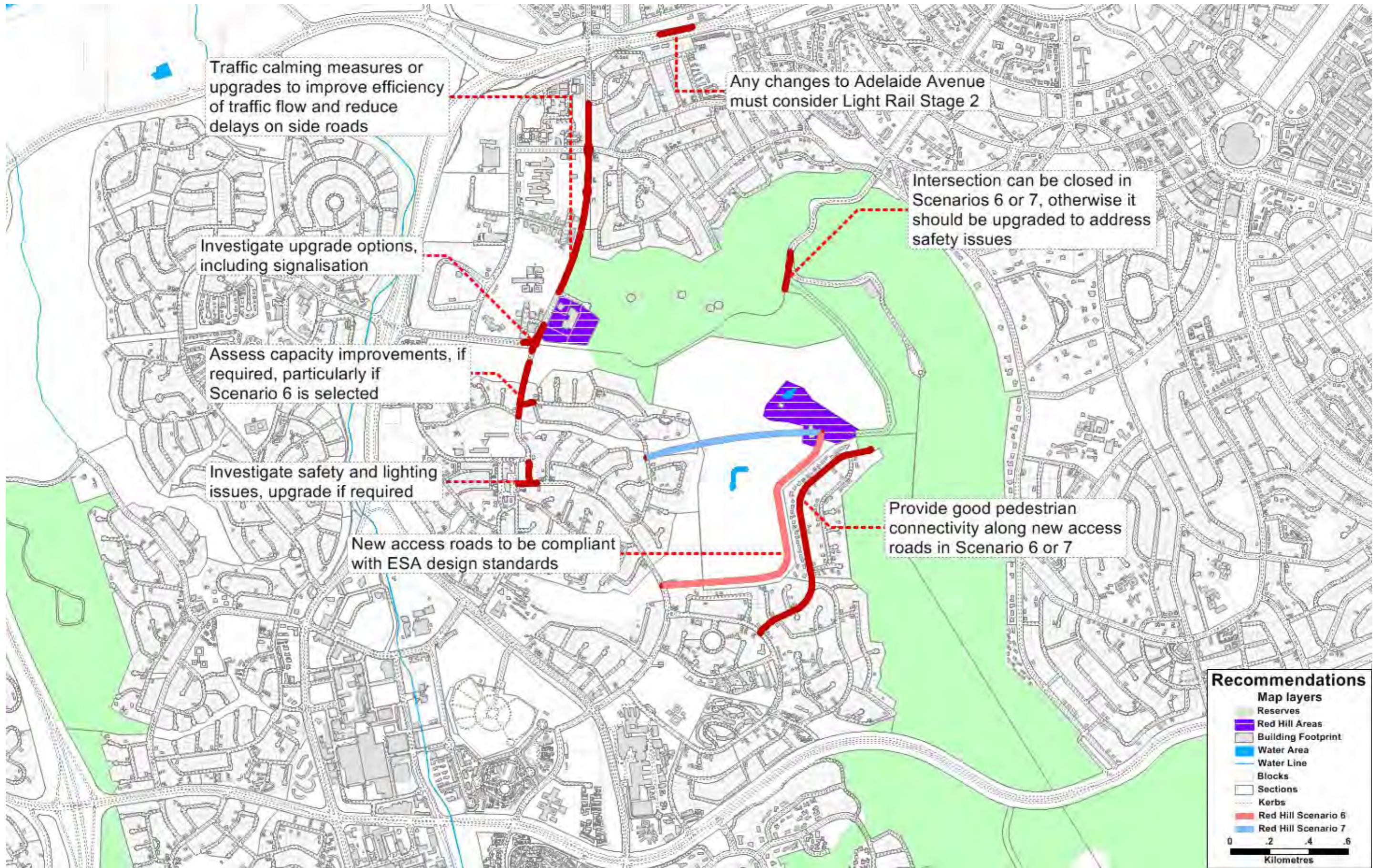


Figure 32: Red Hill Reserve Surrounds Recommendations

## 9 References

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SMEC 2018. *Red Hill Reserve Surrounds Traffic Study – Strategic Modelling Report*. 27 August 2018

FOR DISCUSSION

## Appendix A Future Road Network Assumptions

### 2021 Assumed Road Network Improvements

Network Item	Description
Taylor Local Roads	Added
Horse Park Drive Duplication	Duplication of Horse Park Drive between Federal Highway and Roden Cutler Drive- for 2018 completion. Anthony Rolfe Avenue to Well Station Drive
Hibberson Street pedestrian and light rail zone	Pedestrian and light rail only zone between Kate Crace Street and Gungahlin Place
Hibberson Street one-way shared zone	Shared zone between pedestrians and vehicles on Hibberson Street between Gungahlin Place and Gozzard Street
Manning Clark Crescent Extension	New road connecting Flemington Road to Anthony Rolfe Avenue
Ernest Cavanagh Street Extension	Extension of Ernest Cavanagh Street from Hinder Street to Manning Clark Crescent
The Valley Avenue Extension and Manning Clark Crescent Extension	Extension of The Valley Avenue from Kate Crace Street to Manning Clark Crescent and the extension of Manning Clark Cres from Flemington Rd to Anthony Rolfe Avenue
New road to the south of The Valley Avenue	Following up SLA (Darren Benson) for details where it connects to including extension of Gungahlin Place and 4 <sup>th</sup> leg of Valley Avenue/Kate Crace St intersection (both intersections now signalised)
Light Rail Stage 1	Light rail from Gungahlin to City
Flemington Road changes due to Light Rail Stage 1	Lane configuration changes between Well Station Drive and Federal Highway
Throsby Local Roads	Added (Copied from speed zones shapefile)
Gundaroo Drive Duplication Stage 1	Duplication between Gungahlin Drive and Mirrabai Drive/Anthony Rolfe Avenue
Gundaroo Drive Duplication Stage 2	Duplication between Gungahlin Drive and Barton Highway Roundabout.
Kuringa Drive/Owen Dixon Drive Signalisation	Intersection signalisation
Lawson Local Roads	Added (Copied from speed zones shapefile)
University of Canberra Hospital Access Road off Aikman Drive	A new road and associated intersection works to provide access to the hospital
Aikman Drive Duplication	Duplication between Ginninderra Drive and Emu Bank
Southern Cross Drive/Starke Street Signalisation	Intersection signalisation
Dickson Group Centre intersection upgrade	Antill Street/Cowper Street and Cowper Street/Dickson shops access road works, plus signalisation of Antill St/Badham St

Network Item	Description
Cape Street Extension	Extension of Cape Street from Challis Street to Northbourne Avenue – (Bus Access Only)
Northbourne Avenue/ London Circuit Intersection	Intersection upgrade
Parkes Way to Allara Street Exit	Added
West Belconnen Stage 1	New arterial road (Road 100) northwest of Stockdill Drive including multiple intersections located along the new arterial road. Also include other works proposed along Drake Brockmann Drive and Stockdill Drive
John Gorton Drive Stage 3	New roadworks providing access to Whitlam including signalisation of John Gorton Drive/William Hovell Drive/Coulter Drive intersection. (John Gorton Drive-William Hovell Drive Intersection Layout awaiting)
Molonglo Roads Stage 2	New roadways providing access to residential development
Weston Creek Group Centre	Brierly Street and Trenerry Square upgrade
Launceston Street / Irving Street Signalisation	Intersection signalisation
Cotter Road Duplication	Duplication from Tuggeranong Parkway to Yarralumla Creek
Dudley Street upgrade	Dudley St upgrade and Canberra Brickworks precinct access road from Dudley Street via a roundabout to boundary of new estate development
IKEA Northern Access Road	Mustang Avenue extension to north of IKEA called 'Dharaban Road'
Majura link road (Spitfire Avenue)	Link road between Majura Road and Majura Parkway Construction called 'Meddhung Road'
Tomsitt Drive Extension	Connect Tomsitt Drive to Yass Road (Ellerton Drive) in Queanbeyan
Monaro Highway – additional northbound lane	From Isabella Drive to Lanyon Drive
Hindmarsh Drive intersection upgrades	Signalisation at intersection with Launceston Street and Eggleston Crescent
Ashley Drive Duplication	Duplication of Ashley Drive from Erindale Drive to Johnson Drive
Anketell Street Upgrade	
Googong/Tralee Link	Connect Googong/Tralee area to Lanyon Drive West of Tomsitt Street Agreed

## 2026 Assumed Road Network Improvements

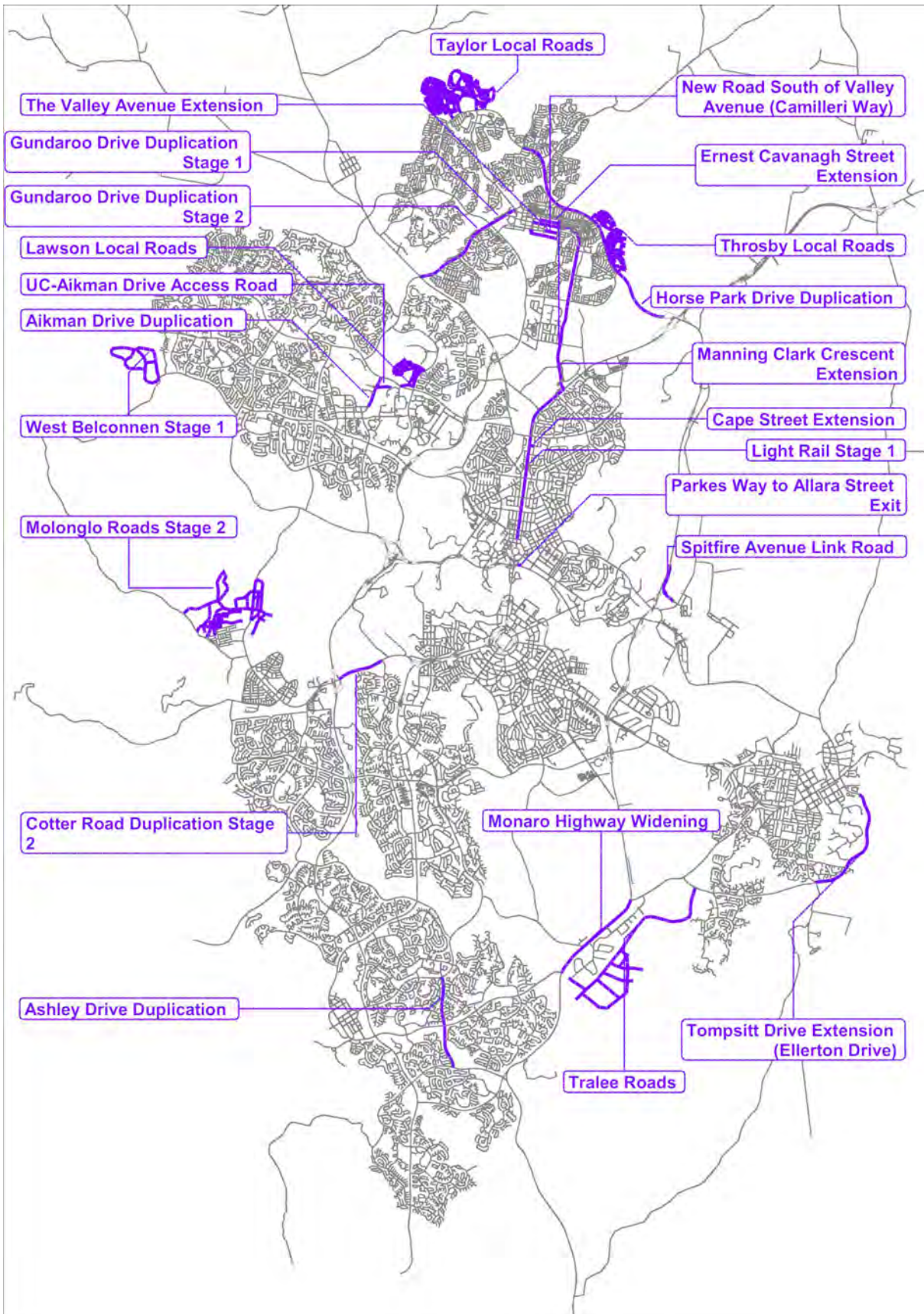
Network Item	Description
Horse Park Drive Duplication	From Mulligans Flat Road to Roden Cutler Drive
Mirrabei Drive Duplication (parts)	From Paul Coe Crescent to Yama Way (Mirrabei Drive corridor upgrade (including Shoalhaven intersection signalisation))
Old Well Station Road Upgrade	Old Well Station Road Upgrade between Federal Highway and Morisset Road
Sandford/Morisset Street Extension	Extension of Morisset Road to Federal Highway (Watson roundabout)
Nudurr Drive Extension	Connect Nudurr Drive from Grampians Street to Gungahlin Drive
Mouat Street, Lyneham	Additional lane for public transport including queue jump lane. (Mouat Street duplication (between Challis Street & Ginninderra Drive))
William Slim Drive Upgrade	Duplication from Barton Highway to Ginninderra Drive
Belconnen Way/ Springvale Drive Signalisation	Intersection signalisation
William Hovell Drive augmentation	New roadworks duplicating William Hovell Drive from John Gorton Drive to Drake Brockman Drive (William Hovell Drive northbound widening (Drake-Brockman Dr to Coppins Crossing Road))
John Gorton Drive Extension and Molonglo River Bridge	John Gorton Drive Arterial Road Approaches and Bridge Crossing of the Molonglo River
Fairbairn Avenue – additional westbound lane	From Majura Road to Majura Parkway
Fairbairn Avenue Augmentation	Additional Lane on Fairbairn Avenue Between Majura Parkway and Nomad Drive (Fairbairn Avenue additional lane (Majura Parkway to Majura Road))
Fairbairn Avenue Duplication	Duplication from Treloar Crescent to Majura Parkway (Fairbairn Avenue Duplication (between Majura Parkway and Northcott Drive))
Pialligo Avenue Duplication	Duplication between Airport (Brindabella Circuit) and NSW Border (including Sutton Road Drivers Training Centre entry) (East- West Corridor Study/Pialligo Avenue Duplication (Airport to NSW Border))
Monaro Highway – additional lanes	From Canberra Avenue to Johnson Drive (both directions) (Monaro Highway Duplication from Canberra Ave to Johnson Dr as part of North-South Corridor study)
Cotter Road – Stage 3	From Dunrossil Dr to Adelaide Avenue (including the Mint Interchange) – by 2031 to link with Light Rail

Network Item	Description
Tuggeranong Parkway – additional northbound lane	From Cotter Road to the Glenloch Interchange
Athllon Drive Duplication	Athllon Drive Duplication between Sulwood Drive and Drakeford Drive –
Erindale Drive Duplication	From Ashley Drive to Drakeford Drive
Tharwa Drive Duplication	Tharwa Drive Duplication between Woodcock Drive and Pocket Avenue

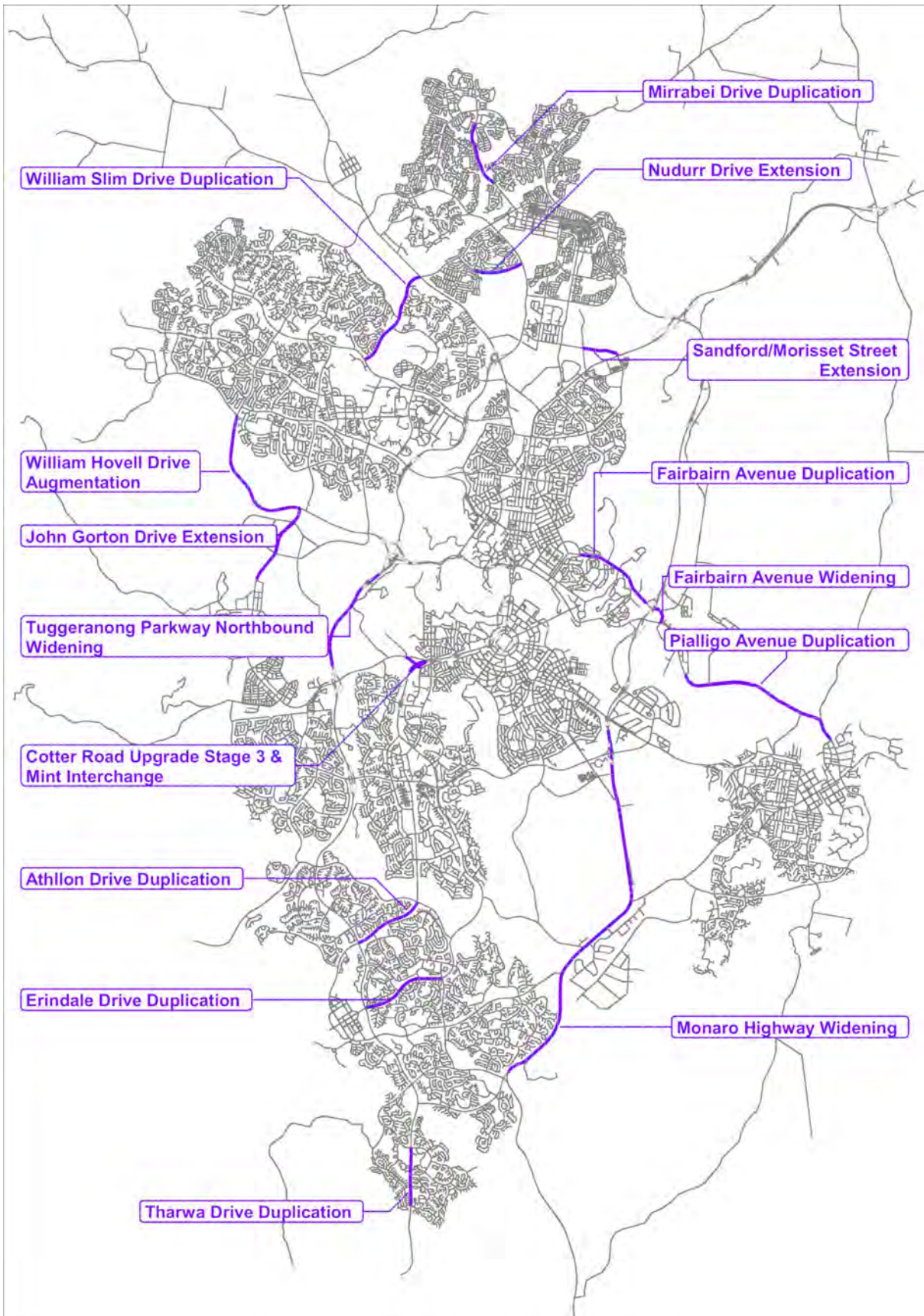
## 2031 Assumed Road Network Improvements

Network Item	Description
Horse Park Drive Duplication	From Roden Cutler Drive to Clarrie Hermes Drive
CSIRO Access Roads	Access roads to CSIRO development; no access via Barton Highway
Gungahlin Drive Duplication	From Gundaroo Drive to Horse Park drive (Gungahlin Drive augmentation (Horse Pak Drive to The Valley Avenue))
Clarrie Hermes Drive Duplication	From Horse Park Drive to the Barton Highway (Clarrie Hermes Drive Duplication (Gunghalin Drive to Barton Highway))
Barton Highway Interchange	Grade separation of Barton Highway and Gundaroo Drive
Lawson West Road Network	Road network in Lawson West, linking Lawson to the Ginninderra Drive – Aikman Drive intersection
Bindubi Street Extension	New roadworks linking John Gorton Drive and Bindubi Street
Kuringa Drive Duplication	Kuringa Drive Duplication between Kingsford Smith and Barton Highway
West Belconnen Stage 2	Roads to service West Belconnen Stage 2; link to Parkwood Drive (Duplication of part of Parkwood Road and Southern Cross Drive up to Florey Drive)
Drake Brockman Drive Upgrade	Duplication of Drake Brockman Drive
Southern Cross Drive Duplication	From Moyes Crescent to Spofforth Street
Molonglo Stage 3 Collector Roads	New roads providing access to the suburbs of Molonglo Stage 3
Light Rail Stage 2	Light rail from City to Woden Agreed
Commonwealth Avenue / Albert Street Signalisation	Staggered T arrangement with northbound to eastbound right turns at Albert Street. (Turn penalties to allow and ban the mentioned movements) Part of City to the Lake, Parkes Way upgrade and associated new roads.
Commonwealth Avenue / Corkhill Street Signalisation	Staggered T arrangement with south to west right turns at Corkhill Street. (Turn penalties to allow and ban the mentioned movements) Part of City to the Lake, Parkes Way upgrade and associated new roads

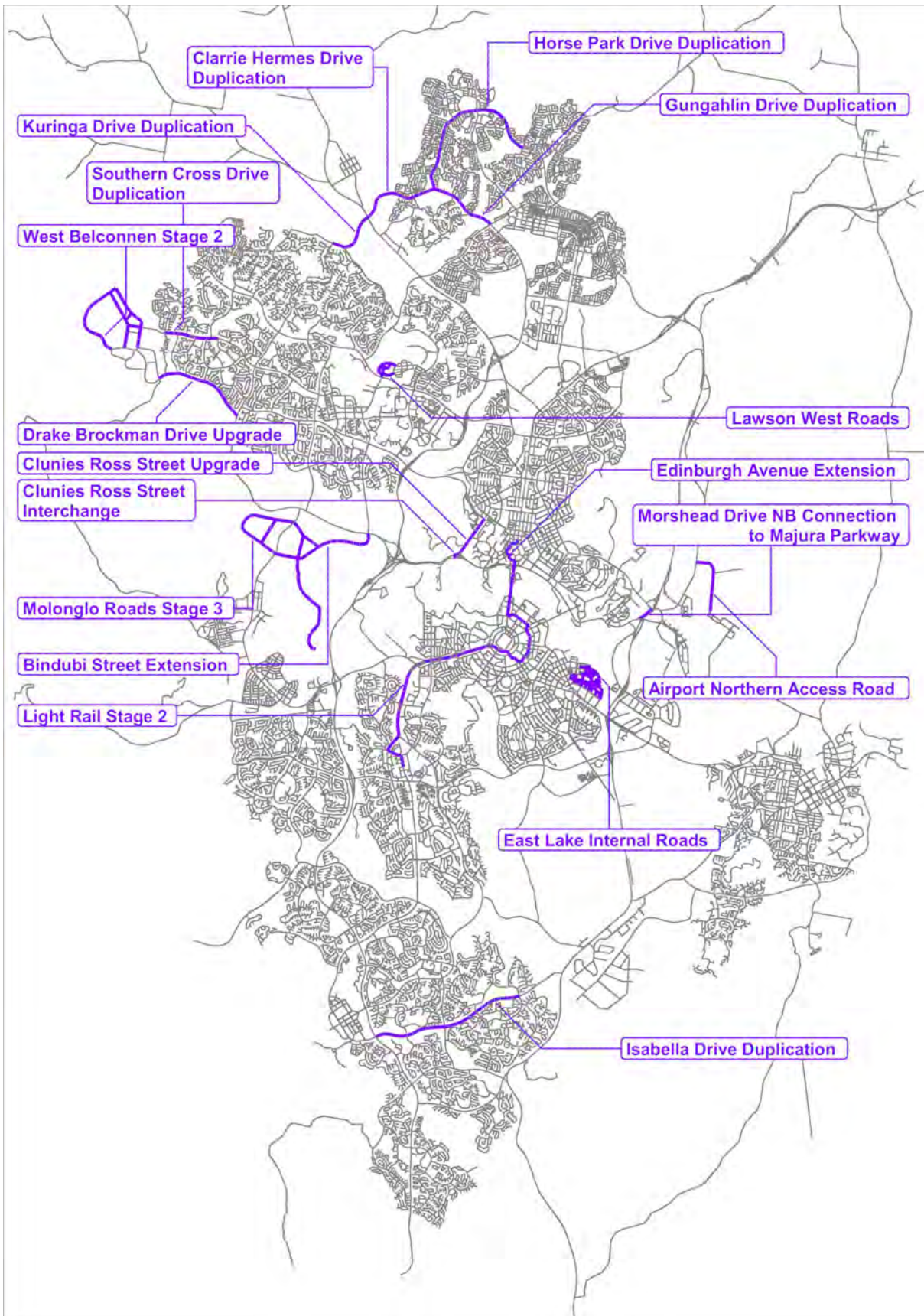
Network Item	Description
Edinburgh Avenue extensions to Vernon Circle	Part of City to the Lake, Parkes Way upgrade and associated new roads
New at-grade intersection between Commonwealth Avenue and London Circuit	Part of City to the Lake, Parkes Way upgrade and associated new roads
Removal of the Commonwealth Avenue to London Circuit loop ramp	Part of City to the Lake, Parkes Way upgrade and associated new roads
New west facing ramps at the Parkes Way/Clunies Ross Street interchange	Part of City to the Lake, Parkes Way upgrade and associated new roads
Clunies Ross Street Upgrade	Duplication of Clunies Ross Street between Barry Drive and Parkes Way
Sturt Avenue/MacMillan Crescent Signalisation	Intersection signalisation
East Lake Internal Roads	Primary transport access connections from Wentworth Avenue and Canberra Avenue Access/egress: extension of Dawes Street/Sandalwood Street, Cunningham Street, Burke Crescent and extension of the Causeway to a connection at Mildura Street
Morshead Drive	Northbound connection to the Majura Parkway
Airport Northern Access Road	Connect Glenora Drive to Majura Road (Northern Access to RAAF Fairbairn (Canberra Airport as part of Canberra Airport Master Plan 2014-2034 p181))
Isabella Drive Duplication	From Hambidge Crescent to Drakeford Drive (Isabella Drive Duplication (from Drakeford Drive to Chisholm Shops))



2021 Road Network Upgrades



2026 Road Network Upgrades



2031 Road Network Upgrades

FOR DISCUSSION

## Appendix B Intersection Turning Movement Counts

FOR DISCUSSION

**local people  
global experience**

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SMEC is recognised for providing technical excellence and consultancy expertise in urban, infrastructure and management advisory. From concept to completion, our core service offering covers the life-cycle of a project and maximises value to our clients and communities. We align global expertise with local knowledge and state-of-the-art processes and systems to deliver innovative solutions to a range of industry sectors.

**New Section – Insert into Exec Summary after challenges section and before Recommendations.**

### **Alternative Section 56 Development Location**

Many of the planning challenges related to residential development at Section 56 (Federal Golf Course) including vehicular access are related to the location of the proposed development near the club house or centrally within the large site. Locating new dwellings close to the club house requires retaining and upgrading Gowrie Drive or proposing alternative routes that are equally lengthy via established adjacent residential streets (Brereton, Kitchener or Birdwood Streets). Based on this assumption of development location the traffic impact analysis finds Brereton Street scenario 2 is the preferred access option.

The EPSDD project team have proposed responding to the broader planning challenges including traffic and access issues by suggesting locating any proposed residential development to the southern boundary of the Section 56 site.

This alternative location has the major advantage of a shortened access route via Kitchener Street as well as other planning advantages. Although the additional traffic generated by the development does still affect existing streets the impact of the additional traffic is limited to Kitchener Street, a collector street, rather than access streets and the length of the access route is minimised. **This suggestion has merit from a traffic perspective and SMEC** recommend that the option should be considered further.

The shorter access road off Kitchener Street is considered preferable to the long access road off Kitchener Street access as identified in scenario 7. Consideration of this additional option is not within the scope of this engagement, but the traffic impact of this option on the local road network is like scenario 7. This shorter Kitchener Street access option would rank number one based on improved scores for impact on residents and ease of design and construction criteria compared to the long access Kitchener Street option that rated three.

Each option has been given a rating of good (L), neutral (M) or poor (H) for each of these criteria as shown in Table 12. - **Revise to numeric scoring 1-poor, 2- neutral, 3- good**

CRITERIA	KITCHENER STREET LONG ACCESS	KITCHENER STREET SHORT ACCESS	BIRDWOOD STREET	BRERETON STREET	GOWRIE DRIVE	GOWRIE DRIVE/ BRERETON STREET
Width	3	3	2	2	1	1
Safety	3	3	2	2	1	1
Capacity	2	2	2	2	1	1
Proportional traffic increase	3	3	2	2	2	1
Proportion of maximum capacity (is this useful???)	2	2	3	2	1	1
Reclassification (is this useful rename classification)	3	3	3	3	3	1
Intersection operation	3	3	1	3	1	1
Pedestrian access	1	3	2	2	1	1
Impact on residents	1	3	1	2	3	2
Planning constraints (fire & emergency access)	2	3	2	2	1	2
Ease of design/construction	1	3	1	3	1	1
<b>Total score</b>	<b>24</b>	<b>31</b>	<b>21</b>	<b>25</b>	<b>16</b>	<b>13</b>
<b>Final Rank</b>	<b>3</b>	<b>1</b>	<b>4</b>	<b>2</b>	<b>5</b>	<b>6</b>

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**From:** Sayers, Caroline  
**Sent:** Wednesday, 14 August 2019 11:45 AM  
**To:** Walter, Stephan; Paynter, Patrick  
**Cc:** Lashkari, Mohammadali  
**Subject:** RE: Red Hill Traffic Study Report [SEC=UNOFFICIAL]

**Importance:** High

Gentleman,

Stephan has asked me to review his suggested amendments within the document. I have not reviewed or commented on the rankings etc. I would prefer to remove myself from this task because I have been assessing the options from a raft of considerations, of which traffic is only 1.

Having said that I have looked at the report and suggested amendments. The figures will need to be updated to reflect the Kitchener Street 'short' option. This is particularly important for Figure 26 in which public transport and active travel are assessed.

I hope this helps.

Thanks  
Caroline

---

**From:** Walter, Stephan  
**Sent:** Tuesday, 13 August 2019 2:36 PM  
**To:** Sayers, Caroline <Caroline.Sayers@act.gov.au>; Paynter, Patrick <Patrick.Paynter@act.gov.au>  
**Cc:** Lashkari, Mohammadali <Mohammadali.Lashkari@act.gov.au>  
**Subject:** RE: Red Hill Traffic Study Report [SEC=UNOFFICIAL]

UNOFFICIAL

Hi Caroline & Patrick

Based on our meeting discussions of last week I have made comments in the attached draft report. The comments include;

- Revising the rating of access options in table 12 (the suggested revisions are contained in the separate attached word document titled - 20190812 New Section SMEC Report)
- The options rating table includes an additional option – Kitchener Street with short access road to alternative site development location (southern boundary)
- New Executive Summary Section text introducing the Alternative Section 56 Development Location option and preference.
- Comments include various other edits and amendments including adjustments to maps.

In summary our comments identify:

- The preferred option as Kitchener St: Short Access route to alternative development area location near southern boundary of the site
- The second ranked options as Brereton Street and
- The 3rd options as Kitchener St long route access.

Please review:

1. The new text and revised table (I have questioned the relevance of a couple of criteria) in attached file 20190812 New Section SMEC Report
2. The comments in the draft report attached.

When we are happy with our comments we can pass these to SMEC. If we need to meet and discuss Ali and I can arrange.

Regards  
Stephan

---

**From:** Lashkari, Mohammadali <[Mohammadali.Lashkari@act.gov.au](mailto:Mohammadali.Lashkari@act.gov.au)>  
**Sent:** Friday, 2 August 2019 5:25 PM  
**To:** Paynter, Patrick <[Patrick.Paynter@act.gov.au](mailto:Patrick.Paynter@act.gov.au)>; Sayers, Caroline <[Caroline.Sayers@act.gov.au](mailto:Caroline.Sayers@act.gov.au)>  
**Cc:** Walter, Stephan <[Stephan.Walter@act.gov.au](mailto:Stephan.Walter@act.gov.au)>  
**Subject:** FW: Red Hill Traffic Study Report [SEC=UNOFFICIAL]

Hi Patrick & Caroline,

Please find attached an objective link to the *Red Hill Reserve Surrounds Strategic Traffic Study* revised draft report for your review and comment.

Kind regards,

Ali

**Mohammadali Lashkari | Engineer**

 (02) 6205 4586  [Mohammadali.Lashkari@act.gov.au](mailto:Mohammadali.Lashkari@act.gov.au)



---

**From:** [REDACTED] [@smec.com](mailto:[REDACTED]@smec.com)]

**Sent:** Friday, 2 August 2019 4:07 PM

**To:** Lashkari, Mohammadali <[Mohammadali.Lashkari@act.gov.au](mailto:Mohammadali.Lashkari@act.gov.au)>

**Cc:** Paynter, Patrick <[Patrick.Paynter@act.gov.au](mailto:Patrick.Paynter@act.gov.au)>

**Subject:** RE: Red Hill Traffic Study Report [SEC=UNOFFICIAL]

Ali,

As discussed with Patrick, I have updated the report based on feedback from EPSDD. I've been through the option rating procedure and given each option a standalone rating, rather than a comparative rating as I did previously. The updated process means that the Brereton street option is slightly preferred over Kitchener or Birdwood. I think that this makes sense as it is using spare capacity on an existing road. The impact on residents of a small amount of additional traffic will be far less than the cost and impact of construction of a new road (the old assessment only looked at the number of residents affected, not the scale of the impact).

I've uploaded a draft of the report [here](#) for your review/comment. If you're happy with the report, let me know and I'll issue it formally as Final, otherwise let me know what changes you need.

Have a good weekend.

Cheers,

[REDACTED]  
SMEC (Member of the Surbana Jurong Group)

T [REDACTED]

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**From:** Paynter, Patrick [<mailto:Patrick.Paynter@act.gov.au>]

**Sent:** Wednesday, 24 July 2019 4:50 PM

To: [REDACTED]@smec.com>

Cc: Lashkari, Mohammadali <Mohammadali.Lashkari@act.gov.au>

Subject: Red Hill Traffic Study Report [SEC=UNOFFICIAL]

[REDACTED]

We are keen to finalise the work on Red Hill as I'm sure SMEC is.

We thank you for the report of 28 June and we are generally happy with it. There are however a few items we would like you to consider before finalising the report. I describe these below and have attached a rough mark-up of Table 12 for you to consider also.

I query some of the ranking/scoring of options as in the attached mark-up of Table 12. I initially wanted to include some criteria around extent and cost of roadworks and, environmental impact and disturbance. Once these are added in to the comparison, the distinction between what option would be preferred is less clear. However, these are outside of the brief - even if they are important elements in distinguishing options. As such – please note but do not include the last two rows in the attachment.

The width of each road should be included as this gives an important indicator of street capacity and classification. Kitchener and Brereton are the same width (both about 10m) so why would the capacity of Brereton be poor. Also why is the capacity of Birdwood St (at 7.3m width) ranked good?

I question the score for Brereton St proportion of maximum capacity as it is a wide street with little existing traffic.

I would also argue that all options have impacts on residents and it is difficult to distinguish which residents would be more greatly impacted than others. Any new road on the edge of golf course land adjacent to existing residents (Kitchener St option) is likely to have high impact on residents – possibly exceeding the impact on increased traffic on Brereton Street. Birdwood St option looks like it is scored incorrectly as it is the narrowest street with similar traffic to Brereton St.

The Brereton Street option as the future access to the golf course development could be argued as the best option. It would involve minimal cost, minimal disturbance and environmental impact from roadworks and the capacity and classification of Brereton St appears acceptable. A new internal road at the golf course intersecting with Kitchener St would rank second in my view. I am aware of the particular concerns of the Brereton St residents but would also note that Birdwood St residents (or the broader community) have not been consulted at this stage.

In terms of future opportunities for further development at the golf course, Brereton St option may get to a capacity constraint earlier while Kitchener St would offer opportunities for further development of the golf course land along its route or elsewhere.

For discussion.

Regards

Patrick

**Patrick Paynter | Director | Infrastructure Planning**

Phone: 02 6207 2434 | Email: [patrick.paynter@act.gov.au](mailto:patrick.paynter@act.gov.au)

**Planning, Land and Building Policy**

**Environment, Planning and Sustainable Development Directorate | ACT Government**

Dame Pattie Menzies House, Challis Street Dickson | GPO Box 158 Canberra ACT 2601 | [www.planning.act.gov.au](http://www.planning.act.gov.au)

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**From:** Sayers, Caroline  
**Sent:** Friday, 16 August 2019 2:37 PM  
**To:** Watts, Michaela  
**Cc:** ConservatorFloraFauna  
**Subject:** 20190531 Conservators assessment of the southern end of the Golf Course (A20559955) [DLM=Sensitive]  
**Attachments:** RE: Red Hill - Kitchener St potential access to the Federal Golf Course [SEC=UNCLASSIFIED]  
  
**Importance:** High

Hi Michaela,

We met with the Federal Golf club and the proponents of the retirement village yesterday.

Erin agreed to provide them with field observations undertaken by your office.

Accordingly I sent them the figure. However, they have now requested the background written report.

Do you wish to revise or redact any parts of the written analysis before it goes to the Federal golf Club?

My preference is to provide them with the facts, but not any interpretation. I believe that information was intended for our own internal use.

Please advise.

Many thanks  
Caroline

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**From:** Terrplan  
**Sent:** Monday, 23 August 2021 3:29 PM  
**To:** Terrplan  
**Subject:** FW: FGC Development Proposal

OFFICIAL

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**From:** Brady, Erin  
**Sent:** Saturday, August 17, 2019 9:29:19 AM  
**To:** [REDACTED]  
**Cc:** Sayers, Caroline <[Caroline.Sayers@act.gov.au](mailto:Caroline.Sayers@act.gov.au)>; Cusack, Kathy <[Kathy.Cusack@act.gov.au](mailto:Kathy.Cusack@act.gov.au)>  
**Subject:** Re: FGC Development Proposal

[REDACTED]

Thank you for letting us know.  
As I mentioned yesterday we had asked that no one communicate with their groups yet - including the golf course.

I will get in touch with the golf course and get back to you as soon as possible.

I am on leave and out of the country from tomorrow but if I can't settle this today - Kathy Cusack will be able to follow up.

Regards  
Erin

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**From:** [REDACTED]  
**Sent:** Friday, August 16, 2019 11:57:06 PM  
**To:** Brady, Erin <[Erin.Brady@act.gov.au](mailto:Erin.Brady@act.gov.au)>  
**Cc:** Sayers, Caroline <[Caroline.Sayers@act.gov.au](mailto:Caroline.Sayers@act.gov.au)>  
**Subject:** FGC Development Proposal

Hello Erin

Several people have drawn my attention to the FGC message below to members re the Integrated Plan and their proposed development. A number of residents are also aware of the communication and want to know what is going on.

The message is riddled with distortions and inaccuracies and gives the impression that a retirement village sited in the southern part of the course is about to be endorsed. The message provides no information to members about the implications of such a proposal for the club and the course. It gives the impression that all that is involved is a simple conversion from one development proposal to the other with absolutely no change required to the operation of the club or anything else.

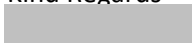
The message to members seriously misrepresents the preferred option presented by you today, particularly in the way in which it totally ignores key aspects and implications of the preferred option.

This is a serious matter. It is absolutely not acceptable for the FGC to mislead its members in this manner. I request that you take this matter up with the FGC as a matter of urgency.

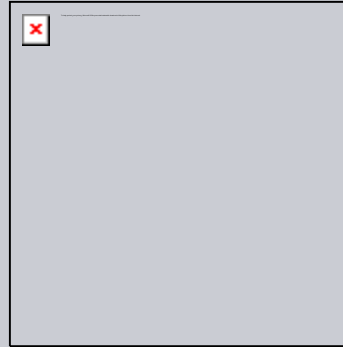
I also am now in a position where I will need to respond to those residents and concerned golf club members that have raised the matter with me.

We greatly appreciated the meeting today and aim to continue to work with you and your team in a positive and constructive manner. In this regard we are very disturbed by the misleading action which the FGC has taken. I look forward to hearing from you.

Kind Regards



No Images? [Click here](#)



### **Draft Red Hill Integrated Plan Compatible with Over 55 Village at Federal!!**

On Thursday 15 August the Club was invited to attend a briefing by the ACT Government's Environment, Planning and Sustainable Development Directorate (EPSDD) on the draft outcomes for the Red Hill Integrated Plan. This Draft Plan is the result of extensive discussions with relevant government agencies and significant technical studies conducted by the Government and is now ready for further community consultation and feedback.

The Red Hill Integrated Plan focussed on a broad study area that included two identified development proposals, one of which being our proposal at Federal. As you know the Club with our partners, Mbark, put our Over 55 design proposals and detailed supporting submissions to Government last year.

**In very positive news, the work supporting the Draft Plan has found that the Federal Golf Club lease area is appropriate for the location of an Over 55 residential community and that this would provide a significant benefit to the local community. This means that, subject to community feedback to the Integrated Plan, endorsement will be provided within the ACT Territory Plan to include within the permitted uses of the Golf Club's lease an Over 55 residential village.**

In developing the Integrated Plan, Government agencies raised major concerns about accessibility to our proposed Over 55 village site via Gowrie Drive particularly in emergency situations including bushfires. The Draft Integrated Plan therefore now supports the location of the village in the southern part of the Club's lease (adjacent to holes 2 and 3) utilising a short access road from Kitchener Street, Garran (near the Scout Association building) rather than the existing practice fairway site adjacent to the Clubhouse that the Club had proposed. Up to now Kitchener Street access to the Club has not been seen as viable as the Club did not have this land as part of its lease area.

This modified siting of the Over 55 village offers some interesting opportunities to the Club, including substantially reducing disruption to members during construction, and we are now working intensively with Mbark on possible Over 55 village siting options in this southern precinct of our lease. The southern boundary site represents a significant change to the design concept previously endorsed by Members and new village siting options developed with Mbark will therefore be put by the Board to a Member vote before decisions are taken.

EPSDD have also briefed representatives of community groups on the draft Integrated Plan findings and will subsequently be seeking wide ranging community feedback to its findings. We will also be providing feedback to EPSDD.

We have been waiting patiently for the outcomes of the Red Hill Integrated Plan. The Draft Plan is a major step forward in securing the Club's long term future and it is now full steam ahead on developing the southern precinct options with Mbark.

You can expect the Development messages to now come through regularly and it will be important for your voices to be heard, both within the Club and to Government, when the Draft Plan is exhibited and our plans are further developed.

*Bob Correll*

*Allan Stewart*

Chair of Development Sub-Committee

President



FEDERAL GOLF CLUB  
Gowrie Drive, Red Hill ACT 2603

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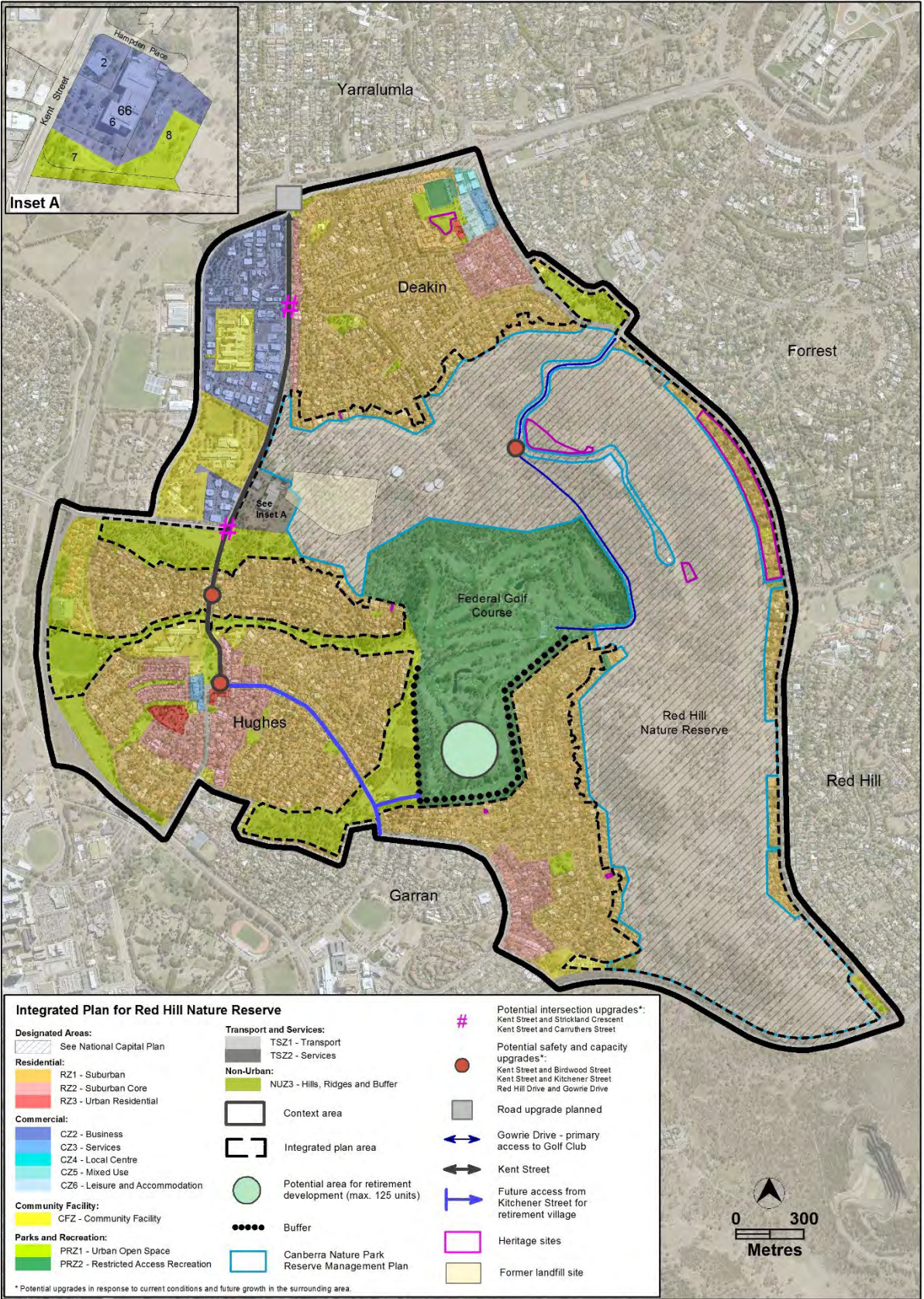
## Red Hill integrated Plan

### Stakeholder meeting

16 August 2019

#### Key recommendations

1. Canberra Nature Park - Plan of Management to be released shortly.
2. Red Hill Plantings – recently included in the Heritage Register.
3. Old Deakin tip – to be capped.
4. Traffic analysis
  - Kent Street future upgrades in response to current use and future growth–
    - Adelaide Avenue access – plan for implementation
    - Strickland Crescent and Carruthers intersection – upgrade investigations
    - Birdwood and Kitchener Streets – safety and capacity.
  - Red Hill and Gowrie Drive future upgrade in terms of safety and capacity in response to current use and future growth.
5. Deakin Section 66 rezone from Transport and Services Zone TSZ2 to:
  - partly commercial CZ2 business zone primarily to reflect current uses on the site
  - partly PRZ1 urban open space primarily to reflect ecological values on the site.
6. Federal Golf Club Territory Plan variation to –
  - Retain an 18 hole golf course on the site.
  - Allow a 125 unit retirement complex at the southern portion of the site
  - Access to the site:
    - Access to the retirement village via Kitchener Street
    - Retain access to the golf club via Gowrie Drive
  - Implement buffers between the retirement complex and the surrounding residential areas to:
    - Provide ecological corridors
    - Maintain existing residential amenity.



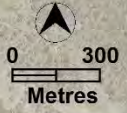
**Integrated Plan for Red Hill Nature Reserve**

- Designated Areas:**
- See National Capital Plan
- Residential:**
- RZ1 - Suburban
  - RZ2 - Suburban Core
  - RZ3 - Urban Residential
- Commercial:**
- CZ2 - Business
  - CZ3 - Services
  - CZ4 - Local Centre
  - CZ5 - Mixed Use
  - CZ6 - Leisure and Accommodation
- Community Facility:**
- CFZ - Community Facility
- Parks and Recreation:**
- PRZ1 - Urban Open Space
  - PRZ2 - Restricted Access Recreation

- Transport and Services:**
- TSZ1 - Transport
  - TSZ2 - Services
- Non-Urban:**
- NUZ3 - Hills, Ridges and Buffer
- Context area
  - Integrated plan area
  - Potential area for retirement development (max. 125 units)
  - Buffer
  - Canberra Nature Park Reserve Management Plan

- # Potential intersection upgrades\*:  
Kent Street and Stinkland Crescent  
Kent Street and Caruthers Street
- Potential safety and capacity upgrades\*:  
Kent Street and Birdwood Street  
Kent Street and Kitchener Street  
Red Hill Drive and Gowrie Drive
- Road upgrade planned
- Gowrie Drive - primary access to Golf Club
- Kent Street
- Future access from Kitchener Street for retirement village
- Heritage sites
- Former landfill site

\* Potential upgrades in response to current conditions and future growth in the surrounding area.



---

**From:** Watts, Michaela  
**Sent:** Friday, 16 August 2019 3:32 PM  
**To:** Sayers, Caroline  
**Cc:** ConservatorFloraFauna  
**Subject:** RE: 20190531 Conservators assessment of the southern end of the Golf Course (A20559955) [DLM=Sensitive]

Hi Caroline -

The information about ecological values was a rapid assessment undertaken by Government ecologists. It is not suitable for use as a technical document for advice about ecological values on site. A full ecological assessment by a qualified ecologist with experience in the ACT would be required to provide technical advice for the proponent. Ecologists from the Conservation Research Unit of ESPDD undertook a rapid assessment of the ecological values of 21 hectares of the southern end of the Federal Golf Course between the 13th and 17th of May 2019. This assessment was undertaken to support the development of an Integrated Plan for Red Hill, the assessment does not negate the need for a comprehensive assessment required to inform the planning of the site by the proponent.

#### **Ecological values**

The assessment identified approximately 115 remnant eucalypts that meet the definition of Mature Trees given in the Conservation Advice (Notifiable instrument NI2018-536) that supports the listing of the Loss of Mature Trees (including hollow bearing trees) and a lack of recruitment as a Key Threatening Process under the Nature Conservation Act (2014). Of these trees, 43 were of medium size (DBH50-80cm) and 72 were large trees (DBH >80cm), included in this count were 35 trees with a DBH>100cm. All remnant trees were either Yellow Box (*Eucalyptus melliodora*), Blakely's Red Gum (*E. blakelyi*) or Apple Box (*E. bridgesiana*).

Fifty-two of these Mature Trees had visible hollows, this is likely to be an underestimate of the actual number of Mature Trees bearing hollows. At least 128 hollows were counted in the Mature Trees, this total is also likely to be an underestimate.

Native grasses and forbs dominated the groundcover of nearly all of the "rough areas" of the golf course. It is estimated that approximately 12 hectares of the study area would meet the definition of native vegetation under the [Nature Conservation Act \(2014\)](#). These areas were dominated by a variety of native grasses such as Wallaby Grass (*Rytidosperma* spp.), Speargrass (*Austrostipa bigeniculata* and *A. scabra*), Weeping grass (*Microlaena stipoides*) and Couch (*Cynodon dactylon*). Native forbs were also sparsely distributed in these areas. Further assessment would be required to determine if the areas have a diversity of forbs sufficient to meet the EPBC requirements for classification as part of the box gum woodland endangered ecological community.

Bird surveys were not undertaken as part of this assessment however two significant species were observed; Superb Parrot and Gang-gang Cockatoo.

Thirteen Superb Parrots (listed as vulnerable in the ACT and nationally) were observed using the “rough” areas along the western border of the golf course. The birds were feeding in areas of native and exotic grass and roosting in a variety of remnant and planted trees. Birds were also observed moving from the golf course to the adjacent urban open space west of the course. Superb Parrots have also recently been recorded on the northern portion of the golf course (Canberra Nature Map records).

Three Gang-gang Cockatoos (listed as vulnerable in NSW) were observed in the same general area as the Superb Parrots. The Gang-gangs were roosting in remnant eucalypts on the golf course and moving between the golf course and the urban open space. Gang-gang Cockatoo’s were recorded in 2014 undertaking breeding behaviour within 200 metres of the assessment area and Red Hill Nature reserve is an important breeding area for Gang-gang Cockatoo’s, with over 40 breeding records recorded within 2km of the assessment area.

Bird surveys will be required to determine the presence and abundance of birds in the location and the potential for impact on protected species.

### **Early planning considerations**

There are two main statutory documents that apply to the conservation of the ecological values outlined above. These are the; of Notifiable instrument NI2018–536 (Loss of Mature Native Trees) and the Draft Superb Parrot Action Plan. Additional statutory requirements may be required subject to the outcomes of complete ecological assessments.

One of the key objective of Notifiable instrument NI2018–536 (Loss of Mature Native Trees) is to restrict as far as possible, the loss of Mature Trees over 50cm DBH and hollow bearing trees.

Notifiable instrument NI2018–536 (Loss of Mature Native Trees) also states that;

- the loss of mature trees, especially scattered Blakely’s Red Gum, is a key threatening process to the persistence of Super Parrot.
- Mature Trees such as those found in the assessment area are valued as stepping stones encouraging fauna movement and provide landscape and aesthetic values as well as socio-economic benefits.
- the largest trees, with a DBH of 80cm or more are particularly valuable for birds, 29% of ACT bird species are recorded exclusively in trees of this size.
- that the loss of Mature Trees on foothills and plains is a particular concern in the ACT.
- that hollows take at least 125 years to form in local eucalypt species and large hollows suitable for nesting of birds such as Gang-gang Cockatoo take at least 200 years to form.

Considering the ecological values of the assessment area the following recommendations are made to mitigate against the loss of Mature Trees:

- All mature trees should be retained. If this cannot be achieved priority should be given to the retention of the 72 remnant trees in the large size class but smaller trees should also be retained to ensure that this key habitat is maintained into the future.
- Approximately 14 hectares of the assessment area is classified as lower slopes and this area supports the majority of Mature Trees. Red Hill Nature Reserve does not contain any lower slope areas, so the presence of this landscape, containing large numbers of Mature Trees well connected to the reserve is likely to be important in the reserves overall ecological function. Priority should be given to the retention of Mature Trees in this landscape position along with improving their connectivity to the Nature Reserve.

- The Mature Trees in the assessment area contain at least 128 hollows. It is likely that the assessment area provides important habitat for Gang-gang Cockatoos and retention of trees with large hollows as well as those likely to form large hollows in the future is critical to maintaining the local population of Gang-gang Cockatoos. All trees with hollows of 10 cm diameter or larger should be retained.
- Superb Parrots use the assessment area and removal of Mature Trees is Key Threatening Process for these birds. It is likely that development of this area will require referral to the Commonwealth Government under the EPBC Act.

The Draft Superb Parrot Action Plan seeks to protect this species known breeding habitat and movement corridors. The Draft Action Plan also states that the ACT Government will explore options to protect potential future Superb Parrot breeding habitat or movement corridors on Territory Land. Due to the presence of Superb Parrots on golf course and highly suitable habitat (Scattered Blakely's Red Gum, grassy understorey, wide variety of food resources and lots of hollows) it is reasonable that the area be considered possible future breeding habitat. More research is required to determine where the Superb Parrots that use the golf course breed, and what corridors they use to move to and from the site.

The Draft Action Plan aims to manage woodland habitat to ensure the persistence of Superb Parrot breeding and foraging resources. Future studies by the proponent would need to give consideration as to how Superb Parrot habitat could be maintained and improved on the area.

It is important to note that full ecological assessment of the project site is required to determine the extent, quality and abundance of ecological values that exist.

Thanks again for the opportunity to provide these early comments based on the rapid field assessment of the southern end of the Federal Golf Course.

Regards  
Michaela

**Michaela Watts**

**Conservator Liaison | Conservator of Flora and Fauna**

Phone: +61 2 6207 1831 | Email: [michaela.watts@act.gov.au](mailto:michaela.watts@act.gov.au)

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-----Original Message-----

From: Sayers, Caroline

Sent: Friday, 16 August 2019 2:37 PM

To: Watts, Michaela <[Michaela.Watts@act.gov.au](mailto:Michaela.Watts@act.gov.au)>

Cc: ConservatorFloraFauna <[ConservatorFloraFauna@act.gov.au](mailto:ConservatorFloraFauna@act.gov.au)>

Subject: 20190531 Conservators assessment of the southern end of the Golf Course (A20559955) [DLM=Sensitive]

Importance: High

Hi Michaela,

We met with the Federal Golf club and the proponents of the retirement village yesterday.

Erin agreed to provide them with field observations undertaken by your office.

Accordingly I sent them the figure. However, they have now requested the background written report.

Do you wish to revise or redact any parts of the written analysis before it goes to the Federal golf Club?

My preference is to provide them with the facts, but not any interpretation. I believe that information was intended for our own internal use.

Please advise.

Many thanks

Caroline

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**From:** Sayers, Caroline  
**Sent:** Friday, 16 August 2019 2:08 PM  
**To:** David Consalvi  
**Subject:** RE: Conservator field observations [DLM=Sensitive]  
**Attachments:** ecological values of the Federal golf course - southern portion.docx

Hi,

As discussed at yesterday's meeting.

Many thanks  
Caroline

---

**From:** [REDACTED]@mbark.com.au]  
**Sent:** Friday, 16 August 2019 10:48 AM  
**To:** Sayers, Caroline <Caroline.Sayers@act.gov.au>  
**Cc:** Cusack, Kathy <Kathy.Cusack@act.gov.au>; [REDACTED]@mbark.com.au>; Bob Correll [REDACTED]; James Robinson [REDACTED]@mbark.com.au>  
**Subject:** Conservator Studies

Hi Caroline,

Thanks again to you, Kathy and Erin for your time yesterday. I hope your consultation today goes well too.

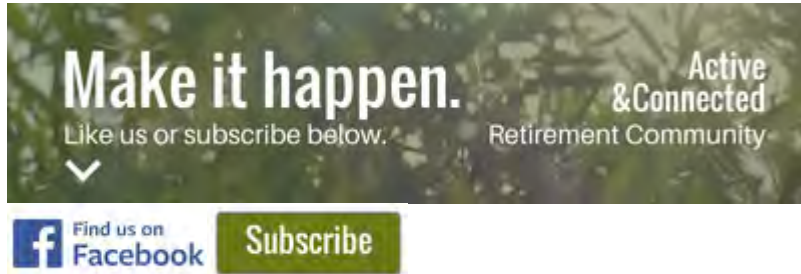
I just wanted to follow-up while its fresh on the Conservator reports/studies that you are able to share with us. We are keen to see all the information you have, including the detailed studies discussed yesterday, that have informed the Integrated Plan so far.

Thanks,  
David

DAVID CONSALVI



T: [REDACTED]  
E: [REDACTED]@mbark.com.au  
A: [REDACTED]



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**From:** Kaucz, Alix  
**Sent:** Friday, 16 August 2019 5:00 PM  
**To:** Cusack, Kathy; Sayers, Caroline  
**Subject:** RE: Outcome of stakeholder meeting - Red Hill Integrated Plan [SEC=UNCLASSIFIED]

I 100% agree with Kathy. Caroline, your genuine desire to achieve the best outcome for the area was very clear to all involved and that's why your recommendations were trusted by everyone. I know it was a lot of hard work for you but all the stakeholders have passed on their appreciation of your efforts.

Next project will be a lot easier I promise!

---

**From:** Cusack, Kathy  
**Sent:** Friday, 16 August 2019 4:53 PM  
**To:** Sayers, Caroline <Caroline.Sayers@act.gov.au>; Kaucz, Alix <Alix.Kaucz@act.gov.au>  
**Subject:** RE: Outcome of stakeholder meeting - Red Hill Integrated Plan [SEC=UNCLASSIFIED]

UNCLASSIFIED

Caroline,

Congratulations!! Your work on this project has been to such a high standard and is so thorough – and this is very much why the Draft Integrated Plan has been well-received by the majority of its quite diverse stakeholders.

Alix and I spoke with Tania Parkes a moment ago and she asked that we specifically thank you for the high quality work you've done 😊

Kind regards, Kathy

**Kathy Cusack**

Executive Group Manager

Phone: 02 6205 0204 | Email: [kathy.cusack@act.gov.au](mailto:kathy.cusack@act.gov.au)

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**From:** Sayers, Caroline <[Caroline.Sayers@act.gov.au](mailto:Caroline.Sayers@act.gov.au)>  
**Sent:** Friday, 16 August 2019 2:00 PM  
**To:** Cusack, Kathy <[Kathy.Cusack@act.gov.au](mailto:Kathy.Cusack@act.gov.au)>; Kaucz, Alix <[Alix.Kaucz@act.gov.au](mailto:Alix.Kaucz@act.gov.au)>  
**Subject:** Outcome of stakeholder meeting - Red Hill Integrated Plan [SEC=UNCLASSIFIED]  
**Importance:** High

Hi Alix and Kathy,

The meeting was well attended. The Conservation Council office has been struck down with illness and has requested a meeting next week.

In relation to The Federal Golf Course the meeting discussed the following:

- The proposed location for the retirement village is the most logical.
- The buffers are important.
- Concern was raised that the access road through the public open space from Kitchener Street to the golf course should avoid as many trees as possible.
- The potential impacts on valuable trees in this southern portion need to be minimised as part of the design of the retirement village.
- The potential impacts on the high value ecological areas at the northern edge of the golf course land should be minimised as part of any reconfiguration of the golf course.
- Additional uses such as hotels and the like should be removed from the PRZ2 zoned land.
- They have requested an opportunity to make further comments once the golf club/Mbark have identified whether this option is feasible.

I hope this helps.

Thanks  
Caroline

Caroline Sayers | Territory Plan Section

Phone: 02 6207 1719 | Email: [caroline.sayers@act.gov.au](mailto:caroline.sayers@act.gov.au)

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**From:** Sayers, Caroline  
**Sent:** Tuesday, 20 August 2019 4:42 PM  
**To:** Lashkari, Mohammadali; Walter, Stephan  
**Subject:** Transport access and egress for fire and emergency service vehicles. [DLM=Sensitive]  
**Attachments:** 20190412 ACTESA COMMENTS (A19327732) [DLM=Sensitive]; 20180724 TCCS and ESA meeting notes.docx; Federal Golf Club - Access / Egress Options

Gentlemen,  
As discussed and attached:

1. We received advice from ESA about the need for significant upgrades to Gowrie Drive to meet access and egress for 'urban' emergency vehicles and the fact that secondary access would be required.
2. We met with ESA and with Transport Canberra officers about this matter. The notes of their advice and discussion are also attached.
3. We fed this information back to the proponent of the retirement village at the golf club MBark. They then explored some secondary access options as attached.
4. These secondary access options (Birdwood and Kitchener Street) led us to consider these options as primary access options which then prompted our request to update the traffic analysis.

The traffic results and a range of other factors led us to consider moving the retirement village to the southern portion of the golf club.

I hope this helps by way of background.

Thanks  
Caroline

Caroline Sayers | Territory Plan Section

Phone: 02 6207 1719 | Email: [caroline.sayers@act.gov.au](mailto:caroline.sayers@act.gov.au)

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**From:** [REDACTED]@mbark.com.au>  
**Sent:** Wednesday, 21 August 2019 5:43 PM  
**To:** Cusack, Kathy; Sayers, Caroline  
**Cc:** David Consalvi  
**Subject:** Integrated Plan Draft Map feedback

Dear Kathy and Caroline,

Thank you for the briefing last Thursday and allowing us the time to consider the discussion on the draft Integrated Plan map. I have been made aware by the Club that a letter from the Director General has advised that the draft map will be supplied to stakeholders, on a confidential basis, in the near term. It is on that basis that I feel it is important to provide you with our initial reactions to some specific items covered in the briefing so you can consider how they are addressed prior to distributing any draft plans.

Our comments are trying to address any unintended impacts to the Club's lease area in the current draft and we have attempted to make some helpful suggestions about how such matters could be addressed below.

### **1. Northern Club Lease Area**

As discussed at the briefing, both the hatching and the boundary of the area identified on the plan as "Included in the Red Hill Nature Reserve" should be removed. This area was proposed to be returned to the Red Hill Nature Reserve as part of the Club's current proposal which is not supported by the current draft of the Integrated Plan.

Mbark and the Club remain committed to demonstrating significant community benefits from any proposal and this area may form part of those benefits. The uncertainty over the land and constraints to the south of the Club lease area requires us to retain all land in the short term to assist with the potential modifications needed to accommodate a suitable proposal.

### **2. Southern and Western Boundary "Buffers"**

The purpose for and effectiveness of the proposed "buffer" is not clear to us. We understood from our meeting that these areas are to provide wildlife corridors through to the Red Hill Nature Reserve, as well as being potential habitat for certain fauna. Having read the rapid assessment prepared by the Conservator, we believe that the identification of these corridors, along with any prescriptive distance, is premature given the level of detail currently available and note that:

- The entire golf course acts as a substantial wildlife corridor connecting the open space to the west of the Club's lease area to the Red Hill Nature Reserve;
- The existence of the open space to the west of the Golf Course also provides an additional corridor for wildlife;

- The optimal way to reduce impacts on any ecological values is yet to be determined and will depend on how the existing vegetation is used by fauna, how any future proposal is designed to minimise its impacts and many other factors; and
- The existing widths of the vegetated areas along the majority of the Club's boundary are less than half of the 100 meters proposed.

The Conservator noted that their rapid assessment does not negate the need for a subsequent comprehensive assessment to inform the planning of the site by the Club. We believe it is this detailed assessment accompanying a development application that will determine how a design can appropriately respond to the ecological values, and we note the likelihood that an EPBC Act referral will be required as part of any approval.

Because of this, we recommend that the north-south buffer currently identified on the map be removed. We do however support the protection of existing vegetated setbacks along the southern and eastern boundaries (noting their variable widths) due to the adjoining residential interface.

### **3. Retirement Village Location Identifier**

The map legend explains the identifier as being the "Potential area for retirement development (max. 125 units)". This is potentially misleading for a number of reasons:

- The development of a retirement village may include detached and semi-detached style homes and therefore "units" may mislead readers as to the intensity and type of development that may occur;
- The large "dot" is out of proportion with all the other identifiers on the map and may be interpreted as a boundary or specific location for any development, which we understand is not the intention; and
- The inclusion of a maximum number of dwellings is not in keeping with our understanding of the study scope for the Integrated Plan. We would expect that determining the scale of development that is appropriate is likely to be a function of a variety of factors that have not yet been examined. Determining these will require a significant investment of time and capital by the Club, and will most likely be completed as part of any future detailed Development Application.

We suggest that the best way to resolve this and achieve the intended outcome discussed at our meeting is to scale the identifier in proportion to the other identifiers (for example, potential upgrades) and label as "Potential area for retirement development (southern section of the Golf Course)" or similar.

For your consideration.

Regards

Adam

**Adam Somerville**  
Managing Director

**MBARK**

M: [REDACTED]

E: [redacted]@mbark.com.au



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**From:** EPSDD\_Communications  
**Sent:** Thursday, 22 August 2019 11:00 AM  
**Subject:** Red Hill Integrated Plan  
**Attachments:** Draft map and proposed recommendations of the Integrated Plan for Red Hi....pdf  
**Importance:** High

UNCLASSIFIED Sensitive

Good morning

Please find attached the proposed recommendations and draft map for the draft Integrated Plan for the Red Hill Nature Reserve and Surrounds. This is another milestone in working towards advice to the Government to assist in responding to the Legislative Assembly's resolution of 25 October 2017, particularly in terms of obtaining 'majority community support' for the Integrated Plan.

The Directorate intends to release the draft Integrated Plan in the near future for full public consultation and feedback. In the meantime, I am providing a current working draft to you in your capacity as a key stakeholder group. While I respect that you will use these document to inform your members of the current status of the integrated planning process, I request that they not be made public or widely circulated in any form. I do not wish to pre-empt or undermine the formal public consultation process.

I thank you for your continued participation in the Integrated Planning process and look forward to working with you through the public consultation and feedback phases of the project.

If you have any queries or questions please contact Caroline Sayers on 62071719 or email the Territory Plan Section at [Terrplan@act.gov.au](mailto:Terrplan@act.gov.au)

Ben Ponton  
Director-General

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**Draft map and proposed recommendations of the Integrated Plan for Red Hill Nature Reserve and Surrounds**

**21 August 2019**

**Red Hill Nature Reserve**

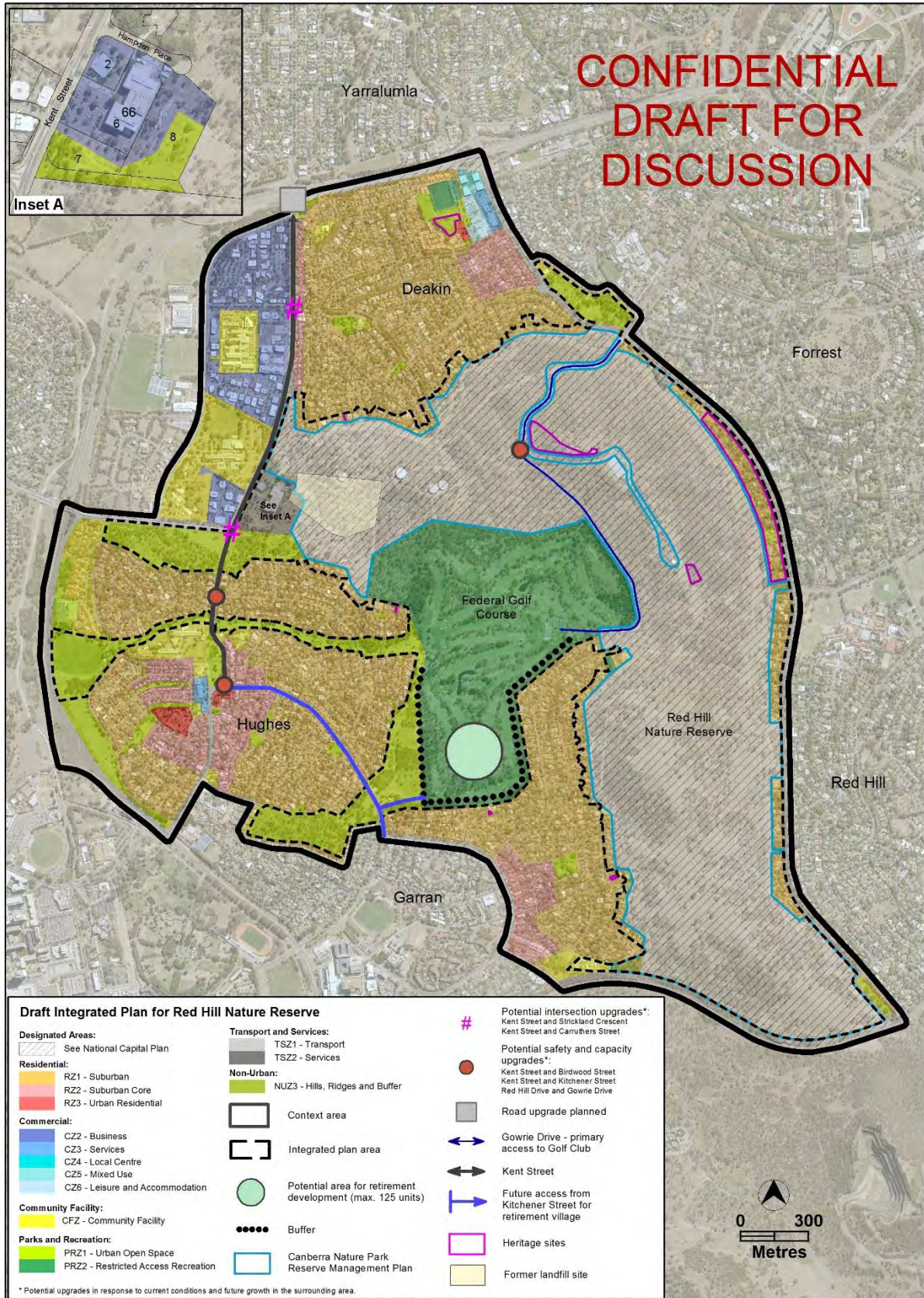
1. Canberra Nature Park - Plan of Management to be released shortly.
2. Red Hill Plantings – recently included in the Heritage Register.
3. Old Deakin tip – to be capped by the ACT Government.
4. Retain all PRZ1 Urban Open Space zoned land adjoining and linking to the Red Hill Nature Reserve.

**Traffic and Access**

5. Traffic analysis
  - Kent Street future upgrades in response to current use and future growth–
    - Adelaide Avenue access – plan for implementation
    - Strictland Crescent and Carruthers intersection – upgrade investigations
    - Birdwood and Kitchener Streets – safety and capacity.
  - Red Hill and Gowrie Drive future upgrade in terms of safety and capacity in response to current use and future growth.

**Development potential**

6. Retain Residential RZ1 suburban zoning for all residential blocks adjoining the Red Hill Nature Reserve.
7. Deakin Section 66 rezone from Transport and Services Zone TSZ2 to:
  - Partly commercial CZ2 business zone primarily to reflect current uses on the site with a limitation on residential development on the site.
  - Partly PRZ1 urban open space primarily to reflect ecological values on of the site.
8. Federal Golf Club Territory Plan variation to –
  - Retain an 18 hole golf course on the site with limitations on the range of uses permitted on the golf course
  - Allow a 125 unit retirement complex at the southern portion of the site
  - Access to the site:
    - Access to the retirement village via Kitchener Street
    - Retain access to the golf club via Gowrie Drive
    - No public access road between the retirement village and the golf club.
  - Protect key ecological values on the site, particularly at the interface with the Red Hill Nature Reserve; hollow bearing trees; and where continuous ecological corridors can be provided. This can be managed through careful location and design of:
    - the retirement village
    - the gold course greens and associated infrastructure
    - the external access road from Kitchener Street and the internal roads.
  - Implement buffers between the retirement complex and the surrounding residential areas to:
    - Provide and protect ecological corridors and values
    - Maintain existing residential amenity.



---

**From:** Sayers, Caroline  
**Sent:** Monday, 2 September 2019 1:57 PM  
**To:** Watts, Michaela  
**Cc:** Kaucz, Alix; Morton, Stacey; Coghill, Stacey  
**Subject:** Deakin section 66 and Federal Golf Club - ecological values - next steps [DLM=Sensitive]

Hi Michaela,

As requested by Erin and discussed today, there are a few processes that could result in two potential options. We can discuss these with Erin and Ian this afternoon:

### **Deakin Section 66**

1. The Conservator would do a statement of values
2. The site is degraded and contaminated and would need to be cleaned up.
3. There would be a baseline declaration of values prior to either option being pursued.

#### **Option 1 –**

- The lessee retains the land in the short term and is responsible for the clean-up.
- The site could then be used as an offset by the lessee for development in another location.
- When this occurs the land is rezoned accordingly.

This is not the preferred option because the offset values could be quite low and would depend on the clean-up. This includes capping of the part of the site that was the old Deakin tip.

#### **Option 2 –**

- The ACT Government acquires the site from the lessee based on the land value as currently zoned TSZ2 transport and services zone
- Site works to recap the old Deakin tip are undertaken by Government.
- The balance of the site is cleaned up.
- The Government invites community groups to assist in the recovery of ecological values on the site through NRM groups etc.
- The Government uses the site as offsets for other ACT Government works.
- The land is rezoned accordingly.

This is the preferred option and reflects the current use of the site as general public access to the Red Hill Nature Reserve.

### **Federal Golf Course**

As also discussed the Stakeholder groups consulted in relation to the Red Hill Integrated Plan have also requested that the 10-12ha of high ecological values on the north-west portion of the golf course be handed back to the nature reserve.

To date we have yet to receive advice from the golf club how much, if any of this land they need to utilise to retain an 18hole golf course on the site. It is anticipated that the land not required for golf course development would be utilised by the club as an offset for the land to be developed for the retirement village and golf course holes. In this regard, it is most likely to occur through EPBC processes and the offset land would be rezoned and incorporated into the nature reserve.

Thanks  
Caroline

**Caroline Sayers | Territory Plan Section**

Phone: 02 6207 1719 | Email: [caroline.sayers@act.gov.au](mailto:caroline.sayers@act.gov.au)

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**From:** Bob Correll [REDACTED]  
**Sent:** Wednesday, 4 September 2019 11:50 AM  
**To:** Brady, Erin  
**Cc:** Cusack, Kathy; Sayers, Caroline; ALLAN STEWART; Anthony Sinclair; Adam Somerville; David Consalvi  
**Subject:** Federal Golf Club - Comments on Draft Integrated Red Hill Plan  
**Attachments:** 04092019113338-0001.pdf

Erin

Please find attached Federal Golf Club's comments on the Draft Integrated Red Hill Plan.

Regards  
Bob Correll



Dr Erin Brady  
Deputy Director General  
Land Strategy and Environment  
Environment Planning and Sustainable Development Directorate

Dear Erin,

**RE: Comments on the draft map and proposed recommendations of the Integrated Plan for Red Hill Nature Reserve and Surrounds**

Thank you for the opportunity to comment on the working draft of the Integrated Plan for Red Hill Nature Reserve and Surrounds (**Plan**).

The Club welcomes the proposed recommendation that allows for the development of a retirement village on Club land. The water supply vulnerability and financial pressures that have necessitated the pursuit of diversification of the Club's revenue sources have only intensified since the Legislative Assembly passed its resolution in October 2017 and as such, we strongly reiterate the urgent need for Government's support of this use.

Our detailed review of the proposed recommendations and draft map identified some areas in which the Club would like to provide specific feedback. These are accompanied by some principles that we believe will make clear to all readers the intended purpose of the Plan and how it will be practically implemented. These are outlined below.

**1. Red Hill Nature Reserve**

- 1.1. While not directly engaged on the Canberra Nature Park Plan of Management, the Club continues to support the long-term protection and management of Red Hill Nature Reserve.
- 1.2. We note that some PRZ1 land will be required to facilitate the construction of the proposed future access road from Kitchener Street. This may be an unintended contradiction to Point 4 in the proposed recommendations which refers to a retention of all PRZ1 land. There may also be other opportunities where the use or improvement of the PRZ1 land can help deliver the objectives of the Plan. We recommend that the Plan anticipates a level of flexibility in this regard.

*Principle: A primary objective of the Plan is to maintain the PRZ1 land that adjoins the Red Hill Nature Reserve. Any use or improvement of PRZ1 land must be to facilitate the implementation of the Plan or to deliver a net positive outcome for the community.*

**2. Traffic and Access**

- 2.1. The Club does not object to improvements to the Kent Street road network but notes that previous traffic studies have demonstrated that a retirement village will not increase peak loads on the road network.
- 2.2. The Club supports the future upgrade of Gowrie Drive and the intersection with Red Hill Drive.

### 3. Development Potential

- 3.1. A Territory Plan Variation that provides for the development of a retirement village within the Club's lease area is strongly supported.

The Club confirms its long-standing public commitment to the community that development of a retirement village will facilitate its long-term survival and that development of additional uses not related to the Club's operations would not be required if a retirement village development proceeds.

The Club would however be concerned if it was proposed to remove or restrict other options for the Club land prior to the development approval of any retirement village.

The Club also does not consider it necessary to remove complimentary uses such as modest accommodation connected to golf hospitality or golf tourism.

- 3.2. The Club considers it is feasible to establish a retirement village in the southern precinct of the golf course subject to utilisation of Club land along the southern part of the western boundary and the replacement and modification of several golf holes and their relocation within the Club's boundary. The number of dwellings required to achieve a commercially viable village in this part of the property is currently under consideration.

Previous investigations in this area were not progressed due to an inability to access the adjoining road network. With access through Government land proposed in the Plan, a significant investment of time and capital will now be required as part of any amended development application to determine the appropriate and viable number of dwellings. This work will need to capture golf course changes to maintain an 18-hole championship standard course, respond to ecological values, manage the variable land gradients in that location and avoid the potential duplication of recreation facilities in both the retirement village and Clubhouse locations.

Whilst the Club does not object in principle to a limit of 125 dwellings and this was the maximum that had been set by the Club for the site adjacent to the Clubhouse, reasonable flexibility may be needed that allows for differing site conditions in the southern precinct to ensure an economically viable proposal.

*Principle: The scale of the village must respond to the site constraints while still delivering on the primary objectives of ensuring the Club's survival and retention of the 18-hole championship golf course.*

- 3.3. We note that feedback given to the Club during the development of the Plan focussed on access issues relating to Gowrie Drive (both emergency and general access). Given the potential to create a new access point into the Club from Kitchener Street, we are also supportive of an option for development that retains the retirement village in the location initially proposed but sees all village traffic access the property via the proposed new road and intersection at Kitchener Street. Such access would be to the retirement village only and not allow public access to the Golf Club or Gowrie Drive.

This option would alleviate the access concerns raised during consultation while retaining the inherent benefits of the existing location including minimised ecological disruption.

3.4. The Club is supportive of a design approach that aims to respond to the important ecological values of its land. We believe that our existing design approach minimised ecological impacts on-site by limiting the development footprint to predominantly cleared land and offered substantial replanting, hollow relocation and other offset arrangements. Whilst we will employ a similar approach in any new development application over the southern section of the property regarding replanting and hollow relocation, it is clearly not possible to locate a proposal on cleared land not already used as part of the golf course in the location suggested by the Plan and retain its 18 hole size and championship standard. It will therefore need to be accepted that a level of clearing is unavoidable.

Further, it is important that the Plan does not place constraints on any development design before detailed studies and environmental assessments are completed. The Conservator noted that their rapid assessment used to inform the Plan does not negate the need for a subsequent comprehensive assessment to inform the planning of the site by the Club. We believe it is this detailed assessment accompanying a development application that will determine how a design can appropriately respond to the ecological values.

*Principle: Any future development application will be required to complete detailed studies on the ecological impacts of a proposed development and devise a mitigation and offset strategy to support its proposed footprint. The Plan does not pre-empt these outcomes.*

3.5. The Club is supportive of reasonable buffers between any new retirement village and adjoining residents along the southern and eastern boundaries of the golf course. These buffers are important part of the golf course environment and contain walking tracks that are well used by the community and which the Club wants to see retained.

It is critical that residents who live at these interfaces are comforted by the Club's desire to retain the existing vegetation and golf holes on the boundaries between their homes and current golf activities. The Club has no intention to develop a retirement village on the 4<sup>th</sup> and 5<sup>th</sup> golf holes and believes the most suitable location for a retirement village is proximate to the western boundary in the southern section of our lease area.

We are concerned by the identified buffer along the western boundary. This boundary does not contain any residential interfaces (as noted in the proposed recommendations) and as mentioned above, any impacts to ecological values are best determined following comprehensive studies and assessment in a development application. We also note the criteria for buffers used in the Plan to provide and protect ecological corridors and values and maintain existing residential amenity can be met without the need for any major buffer along this boundary, particularly along the southern part of the western boundary.

Thank you again for the opportunity to provide the above comments. If you have any questions or would like us to expand further, please don't hesitate to contact me (ph. [REDACTED] at your convenience.

Regards

[REDACTED]  
Bob Correll  
Director and Chair of the Development Committee  
Federal Golf Club

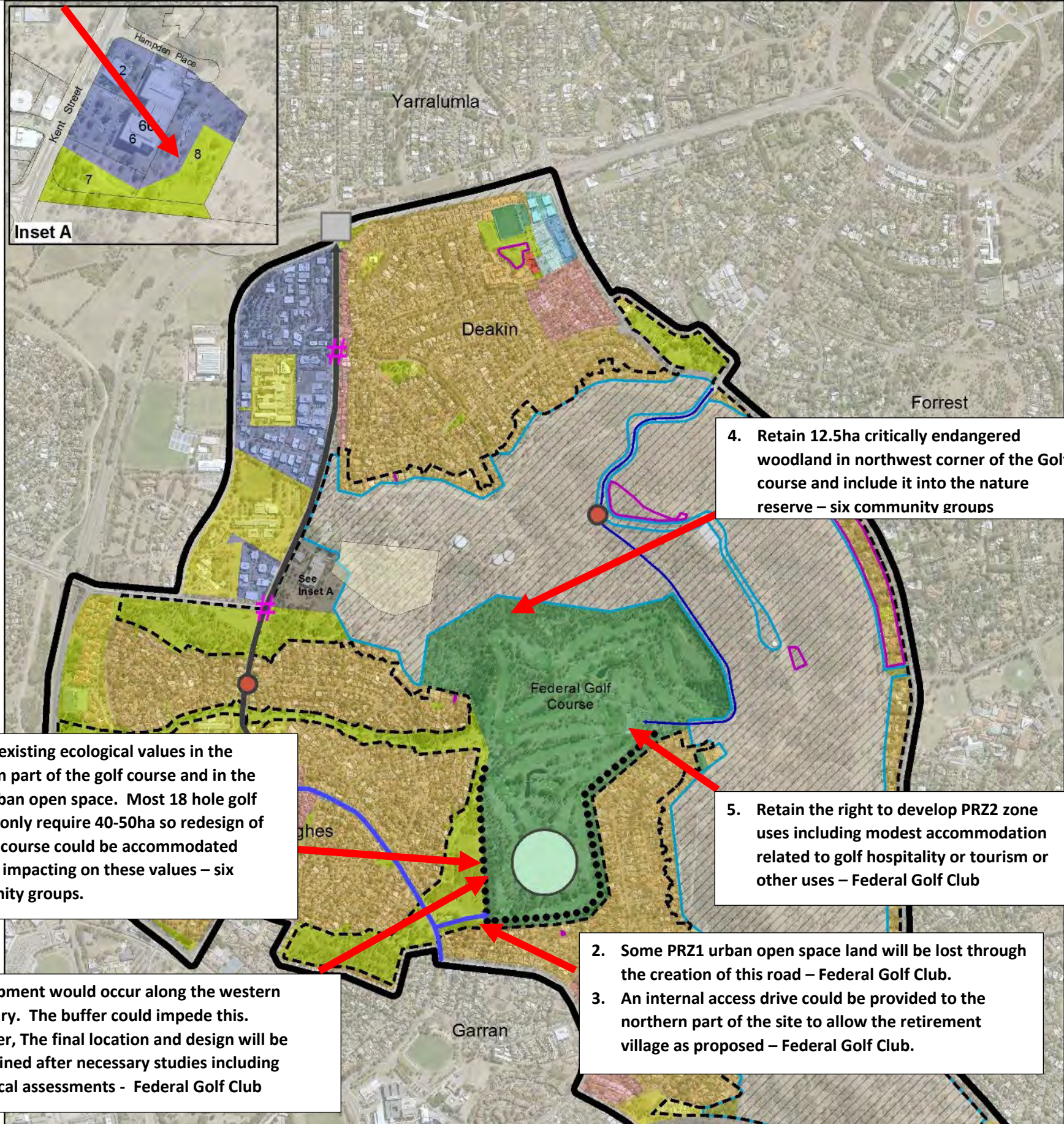
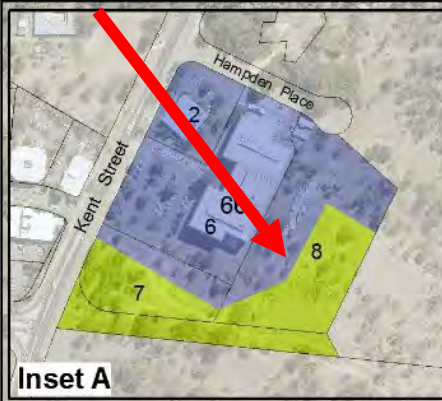
4/9/19  
FEDERAL GOLF CLUB  
Gowrie Drive, Red Hill ACT 2603

E. (02) 6281 1888  
W. gm@fgc.com.au

www.federalgolf.com.au  
@federalgolfclub  

# Stakeholder comments on the draft Integrated Plan for Red Hill Nature Reserve and Surrounds

1. Include all of blocks 7 and 8 in the PRZ1 urban open space zone – Hindmarsh group



4. Retain 12.5ha critically endangered woodland in northwest corner of the Golf course and include it into the nature reserve – six community groups

7. Protect existing ecological values in the southern part of the golf course and in the PRZ1 urban open space. Most 18 hole golf courses only require 40-50ha so redesign of the golf course could be accommodated without impacting on these values – six community groups.

5. Retain the right to develop PRZ2 zone uses including modest accommodation related to golf hospitality or tourism or other uses – Federal Golf Club

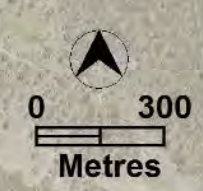
8. Development would occur along the western boundary. The buffer could impede this. However, The final location and design will be determined after necessary studies including ecological assessments - Federal Golf Club

2. Some PRZ1 urban open space land will be lost through the creation of this road – Federal Golf Club.  
3. An internal access drive could be provided to the northern part of the site to allow the retirement village as proposed – Federal Golf Club.

**Integrated Plan for Red Hill Nature Reserve**

<p><b>Designated Areas:</b></p> <ul style="list-style-type: none"> <li>See National Capital Plan</li> </ul> <p><b>Residential:</b></p> <ul style="list-style-type: none"> <li>RZ1 - Suburban</li> <li>RZ2 - Suburban Core</li> <li>RZ3 - Urban Residential</li> </ul> <p><b>Commercial:</b></p> <ul style="list-style-type: none"> <li>CZ2 - Business</li> <li>CZ3 - Services</li> <li>CZ4 - Local Centre</li> <li>CZ5 - Mixed Use</li> <li>CZ6 - Leisure and Accommodation</li> </ul> <p><b>Community Facility:</b></p> <ul style="list-style-type: none"> <li>CFZ - Community Facility</li> </ul> <p><b>Parks and Recreation:</b></p> <ul style="list-style-type: none"> <li>PRZ1 - Urban Open Space</li> <li>PRZ2 - Restricted Access Recreation</li> </ul>	<p><b>Transport and Services:</b></p> <ul style="list-style-type: none"> <li>TSZ1 - Transport</li> <li>TSZ2 - Services</li> </ul> <p><b>Non-Urban:</b></p> <ul style="list-style-type: none"> <li>NUZ3 - Hills, Ridges and Buffer</li> </ul> <ul style="list-style-type: none"> <li>Context area</li> <li>Integrated plan area</li> <li>Potential area for retirement development (max. 125 units)</li> <li>Buffer</li> <li>Canberra Nature Park Reserve Management Plan</li> </ul>	<p><b>#</b> Potential intersection upgrades*: Kent Street and Strickland Crescent Kent Street and Carruthers Street</p> <p><b>●</b> Potential safety and capacity upgrades*: Kent Street and Birdwood Street Kent Street and Kitchener Street Red Hill Drive and Gowrie Drive</p> <ul style="list-style-type: none"> <li>Road upgrade planned</li> <li>Gowrie Drive - primary access to Golf Club</li> <li>Kent Street</li> <li>Future access from Kitchener Street for retirement village</li> <li>Heritage sites</li> <li>Former landfill site</li> </ul>
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\* Potential upgrades in response to current conditions and future growth in the surrounding area.



6. Increase flexibility with numbers of units to allow more – Federal Golf Club.

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**From:** [REDACTED]  
**Sent:** Thursday, 5 September 2019 10:15 AM  
**To:** Brady, Erin; Cusack, Kathy; Sayers, Caroline  
**Subject:** FW: Red Hill Integrated Plan  
**Attachments:** Letter to Erin Brady.docx

Hello

I have been invited to attend a meeting on Monday 9 September of Garran and Hughes residents who live in close proximity to the prospective retirement village at the southern end of the golf course.

One of their major concerns is that the preferred option has not been made publicly available. My understanding from the meeting was that the FGC/MBark in particular were being given a short period of time to consider the implications of the preferred option and that you would be engaging further with them before the preferred option could be made publicly available. Am I right about this? Could you briefly outline the next steps in the process and the proposed timing. It will be helpful if I can provide some information to this rather concerned group of residents who are of the view that they are faced with a secret process.

In relation to the attached letter it would be also helpful to let the residents know that the importance of early engagement with the community has been raised with FGC/MBark and that this will occur (if MBark intend to proceed with a development).

Kind Regards

[REDACTED]

---

**From:** [REDACTED]  
**Sent:** Thursday, 29 August 2019 1:20 PM  
**To:** 'Brady, Erin' <Erin.Brady@act.gov.au>; 'Cusack, Kathy' <Kathy.Cusack@act.gov.au>; 'Sayers, Caroline' <Caroline.Sayers@act.gov.au>  
**Cc:** [REDACTED]  
**Subject:** Red Hill Integrated Plan

Hello Erin, Kathy and Caroline

Please see the attached letter co-signed by 6 conservation and community organisations.

The letter deals with the need to protect the 12.5hectares of critically endangered Yellow Box – Red Gum Grassy Woodland in the North West corner of the Federal Golf Club lease area, together with the need to put in place conservation measures in the southern part of the lease area.

It is imperative that the Red Hill Integrated Plan provides for the NW woodland area to be included in the Red Hill Nature Reserve. In relation to the need for conservation measures in the southern part of the lease area, given that preliminary investigatory work is being undertaken on the possible siting of the prospective retirement village and access driveway, FGC MBark and the Directorate need to now engage with the community on their concerns and needs.

Kind Regards



Co-Convenor  
GAHRAG

Dr Erin Brady  
Deputy Director-General Land, Strategy and Environment  
Environment, Planning and Sustainable Development Directorate  
GPO Box 158  
Canberra City ACT 2601

Dear Dr Brady

In the context of developing the Red Hill Integrated Plan we are writing to you concerning the need to protect the 12.5 hectares of woodland in the North West (NW) corner of the Federal Golf Club (FGC) lease area, together with the need to implement conservation measures in the southern part of the lease area in the vicinity of the prospective retirement village.

An important objective for community organisations has been for the 12.5 hectares of critically endangered woodland in the NW corner to be included in the Red Hill Nature Reserve as a result of developing the Integrated Plan. We are now faced with the possibility of some of the 12.5 hectares of woodland being damaged or destroyed in order for the FGC to reconfigure the golf course to accommodate a retirement village development. Any damage or destruction to the woodland and failure to include the area in the Nature Reserve is not acceptable.

The FGC was granted a lease of 87 hectares of land in the 1950's to develop a golf course. The grant of land, which was much more land than required for an 18-hole golf course, was done on the understanding that excess land would be returned to the government by the FGC following the development of the golf course. This return of land, which includes the NW 12.5 hectares, never occurred. In 2012 the Chief Planner agreed in principle that the NW 12.5 hectares should be added to the Red Hill Nature Reserve. This matter was not progressed. In 2016 this matter was taken up with the Director-General of the Environment and Planning Directorate. The Director-General determined that the best way for the government to consider if the area of woodland should be excised from the golf course and added to the Nature Reserve was through the Federal Golf Course Community Panel stakeholder consultation process, preparation of a Social Impact Assessment and a subsequent public interest test. The Community Panel process did not resolve this matter. It is now imperative that the Integrated Planning process provides for the inclusion of the NW 12.5 hectares of woodland in the Nature Reserve.

The NW 12.5 hectares of critically endangered Yellow Box-Red Gum grassy woodland contains 2,675 native woodland trees over a grassy understorey and has a very high plant richness. The area is contiguous with the FGC lease area. Of the 121 woodland plant species recorded on the land, 35 are considered by the Commonwealth Government as important species of the woodland vegetation type, while 48 species are considered to be of very high significance under the species and habitat protection systems used by the ACT and NSW environmental authorities to assess a site's floristic value. Around 400 of the trees in the area are large with hollows and include trees up to 300 years old. Many species of birds and animals breed in the hollows.

It is acknowledged that it will be necessary for the FGC to reconfigure parts of the golf course in order to enable the development of a 125 unit retirement village. However, even if the NW 12.5 hectares is included in the Nature Reserve this still leaves around 73 hectares of land available to the FGC. Most 18-hole golf courses are located on 40-50 hectares of land. It also needs to be remembered that when the retirement village proposal for the northern part of the golf course was referred for consideration under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) it was determined to be a controlled action requiring assessment and approval. The controlled action decision was made primarily because of a likely significant impact on critically endangered woodland. It is likely that

any proposal which involves damage or destruction of an area of the NW 12.5 hectares will also be determined to be a controlled action under the EPBC Act.

In order to settle this long running important matter and to secure the protection of the NW 12.5 hectares of critically endangered woodland the Integrated Plan needs to provide for the woodland to be included in the Nature Reserve.


In relation to the prospective retirement village development in the southern part of the FGC lease area a great deal of work needs to be undertaken to guarantee the protection of the environmental values and residential amenity of the area. Both this southern part of the FGC lease area and the adjacent Hughes/Garran Public Open Space, through which a driveway may be built, contain many mature and hollow-bearing trees which are vital habitat for a number of animal and bird species including Gang-gang cockatoos. The FGC lease area is part of the largest Little Corella roost in Canberra and also the site for a large Sulphur-crested Cockatoo roost.

It is vital that the Hughes Residents Association, the Hughes Garran Woodland Group along with potentially affected Hughes and Garran residents are properly engaged as early as possible in the planning process for the prospective retirement village and the associated access driveway. This consultation and planning process will need to focus on the protection of trees and associated flora and fauna in the area, the protection of residential amenity and the proper management of traffic impacts. It is also important that before any development work is undertaken that studies are carried out with a view to maintaining the integrity and value of the wildlife corridor between the prospective development area and the adjoining Hughes Garran woodland. The early engagement with the community needs to involve the FGC, MBark or any other development entity and the Directorate.

We thank you and your team for the work you have undertaken on the development of the Integrated Plan and look forward to hearing from you on these important issues.


Yours sincerely


  
Director  
Conservation Council

  
Co-Convenor  
Garran and Hughes  
Residents' Association

  
Convenor  
Hughes Residents' Association

  
President  
Deakin Residents' Association

  
Convenor  
Hughes Garran  
Woodland Group

  
President  
Red Hill Regenerators

29 August 2019

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**From:** Sayers, Caroline  
**Sent:** Friday, 6 September 2019 1:27 PM  
**To:** [REDACTED]  
**Subject:** RE: Red Hill Integrated Plan [SEC=UNCLASSIFIED]

Hi [REDACTED]

It's currently with the Executive. I will get back to you when I get their advice.

Thanks  
Caroline

---

**From:** [REDACTED]  
**Sent:** Friday, 6 September 2019 12:55 PM  
**To:** Sayers, Caroline <Caroline.Sayers@act.gov.au>  
**Subject:** FW: Red Hill Integrated Plan [SEC=UNCLASSIFIED]

Hello Caroline

It would be great if you could respond to my question below by Monday. I am attending a meeting of anxious and annoyed residents where one my aims will be to provide them with accurate information about the current situation and correct the misinformation they have received. I do not want to mislead them regarding the content of the draft plan which will be publicly notified.

Kind Regards  
[REDACTED]

---

**From:** [REDACTED]  
**Sent:** Thursday, 5 September 2019 12:17 PM  
**To:** 'Sayers, Caroline' <[Caroline.Sayers@act.gov.au](mailto:Caroline.Sayers@act.gov.au)>; 'Brady, Erin' <[Erin.Brady@act.gov.au](mailto:Erin.Brady@act.gov.au)>  
**Cc:** 'Kaucz, Alix' <[Alix.Kaucz@act.gov.au](mailto:Alix.Kaucz@act.gov.au)>  
**Subject:** RE: Red Hill Integrated Plan [SEC=UNCLASSIFIED]

Thanks Caroline

Am I right to assume that the FGC feedback will not result in any changes to the draft plan discussed with community organisations, and which will be publicly notified?

Kind Regards  
[REDACTED]

---

**From:** Sayers, Caroline <[Caroline.Sayers@act.gov.au](mailto:Caroline.Sayers@act.gov.au)>  
**Sent:** Thursday, 5 September 2019 10:27 AM  
**To:** [REDACTED] Brady, Erin <[Erin.Brady@act.gov.au](mailto:Erin.Brady@act.gov.au)>  
**Cc:** Kaucz, Alix <[Alix.Kaucz@act.gov.au](mailto:Alix.Kaucz@act.gov.au)>  
**Subject:** RE: Red Hill Integrated Plan [SEC=UNCLASSIFIED]  
**Importance:** High

Hi [REDACTED],

Yes you are correct. The Golf Club lodged their feedback this week. We now intend to proceed with the full public notification of the draft plan. Public submissions will be invited and considered prior to finalising the plan.

I hope this helps.

Thanks  
Caroline

---

**From:** [REDACTED]  
**Sent:** Thursday, 5 September 2019 10:15 AM  
**To:** Brady, Erin <[Erin.Brady@act.gov.au](mailto:Erin.Brady@act.gov.au)>; Cusack, Kathy <[Kathy.Cusack@act.gov.au](mailto:Kathy.Cusack@act.gov.au)>; Sayers, Caroline <[Caroline.Sayers@act.gov.au](mailto:Caroline.Sayers@act.gov.au)>  
**Subject:** FW: Red Hill Integrated Plan

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In relation to the attached letter it would be also helpful to let the residents know that the importance of early engagement with the community has been raised with FGC/MBark and that this will occur (if MBark intend to proceed with a development).

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[Redacted]

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**Cc:** [Redacted]  
**Subject:** Red Hill Integrated Plan

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It is imperative that the Red Hill Integrated Plan provides for the NW woodland area to be included in the Red Hill Nature Reserve. In relation to the need for conservation measures in the southern part of the lease area, given that preliminary investigatory work is being undertaken on the possible siting of the prospective retirement village and access driveway, FGC MBark and the Directorate need to now engage with the community on their concerns and needs.

Kind Regards  
[Redacted]  
[Redacted]

GAHRAG

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## Red Hill Integrated Plan – Stakeholder comments

No	Stakeholder	Comment	Response
1	Hindmarsh group	Verbal discussion - Rezone the entire block green for ease of acquisition	agreed
2	Six community groups	Retain 12.5ha critically endangered woodland in the northwest corner of the Golf course and include it in the nature reserve	Agreed in part. This woodland could be used by the golf club as an environmental offset for development on the balance of the site.
3	Federal Golf Club	Retain the right to develop PRZ2 zone uses allowing for golf tourism and accommodation and the like.	Agreed in part. The uses should be directly related to the operation of the golf club and should not be permitted in the southern portion of the golf course.
4	Federal Golf Club	Some PRZ1 urban open space zoned land will be lost for the development of the access road off Kitchener Street	Noted. The plan will reflect this.
5	Federal Golf Club	An internal access drive could be provided from Kitchener Street to the site originally proposed for the retirement village.	Disagree. The southern portion of the golf course is more suitable for residential retirement village than the original site.
6	Federal Golf Club	Increase flexibility with the number of units in retirement village rather than limiting it to 125 units.	Disagree. The development should be limited in extent to: <ul style="list-style-type: none"> <li>• Maximise future use of the site for the golf course and other PRZ2 zoned uses.</li> <li>• Protect ecological values on the site</li> <li>• Minimise impacts on surrounding residential areas and road networks</li> <li>• Provide community certainty.</li> </ul>
7	Federal Golf Club	Development is mostly likely to occur along the western boundary of the golf course. This increases separation to residential areas. It may impact on the proposed buffers. However the final location and design will be determined after ecological and other assessments.	Noted and agreed in part. The buffer along the western boundary is intended to maintain and consolidate a corridor between the Nature Reserve and the Hughes bushland. Clearly the development is going to involve a trade-off between: <ul style="list-style-type: none"> <li>• Protecting ecological values on the site</li> <li>• Minimising the need to reconfigure the golf course</li> <li>• Minimising potential impacts on adjoining residence.</li> </ul> It is anticipated that the commonwealth environment protection and biodiversity legislation will be triggered and suitable offsets identified. The results of this process, along with the various studies will ultimately determine the actual location and design of the development.
8	Six community groups	Protect the existing ecological values in the southern part of the golf course. Most 18 hole golf courses require 40-50ha. This one has 73 ha.	Noted and agreed in part. As discussed in relation to item 7 above.



## Transport Study Report

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# Red Hill Reserve Surrounds Update

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Reference No. A1896053  
Prepared for EPSDD  
10 September 2019

## Document Control

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Revision Number:	3

## Revision History

REVISION NO.	DATE	PREPARED BY	REVIEWED BY	APPROVED FOR ISSUE BY
0	13 May 2019			
1	28 June 2019			
2	2 August 2019		For discussion	
3	10 September 2019			

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Approved by:			
Address:			
Signature:			
Tel:		Fax:	(02) 6234 1966
Email:		Website:	<a href="http://www.smec.com">www.smec.com</a>

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The report supersedes all previous draft or interim reports, whether written or presented orally, before the date of this report. This report has not and will not be updated for events or transactions occurring after the date of the report or any other matters which might have a material effect on its contents or which come to light after the date of the report. SMEC is not obliged to inform you of any such event, transaction or matter nor to update the report for anything that occurs, or of which SMEC becomes aware, after the date of this report.

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# Executive Summary

## Introduction

SMEC was commissioned by EPSDD to update earlier analysis using the Canberra Strategic Transport Model (CSTM) to evaluate the likely road network impacts of residential developments in Section 66 Deakin and Section 56 Red Hill on the surrounding road network.

The CSTM has recently been recalibrated to 2016 conditions and new road connection options for the proposed development in Section 56 Red Hill have also been developed. EPSDD has therefore requested an update to the earlier assessment.

Figure ES-1 shows the context area for this study, including intersections selected for assessment, Red Hill development areas and access roads for Scenarios 6 and 7.

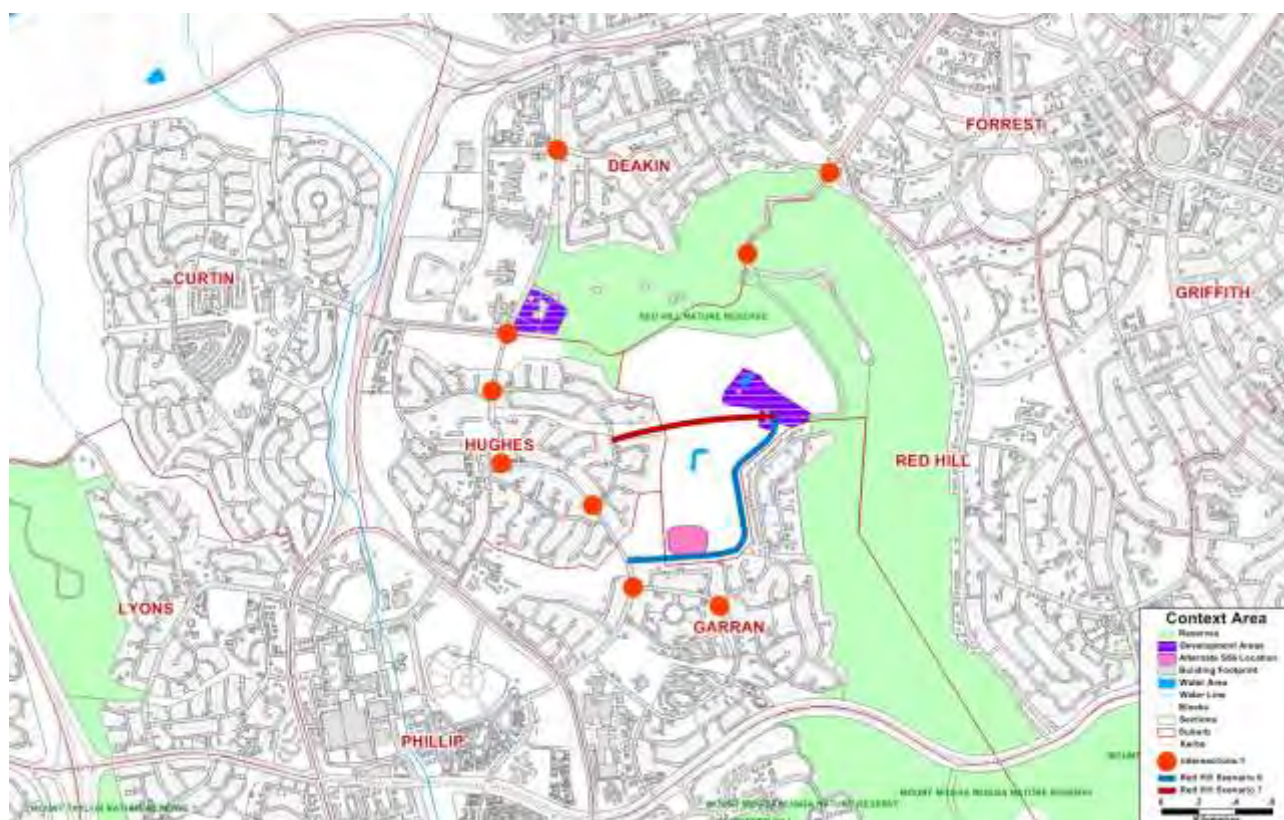


Figure ES-1: Context Area

## Strategic Transport Modelling

The Red Hill Reserve Surrounds Traffic Study aims to determine the impact of various road network options alongside additional land use in both development areas. In addition to an updated base case using the recalibrated CSTM, two combinations of land use and road network changes were evaluated, using strategic transport modelling methods:

- **Base Case (CSTM 2011):** Land use and transport network assumptions for 2031 without the proposed developments using the previous CSTM calibrated to 2011 conditions
- **Base Case (CSTM 2016):** Current land use and transport network assumptions for 2031 using the CSTM calibrated to 2016 conditions. This scenario also assumes no developments in the Section 66 Deakin and Federal Golf Club sites
- **Scenario 6:** Base Case plus Mbark-Federal Golf Club Development and Section 66 Deakin Development, with access via a new road connecting to Birdwood Street, Hughes. Existing access to the Federal Golf Club via Gowrie Drive is removed.

- **Scenario 7:** Base Case plus Mbark-Federal Golf Club Development and Section 66 Deakin Development, with access via a new road connecting to Kitchener Street, Hughes. Existing access to the Federal Golf Club via Gowrie Drive is removed.

The strategic transport modelling analysis found the following:

- Section 56 Red Hill generates a minimal amount of additional traffic and thus its impact on the network is minor. Connecting to either Birdwood Street or Kitchener Street is unlikely to have any substantial impact on congestion.
- The CSTM suggests that Kent Street will already be close to its nominal capacity in 2031. The additional traffic generated by Section 66 Deakin results in some minor traffic diversions, particularly along Denison Street in the PM peak, as existing Kent Street traffic is displaced by the new development traffic. Some form of traffic calming and upgrades to intersections along Kent Street will likely be required in future.

## Crash Analysis

A preliminary crash analysis was conducted using crash data records obtained from the dataACT Open Data Portal. Crashes around the key intersections in the study area were assessed and compared to the counted traffic volumes. For the nine intersections surveyed, crash rates range from 0.22 to 1.31 crashes per million vehicle movements. The analysis indicated that the intersection of Gowrie Drive with Red Hill Drive has the highest crash rate. For both scenarios tested in this report, Gowrie Drive is assumed to be closed, which would remove traffic from this dangerous intersection. The location with the next highest crash rate is the intersection of Carruthers Street and Kent Street with 0.55 crashes per million vehicle movements. This intersection has high traffic volumes and requires turning vehicles to cross multiple lanes of traffic. Interventions at this location should be considered.

A brief assessment of crashes over time by road condition, time of day and severity was also carried out. No intersection showed a clear trend of increases in the occurrence of crashes. The intersection of Kitchener Street and Birdwood Street appeared to show a decrease since 2012, with no crashes recorded since 2015. None of the intersections showed a clear increase in the occurrence of crashes during wet weather. The intersection of Kent Street and Kitchener Street showed an abnormally high proportion of crashes at night, which might indicate need for better lighting at this location. While all other intersections had less than 10% of crashes resulting in injury or fatality, the intersection of Gowrie Drive with Red Hill Drive had 100% of crashes resulting in injury. This is an extremely small sample size, however the risks at this intersection are clearly demonstrated.

## Public Transport and Active Travel Assessment

Proximity to public transport stops was assessed qualitatively for the proposed development and surrounding areas was assessed using the new Network 19, which came into effect on 29 April, 2019. A bus stop is adjacent to the Section 66, Deakin development, providing access to Civic and Woden. Section 56, Red Hill has no access to public transport. The areas surrounding the development generally have reasonable access but the northern part of Brereton Street does not have any access. Note that Network 19 is not yet incorporated in the CSTM.

The active travel network around the proposed developments is well connected. However, the footpath on Brereton Street providing access to Section 56, Red Hill is narrow and has many interruptions. It is recommended that good walking and cycling access be provided on either of the new roads proposed in Scenario 6 or 7.

## Intersection Assessment

As part of this project, intersection turning movement counts were collected at nine intersections within the study area in 2018 and 2019:

1. Mugga Way/Stonehaven Crescent – Gowrie Drive/Melbourne Avenue
2. Gilmore Crescent – Brereton Street
3. Kitchener Street – Gilmore Crescent
4. Kent Street – Carruthers Street
5. Kent Street – Strickland Crescent

6. Gowrie Drive – Red Hill Drive
7. Kitchener Street – Birdwood Street
8. Kent Street – Birdwood Street
9. Kent Street – Kitchener Street

The surveys covered the weekday AM and PM peak periods and a qualitative analysis of the intersections and connected roads was conducted based on these traffic counts.

### Intersection Analysis

- The Mugga Way/Stonehaven Crescent – Gowrie Drive/Melbourne Avenue intersection performance is unlikely to be affected by the proposed development and access in the scenarios tested in this report. Unbalanced flows at this intersection could lead to high delays for some approaches and further monitoring or assessment of this intersection might be required.
- The Gilmore Crescent – Brereton Street intersection currently has a low level of traffic and would experience no change in the scenarios tested in this report.
- The Kitchener Street – Gilmore Crescent intersection currently carries moderate levels of traffic and its volumes would increase only slightly in the scenarios tested in this report. No issues are expected at this location.
- The Kent Street – Carruthers Street intersection currently experiences a significant amount of traffic, with performance for low priority movements likely to be poor during the peak periods, potentially leading to increased risky behaviour. Austroads standards suggest that an intersection of this type should not be priority controlled and signalisation should be considered to better control the performance and safety at this intersection.
- The Kent Street – Strickland Crescent intersection also currently experiences a significant amount of traffic, especially considering its current roundabout configuration. It is likely operating close to its capacity during the peak periods and the additional traffic generated by Section 66, Deakin could be enough to push it to an unacceptable level of performance. Signalisation might be necessary to manage performance and improve access for pedestrians and cyclists in the area.
- The Gowrie Drive – Red Hill Drive intersection carries very little traffic. The busiest period is the Wednesday midday golf course peak of 81 vehicles per hour, of which only half are travelling to or from the golf course. This very low level of traffic likely contributes to the low number of accidents, although the accident rate is very much higher than other intersections in the area. For the scenarios tested in this report, it is assumed that Gowrie Drive is closed. If this does not occur, interventions to improve safety at this location should be investigated.
- The intersection of Kitchener Street and Birdwood Street is generally low and only increases slightly for both scenarios tested. It is unlikely that any interventions would be required at this intersection.
- Traffic volumes at the intersection of Kent Street with Birdwood Street are moderate, and there could be some delays for traffic turning out of Birdwood Street, particularly in the PM peak. If Scenario 6 is adopted, some upgrades at this intersection might be necessary.
- Traffic at the intersection of Kent Street and Kitchener Street is moderate and a small amount of additional traffic would use this intersection in both scenarios. However, it is likely that the existing intersection has sufficient capacity.

### Road Analysis

- Brereton Street carries very little traffic, currently fewer than 2,000 vehicles per day. No additional traffic would use this road in either scenario tested in this report.
- Gilmore Crescent between Brereton and Kitchener Streets currently carries just over 4,000 vpd, by which classification it operates as a major collector. No additional traffic would use this road in either scenario tested in this report.
- Kent Street carries a lot of traffic, with demand greatest between Carruthers Street and Strickland Crescent, due to the concentration of trip generators within this section. The additional land use at Section 66, Deakin accesses the network between these two points, adding traffic to a section of road that is likely already congested.

- Birdwood Street, while narrow, does not currently carry substantial traffic and the development scenarios would not significantly increase traffic. The volumes on this road do not suggest any capacity issues, except for the possible congestion at the intersection of Birdwood Street and Kent Street.
- Kitchener Street carries a moderate amount of traffic, with some traffic calming measures already implemented. In the scenarios tested in this report, there is a small increase in traffic but this is not expected to lead to any serious performance issues.

## Comparison of Access Options

The access options considered for SMEC's previous study (*Red Hill Reserve Surrounds Traffic Study*, SMEC 2018) and this study have been compared using basic ratings against several criteria, including:

- Carriageway width
- Safety
- Road capacity
- Proportional increase over existing traffic
- Intersection operation/feasibility
- Pedestrian access (could be along a separate route)
- Impact on residents (number of affected residents and proximity to proposed access route)
- Planning constraints related to access, including fire and emergency access
- Ease of design/construction

It was found that access via Brereton Street offered the highest score against these criteria, closely followed by Kitchener Street and Birdwood Street. Access via Gowrie Drive scored very poorly.

## Alternative Section 56 Development Location

Many of the challenges related to the proposed development of Section 56 (Federal Golf Course), including vehicular access, PT access and active travel, are due to the location of the development near the club house or near the centre of the golf course site. Locating the proposed development requires the retention or upgrade of Gowrie Drive or provision of alternative access via lengthy routes. These routes include existing roads (Brereton Street) or new connections to Birdwood Street or Kitchener Street, which require new roads through the golf course. Based on the assessment carried out in this study, the preferred access scenario is Scenario 2 (access via Brereton Street).

During the course of this study, the EPSDD project team proposed responding to the identified challenges, including environmental values, emergency access, pedestrian and cycle access, traffic and vehicular access issues, by suggesting that the proposed development be located at the southern end of the golf course, near Kitchener Street.

This alternative location has the major advantage of a much shorter access route via Kitchener Street, as well as other planning and environmental advantages. Although the additional traffic generated by the development still affects existing streets, the impact of the additional traffic is limited to Kitchener Street, a collector street, rather than lower order access streets.

The shorter access road to Kitchener Street is considered preferable to the long access road considered in Scenario 7. Detailed consideration of this new option is not in the scope of this study but the traffic impacts would be substantially the same as Scenario 7. It is expected that this shorter Kitchener Street access option would rank highest in the options comparison based on improved scores for impact on residents and ease of design and construction criteria, compared to the long access Kitchener Street option that ranked third.

## Summary and Conclusions

The findings of this report include:

- Additional traffic generated by the proposed developments at Section 66, Deakin and Section 56, Red Hill do not significantly increase traffic volumes in the future, for either of the scenarios tested in this report, but traffic capacity issues are evident on existing streets.

- The intersection of Gowrie Drive with Red Hill Drive shows an accident rate and severity much higher than all other intersections in the area. Alternative access to the golf course should be provided (as in both Scenarios 6 and 7) or the intersection should be upgraded. It is noted that a previous study in 2014 investigated four possible upgrade options, but none of these options met the minimum sight lines required by Austroads.
- The intersection of Kent Street and Kitchener Street showed a higher than expected proportion of night time crashes. Further assessment of lighting at this location should be undertaken.
- Kent Street operates close to capacity and upgrades will be required with increased traffic volumes in the future, particularly at its intersections with Birdwood Street, Carruthers Street and Strickland Crescent.
- Birdwood Street or Kitchener Street each have sufficient capacity to carry the increased traffic from Section 56, Red Hill. However, the intersection of Birdwood Street and Kent Street is likely to perform worse than the intersection of Kitchener Street and Kent Street so Scenario 7 might be slightly preferable to Scenario 6.

The traffic analysis for these two proposed developments indicates that they have distinct impacts on the road network, and therefore further detailed traffic assessments for each development can be assessed independently.

## Challenges

- Kent Street traffic is heavy, which is likely to cause problems at some intersections, particularly Carruthers Street and Strickland Crescent.
- The Section 66, Deakin development would increase delay on Kent Street and lead to a small diversion in traffic onto Denison Street.

## Recommendations

Based on the outcomes of the transport modelling and analysis, SMEC recommends the following:

- Consider the benefits to access and traffic impacts of relocating development to the southern edge of the site, with access from Kitchener Street. This option appears to have benefits and further assessment is warranted.
- Scenario 2 (access via Brereton Street) is the highest ranked option and preferred option if the location of the proposed development remains near the existing clubhouse. The alternate scenario (short access via Kitchener Street) should also be included for further assessment, as it is expected that this option would score higher than Brereton Street in the comparison.
- Investigation of upgrade options for intersections on Kent Street, to address both performance and safety concerns, including:
  - Assess lighting at the intersection of Kent Street and Kitchener Street
  - Assess capacity improvements at Birdwood Street, Carruthers Street, Strickland Crescent
- Investigation of options to improve the performance and/or reduce the attractiveness of the Kent Street corridor, to encourage traffic to use Yarra Glen and Adelaide Avenue for north/south travel. Possible options include speed reduction or construction of one or more additional roundabouts to reduce the priority for north-south traffic along the corridor and wombat crossings to improve pedestrian permeability. Any changes to the corridor should also consider Light Rail Stage 2, which is expected to run along the Adelaide Avenue/Yarra Glen corridor.
- Closure or upgrade of the intersection of Gowrie Drive and Red Hill Drive (dependant on whether Scenario 6, 7 or another option is selected)
- Any new road(s) provided for the preferred option should include good active travel facilities and meet relevant emergency services design standards
- Cost estimates for road and intersection upgrades
- Ensure good pedestrian access to the Kent Street bus stops from Section 66, Deakin.

# 1 Introduction

SMEC was commissioned by the Environment, Planning and Sustainable Development Directorate (EPSDD) to extend modelling and assessment work for two land use developments adjacent the Red Hill Nature Reserve undertaken in 2018. These developments are in Section 66, Deakin and part Section 56, Red Hill. These developments have already been the subject of traffic impact studies, by Opus in 2017 and Graeme Shoobridge Advisory Services (GSAS) in 2018, respectively. In addition, an options analysis for critical safety upgrades to the intersection of Red Hill Drive and Gowrie Drive, which provides access to the Red Hill site, was conducted by AECOM in 2014.

The Section 66, Deakin adds a medium density residential development including 256 dwellings, preserving the existing office buildings.

The Section 56, Red Hill development is a redevelopment of the land currently occupied by the Federal Golf Club's existing clubhouse and will include a new clubhouse and facilities, along with an active seniors and retirement village containing 125 dwellings.

The previous studies undertaken by other consultants looked at largely localised traffic issues. SMEC then undertook an analysis of the wider area network implications and consequences of a number of road network options supporting the developments using the Canberra Strategic Transport Model (CSTM).

This study summarises the findings of SMEC's earlier report and assesses two additional road network options using the most recent version of the CSTM. Also included is a qualitative assessment of selected intersections, a crash analysis and a brief assessment of active travel and public transport coverage in the area.

The context area covered by this study are shown in Figure 1.

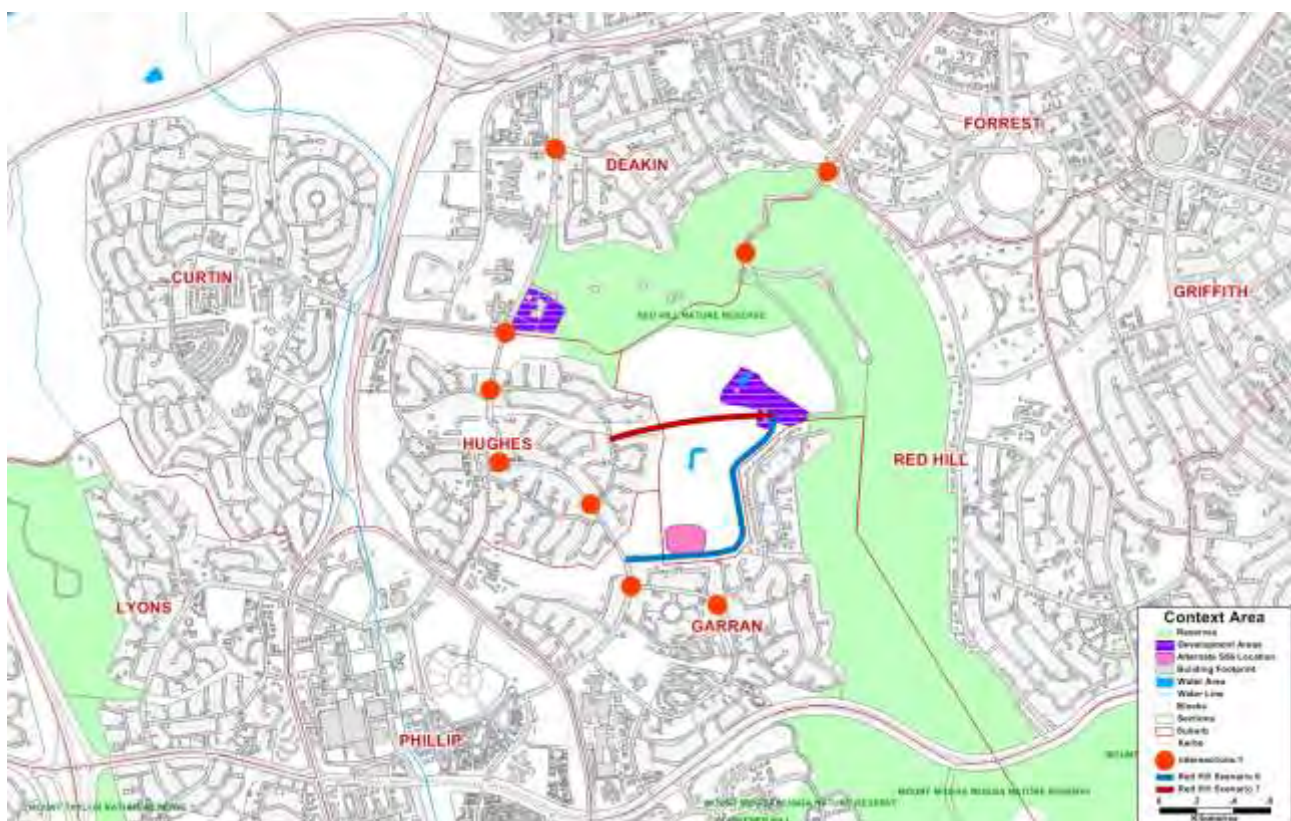


Figure 1: Context Area

## 2 Strategic Transport Modelling

The analysis has been conducted using the Canberra Strategic Transport Model (CSTM), updated in 2018-19 using the 2016 Census and 2017 ACT Household Travel Survey. This model contains a complete representation of the urban road networks of Canberra, Queanbeyan, Murrumbateman and Yass.

The model is an equilibrium model, in which travel decisions (origin/destination, mode, route etc.) are related to cost, where the cost of travel is minimised for every road user. As such, any changes to the model inputs and assumptions can have impacts far from where the change was made, the severity decreasing with distance, as the traffic adjusts and redistributes to minimise the individual user costs.

The modelling was conducted for the 2031 AM and PM peak periods and included modelling of the traffic impacts of both Section 56, Red Hill and Section 66, Deakin, assessing two new access options developed following the modelling works undertaken by SMEC in 2018.

### 2.1 Summary of Previous Modelling

The Red Hill Reserve Surrounds Traffic Study conducted by SMEC in 2018 aimed to determine the impact of various road network options alongside additional land use in both development areas. In addition to a base case, five combinations of land use and road network changes were evaluated, using the CSTM calibrated to 2011 conditions:

- **Base Case:** The current land use and transport network assumptions for 2031. This scenario assumes no developments in the Section 66, Deakin and Section 56, Red Hill sites
- **Scenario 1:** Base Case plus Section 56, Red Hill with access from Gowrie Drive only
- **Scenario 2:** Base Case plus Section 56, Red Hill with access from Brereton Street only
- **Scenario 3:** Base Case plus Section 56, Red Hill with access from both Gowrie Drive and Brereton Street
- **Scenario 4:** Base Case plus Section 66 Deakin
- **Scenario 5:** Base Case plus both developments, with the preferred access option selected from Scenarios 1-3 (access from Gowrie Drive only was selected)

The previous strategic transport modelling analysis found the following:

- Section 56 Red Hill generates a minimal amount of additional traffic and thus its impact on the network is insignificant. However, the major issue with this route option is the existing safety issues surrounding the geometry of Gowrie Drive and its intersection with Red Hill Drive.
- Connecting to Brereton Street instead of Gowrie Drive (Scenario 2) would result in a modest increase in traffic on Brereton Street (~1,400 vpd), with the possibility of exceeding the traffic limit for Brereton Street's existing classification. This option has already met opposition from the community.
- Connecting both Gowrie Drive and Brereton Street (Scenario 3) opens a very attractive alternative north-south route between Woden Valley and South Canberra. This results in approximately 8,000 vpd additional traffic on both roads, which greatly exceeds the traffic limits for their respective classifications. This would also cause major safety issues and would meet strong resistance from the community.
- The CSTM suggests that Kent Street will already be close to its nominal capacity in 2031. The additional traffic generated by Section 56 Deakin pushes it to capacity and results in noticeable traffic diversions as existing Kent Street traffic is displaced by the new development traffic. Some form of traffic calming and upgrades to intersections along Kent Street will likely be required in future.

## 2.2 Model Scenarios

The modelling considered land use developments in two locations:

1. **Mbark-Federal Golf Club Development in Block 1 Section 56, Red Hill**  
Redevelopment of the club facilities and inclusion of an active seniors and retirement village
2. **Blocks 7 & 8 Section 66, Deakin**  
Redevelopment of the existing site for mixed residential and commercial use (existing offices will be retained)

The following scenarios were modelled and are presented in this report:

- **Base Case (CSTM 2011):** Land use and transport network assumptions for 2031 using the CSTM calibrated to 2011 conditions (as used in SMEC's 2018 study). This scenario assumes no developments in the Section 66 Deakin and Federal Golf Club sites.
- **Base Case (CSTM 2016):** Current land use and transport network assumptions for 2031 using the CSTM calibrated to 2016 conditions. This scenario also assumes no developments in the Section 66 Deakin and Federal Golf Club sites.
- **Scenario 6:** Base Case plus Mbark-Federal Golf Club Development and Section 66 Deakin Development, with access via a new road connecting to Birdwood Street, Hughes. Existing access to the Federal Golf Club via Gowrie Drive is removed.
- **Scenario 7:** Base Case plus Mbark-Federal Golf Club Development and Section 66 Deakin Development, with access via a new road connecting to Kitchener Street, Hughes. Existing access to the Federal Golf Club via Gowrie Drive is removed.

For the modelling task, eight scenarios were tested using different versions of the CSTM, as shown in Table 1.

Table 1: Modelled Scenarios

SCENARIO	2031 AM	2031 PM
Base Case (CSTM 2011)	✓	✓
Base Case (CSTM 2016)	✓	✓
Scenario 6 (CSTM 2016)	✓	✓
Scenario 7 (CSTM 2016)	✓	✓

## 2.3 Model Assumptions

### 2.3.1 Zone Structure

The development areas within Section 66 Deakin and Section 56 Red Hill respectively fall within the existing CSTM Zones 050304 and 051001, as shown in Figure 2. The location of the development areas and proposed access routes are also shown.

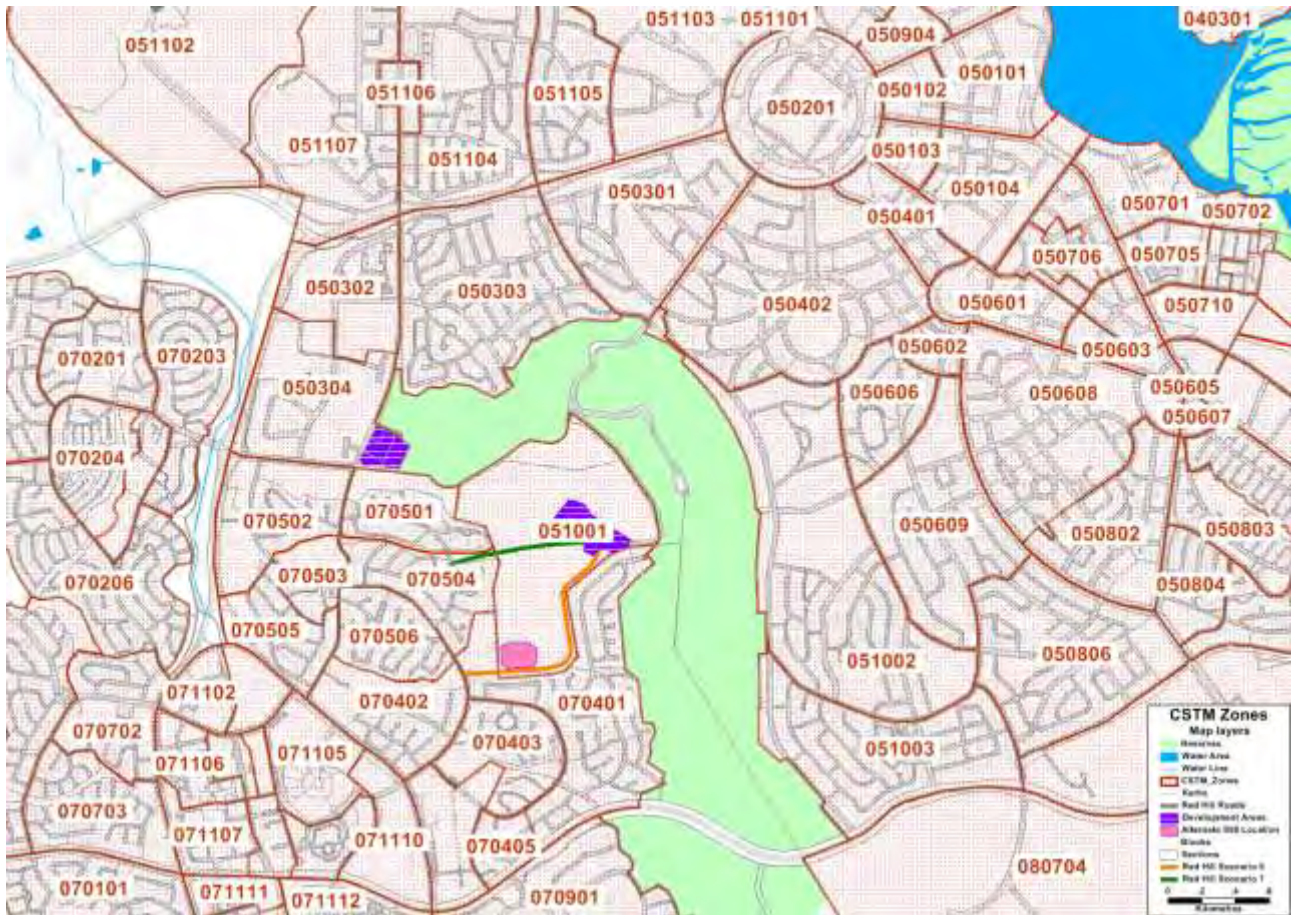


Figure 2: CSTM Zones in Development Areas

### 2.3.2 Road Network

The road network infrastructure improvements assumed to be present in each year from 2016 to 2041 have been confirmed with TCCS in 2018, when the current version of the CSTM was completed. Diagrams showing the upgrades in 2021 and 2031 are included in Appendix A.

Intersections are represented in the CSTM at a high level, with those that require vehicles to stop or give way being modelled through a reduction in capacity on the approaching roads. No discrimination is made by intersection control method.

A diagram showing the basic CSTM link attributes is included in Figure 3. The lane count is shown as line thicknesses, the signposted speed limit as shown as line colours and the hourly capacity is shown numerically.

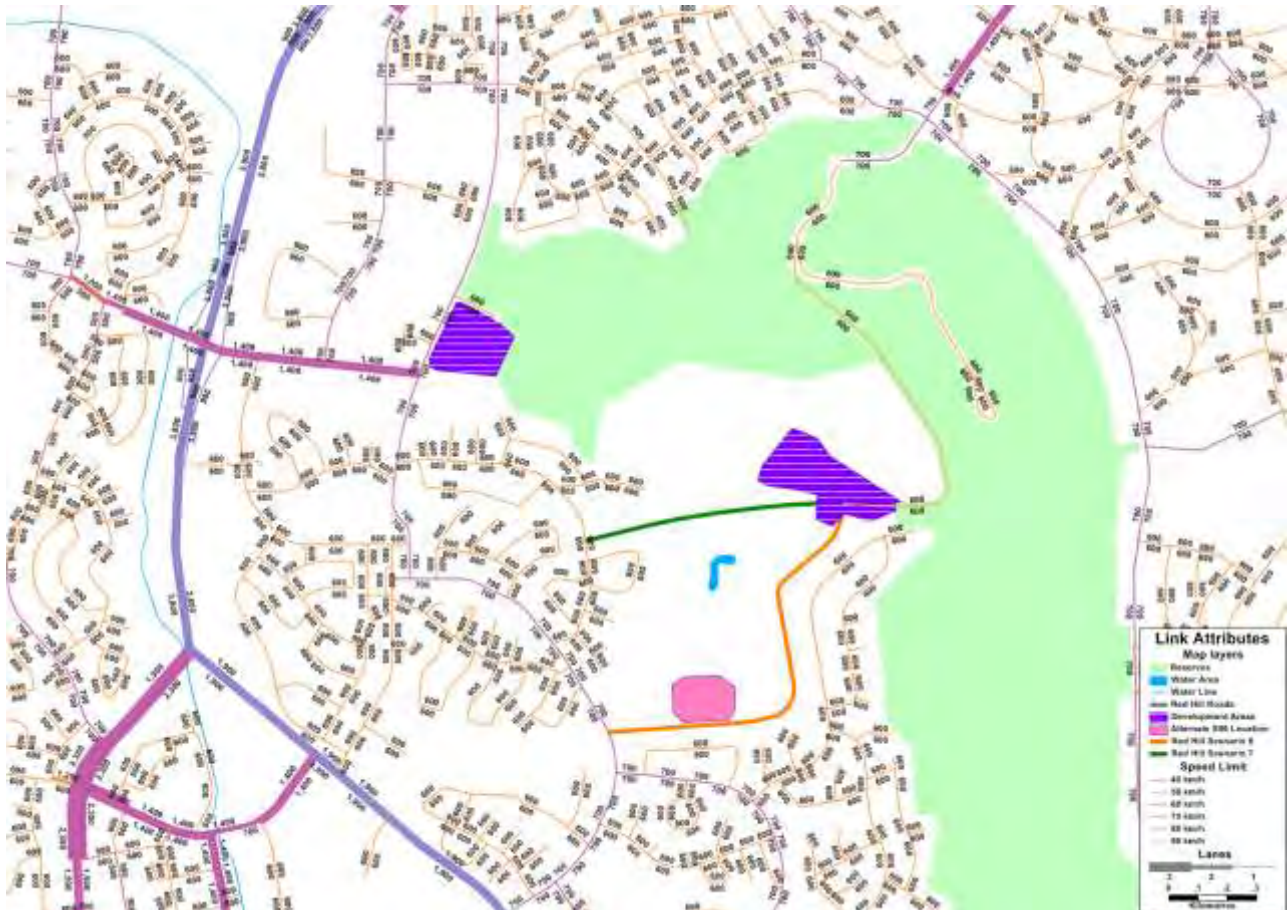


Figure 3: CSTM Basic Link Attributes

### 2.3.3 Public Transport

The public transport network in 2021 onwards is based on Transport Canberra's proposed Network 2018 provided to SMEC in March 2017, with the addition of Light Rail Stage 1 (LRS1) and the removal of bus routes operating along the LRS1 corridor. Light Rail Stage 2 (LRS2), assumed to be between Civic and Woden, is added in 2031.

### 2.3.4 Land Use

The base land use data was provided by TCCS and is dated 8 October 2018. The planned land use for 2031 (without the proposed developments) is shown in Table 2.

Table 2: CSTM 2031 Base Case Land Use

ZONE	DESCRIPTION	POPULATION	EMPLOYMENT	RETAIL SPACE	SCHOOL ENROLMENTS	TERTIARY ENROLMENTS
050304	Deakin	0	1,811	4,318	96	0
051001	Red Hill	0	42	0	0	0

The land use assumptions include the current understanding of the Yarralumla Brickworks development, as per the agreed land use in the CSTM.

## 2.4 Model Updates

### 2.4.1 Zone Structure

The developments within Section 56, Red Hill and Section 66, Deakin required the addition of Zones 050305 and 051004 to the CSTM, respectively. The updated zones are shown in Figure 4.

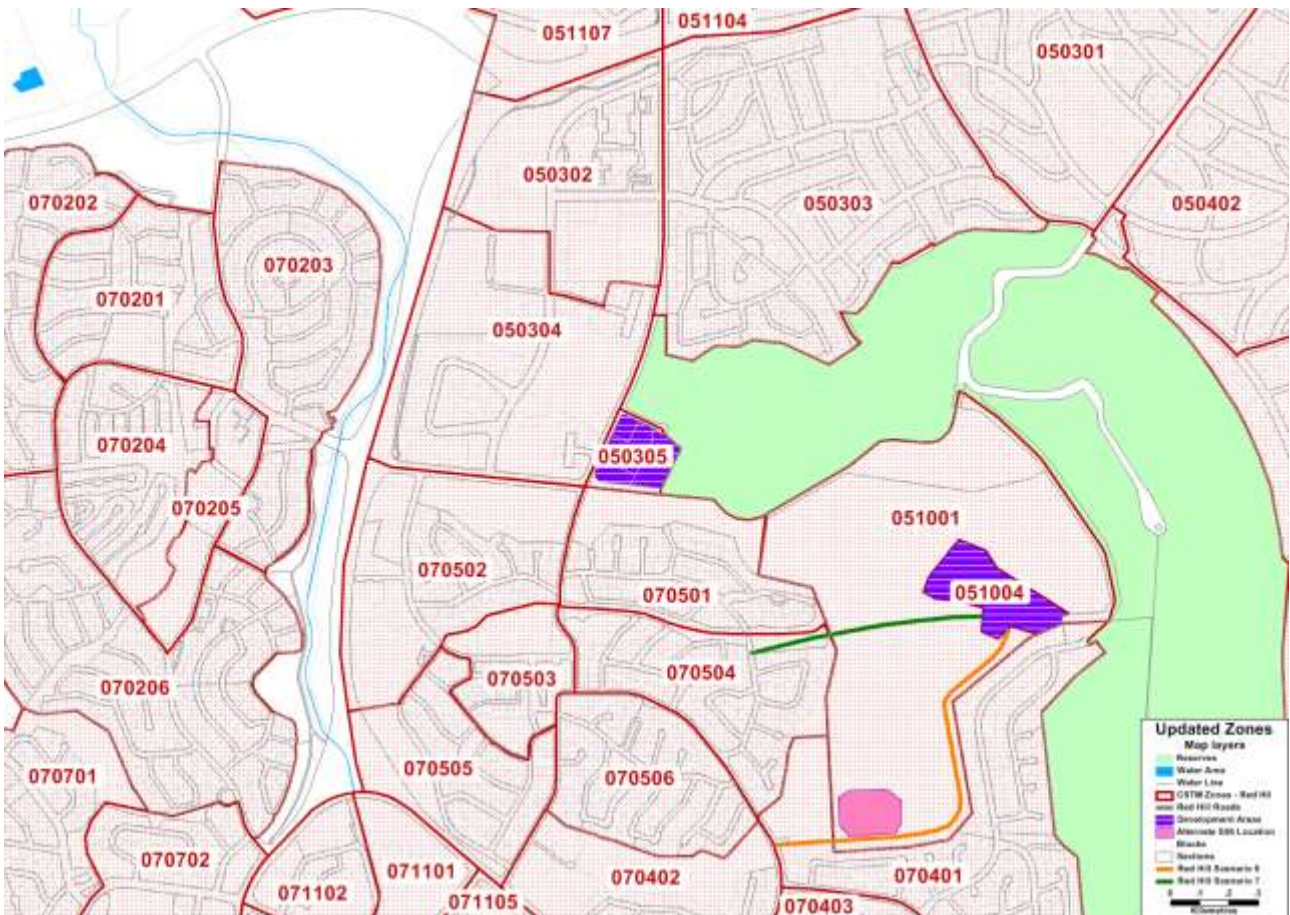


Figure 4: Updated Zone Layout

## 2.5 Land Use

The additional population in the new two zones was determined by calculating the average occupancy of each combination of dwelling type and size (number in bedrooms) for each suburb, using the 2016 Census records. The results of this process are shown in Tables 3 and 4. These values have been added to the CSTM, which has been allowed to conduct its standard trip generation and distribution procedures. In reality, the nature of the Section 56, Red Hill development (active seniors and retirees) is expected to generate less traffic than the average residential development. For this type of development, the RMS *Guide to Traffic Generating Developments* specifies 2 vehicle trips per day (250 total), 0.1 trips per AM peak (12.5 total) and 0.2 trips per PM peak (25 total). While this is a development for active seniors rather than an assisted care facility, the trip generation modelled by the CSTM should be treated as an upper limit to the expected traffic.

At the advice of EPSDD, the Section 66, Deakin development assumption shown in Table 3 has been reduced from 574 dwellings, as used by Opus, to 256 dwellings. The proportional distribution of dwelling types and sizes assumed by Opus has been retained.

Table 3: Section 66 Deakin Population Calculations

TYPE	BEDROOMS	COUNT	OCCUPANCY	POPULATION
Apartment	1	63	1.24	78
Apartment	2	175	1.90	332
Apartment	3	13	2.00	26
Townhouse	3	5	1.98	11
<b>Total</b>		<b>256</b>	<b>1.74</b>	<b>447</b>

Table 4: Section 56 Red Hill (Mbark) Population Calculations

TYPE	BEDROOMS	COUNT	OCCUPANCY	POPULATION
House	3	62	2.33	144
Apartment	1	9	1.18	11
Apartment	2	12	1.60	19
Apartment	3	18	2.89	52
Townhouse	2	12	1.47	18
Townhouse	3	12	2.83	34
<b>Total</b>		<b>125</b>	<b>2.22</b>	<b>278</b>

The population in Zones 050305 and 051004 in each scenario is given in Table 5. No changes have been made to the land use of any existing zones. This means that the trips generated by the proposed developments are added to the trips generated by the base land use forecasts for 2031.

Table 5: Zone Population by Scenario

ZONE	SCENARIO 6	SCENARIO 7
050305	278	278
051004	447	447

## 2.6 Strategic Transport Modelling Results

### 2.6.1 Aggregated Outputs

Tables 6 and 7 show bulk summary results for the Base case using the 2011 CSTM and the 2016 CSTM. After the recalibration to 2016 conditions and the updates to the 2031 scenario, there is a reduction in person trips of approximately 8%. However, there is a much larger reduction in HBW PT usage, and the forecast HBW PT mode share reduces to 12.8% from 16.8% in the AM peak. In the PM peak, HBW public transport usage increase from 7.7% to 13.4% in the recalibrated model. Recent changes to the bus network (implemented in April 2019) are not yet included in the CSTM and it is not yet known what impact these fundamental changes to PT travel in Canberra will have in the future. In both peak periods, the average car trip length increases from approximately 9.5 km to 12.5 km in the recalibrated model.

Table 6: 2031 AM Base Bulk Scenario Results

OUTPUT	BASE (CSTM 2011)	BASE (CSTM 2016)
Person Trips	200,612	183,461
PT Trips	22,476	19,104
Bicycle Trips	9,555	10,856
Car Trips	150,226	125,239
HBW PT Trips	8,266	9,416
HBW PT %	16.8%	12.8%
Car VKT	1,409,038	1,577,806
ΔVKT	-	+168,768
Car VHT	44,835	43,106
ΔVHT	-	-1,729

Table 7: 2031 PM Base Bulk Scenario Results

OUTPUT	BASE (CSTM 2011)	BASE (CSTM 2016)
Person Trips	174,833	166,815
PT Trips	9,155	14,961
Bicycle Trips	2,651	8,754
Car Trips	139,143	122,330
HBW PT Trips	3,345	11,359
HBW PT %	7.7%	13.4%
Car VKT	1,324,868	1,513,781
ΔVKT	-	+188,913
Car VHT	33,453	33,958
ΔVHT	-	+505

A summary of the bulk outputs of the models is included in Tables 8 and 9. The Red Hill and Deakin developments generate 216 additional person trips in the AM peak and 197 in the PM peak.

The change in Vehicle Kilometres Travelled (VKT) and Vehicle Hours Travelled (VHT) in each scenario is largely a reflection of the increased population. Of the 216 additional person trips in the AM peak, 8-9 use public transport and 16-17 use bicycle. The remainder travel by car. In the PM peak, of the 197 additional trips, 15-17 use public transport and 5-6 use bicycle.

In Scenario 6, there is an additional 1,210 car VKT and 62 car VHT in the AM peak with an additional 1,154 car VKT and 40 car VHT in the PM peak.

In Scenario 7, there is an additional 1,245 car VKT and 58 car VHT in the AM peak with an additional 1,221 car VKT and 40 car VHT in the PM peak.

Table 8: 2031 AM Bulk Scenario Results

OUTPUT	BASE (CSTM 2016)	SCENARIO 6	SCENARIO 7
Person Trips	183,461	183,677	183,677
PT Trips	19,104	19,112	19,113
Bicycle Trips	10,856	10,873	10,872
Car Trips	125,239	125,369	125,369
HBW PT Trips	9,416	9,415	9,416
HBW PT %	12.8%	12.8%	12.8%
Car VKT	1,577,806	1,579,016	1,579,051
ΔVKT	-	+1,210	+1,245
Car VHT	43,106	43,168	43,164
ΔVHT	-	+62	+58

Table 9: 2031 PM Bulk Scenario Results

OUTPUT	BASE (CSTM 2016)	SCENARIO 6	SCENARIO 7
Person Trips	166,815	167,012	167,012
PT Trips	14,961	14,978	14,976
Bicycle Trips	8,754	8,759	8,760
Car Trips	122,330	122,450	122,452
HBW PT Trips	11,359	11,371	11,370
HBW PT %	13.4%	13.4%	13.4%
Car VKT	1,513,781	1,514,936	1,515,002
ΔVKT	-	1,154	1,221
Car VHT	33,958	33,998	33,998
ΔVHT	-	40	40

## 2.6.2 Detailed Individual Scenario Results

Diagrams extracted from the CSTM showing hourly peak volumes and volume/capacity for each scenario, as well as peak volume differences for the scenarios, are shown below. Except for the Base Case, both the peak traffic and peak traffic difference (compared to the Base Case) are included for each scenario.

### 2.6.2.1 Base Case (CSTM 2011)

The Base Case hourly flow diagrams for 2031 AM and 2031 PM are shown below. Of the roads surrounding the development sites, significant traffic volumes can be seen on Adelaide Avenue, Kent Street and Stonehaven Crescent in both peak periods. The performance on Kent Street in particular suggests that intervention will be required at some of the intersections along its length. Currently, all are priority controlled, with two low-speed roundabouts. The traffic on Kent Street will cause performance and safety issues at the intersections and upgrades will likely need to be investigated.

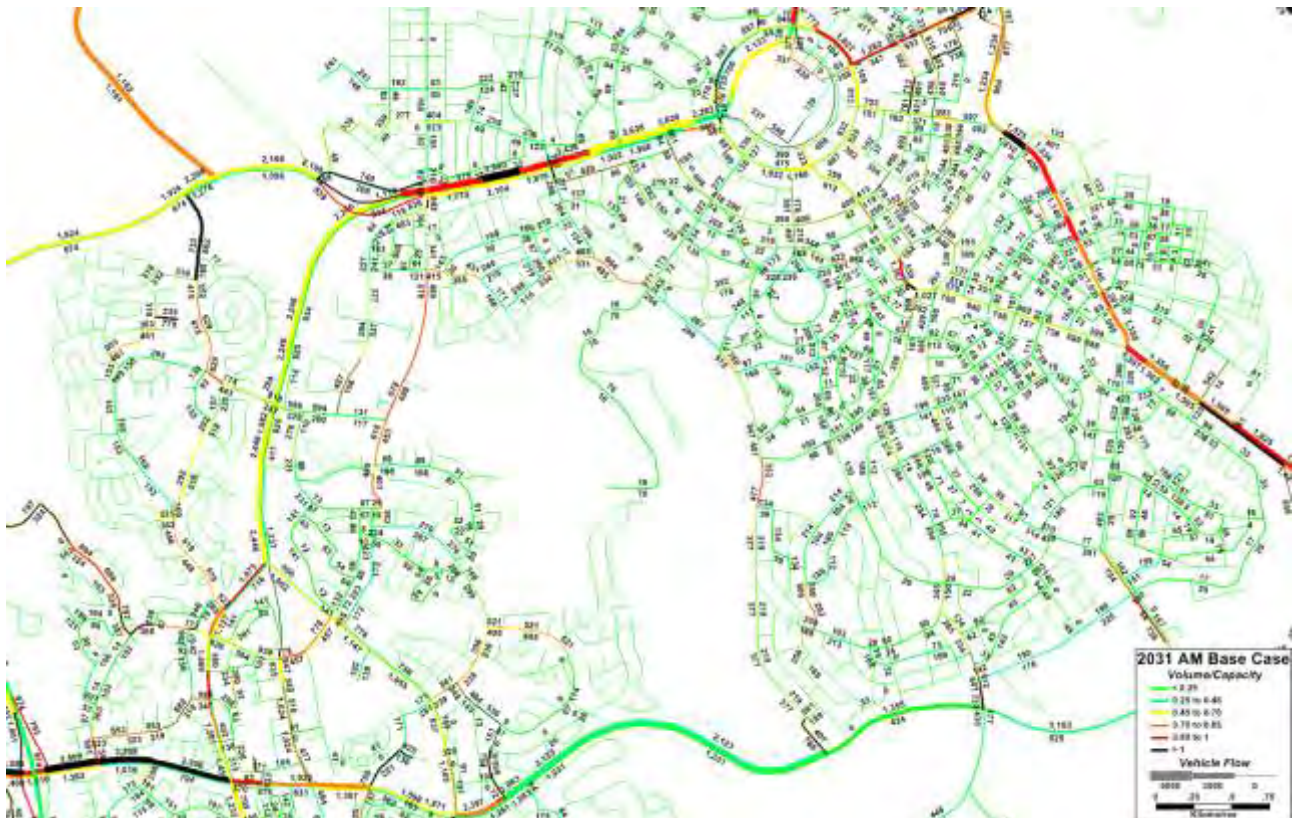


Figure 5: Base Case (CSTM 2011) 2031 AM Hourly Flow and V/C



Figure 6: Base Case (CSTM 2011) 2031 PM Hourly Flow and V/C

#### 2.6.2.2 Base Case (CSTM 2016)

The Base Case (CSTM 2016) hourly flow diagrams for 2031 AM and 2031 PM are shown in Figure 7 and Figure 8, respectively. Of the roads surrounding the development sites, significant traffic volumes can be seen on Adelaide Avenue, Yarra Glen, Stonehaven Crescent and Kent Street in both peak periods. The traffic on Kent Street will likely cause performance and safety issues at the intersections and upgrades will need to be investigated before 2031. Similarly, volumes on Stonehaven Crescent, west of Melbourne Avenue, are close to capacity and some interventions might be required before 2031.



Figure 7: Base Case (CSTM 2016) 2031 AM Hourly Flow and V/C



Figure 8: Base Case (CSTM 2016) 2031 PM Hourly Flow and V/C

A comparison of the traffic volumes for the 2031 AM and PM peak periods between the CSTM (2011) and CSTM (2016) are shown in Figure 9 and Figure 10, respectively. For most of the local roads around the study area, the differences between the models are relatively small. Larger differences are apparent on major roads, including Yarra Glen, Adelaide

Avenue, Cotter Road and Hindmarsh Drive. The 2016 CSTM also includes upgrades to the Cotter Road – Adelaide Avenue interchange, allowing all movements and direct access from Cotter Road to Denison Street. Given the small differences in modelled volumes on local roads around the developments, which is where most impact would be felt, it is considered that the findings from the earlier modelling are still current and can be compared to the findings from this current modelling activity.

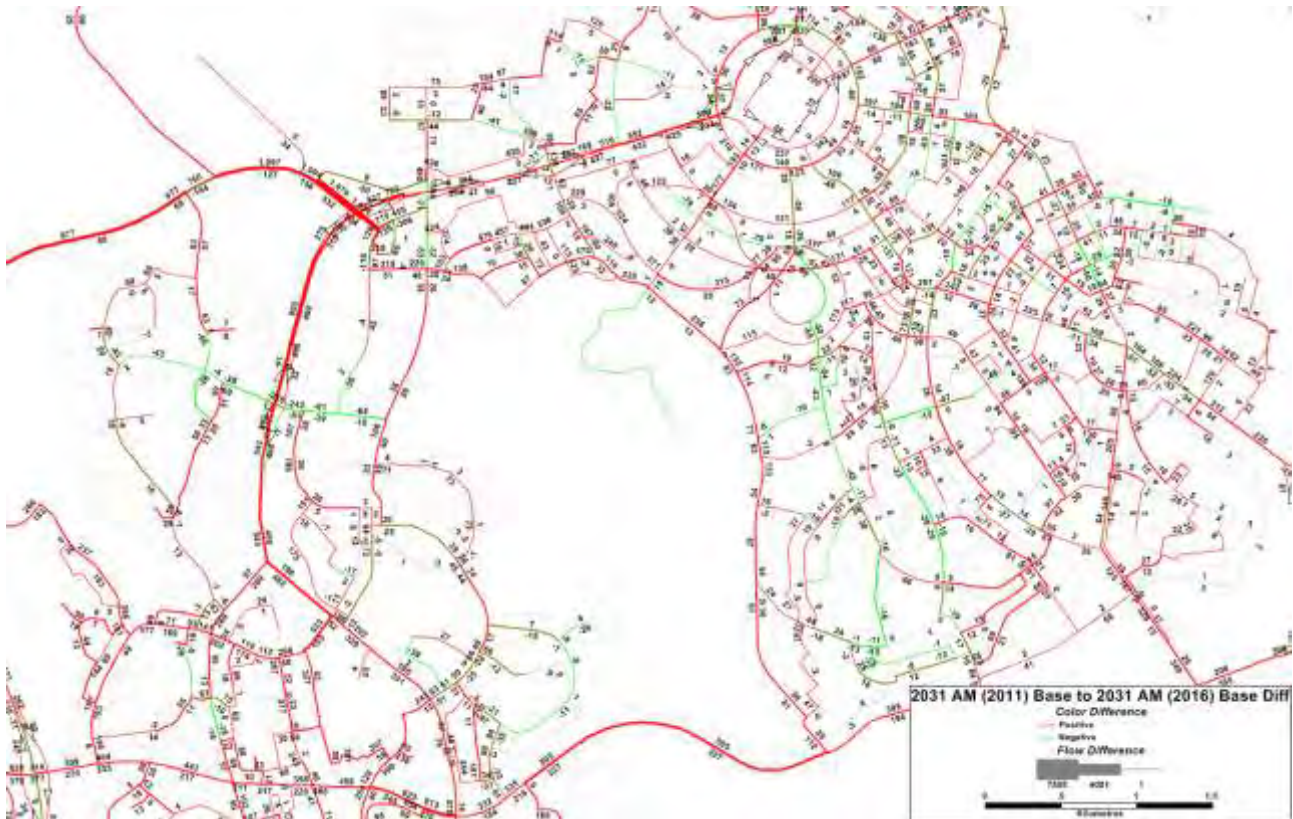


Figure 9: Base Case 2031 AM Difference between CSTM 2011 and CSTM 2016

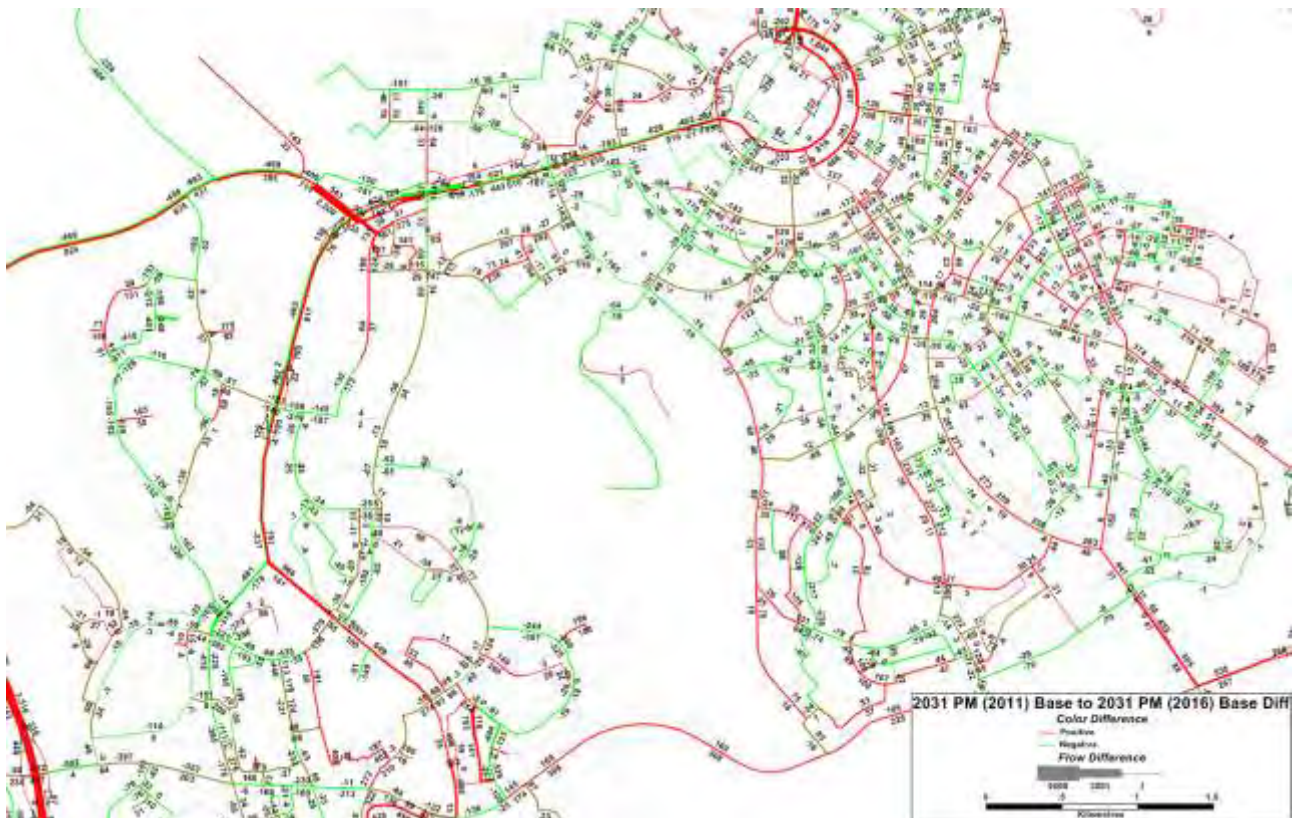


Figure 10: Base Case 2031 PM Difference between CSTM 2011 and CSTM 2016

### 2.6.2.3 Scenario 6

Scenario 6 includes the closure of Gowrie Drive and a new connection from Federal Golf Club to Birdwood Street. Figures 11 and 12 show the traffic volumes and Volume/Capacity for the network around the study area in the 2031 AM and PM peaks, respectively. As in the Base Case, traffic is largely concentrated on major arterials in the area. However, Kent Street and Stonehaven Crescent operate close to capacity in both peaks.



Figure 11: Scenario 6 2031 AM Hourly Flow and V/C



Figure 12: Scenario 6 2031 PM Hourly Flow and V/C

Figures 13 and 14 show the flow difference between Base (CSTM 2016) and Scenario 6 in the 2031 AM and PM peaks, respectively. There is a small amount of additional traffic on Birdwood Street, Kitchener Street and Carruthers Street, generated by the proposed developments. There is a small increase in traffic on Denison Street due to increased congestion on Kent Street. Overall, the impact on the surrounding road network is negligible with traffic volumes increases generally fewer than 30 vehicles per hour. These increases would not be expected to have any significant adverse impacts on network performance.

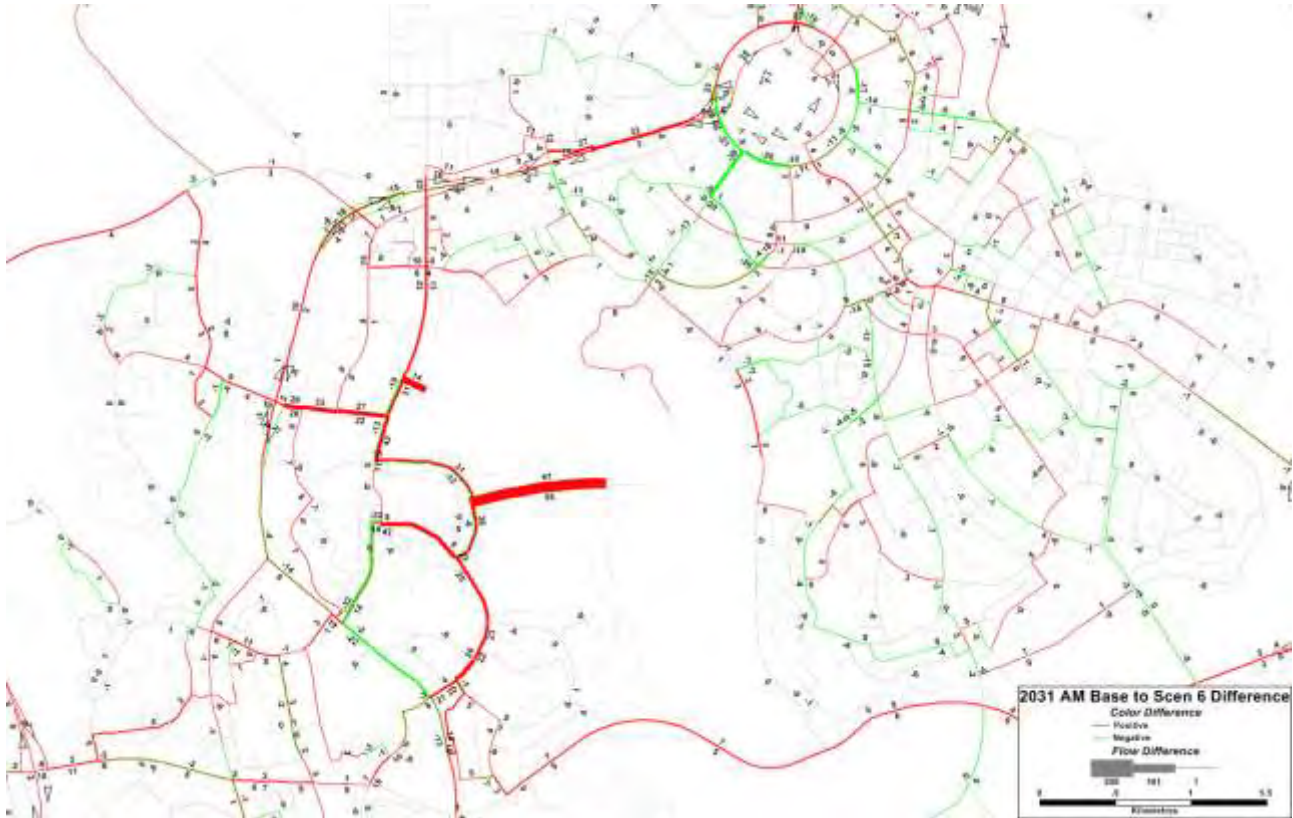


Figure 13: Scenario 6 2031 AM Hourly Flow Difference

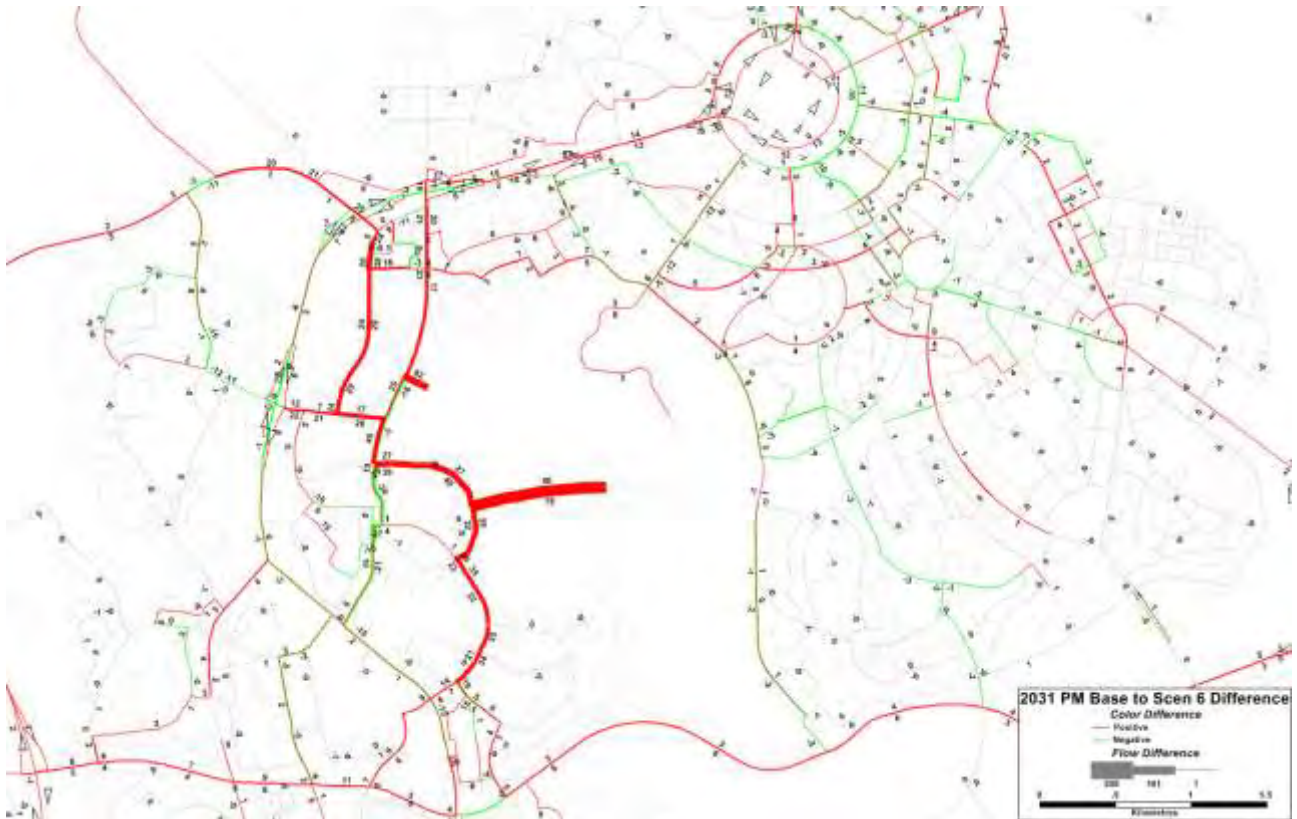


Figure 14: Scenario 6 2031 PM Hourly Flow Difference

#### 2.6.2.4 Scenario 7

Scenario 7 moves the Section 56 Red Hill access from Gowrie Drive to Kitchener Street, which forces the redistribution of ~120 trips in both the 2031 AM and PM peak periods. Figures 15 and 16 show the hourly flow and Volume/Capacity for the 2031 AM and PM peak periods, respectively. As in the Base Case, traffic is largely concentrated on major arterials in the area. However, Kent Street and Stonehaven Crescent operate close to capacity in both peaks.



Figure 15: Scenario 7 2031 AM Hourly Flow and V/C



Figure 16: Scenario 7 2031 PM Hourly Flow and V/C

Figures 17 and 18 show the flow difference between Base and Scenario 7 in the 2031 AM and PM peaks, respectively. There is a small amount of additional traffic on Kitchener Street, Kent Street and Carruthers Street, generated by the proposed developments. There is a small increase in traffic on Denison Street due to increased congestion on Kent Street. Overall, the impact on the surrounding road network is negligible with traffic volumes increases generally fewer than 30 vehicles per hour. These increases would not be expected to have any significant adverse impacts on network performance.

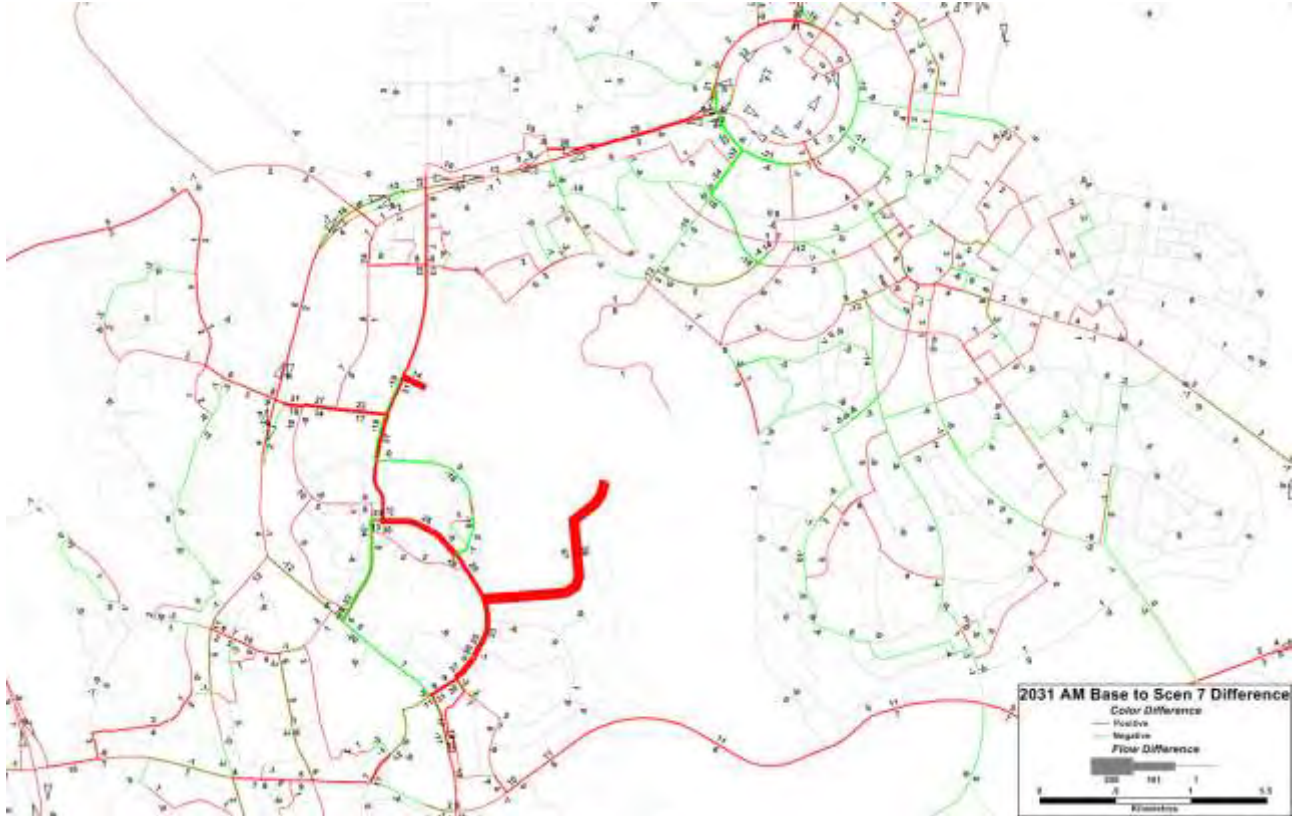


Figure 17: Scenario 7 2031 AM Hourly Flow Difference

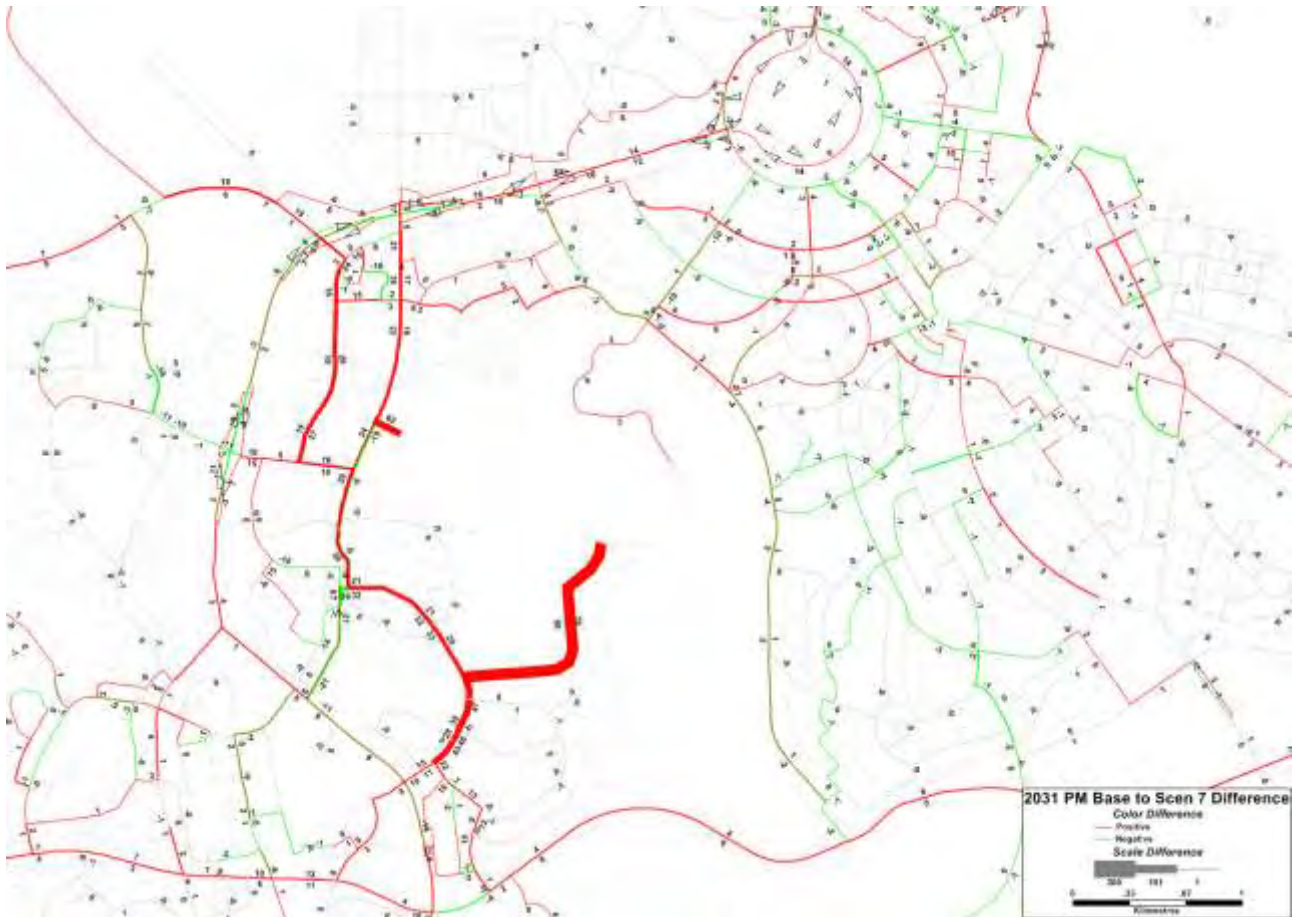


Figure 18: Scenario 7 2031 PM Hourly Flow Difference

### 2.6.3 Strategic Modelling Summary

A comparison of the traffic volumes for the 2031 AM and PM peak periods between the CSTM (2011) and CSTM (2016) was carried out. For most of the local roads around the study area, the differences between the models are relatively small. Larger differences are apparent on major roads, including Yarra Glen, Adelaide Avenue, Cotter Road and Hindmarsh Drive. Given the small differences in modelled volumes on local roads around the developments, which is where most impact would be felt, it is considered that the findings from the earlier modelling, particularly Scenario 5, which includes both proposed developments, are still current and can be compared to the findings from this current modelling activity.

In Scenarios 5, 6 and 7, given the small amount of additional traffic, the impact on the surrounding network is generally considered to be insignificant. However, Kent Street is already close to its capacity in the 2031 Base Case and the additional traffic generated by the development results in Kent Street coming very close to its capacity in 2031 AM. Given the pre-existing heavy traffic flows on Kent Street, the additional traffic may cause additional delay at the intersections of Carruthers Street, Strickland Crescent and Equinox. Options to address this could be a combination of traffic calming measures (to reduce peak traffic volumes) and signal control at some intersections (to provide better pedestrian access, balance performance at all approaches and induce gaps in the traffic flow along Kent Street).

Comparisons of scenarios for the rest of this report will be limited to Scenarios 5, 6 and 7 as these represent full development of both sites, which will have the greatest impact on the network.

### 3 Crash Analysis

SMEC obtained crash data for the suburbs surrounding the developments (Deakin, Forrest, Garran, Hughes and Red Hill) for the period 2012 to present (approximately 7.3 years) from the dataACT Open Data Portal<sup>1</sup>. The crash statistics for the area around the proposed developments have been extracted from these records and are shown in Figure 19.



Figure 19: ACT Crash Records 2012-2019

Surveyed traffic counts were used for crash analysis for the following intersections:

- Kitchener Street – Birdwood Street
- Kent Street – Birdwood Street
- Kent Street – Kitchener Street
- Kitchener Street – Gilmore Crescent
- Carruthers Street – Kent Street
- Stonehaven Crescent – Gowrie Drive – Melbourne Avenue
- Gowrie Drive – Red Hill Drive
- Kent Street – Strickland Crescent
- Gilmore Crescent – Brereton Street

To estimate annual traffic from the AM and PM peak period counts, an annualisation factor was developed based on research conducted by Orthongthed, Wang & Legaspi, which provides daily and annual conversion factors for local roads in urban Sydney and four rural regions of NSW, based on a two-hour peak period. In this instance, the average of AM and PM counts has been used. Canberra does not resemble either urban Sydney or rural NSW, instead lying somewhere

<sup>1</sup> <https://www.data.act.gov.au/Transport/ACT-Road-Crash-Data/6jn4-m8rx>

in between in terms of traffic intensity and behaviour, so average factors have been calculated from the rural and urban factors.

Table 10: Traffic Uplift Factors

REGION	DAILY	ANNUAL
Hunter	5.91	1,995
Northern	5.86	1,965
South-west	5.58	1,960
Southern	5.99	2,032
<i>(Rural)</i>	<i>5.84</i>	<i>1,988</i>
<i>Sydney (urban)</i>	<i>7.22</i>	<i>2,469</i>
<b>Average</b>	<b>6.53</b>	<b>2,229</b>

Source: Orthongthed, Wang & Legaspi 2013

The crash records for each intersection have been compiled and are shown in Table 11 and Figure 20. The records cover approximately 7.3 years for the records obtained from dataACT. It was assumed that a crash that occurred within 50 metres of the intersection was associated with the intersection in some way. The annual crash rate was averaged over the recorded period and is expressed in crashes per million vehicle movements (C/MVM), calculated as:

$$\text{CrashRate} = \frac{\text{Crashes}}{\text{AnnualTraffic} \times \text{Years} / 1,000,000}$$

Table 11: Crash Rates by Intersection (2012-2019)

INTERSECTION	MOVEMENTS				CRASHES	PERIOD [YEARS]	RATE [C/MVM]
	2019 AM	2019 PM	Daily	Annual			
Kitchener Street – Birdwood Street	1,490	1,409	9,465	3,230,936	7	7.3	<b>0.30</b>
Kent Street – Birdwood Street	1,411	1,963	11,016	3,760,323	10	7.3	<b>0.36</b>
Kent Street – Kitchener Street	1,375	1,898	10,686	3,647,759	9	7.3	<b>0.34</b>
Kitchener Street – Gilmore Crescent	1,590	1,423	9,837	3,357,989	9	7.3	<b>0.37</b>
Carruthers Street – Kent Street	2,768	2,418	16,932	5,779,797	23	7.3	<b>0.55</b>
Stonehaven Crescent – Gowrie Drive – Melbourne Avenue	2,413	2,176	14,983	5,114,441	17	7.3	<b>0.46</b>
Gowrie Drive – Red Hill Drive	67	121	614	209,526	2	7.3	<b>1.31</b>
Kent Street – Strickland Crescent	3,275	2,959	20,354	6,947,793	19	7.3	<b>0.37</b>
Gilmore Crescent – Brereton Street	908	786	5,531	1,887,963	3	7.3	<b>0.22</b>

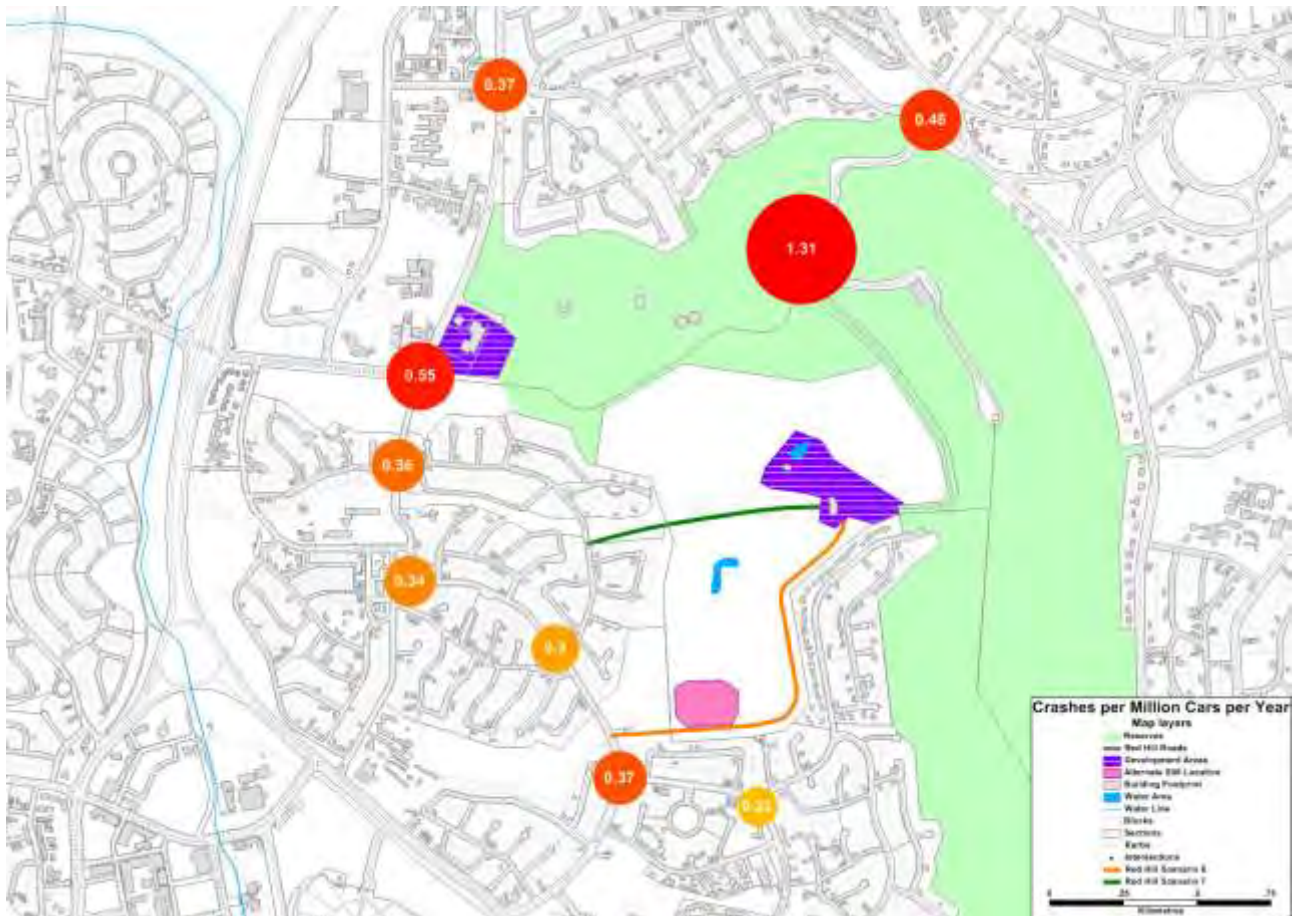


Figure 20: Crashes per Million Vehicle Movements (2012-2019)

The crash records in Table 11 show that there is a range of risk for the intersections around the study area. The intersection of Gilmore Crescent and Brereton Street is the safest, with 0.22 crashes per million vehicle movements. The intersection of Gowrie Drive with Red Hill Drive is the least safe intersection with 1.31 crashes per million vehicle movements. The intersection of Carruthers Street and Kent street has the most crashes over the analysis period and has the second highest number of crashes per million vehicle movements, at 0.55.

A brief analysis of crash factors was also conducted, with the following factors assessed:

- Trend over time
- Wet/dry comparison
- Day/night comparison
- Severity comparison

Figure 21 shows the number of crashes per year for the years 2012 to 2019. From this figure, there does not appear to be a clear trend at any intersection, except the intersection of Kitchener Street and Birdwood Street, where crashes were highest in 2012 and there have not been any recorded crashes since 2015. All other intersections show apparently random variation each year.

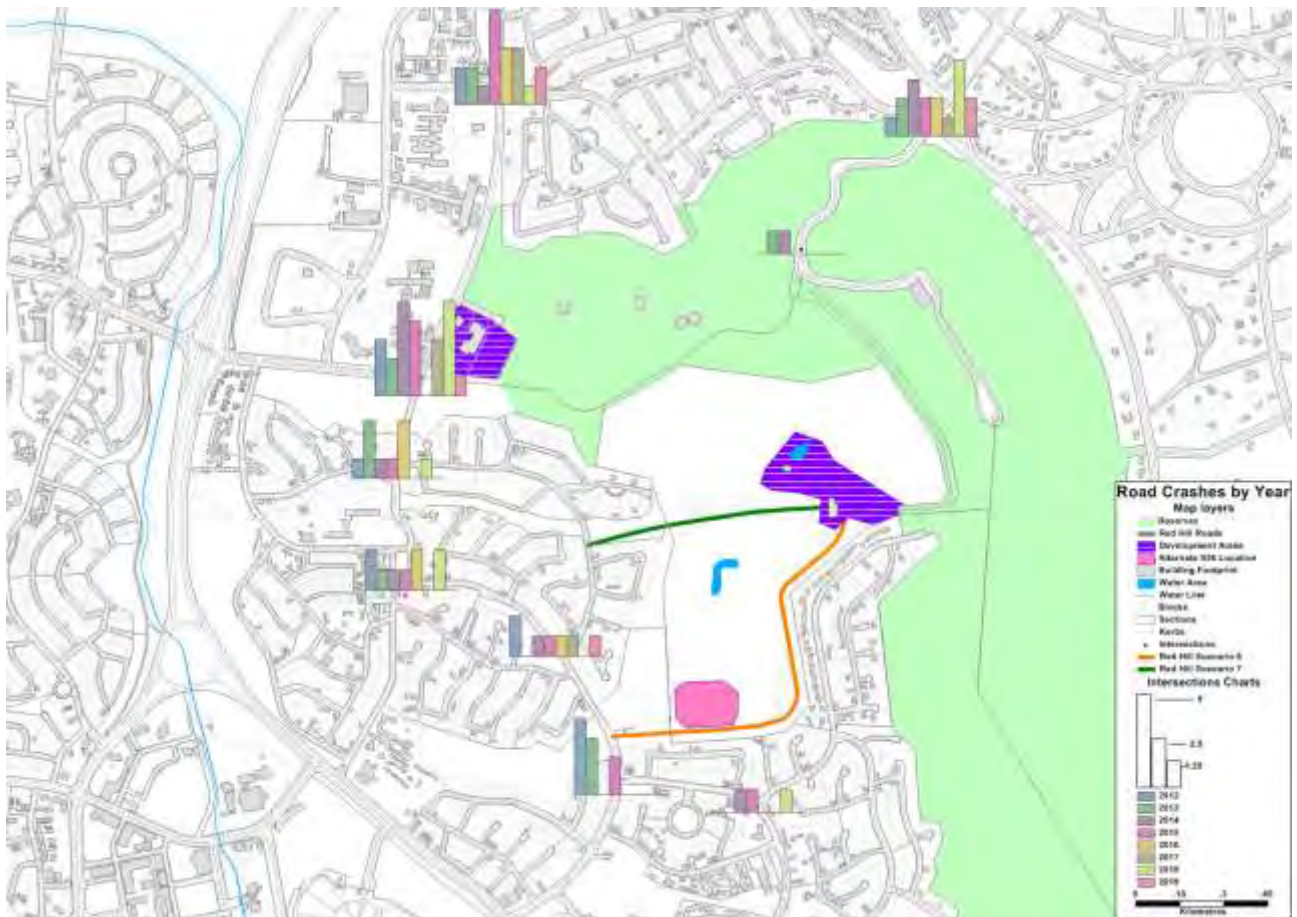


Figure 21: Road Crashes per Year (2012-2019)

Figure 22 shows the proportion of crashes that happen on wet or dry road surface. Most intersection show approximately one quarter of the crashes occurring on a wet road surface. Notable exceptions are the intersections of Brereton Street with Gilmore Crescent and Gowrie Drive with Red Hill Drive, where all crashes occurred on a dry surface. However, the number of crashes at these sites is very low.

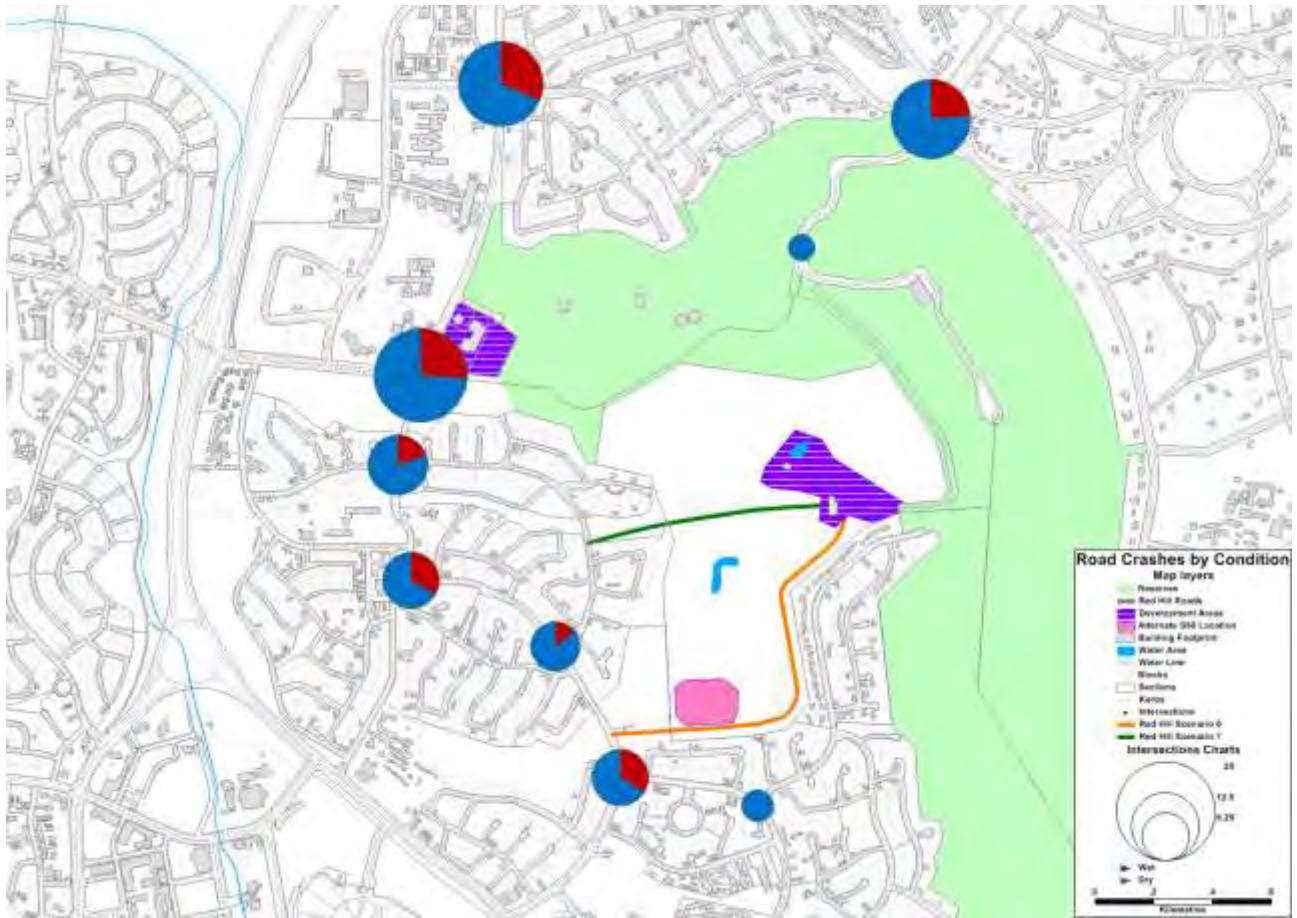


Figure 22: Road Crashes by Wet/Dry Condition (2012-2019)

Figure 23 shows the proportion of crashes that occur during the day and night. Most intersections have a small proportion of crashes at night. However, the intersection of Kitchener Street and Kent Street has more than half of its crashes occurring at night. It is recommended that further investigation be carried out at this location to determine if there is an issue with street lighting or some other factor that increases risk at night time.



Figure 23: Road Crashes by Time of Day (2012-2019)

Figure 24 shows the proportion of crashes by severity. Most crashes result in property damage only. Larger intersections, with a higher number of vehicles and crashes, have a small number of crashes causing injury or fatality. The notable exception is the intersection of Gowrie Drive and Red Hill Drive. Only two crashes were recorded around this intersection between 2012 and 2019, but both resulted in injury.

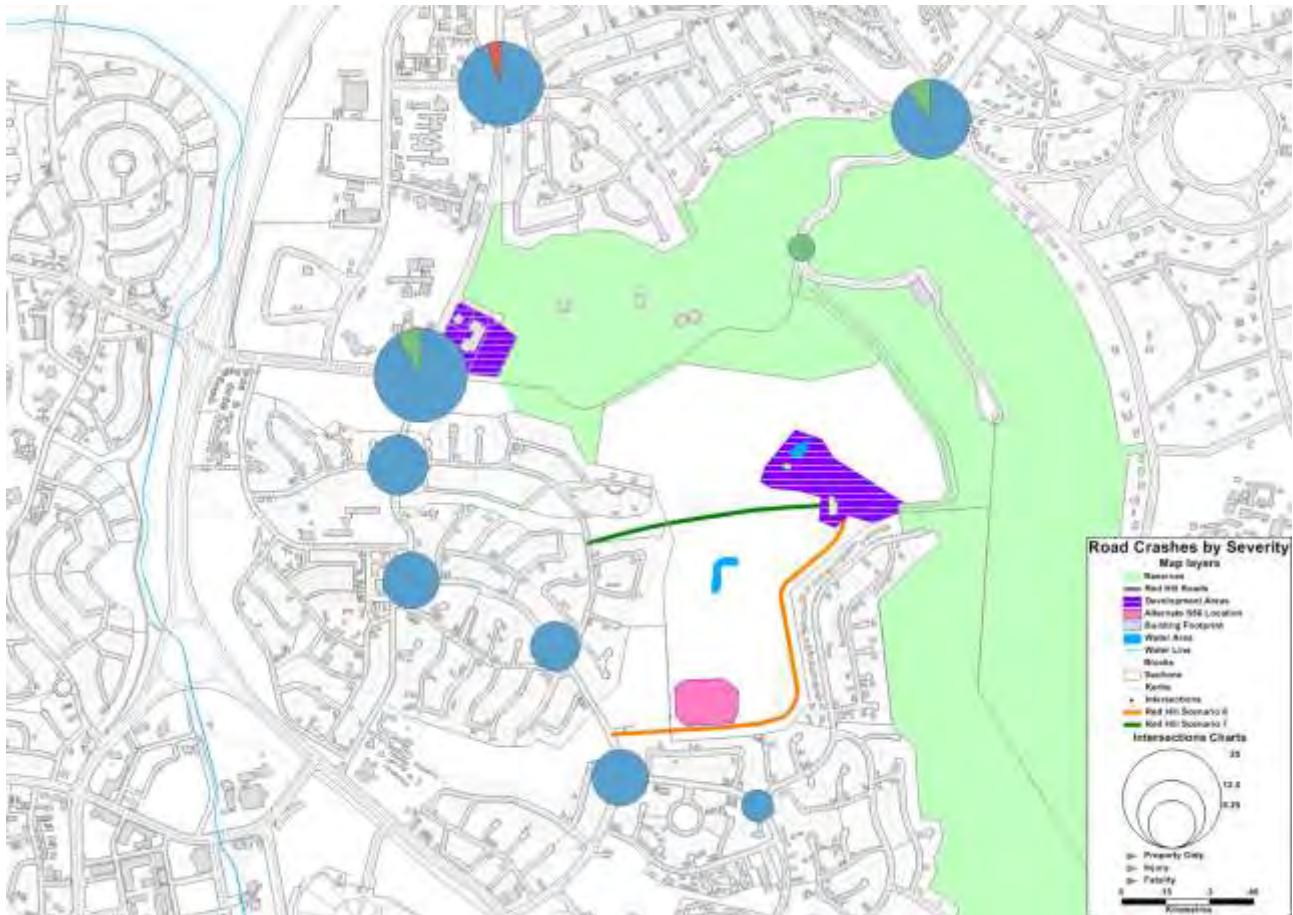


Figure 24: Road Crashes by Severity (2012-2019)

### 3.1 Summary

The brief crash analysis carried out in this study identified a number of issues that should be investigated further. The identified issues include:

- The intersection of Gowrie Drive with Red Hill Drive is the least safe intersection with 1.31 crashes per million vehicle movements. All the crashes recorded at this intersection resulted in injury, compared to the other intersections which had injury rates of less than 10%. If Gowrie Drive remains connected in the future, investigations should be carried out to identify changes to be made at this intersection to improve its safety. It is noted that the sample size at this intersection is very small.
- The intersection of Carruthers Street and Kent street has the most crashes over the analysis period and has the second highest number of crashes per million vehicle movements, at 0.52. The combination of high crash rate and high traffic volume suggest that further investigation is required.
- The intersection of Kitchener Street and Kent Street has an unusually high proportion of its crashes occurring at night. Further investigation should be undertaken to determine the cause and possible solutions.

## 4 Public Transport and Active Travel Assessment

### 4.1 Public Transport Coverage

Figure 25 shows the coverage of bus stops in the current Network 19. For this assessment, it is assumed that local stops have a coverage radius of 500 m and rapid stops have a coverage radius of 800 m, as per the distances in the Estate Development Code. Most of the area around the proposed development has good public transport coverage. Residents in Deakin, Hughes and Garran largely have access to local routes while some residents in the southern areas of Hughes and Garran have access to the rapid route, R6 – City to Woden via Barton. Routes 57 and 58 also run between City and Woden but do so via slower routes than R6.

The proposed development at Section 56, Red Hill does not have access to public transport, nor does the northern part of Brereton Street.

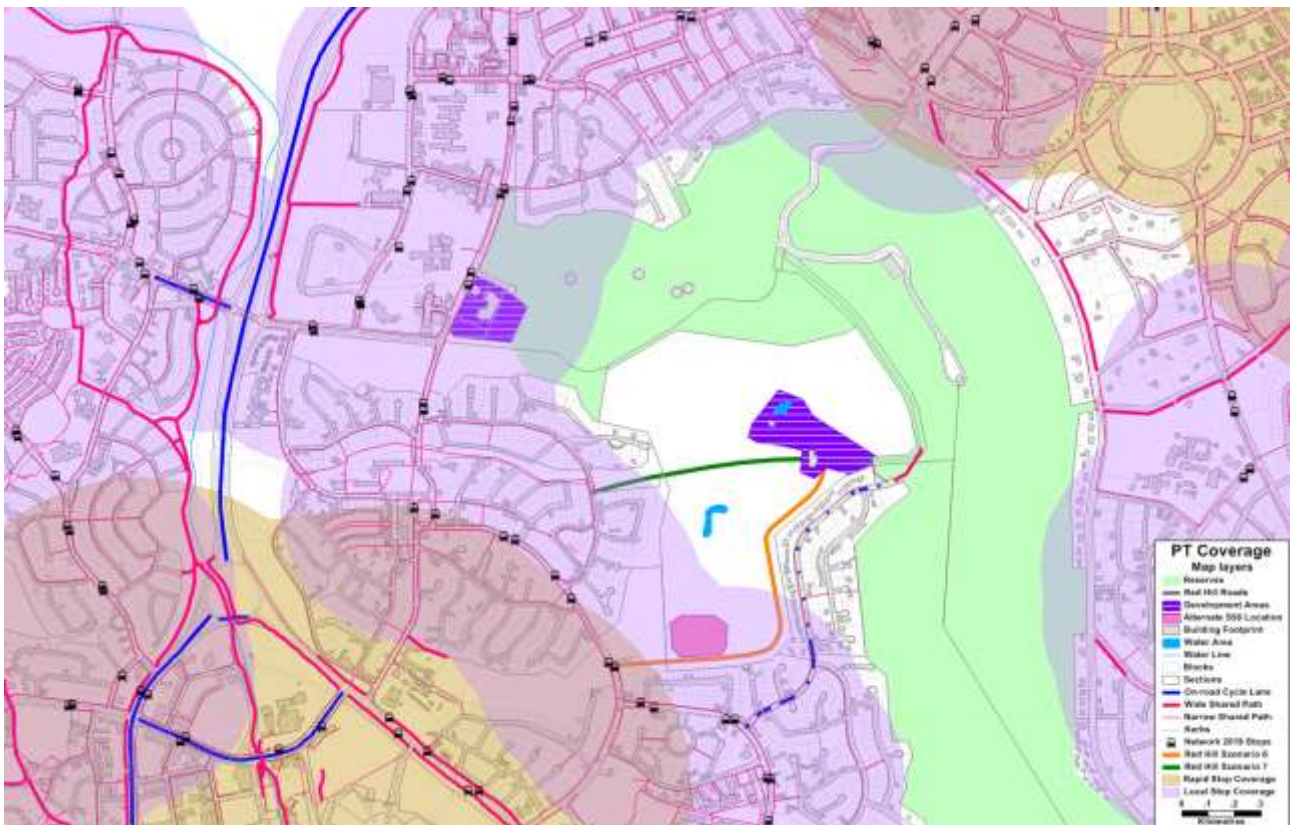


Figure 25: Network 19 Bus Stop Coverage

### 4.2 Active Travel Network

Figure 25 shows the active travel network around the proposed development area. Most higher order (collector or above) roads in the hierarchy appear to have a footpath/narrow shared path on at least one side of the road. However, many local streets have no footpath at all. Pedestrian access, particularly for people with limited mobility can be very difficult without a footpath. On local streets, verges are often not traversable due to soft surfaces or overgrown gardens and the can be cars parked on the road. Brereton Street has a footpath on only one side and it is often interrupted by driveway ramps, kerb ramps, hedges and garbage bins. It is recommended that the new road accessing the Federal Golf Club development area would have appropriate pedestrian facilities to allow easy walking.

The main off-road shared path network and on-road cycle lane network are connected to most areas via footpaths or rideable local streets.

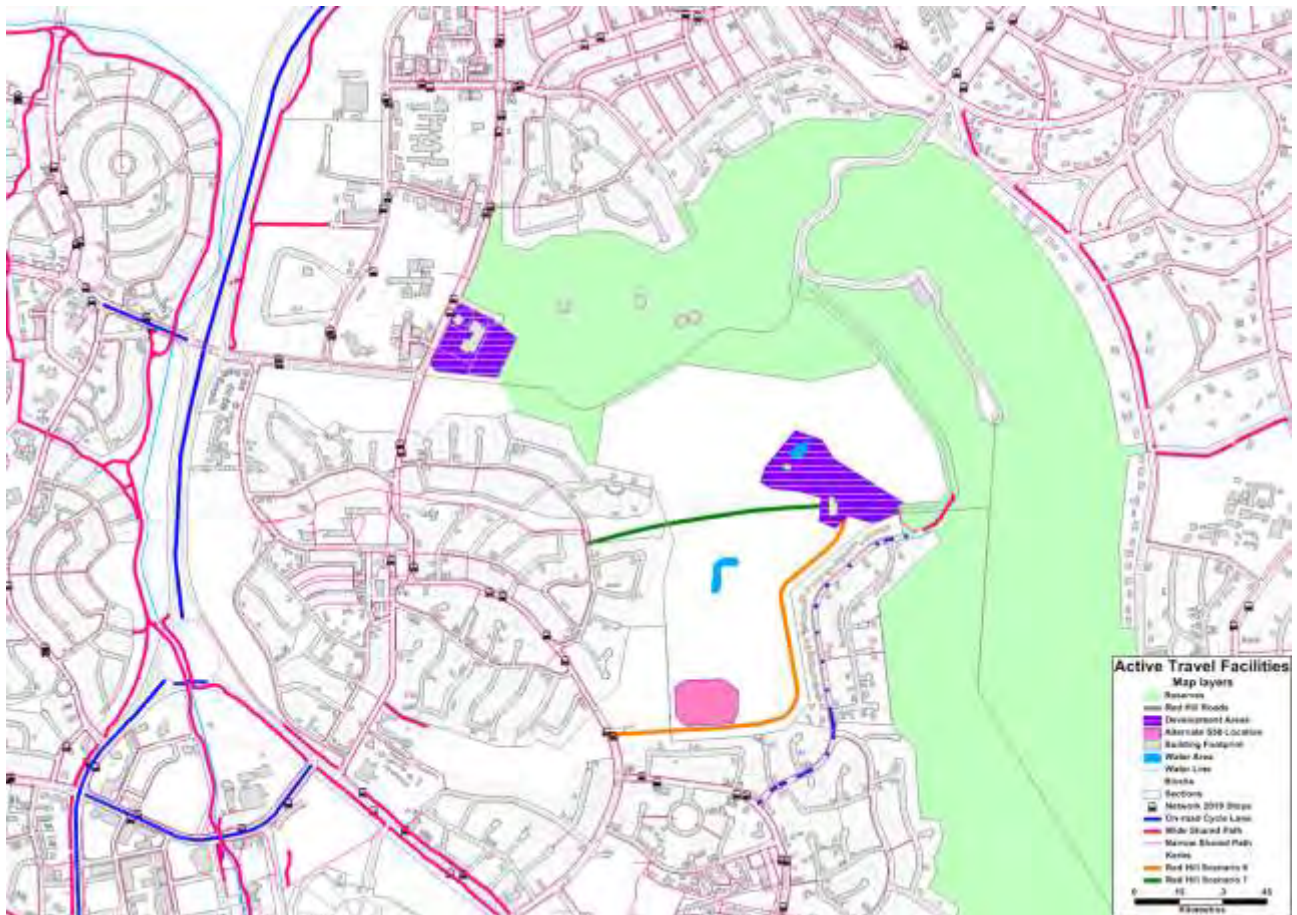


Figure 26: PT and Active Travel Facilities

The two nearest local centres to the Section 56, Red Hill development are Hughes and Garran, both of which are approximately 2 km away. This is about a 30 minute walk for many users and it is unlikely that many people will walk that far. Nevertheless, good pedestrian accessibility should be provided, whichever access option is chosen.

## 5 Road Network Assessment

Turning movement counts were obtained for the following six intersections on Wednesday 27 June 2018 and 4 July 2018:

1. Mugga Way/Stonehaven Crescent – Gowrie Drive/Melbourne Avenue
2. Gilmore Crescent – Brereton Street
3. Kitchener Street – Gilmore Crescent
4. Kent Street – Carruthers Street
5. Kent Street – Strickland Crescent
6. Gowrie Drive – Red Hill Drive

Further surveys were carried out on 10 April 2019 for the following three intersections:

7. Kitchener Street – Birdwood Street
8. Kent Street – Birdwood Street
9. Kent Street – Kitchener Street

At all nine locations, the surveys were conducted for the AM (07:30 to 09:30) and PM (16:30 to 18:30) peak periods. The turn count reports are included in Appendix B.

Summary flow diagrams provided by Matrix (the traffic survey contractor) for the 2018 and 2019 AM and PM peak periods are shown in Figure 27 through Figure 30. A qualitative assessment of current intersection performance and intersection type, based on the count data, is included below.

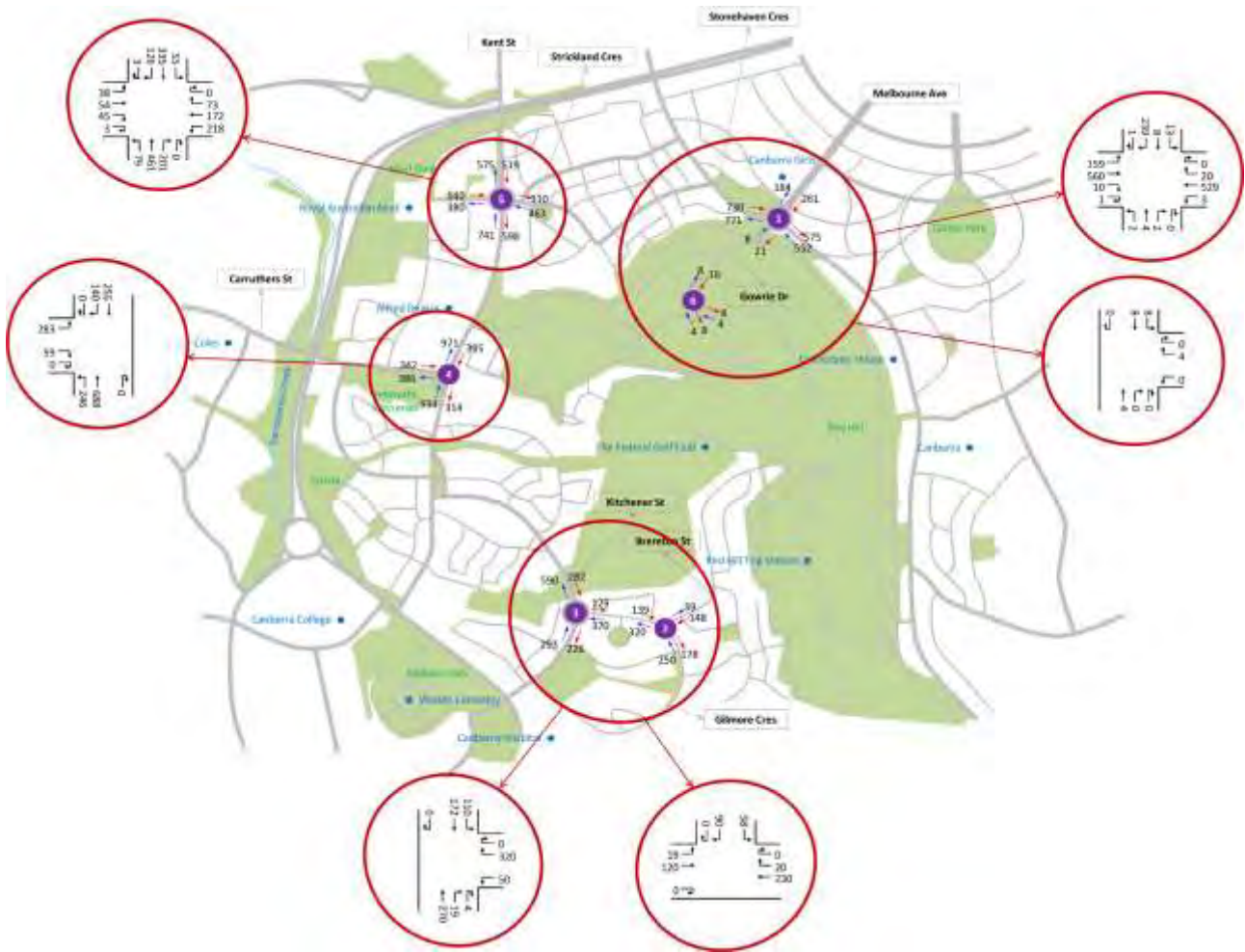


Figure 27: 2018 AM One-hour Peak Intersection Flows

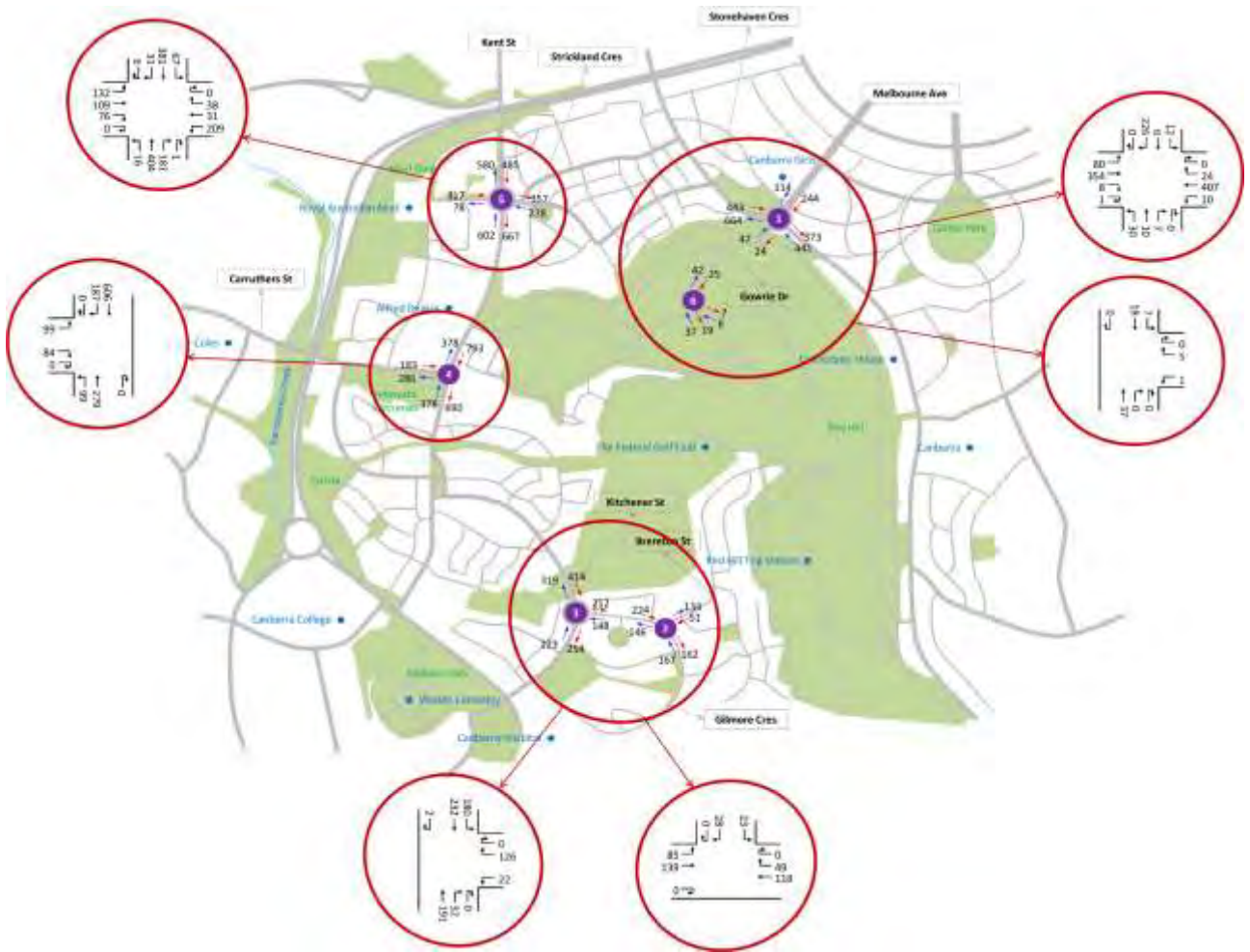


Figure 28: 2018 PM One-hour Peak Intersection Flows

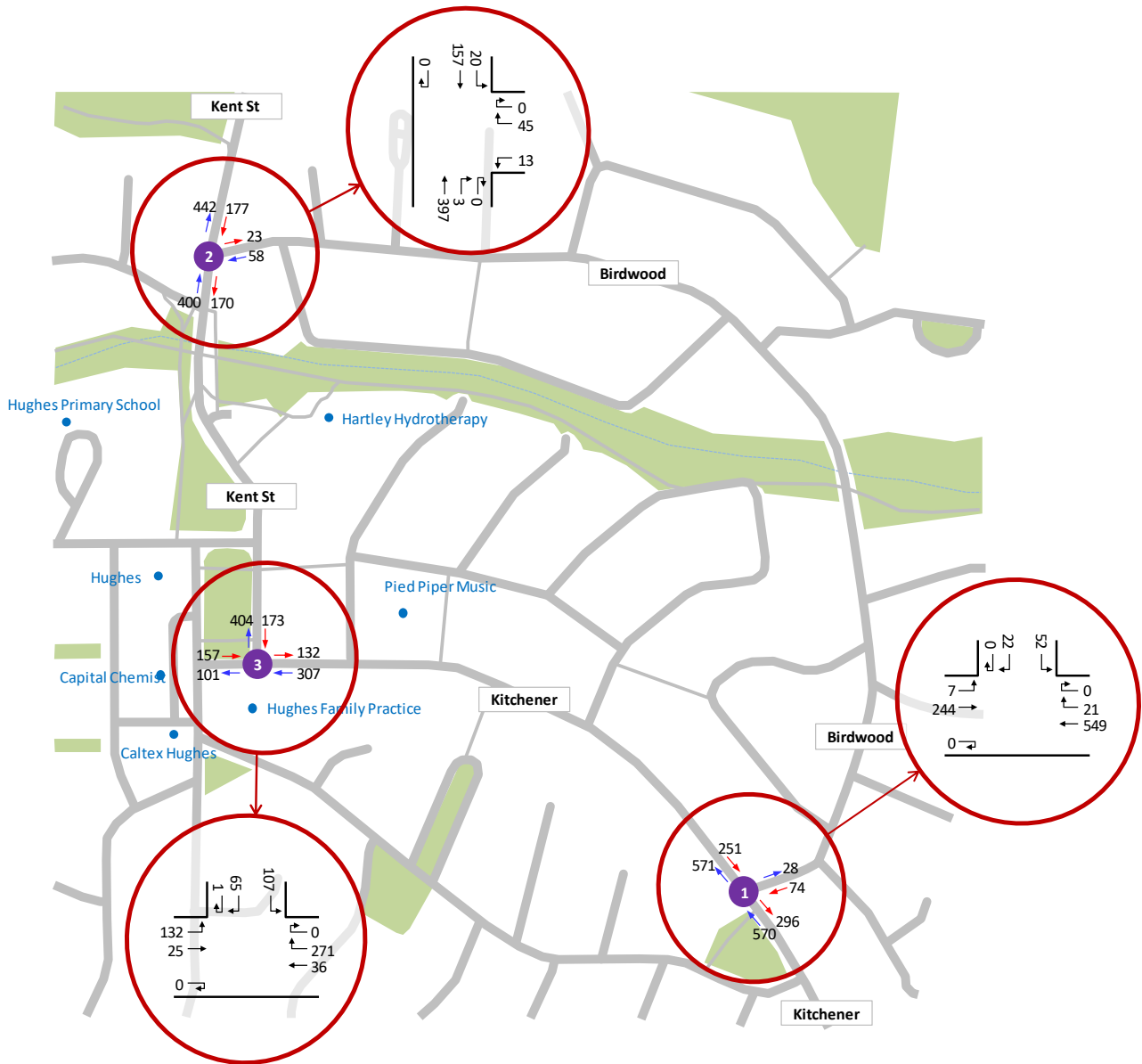


Figure 29: 2019 AM One-hour Peak Intersection Flows

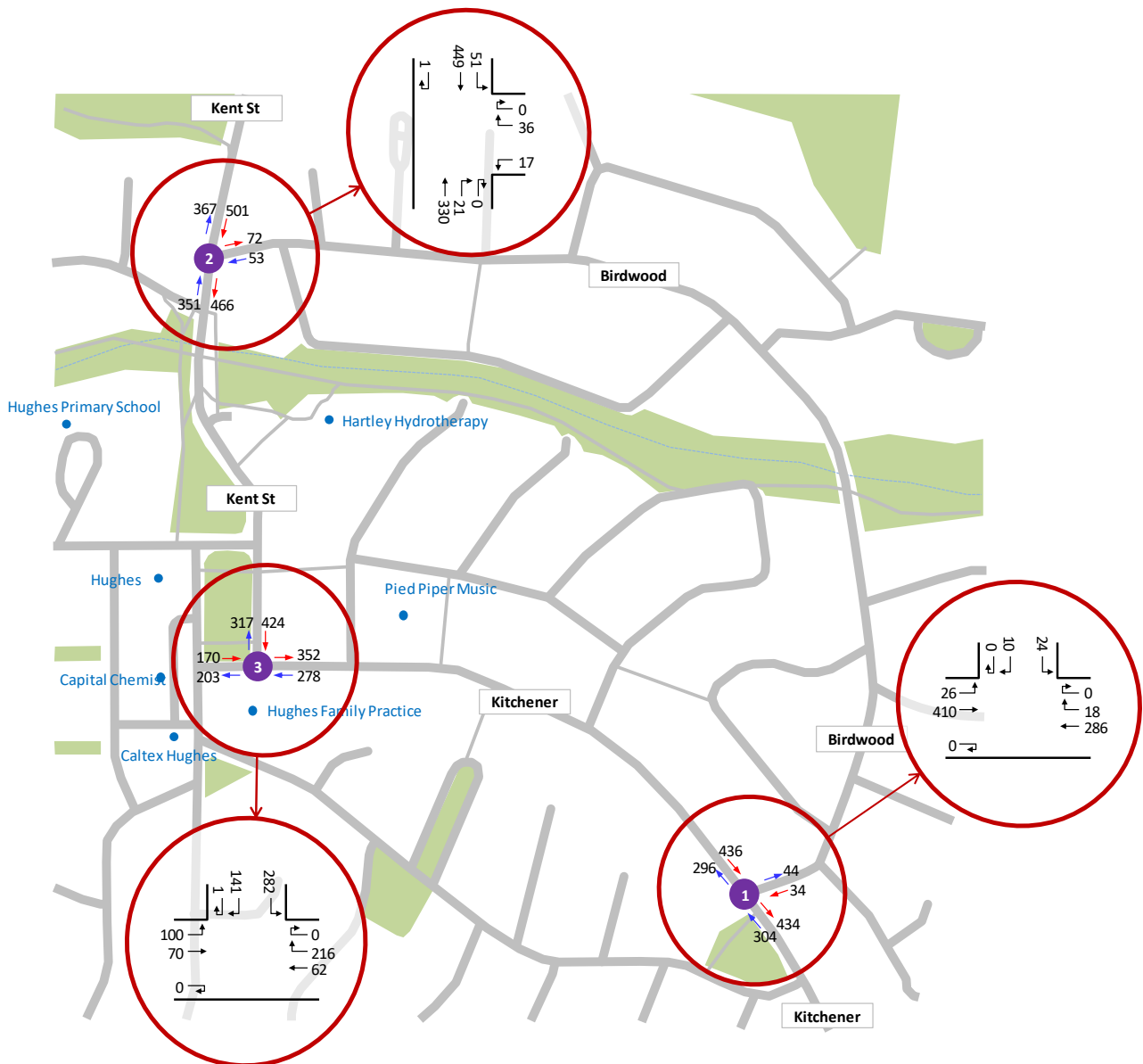


Figure 30: 2019 PM One-hour Peak Intersection Flows

Outside of the town centres, the CSTM is very general in its treatment of individual roads, with capacity dictated by lane count, speed and intersection density. The type of intersections and operating environment are too detailed for a strategic transport model. As such, in some cases the capacity defined in the CSTM will differ from the observed capacity of a road. A particular case that is present in this study is Kent Street, which carries close to 700 vehicles/hour in the 2031 scenario models (its defined capacity in the CSTM), while it is observed to carry almost 1,000 vph in the 2018 AM peak. This might suggest that the road is close to or at capacity in 2018, however the CSTM is best used to determine differences in traffic flow between two scenarios rather than absolute traffic volumes.

## 5.1 Intersections

### 5.1.1 Mugga Way/Stonehaven Crescent – Gowrie Drive/Melbourne Avenue

The primary traffic flow at this intersection is east-west along Mugga Way and Stonehaven Crescent. Very little traffic uses Gowrie Drive. The CSTM modelling shows a small increase in traffic in Scenario 5 and an insignificant amount of additional traffic in Scenarios 6 and 7, which would have no impact at this intersection. Austroads *Guide to Traffic Management* suggests that a roundabout at this location is likely to be an appropriate solution, offering low delays and some traffic calming. However, the very heavy flows along Stonehaven Crescent in both AM and PM peak periods could

lead to increased delay on the Gowrie Drive and Melbourne Avenue approaches. Further monitoring and assessment of this intersection might be required.

#### 5.1.2 Gilmore Crescent – Brereton Street

The traffic at this intersection is reasonably low, with 2018 AM and PM peak volumes of 537 and 442 vehicles respectively. The proposed development causes no significant increase in traffic in any of Scenarios 5, 6 or 7. Austroads suggests that a give way control at this location is appropriate. Traffic volumes at this intersection are quite low in both peaks and there are not expected to be any significant delays.

#### 5.1.3 Kitchener Street – Gilmore Crescent

The traffic at this intersection is moderate, with 2018 AM and PM peak volumes of 945 and 785 vehicles respectively. No additional traffic uses this intersection in Scenario 5. Some additional traffic uses this intersection in Scenarios 6 and 7, but the increase is modest and should not have a significant impact. Austroads suggests that a roundabout is appropriate at this location. The relatively balanced traffic volumes on each approach will reduce the likelihood that a single approach would dominate the intersection and increase delays on other approaches.

#### 5.1.4 Kent Street – Carruthers Street

There is currently a large amount of traffic using this intersection. The total 2018 AM and PM peak volumes are 1671 and 1354 respectively and there is a small increase in traffic at this intersection for all of Scenarios 5, 6 and 7. The right turn out of Carruthers Street is quite small which might reflect the difficulty of executing this movement during peak periods. Signalisation of this intersection would therefore likely change the pattern of turning movements by improving performance of those that currently have low priority. Austroads suggests that priority control of this intersection is not appropriate and it would be better managed with signals or a roundabout. The crash analysis also suggested that this intersection is not operating safely and some intervention is required, both for performance and safety reasons.

#### 5.1.5 Kent Street – Strickland Crescent

Considering its design, there is currently a large amount of traffic using this intersection. The total 2018 AM and PM peak volumes are 1,863 and 1,682 respectively. It is likely operating at or close to its capacity during the peak periods, and the additional traffic generated by the Section 66 development could potentially impact the performance, although the forecast additional traffic volumes are low in the three full developments scenarios. While the current intersection control type is appropriate according to Austroads, signalisation of this intersection could improve capacity and performance. Signalisation would also improve pedestrian and bicycle access through the area, which is important so close to the Deakin employment area.

#### 5.1.6 Gowrie Drive – Red Hill Drive

There is very little traffic at this intersection – 24 vehicles in 2018 AM and 68 in 2018 PM. The Wednesday midday period saw 81 vehicles using the intersection, of which half are travelling to or from the lookout at the end of Red Hill Drive. This very low level of traffic contributes to the low number of crashes. However, the crash rate per vehicle and crash severity is much higher than other intersections in the area and interventions at the intersection should be investigated. Previous concepts developed by AECOM in 2014 did not meet Austroads sight line requirements due to challenging grades and had high costs. Since that assessment, there have been two injury-causing crashes at the intersection. In both Scenario 6 and 7, Gowrie Drive is closed, which would remove any risks at this intersection. In Scenario 5, this intersection is the primary access to Section 56, Red Hill, which approximately doubles the traffic volumes on Gowrie Drive. Austroads suggests that the intersection is best controlled by a stop or give-way sign.

#### 5.1.7 Kitchener Street – Birdwood Street

The traffic surveys showed little traffic at this intersection in 2019. It is unlikely that any vehicle at the intersection would experience significant delay now or in the future. Austroads suggests that priority control of this intersection is appropriate. There is no additional traffic at this intersection in Scenario 5. There is only a small amount of additional traffic on Kitchener Street in Scenarios 6 and 7, but this is unlikely to cause any significant issues.

### 5.1.8 Kent Street – Birdwood Street

The traffic at this intersection is moderate, with 2019 AM and PM peak volumes of 635 and 904 vehicles respectively. Vehicles turning out of Birdwood Street, particularly in the PM peak period, could experience some delays. The developments in Scenarios 5, 6 and 7 would lead to a small increase in traffic along Kent Street, which could further increase delays. Austroads suggests that priority or roundabout control at this location would be appropriate. Further monitoring and assessment might be required to confirm that delays are acceptable.

### 5.1.9 Kent Street – Kitchener Street

The traffic at this intersection is moderate, with 2019 AM and PM peak volumes of 637 and 872 vehicles respectively. The CSTM modelling showed that a small amount of additional traffic would use this intersection in Scenarios 5, 6 and 7. However, the small roundabout should have sufficient capacity. Austroads suggests that roundabout control is appropriate at this location.

## 5.2 Roads

### 5.2.1 Brereton Street

The intersection counts indicate 2018 AM and PM peak volumes of 187 and 185 vehicles respectively, or approximately 1,860 vehicles per day. There would be no additional traffic on this road in Scenarios 5, 6 or 7. Brereton Street has sporadic cycle lane markings and a footpath on one side. However, the footpath is narrow and often interrupted by driveway ramps and pram ramps. Close hedges along one side of the footpath mean that it can also be blocked by wheelie bins on rubbish collection day. There are no significant capacity concerns on this road.

### 5.2.2 Gilmore Crescent

Gilmore Crescent between Brereton and Kitchener Streets carries approximately 480 vehicles in 2018 AM and 365 in 2018 PM, or an approximate daily volume of 4,220 vpd. No additional traffic uses Gilmore Crescent in Scenarios 6 or 7, while there is an insignificant increase in Scenario 5. There are no capacity concerns in this location.

### 5.2.3 Kent Street

In both peak periods, traffic demand is greatest between Carruthers Street and Strickland Crescent, coinciding with the concentration of land uses along this section of the road. The additional land use at Section 66 Deakin accesses the network between these two points, adding a small load to a section of road that is likely already congested.

The counted traffic volumes on this section of Kent Street exceed the nominal capacity of Kent Street in the CSTM by up to 270 veh/hr northbound and 90 veh/hr southbound, indicating that it operates somewhat more efficiently in reality than the basic assumption for this category of road in the CSTM, which would be due to a number of factors, not least being the level of conflict with driveways and intersecting streets. It is likely that increasing the capacity to reflect this would continue to show it operating at capacity, however this would have to be tested to be sure.

### 5.2.4 Birdwood Street

In 2019, Birdwood Street carried between 81-102 veh/hr in the AM peak and 78-125 veh/hr in the PM peak. In the future scenarios, Birdwood Street would carry slightly more traffic in Scenario 6, slightly less traffic in Scenario 7 and would experience no change in Scenario 5. The volumes in this location do not suggest any capacity issues, except for the possible congestion at the intersection of Birdwood Street and Kent Street, as discussed earlier.

### 5.2.5 Kitchener Street

Kitchener Street, between Kent Street and Birdwood Street, carried 439-822 veh/hr in the 2019 AM peak and 630-732 veh/hr in the 2019 PM peak. It appears that some local traffic management has been implemented by line-marking narrow lanes, presumably to manage speed. The volumes along Kitchener Street do not suggest serious capacity concerns, although there could be minor delays to side streets. The small traffic increases modelled in the future scenarios do not suggest any serious capacity or performance issues.

## 6 Suitability of Proposed Access Locations

The three full development scenarios assessed in this report require varying amounts of road construction through different locations around the study area. A brief assessment has been carried out to identify major constraints that may impact the feasibility of constructing these roads. Note that this is not intended to be a detailed or comprehensive feasibility study, but is a brief desktop assessment.

### 6.1 Scenario 2 (Access via Brereton Street)

Brereton Street is a minor collector that extends from Gilmore Crescent to just south of the Federal Golf Club. This street serves the residential area but does not currently provide access to the golf club. The crash analysis conducted as part of this study did not identify any evidence of extraordinary safety issues at the intersection of Brereton Street and Gilmore Crescent. Access to the proposed development would be located at the end of Brereton Street. Vehicular traffic, as well as pedestrians and cyclists, from the proposed development would travel the whole length of Brereton Street.

The area between the end of Brereton Street and the proposed development contains many trees of varying sizes and species. Care would need to be taken to minimise impact on any restricted or protected trees, if they are present.

### 6.2 Scenario 5 (Access via Gowrie Drive)

Gowrie Drive is currently a narrow and low grade road that serves the Federal Golf Club adequately, though not without posing safety issues. The midblock experiences a rate of traffic crashes no greater than the average for the area, however it is possible that its current users are familiar with the road and drive more carefully when using it. However, the intersection with Red Hill Drive has a very high crash rate and would need to be upgraded. A previous study by AECOM (*Red Hill Drive / Gowrie Drive Intersection – Analysis of options*, May 2014) identified four upgrade options for this intersection but none were able to meet Austroads sight distance requirements and some did not adequately accommodate large emergency vehicles or trucks.

There are a number of significant trees around the intersection of Gowrie Drive and Red Hill Drive that would further complicate upgrades of this road. A brief review of Significant Species, Vegetation Communities and Registered Trees using ACTmapi indicates that Gowrie Drive is surrounded by the following ecological constraints:

- Button Wrinklewort
- Drooping Sheoak
- ACT Listed Box Gum Woodland
- EPBC Listed Box Gum Woodland

### 6.3 Scenario 6 (Access via Birdwood Street)

Scenario 6 includes a relatively short road running west from Section 56, Red Hill, through the golf course and connecting to Birdwood Street. Possible issues for this access option include:

- Loss of potentially significant trees, particularly around the proposed intersection with Birdwood Street
- Construction of a new road in an overland flow path
- Proposed intersection is at the location of an existing grade separated pedestrian crossing, with the overland flow path under Birdwood Street
- Loss of open space and possible impact on green corridor
- Possible impact on trunk water mains associated with reservoirs on Red Hill
- Community resistance to a new road in open space directly behind current residences

### 6.4 Scenario 7 (Access via Kitchener Street)

Scenario 7 includes a relatively long access road running along the eastern side of the Federal Golf Course and connecting to Kitchener Street. Possible issues for this alignment include:

- Impact on Spotted-tailed Quoll (ACTMapi: Significant Species, Vegetation Communities and Registered Trees)
- Loss of potentially significant trees
- Possible impact on sewer/electricity services behind residences on Brereton Street and Ingamells Street
- Community resistance to a new road in open space directly behind current residences
- Possible impact on the Scout hall or its driveway and car park

## 7 Comparison of Access Options

This report and SMEC's 2018 assessment considered five potential road access options for Section 56, Red Hill and assessed them in a number of ways. These options have been rated against the following criteria:

- Carriageway width
- Safety
- Road capacity
- Proportional increase on existing traffic
- Intersection operation/feasibility
- Pedestrian access (could be along a separate route)
- Impact on residents (number of affected residents and proximity to access route)
- Planning constraints related to access including fire and emergency access
- Ease of design/construction

The outcomes of the assessment against these criteria included:

- **Kitchener Street:**
  - Width: Kitchener Street is approximately 10.2 metres between kerbs north of Gilmore Crescent (north) and 12.5 metres between kerbs south of Gilmore Crescent (north). Kitchener Street has on-road bus stops, marked cycle lanes and parking areas.
  - Safety: The intersections where traffic increases are expected have better than average safety records, for the area.
  - Road capacity: Kitchener Street operates at approximately 45% of capacity in the 2031 Base Case so there is plenty of spare capacity
  - Proportional increase on existing traffic: Traffic volumes increase by approximately 14% in Scenario 7.
  - Intersection operation/feasibility: No issues identified
  - Pedestrian access (could be along a separate route): Route is slightly circuitous
  - Impact on residents (number and proximity): New road would be constructed directly behind approximately 50 residences on Brereton Street and Ingamells Street
  - Planning Constraints (fire and emergency): Kitchener Street and the proposed access route are not located in the bushfire prone area.
  - Ease of design/construction: Some minor issues identified with services and access to scout hall
- **Birdwood Street:**
  - Width: Birdwood Street is approximately 7.3 metres between kerbs. There are no bus stops, cycle lanes or marked car parking spaces along its length.
  - Safety: The intersections where traffic increases are expected have better than average safety records, for the area.
  - Road capacity: Birdwood Street operates at approximately 11% of capacity in the 2031 Base Case, so there is plenty of spare capacity.
  - Proportional increase on existing traffic: Traffic increases by 21% in Scenario 6.
  - Intersection operation/feasibility: Scenario 6 has an increase in traffic at the intersection of Birdwood Street and Kent Street, where some capacity issues were noted.
  - Pedestrian access (could be along a separate route): Relatively direct access from Section 56, Red Hill to Hughes Shops.
  - Impact on residents (number and proximity): New road would be constructed behind approximately 20 residences.
  - Planning Constraints (fire and emergency): Parts of Birdwood Street are located in the bushfire prone area but the access route is not.
  - Ease of design/construction: Issues with levels and grade at the proposed connection to Birdwood Street (pedestrian and overland flow underpass).

- **Brereton Street:**
  - Width: Brereton Street is approximately 10.2 metres between kerbs for its length. There are intermittent marked cycle lanes around intersections and in some midblock sections.
  - Safety: The intersections where traffic increases are expected have better than average safety records, for the area.
  - Road capacity: Brereton Street operates at approximately 16% of capacity in the Base Case
  - Proportional increase on existing traffic: traffic on Brereton Street increases by 76% in Scenario 2.
  - Intersection operation/feasibility: No issues noted
  - Pedestrian access (could be along a separate route): Brereton Street currently has some pedestrian access issues. These would need to be addressed or a new pedestrian route constructed.
  - Impact on residents (number and proximity): All residents (approximately 90 residences) on Brereton Street would have an increase in traffic along an existing road
  - Planning Constraints (fire and emergency): Parts of Brereton Street are located in the bushfire prone area but the access route is not. The access route would pass through designated land and require NCA works approval.
  - Ease of design/construction: Scenario 2 uses existing roadways, except for a short link to the golf course.
- **Gowrie Drive:**
  - Width: Gowrie Drive is approximately 5 metres wide. There are no formed shoulders or kerbs.
  - Safety: Traffic increases are expected at a very dangerous intersection
  - Road capacity: Gowrie Drive operates at 7% of its capacity in the 2031 Base Case.
  - Proportional increase on existing traffic: Traffic is expected to increase by 72% in Scenario 1.
  - Intersection operation/feasibility: The intersection of Gowrie Drive and Red Hill Road is a poor design with serious sightline and safety issues. Higher volumes through the intersection may not operate well and would certainly be unsafe.
  - Pedestrian access (could be along a separate route): Poor access from the proposed development to local shops and centres.
  - Impact on residents (number and proximity): There are no local residents along this route.
  - Planning Constraints (fire and emergency): Gowrie Drive is wholly located within the bushfire prone area. Advice received from ESA is that Gowrie Drive would need to be upgraded (widened to 7 metres wide) if it to be used for access.
  - Ease of design/construction: Gowrie Drive may require widening to operate safely. The intersection of Gowrie Drive and Red Hill Drive would need to be upgraded. An earlier study of this intersection by AECOM was not able to find a design that met Austroads sightline requirements due to level and grade issues.
- **Gowrie Drive/Brereton Street:**
  - Width: Brereton Street is approximately 10.2 metres between kerbs for its length. There are intermittent marked cycle lanes around intersections and in some midblock sections. Gowrie Drive is approximately 5 metres wide. There are no formed shoulders or kerbs.
  - Safety: Very large traffic increases are expected at a very dangerous intersection
  - Road capacity: Gowrie Drive operates at 7% of capacity and Brereton Drive operates at 16% of capacity in the Base Case.
  - Proportional increase on existing traffic: In Scenario 3, traffic increases by 931% on Gowrie Drive and 446% on Brereton Street.
  - Intersection operation/feasibility: Existing intersections would need to be upgraded.
  - Pedestrian access (could be along a separate route): Poor access from the proposed development to local shops and centres.
  - Impact on residents (number and proximity): Major increase in traffic for all residents (approximately 90 residences) on existing Brereton Street
  - Planning Constraints (fire and emergency): Gowrie Drive is wholly located within the bushfire prone area. Advice received from ESA is that Gowrie Drive would need to be upgraded (widened to 7 metres wide) if it to be used for access. Parts of Brereton Street are located in the bushfire prone area. The access route would pass through designated land and require NCA works approval.

- Ease of design/construction: It would be extremely difficult or impossible to upgrade Gowrie Drive and Brereton Street to Major Collector standard. The intersection of Gowrie Drive and Red Hill Drive would need to be upgraded. An earlier study of this intersection by AECOM was not able to find a design that met Austroads sightline requirements due to level and grade issues.

Each option has been given a rating of good (3), neutral (2) or poor (1) for each of these criteria as shown in Table 12.

Table 12: Relative Rating of Access Options

CRITERIA	KITCHENER STREET LONG ACCESS	BIRDWOOD STREET	BRERETON STREET	GOWRIE DRIVE	GOWRIE DRIVE/ BRERETON STREET
Width	3	2	2	1	1
Safety	3	2	2	1	1
Capacity	2	2	2	1	1
Proportional traffic increase	3	2	2	2	1
Intersection operation	3	1	3	1	1
Pedestrian access	1	2	2	1	1
Impact on residents	1	1	2	3	2
Planning Constraints (fire and emergency access)	2	2	2	1	2
Ease of design/construction	1	1	3	1	1
<b>Total Score</b>	<b>19</b>	<b>15</b>	<b>20</b>	<b>12</b>	<b>11</b>
<b>Final Rank</b>	<b>2</b>	<b>3</b>	<b>1</b>	<b>4</b>	<b>5</b>

Of the five possible access points considered, using the criteria discussed above, access via Brereton Street is marginally preferred over Birdwood Street and Kitchener Street. Access via Gowrie Drive, or a combination of Gowrie Drive and Brereton Street, is not preferred, primarily due to safety issues at the intersection of Gowrie Drive and Red Hill Drive, and impact on residents if Brereton Street is connected via Gowrie Drive to the wider road network in Forrest and Deakin.

The assessment carried out here used a limited set of criteria to compare the identified options. The assessment has shown that the Gowrie Drive options should not be considered further. However, the other three options have similar scores and should all be considered in more detail. In particular, the cost and environmental impact of construction of new roadways through green spaces has not been considered here but applies to the Birdwood Street and Kitchener Street options. While the Brereton Street option increases traffic on existing roads, the increased traffic does not exceed the capacity of the roads or require reclassification of the roads in the network hierarchy.

The three areas where Kitchener Street (long access) scored poorly are pedestrian access, impact on residents and ease of design/construction. If the proposed development location was to be shifted to the southern area of the golf course, each of these three criteria would score highly. This would rank Kitchener Street (short access) above Brereton Street. Therefore, Kitchener Street (short access) should also be considered for further assessment.

## 8 Conclusion

### 8.1 Summary

Each proposed development results in a modest increase in traffic at a local level, with no major impacts coming from proposed access points to the road network. Section 56, Red Hill generates a minimal amount of additional traffic and thus its impact on the network is minor. Connecting to either Birdwood Street or Kitchener Street is unlikely to have any substantial impact on congestion, apart from adding trips to already identified local area streets with volume constraints.

The CSTM suggests that Kent Street will already be close to its nominal capacity in 2031. The modest additional traffic generated by Section 66, Deakin results in some minor traffic diversions, particularly along Denison Street in the PM peak, as existing Kent Street traffic is displaced by the new development traffic and the volume increase on Kent Street reflects this redistribution. This will have implications for many of the intersections on Kent Street, particularly the low speed roundabouts at Strickland Crescent and Equinox and the give-way intersection with Carruthers Street. If there is significant through traffic on Kent Street heading towards the Adelaide Avenue eastbound on-ramp, traffic calming measures could encourage these vehicles to shift to Yarra Glen, probably via Carruthers Street.

It is likely that the Kent Street – Carruthers Street intersection would require signal control, however the Kent Street – Strickland Crescent intersection is situated amongst residences and this might cause some complications. The road reserve appears capable of supporting the necessary infrastructure, but the light from the signals themselves and the constant sound of the audio-tactile pedestrian pushbuttons would cause problems for the surrounding residents. However, this might be acceptable due to the improvement to pedestrian safety it would provide. Traffic calming could be achieved through the use of rubber speed cushions, which could be designed to reduce the attractiveness of the route for general traffic while minimally impacting buses or emergency vehicles.

A preliminary crash analysis was conducted using crash data records obtained from the dataACT Open Data Portal. The analysis indicated that the intersection of Gowrie Drive with Red Hill Drive has the highest crash rate. For both scenarios tested in this report, Gowrie Drive is assumed to be closed, which would remove traffic from this dangerous intersection. The location with the next highest crash rate is the intersection of Carruthers Street and Kent Street with 0.55 crashes per million vehicle movements. This intersection has high traffic volumes and requires turning vehicles to cross multiple lanes of traffic. Interventions at this location should be considered.

A brief assessment of crashes over time, by road condition, by time of day and by severity was also carried out. No intersection showed a clear trend of increases in crashes but the intersection of Kitchener Street and Birdwood Street appeared to show a decrease since 2012 and no crashes were recorded since 2015. No intersection showed a clear increase in crashes during wet weather. The intersection of Kent Street and Kitchener Street showed an abnormally high proportion of crashes at night, which might indicate need for better lighting at this location. While all other intersection had less than 10% of crashes resulting in injury or fatality, the intersection of Gowrie Drive with Red Hill Drive had 100% of crashes resulting in injury. While this is an extremely small sample size, the risks at this intersection are clearly demonstrated.

Access to public transport for the proposed development and surrounding areas was assessed using the new Network 19, which came into effect on 29 April, 2019. Section 66, Deakin has a bus stop adjacent to the development, providing access to Civic and Woden. Section 56, Red Hill has no access to public transport. The areas surrounding the development generally have reasonable access but the northern part of Brereton Street does not have any access.

The active travel network around the proposed developments is well connected. However, the footpath on Brereton Street providing access to Section 56, Red Hill is narrow and has many interruptions. It is recommended that good walking and cycling access be provided on either of the new roads proposed in Scenario 6 or 7.

For the intersections assessed in this report, the following comments were made:

- The Mugga Way/Stonehaven Crescent – Gowrie Drive/Melbourne Avenue intersection performance is unlikely to be affected by the proposed development and access in the scenarios tested in this report. Unbalanced flows at this intersection could lead to high delays for some approaches and further monitoring or assessment of this intersection might be required.
- The Gilmore Crescent – Brereton Street intersection currently has a low level of traffic and would experience no change in the scenarios tested in this report.
- The Kitchener Street – Gilmore Crescent intersection currently carries moderate levels of traffic and its volumes would only increase slightly in the scenarios tested in this report. There are not expected to be any issues at this location.
- The Kent Street – Carruthers Street intersection currently experiences a significant amount of traffic, with performance for low priority movements likely to be poor during the peak periods and risky behaviour might be increased. Austroads standards suggest that an intersection of this type should not be priority controlled and signalisation should be considered to better control the performance and safety at this intersection.
- The Kent Street – Strickland Crescent intersection also currently experiences a significant amount of traffic, especially considering its current roundabout configuration. It is likely operating close to its capacity during the peak periods and the additional traffic generated by Deakin Section 66 could be enough to push it to an unacceptable level of performance. Signalisation might be necessary to manage performance and improve access for pedestrians and cyclists in the area.
- The Gowrie Drive – Red Hill Drive intersection carries very little traffic. The busiest period is the Wednesday midday golf course peak of 81 vehicles per hour, of which only half are travelling to or from the golf course. This very low level of traffic likely contributes to the low number of accidents, although the accident rate is very much higher than other intersections in the area. For the scenarios tested in this report, it is assumed that Gowrie Drive is closed. If this does not occur, interventions should be undertaken to improve safety at this location.
- The intersection of Kitchener Street and Birdwood Street is generally low and only increases slightly for both scenarios tested. It is unlikely that any interventions would be required at this intersection.
- Traffic volumes at the intersection of Kent Street with Birdwood Street are moderate, and there could be some delays for traffic turning out of Birdwood Street, particularly in the PM peak. If Scenario 6 is adopted, some upgrades at this intersection might be necessary.
- Traffic at the intersection of Kent Street and Kitchener Street is moderate and a small amount of additional traffic would use this intersection in both scenarios. However, it is likely that the existing intersection would have sufficient capacity.

For the road sections assessed in this report, the following comments were made:

- Brereton Street carries very little traffic, currently fewer than 2,000 vehicles per day. No additional traffic would use this road in either scenario tested in this report.
- Gilmore Crescent between Brereton and Kitchener Streets currently carries just over 4,000 vpd, by which classification it operates as a major collector. No additional traffic would use this road in either scenario tested in this report.
- Kent Street carries a lot of traffic, with demand greatest between Carruthers Street and Strickland Crescent, due to the concentration of trip generators within this section. The additional land use at Section 66 Deakin accesses the network between these two points, adding additional load to a section of road that is likely already congested.
- Birdwood Street, while narrow, does not currently carry substantial traffic and the development scenarios would not significantly increase traffic. The volumes on this road do not suggest any capacity issues, except for the possible congestion at the intersection of Birdwood Street and Kent Street.
- Kitchener Street carries a moderate amount of traffic, and some traffic calming has already been implemented. In the scenarios tested in this report, there is a small increase in traffic but this is not expected to lead to any serious performance issues.

## 8.2 Challenges

The following challenges are noted:

- Kent Street traffic is heavy, which is likely to cause problems at some intersections, particularly Carruthers Street and Strickland Crescent
- The Section 66 Deakin development would increase delay on Kent Street and lead to a small diversion in traffic onto Denison Street

A map of the challenges is included in Figure 31.

## 8.3 Recommendations

Based on the outcomes of the transport modelling and analysis, SMEC recommends the following:

- Adopt Scenario 2 (access via Brereton Street) as the preferred option for further analysis, noting that the Kitchener Street and Birdwood Street options should not be discounted at this stage. A new option, based on the Kitchener Street access, was identified by EPSDD during the study and should also be considered further. All four options should undergo further assessment of considerations outside the scope of this report, including environmental impact, impact on adjacent residents, construction cost and constructability.
- Investigation of upgrade options for intersections on Kent Street, to address both performance and safety concerns, including:
  - Assess lighting at the intersection of Kent Street and Kitchener Street
  - Assess capacity improvements at Birdwood Street, Carruthers Street, Strickland Crescent
- Investigation of options to improve the performance and/or reduce the attractiveness of the Kent Street corridor to encourage traffic to use Yarra Glen and Adelaide Avenue for north/south travel. Possible options include speed reduction or construction of one or more roundabouts to reduce the priority for north-south traffic along the corridor and wombat crossings to improve pedestrian permeability. Any changes to the corridor should also consider Light Rail Stage 2, which is expected to run along the Adelaide Avenue/Yarra Glen corridor.
- Closure or upgrade of the intersection of Gowrie Drive and Red Hill Drive (dependant on whether Scenario 6, 7 or another option is selected)
- Any new road(s) provided for the preferred option should include good active travel facilities and meet relevant emergency services design standards
- Cost estimates for road and intersection upgrades
- Ensure good pedestrian access to the Kent Street bus stops from Section 66, Deakin

A map of the recommendations is included in Figure 32.

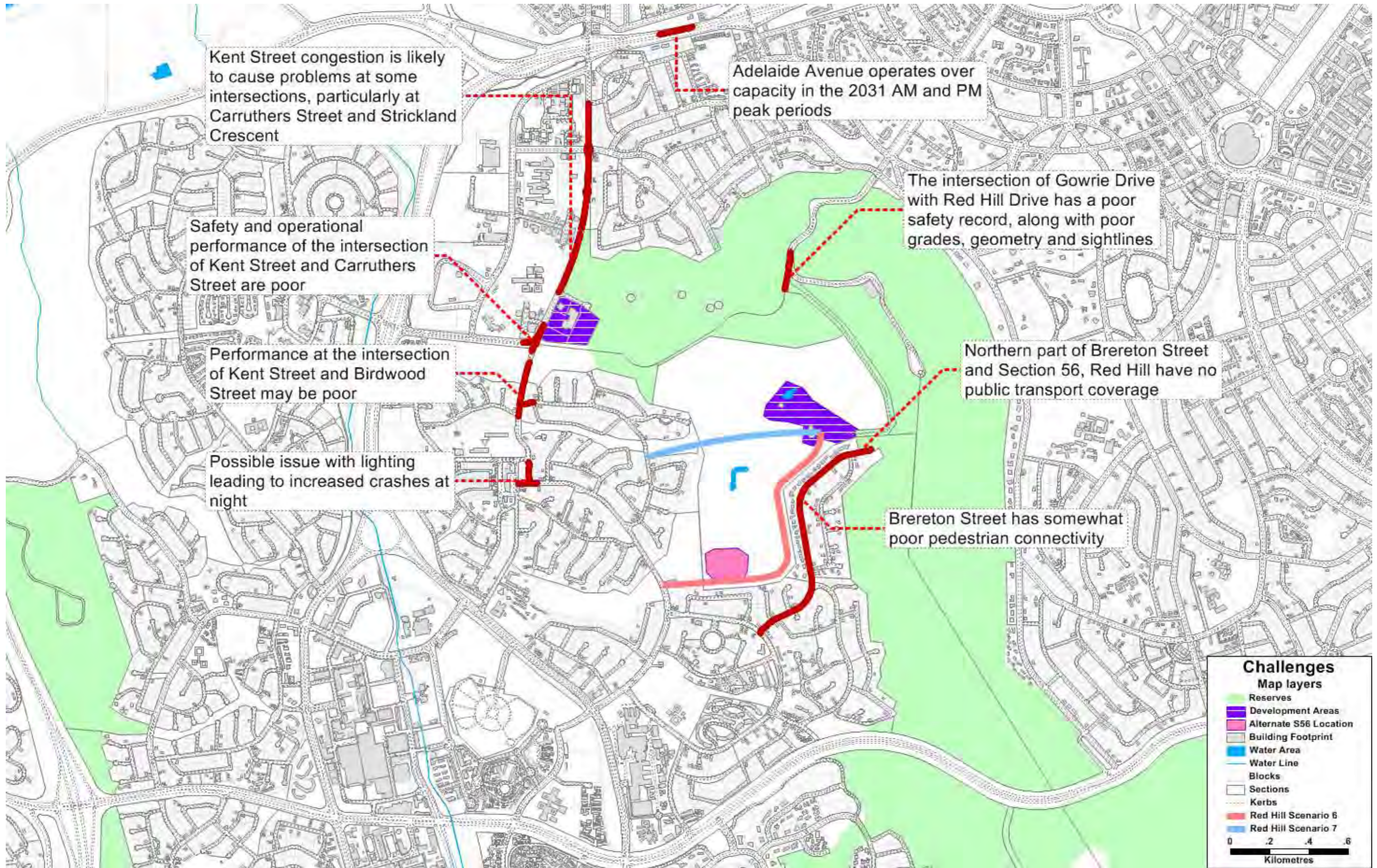


Figure 31: Red Hill Reserve Surrounds Challenges

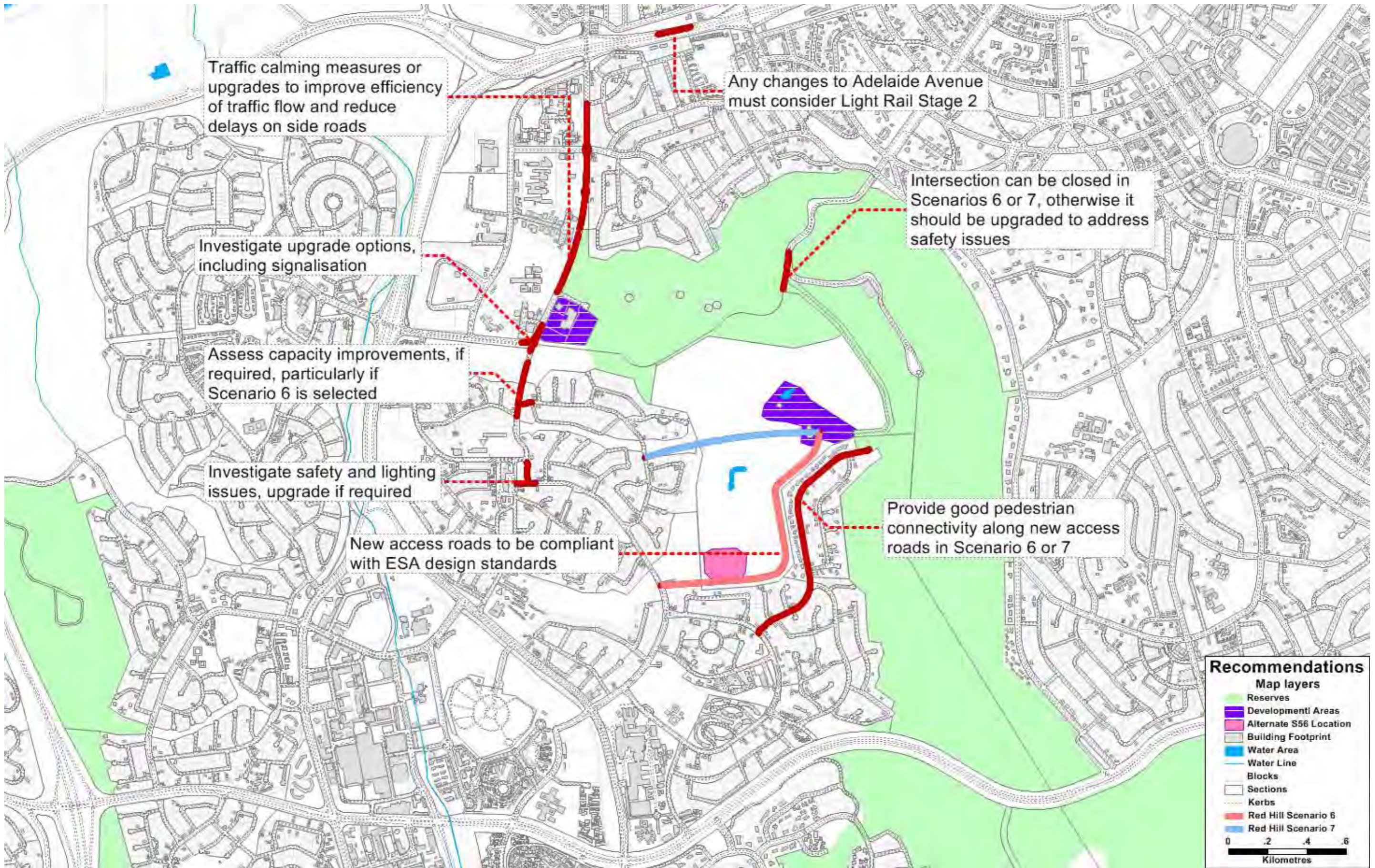


Figure 32: Red Hill Reserve Surrounds Recommendations

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## 9 References

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Orthongthed, Wang & Legaspi 2013. *Estimating cost expansion factors in the Sydney urban and NSW rural road networks for economic evaluation of road projects*. Australasian Transport Research Forum 2013 Proceedings. Available: [http://atrf.info/papers/2013/2013\\_orthongthed\\_wang\\_legaspi.pdf](http://atrf.info/papers/2013/2013_orthongthed_wang_legaspi.pdf)

SMEC 2018. *Red Hill Reserve Surrounds Traffic Study – Strategic Modelling Report*. 27 August 2018

## Appendix A Future Road Network Assumptions

### 2021 Assumed Road Network Improvements

Network Item	Description
Taylor Local Roads	Added
Horse Park Drive Duplication	Duplication of Horse Park Drive between Federal Highway and Roden Cutler Drive- for 2018 completion. Anthony Rolfe Avenue to Well Station Drive
Hibberson Street pedestrian and light rail zone	Pedestrian and light rail only zone between Kate Crace Street and Gungahlin Place
Hibberson Street one-way shared zone	Shared zone between pedestrians and vehicles on Hibberson Street between Gungahlin Place and Gozzard Street
Manning Clark Crescent Extension	New road connecting Flemington Road to Anthony Rolfe Avenue
Ernest Cavanagh Street Extension	Extension of Ernest Cavanagh Street from Hinder Street to Manning Clark Crescent
The Valley Avenue Extension and Manning Clark Crescent Extension	Extension of The Valley Avenue from Kate Crace Street to Manning Clark Crescent and the extension of Manning Clark Cres from Flemington Rd to Anthony Rolfe Avenue
New road to the south of The Valley Avenue	Following up SLA (Darren Benson) for details where it connects to including extension of Gungahlin Place and 4 <sup>th</sup> leg of Valley Avenue/Kate Crace St intersection (both intersections now signalised)
Light Rail Stage 1	Light rail from Gungahlin to City
Flemington Road changes due to Light Rail Stage 1	Lane configuration changes between Well Station Drive and Federal Highway
Throsby Local Roads	Added (Copied from speed zones shapefile)
Gundaroo Drive Duplication Stage 1	Duplication between Gungahlin Drive and Mirrabai Drive/Anthony Rolfe Avenue
Gundaroo Drive Duplication Stage 2	Duplication between Gungahlin Drive and Barton Highway Roundabout.
Kuringa Drive/Owen Dixon Drive Signalisation	Intersection signalisation
Lawson Local Roads	Added (Copied from speed zones shapefile)
University of Canberra Hospital Access Road off Aikman Drive	A new road and associated intersection works to provide access to the hospital
Aikman Drive Duplication	Duplication between Ginninderra Drive and Emu Bank
Southern Cross Drive/Starke Street Signalisation	Intersection signalisation
Dickson Group Centre intersection upgrade	Antill Street/Cowper Street and Cowper Street/Dickson shops access road works, plus signalisation of Antill St/Badham St

Network Item	Description
Cape Street Extension	Extension of Cape Street from Challis Street to Northbourne Avenue – (Bus Access Only)
Northbourne Avenue/ London Circuit Intersection	Intersection upgrade
Parkes Way to Allara Street Exit	Added
West Belconnen Stage 1	New arterial road (Road 100) northwest of Stockdill Drive including multiple intersections located along the new arterial road. Also include other works proposed along Drake Brockmann Drive and Stockdill Drive
John Gorton Drive Stage 3	New roadworks providing access to Whitlam including signalisation of John Gorton Drive/William Hovell Drive/Coulter Drive intersection. (John Gorton Drive-William Hovell Drive Intersection Layout awaiting)
Molonglo Roads Stage 2	New roadways providing access to residential development
Weston Creek Group Centre	Brierly Street and Trenerry Square upgrade
Launceston Street / Irving Street Signalisation	Intersection signalisation
Cotter Road Duplication	Duplication from Tuggeranong Parkway to Yarralumla Creek
Dudley Street upgrade	Dudley St upgrade and Canberra Brickworks precinct access road from Dudley Street via a roundabout to boundary of new estate development
IKEA Northern Access Road	Mustang Avenue extension to north of IKEA called 'Dharaban Road'
Majura link road (Spitfire Avenue)	Link road between Majura Road and Majura Parkway Construction called 'Meddhung Road'
Tomsitt Drive Extension	Connect Tomsitt Drive to Yass Road (Ellerton Drive) in Queanbeyan
Monaro Highway – additional northbound lane	From Isabella Drive to Lanyon Drive
Hindmarsh Drive intersection upgrades	Signalisation at intersection with Launceston Street and Eggleston Crescent
Ashley Drive Duplication	Duplication of Ashley Drive from Erindale Drive to Johnson Drive
Anketell Street Upgrade	
Googong/Tralee Link	Connect Googong/Tralee area to Lanyon Drive West of Tomsitt Street Agreed

## 2026 Assumed Road Network Improvements

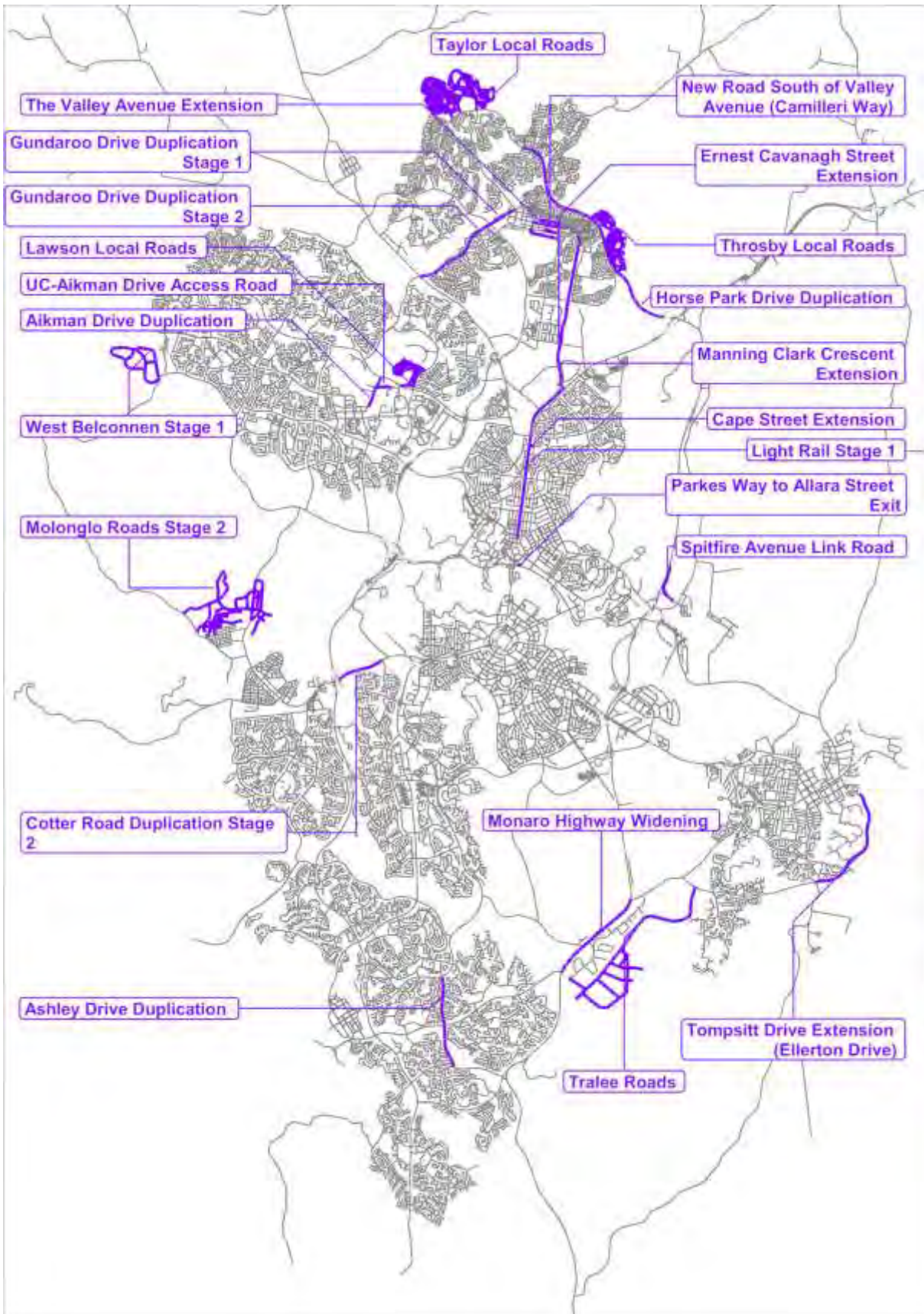
Network Item	Description
Horse Park Drive Duplication	From Mulligans Flat Road to Roden Cutler Drive
Mirrabei Drive Duplication (parts)	From Paul Coe Crescent to Yama Way (Mirrabei Drive corridor upgrade (including Shoalhaven intersection signalisation))
Old Well Station Road Upgrade	Old Well Station Road Upgrade between Federal Highway and Morisset Road
Sandford/Morisset Street Extension	Extension of Morisset Road to Federal Highway (Watson roundabout)
Nudurr Drive Extension	Connect Nudurr Drive from Grampians Street to Gungahlin Drive
Mouat Street, Lyneham	Additional lane for public transport including queue jump lane. (Mouat Street duplication (between Challis Street & Ginninderra Drive))
William Slim Drive Upgrade	Duplication from Barton Highway to Ginninderra Drive
Belconnen Way/ Springvale Drive Signalisation	Intersection signalisation
William Hovell Drive augmentation	New roadworks duplicating William Hovell Drive from John Gorton Drive to Drake Brockman Drive (William Hovell Drive northbound widening (Drake-Brockman Dr to Coppins Crossing Road))
John Gorton Drive Extension and Molonglo River Bridge	John Gorton Drive Arterial Road Approaches and Bridge Crossing of the Molonglo River
Fairbairn Avenue – additional westbound lane	From Majura Road to Majura Parkway
Fairbairn Avenue Augmentation	Additional Lane on Fairbairn Avenue Between Majura Parkway and Nomad Drive (Fairbairn Avenue additional lane (Majura Parkway to Majura Road))
Fairbairn Avenue Duplication	Duplication from Treloar Crescent to Majura Parkway (Fairbairn Avenue Duplication (between Majura Parkway and Northcott Drive))
Pialligo Avenue Duplication	Duplication between Airport (Brindabella Circuit) and NSW Border (including Sutton Road Drivers Training Centre entry) (East- West Corridor Study/Pialligo Avenue Duplication (Airport to NSW Border))
Monaro Highway – additional lanes	From Canberra Avenue to Johnson Drive (both directions) (Monaro Highway Duplication from Canberra Ave to Johnson Dr as part of North-South Corridor study)
Cotter Road – Stage 3	From Dunrossil Dr to Adelaide Avenue (including the Mint Interchange) – by 2031 to link with Light Rail

Network Item	Description
Tuggeranong Parkway – additional northbound lane	From Cotter Road to the Glenloch Interchange
Athllon Drive Duplication	Athllon Drive Duplication between Sulwood Drive and Drakeford Drive –
Erindale Drive Duplication	From Ashley Drive to Drakeford Drive
Tharwa Drive Duplication	Tharwa Drive Duplication between Woodcock Drive and Pocket Avenue

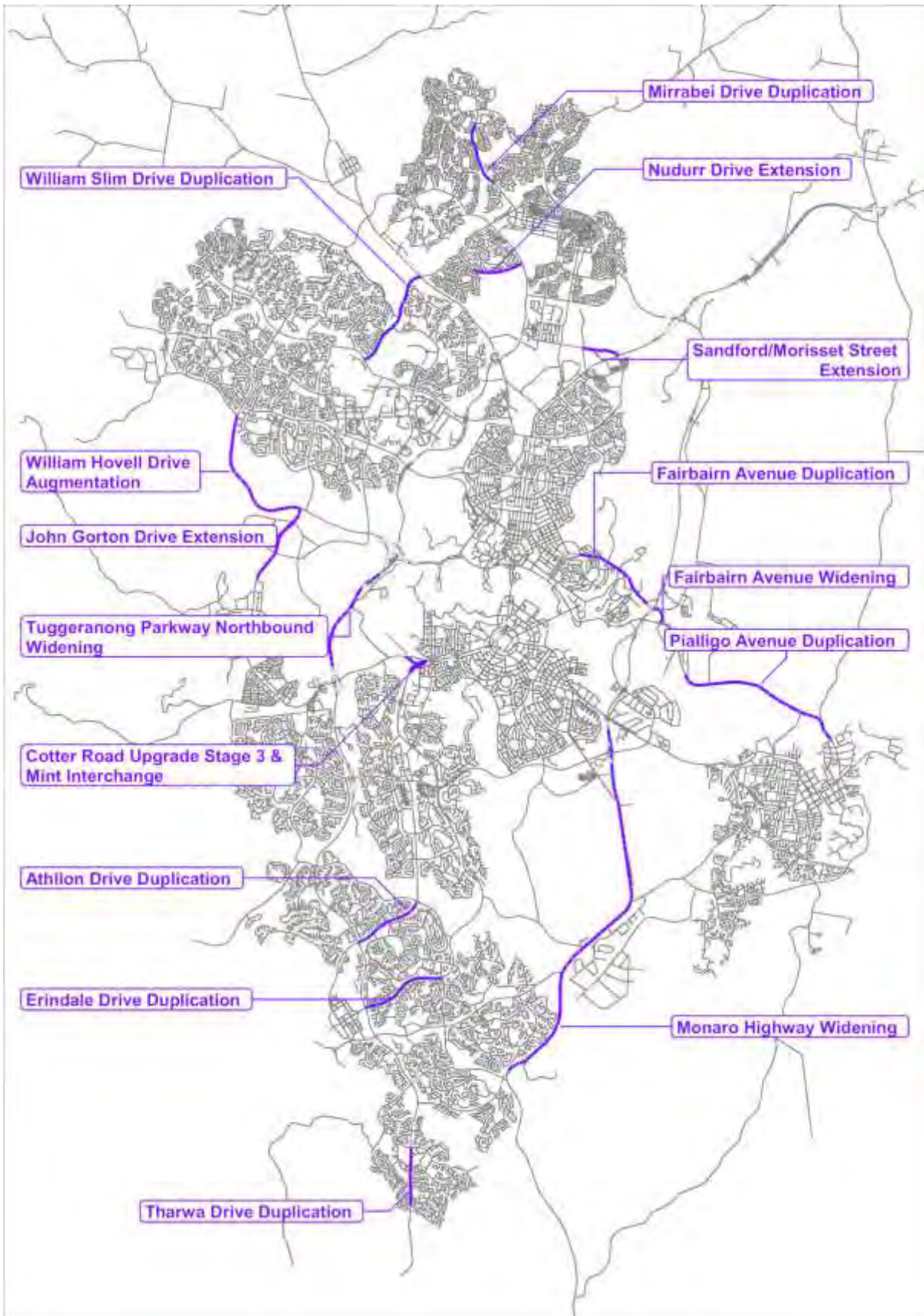
## 2031 Assumed Road Network Improvements

Network Item	Description
Horse Park Drive Duplication	From Roden Cutler Drive to Clarrie Hermes Drive
CSIRO Access Roads	Access roads to CSIRO development; no access via Barton Highway
Gungahlin Drive Duplication	From Gundaroo Drive to Horse Park drive (Gungahlin Drive augmentation (Horse Pak Drive to The Valley Avenue))
Clarrie Hermes Drive Duplication	From Horse Park Drive to the Barton Highway (Clarrie Hermes Drive Duplication (Gunghalin Drive to Barton Highway))
Barton Highway Interchange	Grade separation of Barton Highway and Gundaroo Drive
Lawson West Road Network	Road network in Lawson West, linking Lawson to the Ginninderra Drive – Aikman Drive intersection
Bindubi Street Extension	New roadworks linking John Gorton Drive and Bindubi Street
Kuringa Drive Duplication	Kuringa Drive Duplication between Kingsford Smith and Barton Highway
West Belconnen Stage 2	Roads to service West Belconnen Stage 2; link to Parkwood Drive (Duplication of part of Parkwood Road and Southern Cross Drive up to Florey Drive)
Drake Brockman Drive Upgrade	Duplication of Drake Brockman Drive
Southern Cross Drive Duplication	From Moyes Crescent to Spofforth Street
Molonglo Stage 3 Collector Roads	New roads providing access to the suburbs of Molonglo Stage 3
Light Rail Stage 2	Light rail from City to Woden Agreed
Commonwealth Avenue / Albert Street Signalisation	Staggered T arrangement with northbound to eastbound right turns at Albert Street. (Turn penalties to allow and ban the mentioned movements) Part of City to the Lake, Parkes Way upgrade and associated new roads.
Commonwealth Avenue / Corkhill Street Signalisation	Staggered T arrangement with south to west right turns at Corkhill Street. (Turn penalties to allow and ban the mentioned movements) Part of City to the Lake, Parkes Way upgrade and associated new roads

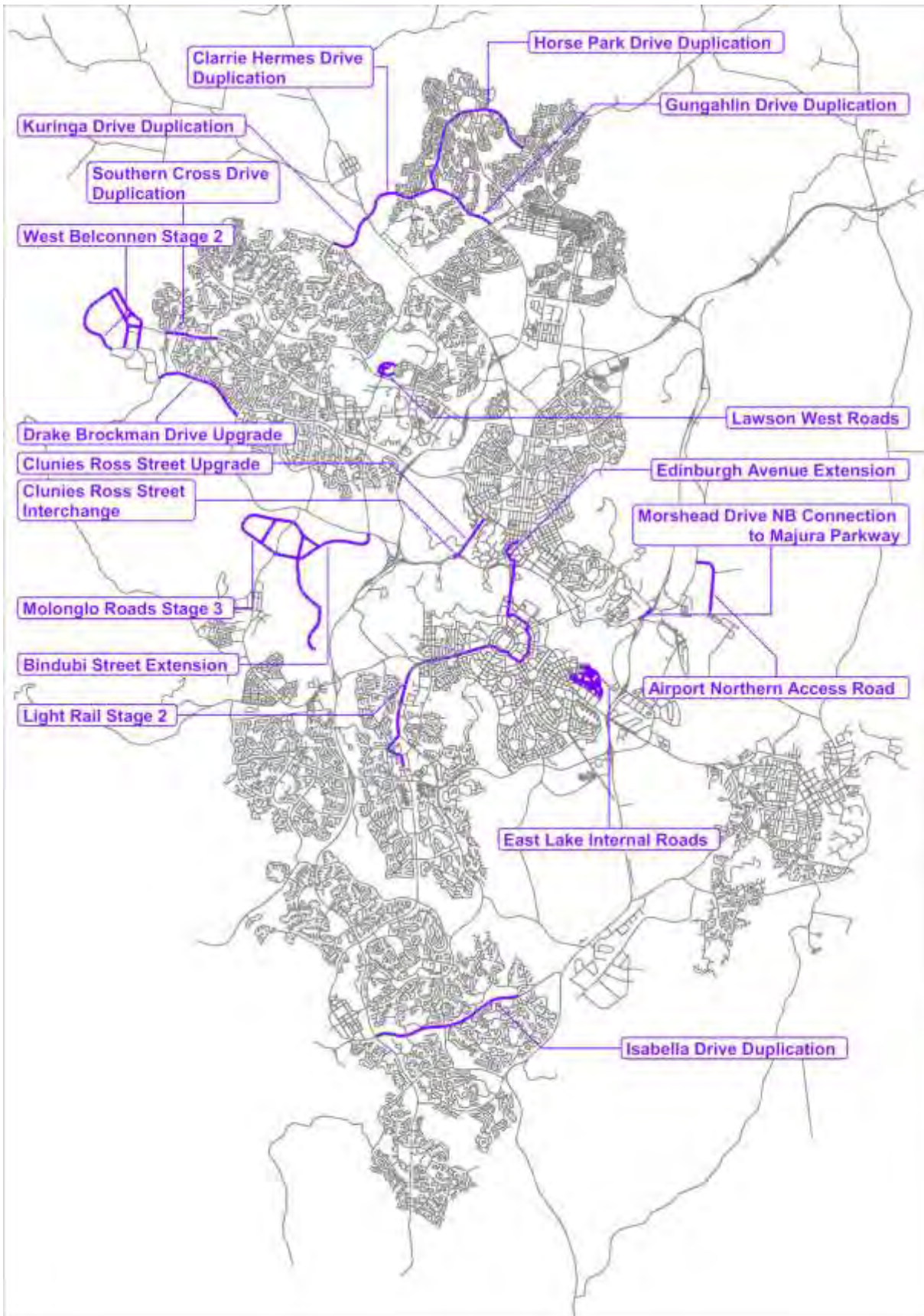
Network Item	Description
Edinburgh Avenue extensions to Vernon Circle	Part of City to the Lake, Parkes Way upgrade and associated new roads
New at-grade intersection between Commonwealth Avenue and London Circuit	Part of City to the Lake, Parkes Way upgrade and associated new roads
Removal of the Commonwealth Avenue to London Circuit loop ramp	Part of City to the Lake, Parkes Way upgrade and associated new roads
New west facing ramps at the Parkes Way/Clunies Ross Street interchange	Part of City to the Lake, Parkes Way upgrade and associated new roads
Clunies Ross Street Upgrade	Duplication of Clunies Ross Street between Barry Drive and Parkes Way
Sturt Avenue/MacMillan Crescent Signalisation	Intersection signalisation
East Lake Internal Roads	Primary transport access connections from Wentworth Avenue and Canberra Avenue Access/egress: extension of Dawes Street/Sandalwood Street, Cunningham Street, Burke Crescent and extension of the Causeway to a connection at Mildura Street
Morshead Drive	Northbound connection to the Majura Parkway
Airport Northern Access Road	Connect Glenora Drive to Majura Road (Northern Access to RAAF Fairbairn (Canberra Airport as part of Canberra Airport Master Plan 2014-2034 p181))
Isabella Drive Duplication	From Hambidge Crescent to Drakeford Drive (Isabella Drive Duplication (from Drakeford Drive to Chisholm Shops))



2021 Road Network Upgrades



2026 Road Network Upgrades



2031 Road Network Upgrades



## Appendix B Intersection Turning Movement Counts

**local people  
global experience**

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SMEC is recognised for providing technical excellence and consultancy expertise in urban, infrastructure and management advisory. From concept to completion, our core service offering covers the life-cycle of a project and maximises value to our clients and communities. We align global expertise with local knowledge and state-of-the-art processes and systems to deliver innovative solutions to a range of industry sectors.

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**From:** [REDACTED]  
**Sent:** Thursday, 12 September 2019 12:59 PM  
**To:** Brady, Erin; Cusack, Kathy; Sayers, Caroline; Magee, Alexandra  
**Cc:** [REDACTED]  
**Subject:** Fwd: Integrated Plan for Red Hill Nature Reserve and surrounds - draft meeting notes [SEC=UNCLASSIFIED]  
**Attachments:** Superb parrots bowl BirdsinCanberra.jpg; female Gang-gang at hollow 2 Hughes Garran open space Aug 19 BirdsinCanberra.jpg; male Gang-gang at hollow Hughes Garran open space Aug 19 BirdsinCanberra.jpg; Superb parrot feeding youg - Hughes 15 Jan 2019.JPG

Dear Erin,

I understand that you advised [REDACTED] yesterday that EPSDD is still considering how best to conduct public consultations on the Integrated Plan for Red Hill Nature Reserve and Surrounds. As per our email to Caroline Sayers of 19 August, Hughes Residents' Association is anxious that public consultations should commence as soon as possible, particularly with residents living near the proposed location of housing development on the Federal Golf Course under EPSDD's preferred option for the Integrated Plan.

As stated in our email of 19 August:

*"[REDACTED] and I would also like to express how disappointed and upset we are that the Federal Golf Club has broadcast details of your preferred option to its members, despite the agreement that we were all to keep this confidential until you advised. This puts the Hughes Residents' Association in an invidious position. Hughes residents, many of whom would have development close to their homes under this option, are now in one of two groups: either they have found out about this development from the Golf Club or their golfing friends, or they do not know about it at all, while so many others do. They have every reason to feel that, instead of representing them, we have badly let them down. Garran residents are in a similar position."*

We understand that [REDACTED] informed you yesterday that residents of [REDACTED] Street, Garran, had become aware of your preferred option and were understandably angry that they had not been consulted. They had the impression that we and other organisations had developed and agreed this option along with EPSDD, without consulting them. They have now formed the Garran Residents' Association.

It is vital that any communications with the public make it clear that this option has **not** been agreed by community organisations.

Hughes Residents' Association has not heard the views of the residents of Hughes on this option because it is still under embargo. As you requested, we have only provided our members with the information you sent, without commentary or opinions. As requested, we have not provided this information to other Hughes residents.

However, we have expressed to you our own serious concerns about this option on numerous occasions in meetings, in emails and in phone conversations, including most comprehensively in the email below sent to Caroline Sayers in January, which also sets out serious concerns raised by [REDACTED] on behalf of the Hughes Garran Woodland Group.

As discussed with Caroline after the 16 August meeting, we consider that a letterbox drop to suburbs adjacent to Red Hill Nature Reserve would be the best way to inform residents of your plans, although information would also be needed for other ACT residents who use and value Red Hill Nature Reserve and its surrounds, possibly notices at local shops and in the ACT Government's regular letterboxed newsletters to Woden Valley and Inner South residents. This needs to be followed by public information sessions, so that people can have their say. If it is not possible to letterbox all residents of adjacent suburbs, it is essential that letters are sent to residents of all streets adjoining the Nature Reserve and the proposed Integrated Plan boundaries.

The attached photos show Gang-gang Cockatoos inspecting possible nesting hollows this August in the area affected by your preferred option, and Superb Parrots at a resident-maintained open space waterbowl and feeding young there earlier this year.

We look forward to hearing from you as soon as possible.

Kind regards,

[REDACTED]  
Secretary,  
Hughes Residents' Association  
[REDACTED]

----- Forwarded message -----

From: [REDACTED]  
Date: Wed, Jan 23, 2019 at 11:35 AM  
Subject: Re: Integrated Plan for Red Hill Nature Reserve and surrounds - draft meeting notes [SEC=UNCLASSIFIED]  
To: Terrplan <[Terrplan@act.gov.au](mailto:Terrplan@act.gov.au)>, Sayers, Caroline <[Caroline.Sayers@act.gov.au](mailto:Caroline.Sayers@act.gov.au)>  
Cc: [REDACTED]

Caroline, Many thanks for this and thanks also for our phone conversation yesterday. We have really appreciated your intelligent and comprehensive approach to the Integrated Plan and your understanding of the complexity of the issues and concerns involved. We are pleased that real progress is being made in understanding the issues.

As discussed by phone, this is to confirm that Hughes Residents' Association is very concerned that none of the options set out in your presentation provide protection for the woodland on Section 66 Deakin (Kent Street). As you know, residents' immediate concern about the destruction of this woodland was the main impetus behind the Save Red Hill petition to the ACT Legislative Assembly, which gave rise to this Plan. As noted in the meeting, we are not opposed to redevelopment on the existing Section 66 building footprint, provided traffic and ecological issues are addressed. We consider that the already built area of Section 66 would be a suitable part of Deakin Office Park.

In relation to the Federal Golf Course lease, Hughes Residents' Association appreciates the issues with road access and housing in the high bushfire risk and ecologically sensitive areas of Red Hill, including the Federal Golf Course lease, and we consider these issues to be compelling reasons not to proceed with housing development in this area at all.

As also discussed by phone, we are strongly opposed to Option 4, which provides for "development at another location on the site with alternative access of Kitchener Street", which we understand from your presentation would most likely be a housing development closer to houses in Hughes and in [REDACTED] Garran, with a new road cutting in half the beautiful woodland of the Hughes Garran Open Space, proceeding directly past the Scout Hall and onto already heavily congested Kitchener Street.

Hughes residents have told us that they are shocked and horrified by this Option, as they had understood that the Public Open Space between suburbs was protected and an essential amenity for residents, as well as irreplaceable habitat for wildlife. It is home to a number of original hollow-bearing trees of great age and the beautiful Hughes Garran shelter belt Heritage Plantings, which provide food and homes for many animals. The Threatened Superb Parrot has been seen in this area for three years, including feeding young, and there is a possibility that it breeds here. The Heritage Planting blue gums are thought to be an essential source of food for Gang-gang nestlings. As you may know, there are currently only five confirmed Gang-gang nesting sites in the ACT and they are all in the Hughes/Deakin area within a short distance of the Heritage Planting blue gums. There is a likely Gang-gang nesting hollow on the site and another close by in the lovely Hughes Garran Woodland, as well as many other bird nesting sites and wildlife.

Residents backing onto this area maintain it lovingly, as you can see if you walk around it, with seating installed at their expense, constant weeding and assiduous planting of appropriate local native plants over the decades. Consequently, it is one of the few open space areas in Canberra not overrun with St John's Wort and other exotic weeds. The area provides a vital wildlife corridor to the Hughes Garran Woodland on the other side of Kitchener Street, which is recognised as a high value ecological area and, unlike other public open space areas, has its own entry in the National Parks and Reserves section on the Canberra Nature Map.

The Hughes Garran Woodland Group, one of the community organisations which originally sponsored the Save Red Hill petition and was invited to send a community representative to the Integrated Plan workshops, has expressed its understandable dismay at this proposal and the inevitable loss of irreplaceable

woodland and wildlife habitat and the decimation of this important wildlife corridor by housing and roads. Members of this longstanding Land Care Group spend many hours a week of their own time maintaining this lovely woodland.

Hughes Garran Woodland Group Convener, [REDACTED], has emailed that

*"As discussed, the Hughes Garran Woodland Group is very concerned about this option. It would have an impact on the habitat for birds nesting in the area and would also impact the extension of the wildlife corridor from Red Hill over to the Hughes Garran woodland – essentially providing a corridor into the Woden Valley.*

*Additionally, we also note that speed humps were installed along Kitchener street to address the traffic in the area, this proposal would have an impact on the traffic on this street, has this been considered as part of the option assessment?"*

Hughes residents and most likely [REDACTED] Street residents also are unhappy at the prospect of a housing development close to their homes on land that has always been zoned as recreational and provides a beautiful outlook and recreation area for local residents and others. Residents continue to complain to us that Kitchener Street is dangerous, congested and still used as a rat run, despite installation of speed bumps in various places over the years in an unsuccessful attempt to address these problems.

Those who signed the Save Red Hill petition point out that their reason for signing it was to protect **all** our green space, and the second of the three dot points calls on the Government "*to retain green space in Hughes, Deakin and Garran*".

Hughes Residents' Association and Hughes Garran Woodland Group trust that EPSDD will not proceed with consideration of this Option.

I am also attaching for your interest a link to a WIN News item about Gang-gang Cockatoos, filmed on the beautiful Federal Golf Course lease woodland and featuring video of our own beloved Red Hill Gang-gangs feeding nestlings. I am sure you can understand why local residents cherish this place and wish to protect it for posterity.

<https://www.facebook.com/WINNewsCanberra/videos/604717199978901/>

[REDACTED] but will have email access and can be contacted by mobile [REDACTED] which is roaming-enabled. You can also contact [REDACTED]

Thank you again for your hard work, and kind regards,

[Redacted]

Secretary  
Hughes Residents' Association

[Redacted]

|









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**From:** Brady, Erin  
**Sent:** Thursday, 12 September 2019 6:50 PM  
**Cc:** Sayers, Caroline; Kaucz, Alix; Wilden, Karen  
**Subject:** Red Hill Integrated Plan - update  
**Attachments:** Draft map,considerations and proposed directions - draft Integrated Plan for Red Hill Nature Reserve and Surrounds (A21039712).120919.pdf

UNCLASSIFIED

Hello

*Subject: Red Hill Integrated Plan*

*(note: this email is being sent to stakeholders/representatives we have engaged with to date)*

*Thank you for your feedback on the confidential draft version of the Red Hill Integrated Plan dated 21 August 2019. We have considered the feedback received and made some slight changes to the draft plan map/diagram as a result – please find this attached along with the key considerations and proposed directions.*

*We greatly appreciate your involvement and the input you have provided to date as we have undertaken this planning work. I understand and appreciate that you would like to have more detail to share with your wider community and groups now.*

*The attached draft Plan/ diagram and key considerations and proposed directions will be made public in the next few days on the Environment Planning and Sustainable Development Directorate website: <https://www.planning.act.gov.au>*

*We will also provide an outline of the process we have gone through to arrive at this point, to illustrate we have undertaken a planning process and that the 2 pager here is a summary of the outcome of the analysis and planning work we undertook and have discussed with you. We can send you a link when that is uploaded.*

*As discussed at my last meeting with you, we will also be engaging with the broader community to gain feedback from a wider audience. We will advise you of when and how this is occurring and where, but it will likely be in the next 1-2 months. We will also put the information on next steps on the EPSDD website.*

*Following this community engagement we will analyse the feedback and outline the next steps for this process. We will keep you updated on this. We are also proposing to add an update on our website so that you can track progress there as well. We will do this in the coming weeks.*

*Thank you again for your ongoing participation in this planning process.*

*If you have any queries or questions please contact Caroline Sayers on 62071719 or email the Territory Plan Section at [Terrplan@act.gov.au](mailto:Terrplan@act.gov.au)*

*Regards*

*Erin*

**Dr Erin Brady | Deputy Director-General**

**Land Strategy & Environment**

Ph: +61 2 6205 4522 | Email: [Erin.Brady@act.gov.au](mailto:Erin.Brady@act.gov.au)

**Environment, Planning and Sustainable Development Directorate | ACT Government**

16 Challis St, Dickson | GPO Box 158 Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)



I acknowledge the traditional custodians of the ACT the Ngunnawal people, and their continuing connection to land and community. I pay my respect to them, and to the Elders both past and present.

**Draft map, considerations and proposed directions for the  
Integrated Plan for Red Hill Nature Reserve and Surrounds**

**12 September 2019**

This is a summary of considerations and proposed directions for the Red Hill Integrated Plan based on planning analysis and discussions to date.

**Red Hill Nature Reserve – Considerations**

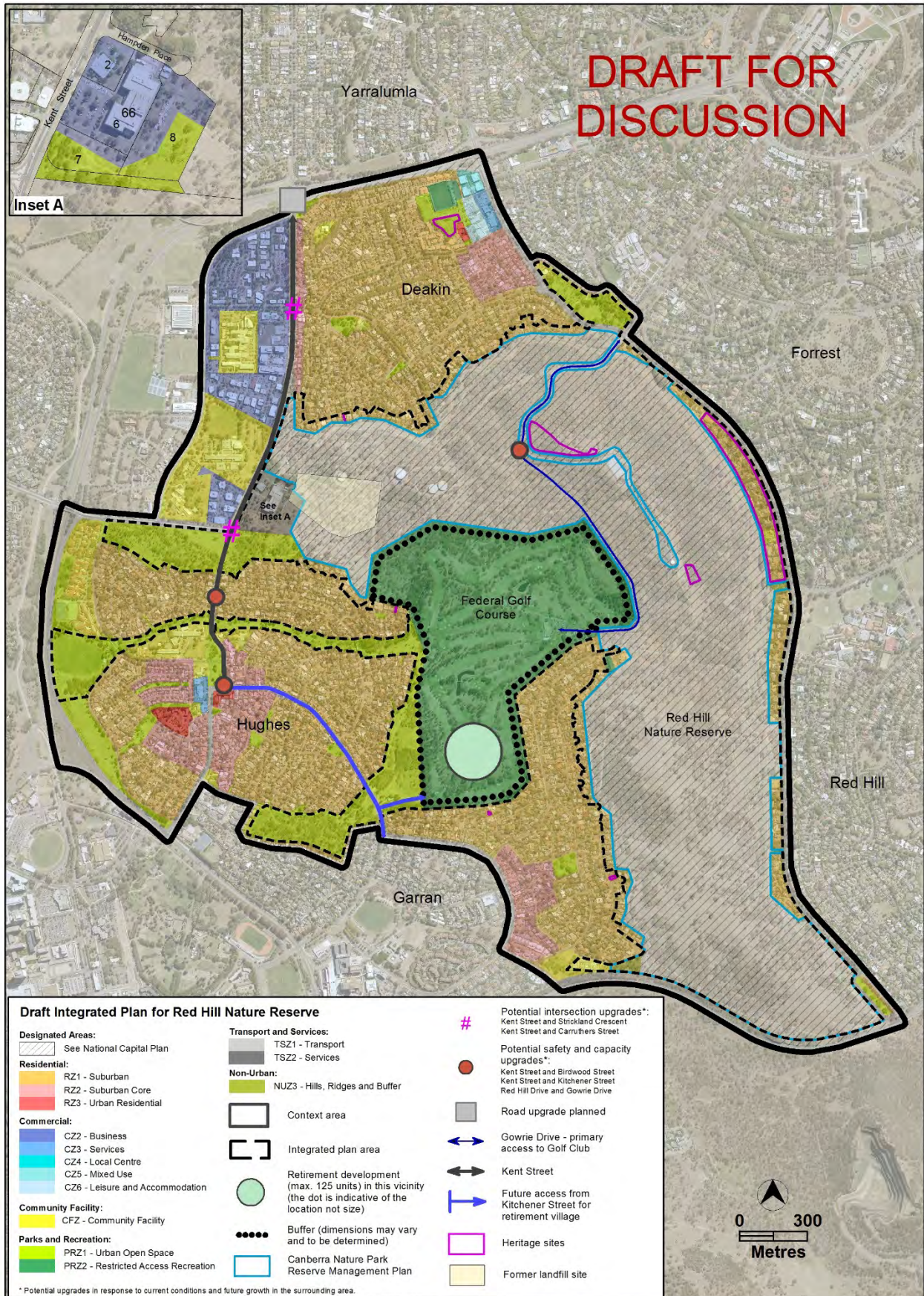
1. Canberra Nature Park - Plan of Management has been recently revised and will be released shortly.
2. Red Hill Plantings – recently included in the Heritage Register.
3. Old Deakin tip – to be capped by the ACT Government.
4. Retain PRZ1 Urban Open Space zoned land adjoining and linking to the Red Hill Nature Reserve.

**Traffic and Access - Considerations**

5. Traffic analysis –
  - Kent Street – undertake future upgrades in response to current use and future growth–
    - Adelaide Avenue access – planned for implementation.
    - Strickland Crescent and Carruthers intersection – upgrade investigations.
    - Birdwood and Kitchener Streets – upgrade investigations.
  - Red Hill and Gowrie Drive future upgrade possibly required in response to current use and future growth.

**Planning Considerations and Proposed Directions**

6. Retain Residential RZ1 suburban zoning for residential blocks adjoining the Red Hill Nature Reserve.
7. Deakin Section 66 propose to rezone the existing Transport and Services Zone TSZ2 to:
  - partly Commercial CZ2 Business Zone primarily to reflect current uses on the site consistent with uses in the surrounding Deakin office park (residential uses not permitted); and
  - partly PRZ1 Urban Open Space primarily to reflect ecological values of the site.
8. Federal Golf Club site:
  - Limit the range of uses permitted on the golf course under the existing PRZ2 Restricted Access Recreation Zone.
  - Retain an 18 hole golf course on the site as well as associated uses.
  - A unit retirement complex (up to 125 units) at the southern portion of the site is considered an appropriate use.
  - Access:
    - Provide access to the retirement village via Kitchener Street.
    - Retain access to the golf club via Gowrie Drive.
    - No public access road between the retirement village and the golf club.
  - Protect key ecological values on the site, particularly at the interface with the Red Hill Nature Reserve, hollow bearing trees, and where continuous ecological corridors can be provided. This should be managed through careful location and design of:
    - the retirement village
    - the gold course greens and associated infrastructure; and
    - the external access road from Kitchener Street and the internal roads.
  - Implement a buffer around the golf course and the retirement village to:
    - provide and protect ecological corridors and values; and to
    - maintain amenity of surrounding residential areas.



---

**From:** Brady, Erin  
**Sent:** Friday, 13 September 2019 5:44 PM  
**To:** [REDACTED]  
**Cc:** Sayers, Caroline; Kaucz, Alix; Wilden, Karen  
**Subject:** RE: Red Hill Integrated Plan - update

UNCLASSIFIED Sensitive

[REDACTED]  
Just a quick response to your queries.  
Please see below in green and brackets.  
Regards  
Erin

**Dr Erin Brady | Deputy Director-General**  
**Land Strategy & Environment**  
Ph: +61 2 6205 4522 | Email: [Erin.Brady@act.gov.au](mailto:Erin.Brady@act.gov.au)  
**Environment, Planning and Sustainable Development Directorate | ACT Government**  
16 Challis St, Dickson | GPO Box 158 Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

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**From:** [REDACTED]  
**Sent:** Friday, 13 September 2019 11:18 AM  
**To:** Brady, Erin <Erin.Brady@act.gov.au>  
**Cc:** Sayers, Caroline <Caroline.Sayers@act.gov.au>; Kaucz, Alix <Alix.Kaucz@act.gov.au>; Wilden, Karen <Karen.Wilden@act.gov.au>  
**Subject:** RE: Red Hill Integrated Plan - update

Good morning Erin

Thank you for your email. You have made it clear to groups what the next steps of the process will be. Making the draft plan public in the next few days will also be very helpful. People will then be able to see an official version of the draft which the groups can then use to engage with their members and the wider community.

I have a couple of questions/comments on the draft. The removal of the word “all” in point 4 leaves open the possibility that not all the PRZ1 Urban Open Space zoned land will be retained. I assume this is intentional? (The access road via Kitchener Street will traverse the open space as will some infrastructure and services. We removed the word all to cover these occurrences)

Similarly the removal of the word “all” from point 6 leaves open the possibility that Residential RZ1 suburban zoning may not be retained for all residential blocks adjoining the Nature Reserve. (There are no proposals to rezone any residential blocks as part of this Integrated Plan process.)

In point 8 in dot points 4 and 5 instead of referring to “No public access road” and “the external access road” it would be preferable to refer to “No access driveway” and “the external access driveway”. (The development of internal and external accesses will be developed to the satisfaction of TCCS standards for access and internal circulation regardless of whether they are called roads or driveways. )

Kind Regards

---

**From:** Brady, Erin <[Erin.Brady@act.gov.au](mailto:Erin.Brady@act.gov.au)>

**Sent:** Thursday, 12 September 2019 6:50 PM

**Cc:** Sayers, Caroline <[Caroline.Sayers@act.gov.au](mailto:Caroline.Sayers@act.gov.au)>; Kaucz, Alix <[Alix.Kaucz@act.gov.au](mailto:Alix.Kaucz@act.gov.au)>; Wilden, Karen <[Karen.Wilden@act.gov.au](mailto:Karen.Wilden@act.gov.au)>

**Subject:** Red Hill Integrated Plan - update

UNCLASSIFIED

Hello

*Subject: Red Hill Integrated Plan*

*(note: this email is being sent to stakeholders/representatives we have engaged with to date)*

*Thank you for your feedback on the confidential draft version of the Red Hill Integrated Plan dated 21 August 2019. We have considered the feedback received and made some slight changes to the draft plan map/diagram as a result – please find this attached along with the key considerations and proposed directions.*

*We greatly appreciate your involvement and the input you have provided to date as we have undertaken this planning work. I understand and appreciate that you would like to have more detail to share with your wider community and groups now.*

*The attached draft Plan/ diagram and key considerations and proposed directions will be made public in the next few days on the Environment Planning and Sustainable Development Directorate website: <https://www.planning.act.gov.au>*

*We will also provide an outline of the process we have gone through to arrive at this point, to illustrate we have undertaken a planning process and that the 2 pager here is a summary of the outcome of the analysis and planning work we undertook and have discussed with you. We can send you a link when that is uploaded.*

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*Following this community engagement we will analyse the feedback and outline the next steps for this process. We will keep you updated on this. We are also proposing to add an update on our website so that you can track progress there as well. We will do this in the coming weeks.*

*Thank you again for your ongoing participation in this planning process.*

*If you have any queries or questions please contact Caroline Sayers on 62071719 or email the Territory Plan Section at [Terrplan@act.gov.au](mailto:Terrplan@act.gov.au)*

Regards

Erin

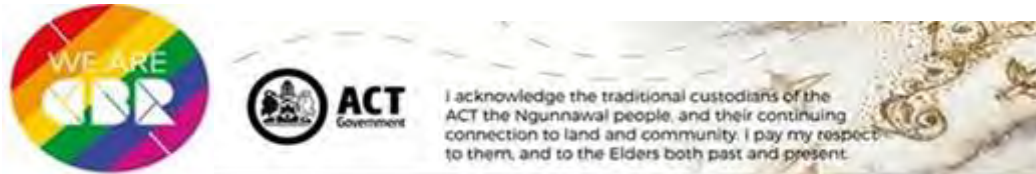
**Dr Erin Brady | Deputy Director-General**

**Land Strategy & Environment**

Ph: +61 2 6205 4522 | Email: [Erin.Brady@act.gov.au](mailto:Erin.Brady@act.gov.au)

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**From:** [redacted]@mbark.com.au>  
**Sent:** Thursday, 19 September 2019 2:54 PM  
**To:** Sayers, Caroline  
**Cc:** Brady, Erin; Adam Somerville; 'Bob Correll'; taniaparkes@taniaparkes.com.au  
**Subject:** RE: New Residents Group - FGC Contact  
**Attachments:** 190918\_FED\_Letter to Residents.pdf

Hi Caroline

Further to my email below, please find attached the letter that was provided to adjoining residents to the Golf Course yesterday (Wednesday, 18 September). The Club has offered to host a meeting for adjoining residents this coming Monday evening at 5:30pm to hear any comments they may have, which we expect to be well attended.

Erin mentioned in her email to stakeholders last week that the draft plan and recommendations would soon be made public – are you aware when this will happen? I searched the [planning.act.gov.au](http://planning.act.gov.au) website today and was unable to locate it.

Regards  
David

DAVID CONSALVI

**MBARK**

T: [redacted]  
E: [redacted]@mbark.com.au  
A: [redacted]

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**From:** David Consalvi

**Sent:** Tuesday, 10 September 2019 1:37 PM

**To:** Sayers, Caroline <Caroline.Sayers@act.gov.au>

**Cc:** Erin.Brady@act.gov.au; [REDACTED]@mbark.com.au; 'Bob Correll' [REDACTED]; taniaparkes@taniaparkes.com.au

**Subject:** New Residents Group - FGC Contact

Hi Caroline

The Club has been made aware of a Garran residents group that has recently formed with interest in the Integrated Plan and potential development on the Golf Course. We understand that they are primarily made up of residents that adjoin the southern and eastern boundaries of the Club and, being good neighbours, we would like to reach out to them and offer a point of contact with the Club should they wish to better understand the context for the Club's proposal and why it is needed.

We will be contacting them via their Facebook group with a link to our website and contact details, as well as a letterbox drop to the adjoining homes this week.

Please let us know if you have any problems with these actions as we do not want to interfere with the Integrated Plan process and do not want to engage on the draft recommendations, but do think it is important that they have the opportunity to understand the history of and reasons for our proposal.

Kind regards

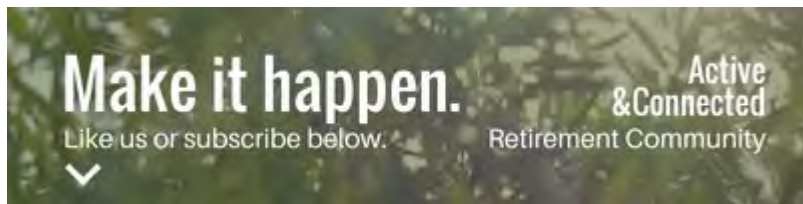
DAVID CONSALVI

**MBARK**

T: [REDACTED]

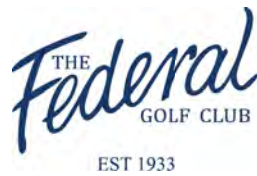
E: [REDACTED]

A: [REDACTED]



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Dear Federal Golf Club Neighbour

I am writing to you as someone who lives next to our Club about recent events regarding our proposal to develop a retirement community on a small parcel of land near our clubhouse.

As you may be aware, over the past year or two our proposal has been examined as part of the Government's Integrated Plan for the Red Hill Nature Reserve. The draft of this Plan has suggested that, due to better access arrangements, the preferred location for a retirement community is in the southern portion of the golf course and not at our current proposed location around the existing clubhouse.

The Club has only very recently received this information and is now starting to consider the feasibility of a retirement village in the southern part of the course as suggested in the Government's Integrated Plan.

We would appreciate the opportunity to talk with you about why the integration of a retirement community is important to the future of the Club and to make clear what parts of the golf course the Club does not want to see developed. For example, the Club does not want development along our eastern and western boundaries (4th and 5th golf holes) to ensure existing land and tree buffers, walking trails and resident outlooks over the course are maintained.

On the other hand, there may be opportunities for some environmentally appropriate development to occur on golf course land near the southern half of the Club's western boundary (2nd and 3rd holes) given the existing public use space abutting this boundary. There are also areas of land that may be able to be used in the centre of the golf course southern area by some relocation and adjustment to existing golf holes.

We invite you to attend a meeting at the clubhouse on Monday 23<sup>rd</sup> at 5.30pm. You can alternatively contact us at [info@activeandconnected.com.au](mailto:info@activeandconnected.com.au) to schedule a convenient time. Such a discussion could be with a group of residents rather than one to one if you prefer.

You can also find a substantial amount of information about the history of our initial proposal at [www.activeandconnected.com.au](http://www.activeandconnected.com.au).

I look forward to meeting with you soon.

Kind regards



Anthony Sinclair  
General Manager | Federal Golf Club

---

**From:** [REDACTED]@mbark.com.au>  
**Sent:** Tuesday, 24 September 2019 3:10 PM  
**To:** Brady, Erin  
**Cc:** Sayers, Caroline; O'Neill, Carolyn; Wilden, Karen; Goddard, Laura; Ponton, Ben; taniaparkes@taniaparkes.com.au  
**Subject:** Re: Red Hill Integrated Plan update

Dear Erin,

I wanted to brief you on the discussion with community members invited to the Golf Club last night.

We had approximately 97 people attend (may have missed a few in the count). We estimate approximately 20-30 were residents adjoining the course who are also members of the Club. Some representatives of community groups who have been involved for the past few years (GAHRAG, Hughes Residents and Red Hill Regenerators) and the remainder being other interested local residents.

A show of hands suggested the significant majority had been aware of the proposal activities in recent years however there were more than we expected who suggested they had never heard of the retirement proposal at Federal in recent years and this was all news to them. This was surprising given the direct consultations we had undertaken and following the meeting GAHRAG advised they had door knocked and letterbox dropped in the area on multiple occasions also. On a side note, [REDACTED] (GAHRAG) advised during the same conversation that it was almost universal among the people he had spoken to that all wanted to see Federal survive, which was nice feedback and good of [REDACTED] to share that with me.

The Club gave attendees some context into the water issues and the steps the Club has taken over the years to manage these as well as the investigations that gave rise to the Club considering a retirement proposal (ie the [REDACTED] s report and investigations).

I then discussed the pathway the initial proposal had been guided by including the significant community consultation activities that had been undertaken along with the technical studies that supported its final constitution. There was a suggestion by a resident that we had wasted all our time by not ensuring access arrangements for bushfire were satisfactory. We were able to clarify that we had in fact made these enquiries and were given feedback from ESA suggesting that our proposal was capable of complying. I further advised that it would be wrong to assume the current proposal was a 'bad' proposal – it was the result of significant work and consultation – but that the draft Integrated Plan had a body of work suggesting there was a preferred location for the proposal to be considered. Until the Integrated Plan could be understood more fully we were not in a position to throw the baby out with the bath water. A reasonable position that seemed to get misinterpreted by some (especially the GAHRAG reps who were quite concerned) that we would be challenging the findings of the Integrated Plan which is categorically not the case.

Our position here is that we understand completely that the current proposal is not going to get supported and the work of the Integrated Plan has an improved location for evaluation if a future proposal is to go ahead. What we were saying to the meeting is that we need to fully understand all of the reasons why the current proposal is not

preferred and why the area to the South is better in those respect. The work has been down so the outcomes should be clear. Natural and emergency access to the site was the obvious determinative one we had been briefed on and we were clear in agreeing at the meeting that the southern location was superior in this regard to our initial proposal. Proximity to existing residential areas and services was another that seems obvious. GAHRAG representatives advised the meeting there were numerous other aspects including biodiversity outcomes. We undertook to dive deeper into this detail so that we could give all residents, especially those in the southern area, the details behind why the proposal is preferred in this location and, once understood, this would be the catalyst for a follow up meeting.

The main source of angst from residents adjoining the Club was the proximity of any proposal to their homes but there were also some who simply don't want to see anything. For those adjoining residents who are keen to understand proximity issues, we were very clear in support of the Integrated Plan residential buffers to the southern boundary and eastern boundary. The Club was clear in its invitation letter regarding areas we will avoid and we discussed at length 'where it wouldn't go' given it is too early to have any more detail to hand. It is our intention to follow up the meeting with a more definitive 'line on a page' that expresses clearly the area the Club will not be considering in any future proposal. We will represent this clearly as the Club's view and not representative of where EPSDD might resolve buffers as part of the Integrated Plan.

As part of the summary of historic consultation activities undertaken, it was discussed that the southern part of the site had been previously reviewed in detail following a suggestion by GAHRAG in the panel forum. Not having any access rights out of the Club in this area had seen this possible site not progress at that time. The work of the draft Integrated Plan identifying access to Kitchener street has changed this view. This was misconstrued by a number of attendees that residents from the north had been instrumental in seeing the proposal moved towards residents in the south. I advised the meeting that I didn't believe the draft Integrated Plan work was influenced by anything other than technical studies as the consultation phase was yet to come but that EPSDD could readily clarify this.

**I think this is a very important point to make crystal clear with residents from the south and wanted to bring it to your attention.**

In summary, I think it will be beneficial when the consultation process is undertaken, that there is a clear list of the technical areas considered within the draft Integrated Plan and the rationale presented in those areas as to why the southern part of the Course area is considered a superior location. Natural and emergency access, connectivity to networks and services and biodiversity outcomes head the list but there may be others.

Coupled with clarity that it is these technical studies and views that have informed the draft Plan, rather than influence of any consultations previously undertaken, this should go a long way to helping the residents in this area understand the significant work informing the draft Plan.

The Club and Mbark will be doing what we can to give better clarity to the areas we won't be exploring as options which will hopefully ease the anxiety of many adjoining residents. We will also continue to engage with all of the stakeholders we are aware of to seek their further input to inform aspects of any future work we do. Last night was the start of a continuing consultation process we will undertake with our neighbours and the community.

We remain grateful for the work EPSDD is putting into this process and welcome the opportunity to be of any assistance.

**Regards**

**Adam**

Adam Somerville  
Managing Director

MBARK

M: [REDACTED]  
E: [REDACTED]@mbark.com.au



---

**From:** "Brady, Erin" <Erin.Brady@act.gov.au>  
**Date:** Monday, 23 September 2019 at 3:15 pm  
**To:** "Brady, Erin" <Erin.Brady@act.gov.au>  
**Cc:** "Sayers, Caroline" <Caroline.Sayers@act.gov.au>, "O'Neill, Carolyn" <Carolyn.O'Neill@act.gov.au>, "Wilden, Karen" <Karen.Wilden@act.gov.au>, "Goddard, Laura" <Laura.Goddard@act.gov.au>, EPSD Government Services <EPSDGovernmentServices@act.gov.au>, "Ponton, Ben" <Ben.Ponton@act.gov.au>  
**Subject:** Red Hill Integrated Plan update

UNCLASSIFIED

All

Please be advised we have uploaded some material to our website to provide an update on the work we have undertaken to date and proposed next steps. We will continue to update this (and you) in relation to the sessions we have proposed for October.

[https://www.planning.act.gov.au/topics/current\\_projects/red-hill-integrated-plan](https://www.planning.act.gov.au/topics/current_projects/red-hill-integrated-plan)

Regards  
Erin

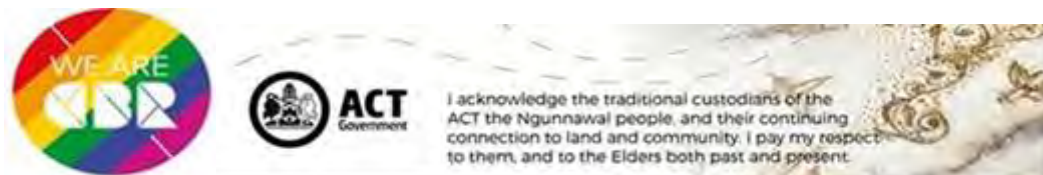
Dr Erin Brady | Deputy Director-General

**Land Strategy & Environment**

Ph: +61 2 6205 4522 | Email: [Erin.Brady@act.gov.au](mailto:Erin.Brady@act.gov.au)

**Environment, Planning and Sustainable Development Directorate | ACT Government**

16 Challis St, Dickson | GPO Box 158 Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)



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**From:** Sayers, Caroline  
**Sent:** Thursday, 26 September 2019 9:53 AM  
**To:** Goddard, Laura  
**Subject:** FW: Red Hill Integrated Plan update [SEC=UNCLASSIFIED]

FYI.

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**From:** Brady, Erin  
**Sent:** Wednesday, 25 September 2019 6:38 PM  
**To:** [REDACTED]  
**Cc:** Ponton, Ben <Ben.Ponton@act.gov.au>; Sayers, Caroline <Caroline.Sayers@act.gov.au>; [REDACTED]  
**Subject:** RE: Red Hill Integrated Plan update

UNCLASSIFIED

[REDACTED]  
Thank you for the update.  
We are hoping to have the draft plan ready in the next 1-2 weeks so we can provide more of the detail.  
Thank you  
Erin

**Dr Erin Brady | Deputy Director-General**  
**Land Strategy & Environment**  
Ph: +61 2 6205 4522 | Email: [Erin.Brady@act.gov.au](mailto:Erin.Brady@act.gov.au)  
**Environment, Planning and Sustainable Development Directorate | ACT Government**  
16 Challis St, Dickson | GPO Box 158 Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

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**From:** [REDACTED]  
**Sent:** Tuesday, 24 September 2019 2:07 PM  
**To:** Brady, Erin <[Erin.Brady@act.gov.au](mailto:Erin.Brady@act.gov.au)>

Cc: Ponton, Ben <[Ben.Ponton@act.gov.au](mailto:Ben.Ponton@act.gov.au)>; Sayers, Caroline <[Caroline.Sayers@act.gov.au](mailto:Caroline.Sayers@act.gov.au)>

Subject: Red Hill Integrated Plan update

Hello Erin

As you are aware the Federal Golf Club held a meeting with residents yesterday evening to discuss the location of a prospective retirement village in the southern portion of the golf course, as proposed in the draft Integrated Plan. The meeting was attended by over 100 people.

In this email I will not describe all that occurred at the meeting. I will however raise a number of concerning matters. The development company MBark, represented by Adam Somerville, pursued the following line with some vigour. The development of the draft Integrated Plan took a great deal of time; given that very little information resulted from the process it is difficult to understand why it took so long; MBark has been provided with absolutely no information or explanation why the current proposal for the northern part of the golf course should not proceed. Adam Somerville believes that their proposed development in the northern part of the course is the optimum design and the best location for a retirement village. Adam indicated at the meeting that he will continue to prosecute the case for this proposal until he is given detailed reasons why it has been rejected in the context of developing the Integrated Plan. Adam exploited the lack of information and knowledge in the audience. He sought, and gained a fair bit of support, for continuing to prosecute the case for the current development to proceed.

Adam made it clear that he considered the southern part of the course an inferior location for a retirement village and until he understands why the current proposal is not acceptable MBark would not be in a position to give any serious consideration to the nature and location of a retirement village in the southern part of the course. For many in the audience this was frustrating because they had come to the meeting in order to be involved in the early stages of planning for a retirement village in the southern part of the course.

I had a lengthy discussion with Adam and Bob Correll (FGC) at the end of the meeting. I quizzed Adam about the meeting he had with EPSDD in August re the preferred Integrated Plan option. He was adamant he was given no reasons why the current development should not proceed other than some general reference to emergency access issues and some ecological requirements.

Aside from continuing to promote the merits of the current proposal, pleading ignorance as to why it should not proceed and not providing any meaningful information about a possible development in the southern part of the course Adam also spent a fair bit of time in the meeting trying to create divisions within the community. He stated in a very adamant manner that a retirement village was now proposed for the southern part of the course because it was promoted by GAHRAG - trying to pit north Garran residents against south Garran residents. Adam also read out the names of community organisations involved in the process over the years, his message being that these people are the ones that have caused this outcome and have failed residents located around the southern part of the course. Until it was pointed out, Adam refused to acknowledge that the draft Integrated Plan resulted from a comprehensive planning exercise conducted over a 22 month period. The approach taken by Adam was to create division, exploit the lack of knowledge and information amongst the audience and build as much opposition as possible to the draft Integrated Plan.

The situation we have with many people at the moment is that they are not inclined to support the Integrated Plan without being provided with sufficient information and understanding. The lack of information is adding to confusion and concern which is being exploited by MBark.

I think it is vital that EPSDD provides asap more supporting explanation, on the website, for the directions and recommendations contained in the draft Integrated Plan. It is likely that in quick succession a number of community organisations will meet to discuss the draft Plan, along with further FGC meetings. It is vital that these meetings

have available to them the reasoning behind the draft Integrated Plan, particularly in relation to the lack of suitability for development in the northern part of the golf course, so that informed discussion can occur. This additional information does not need to be long but in my view must clearly make the following points:

- The northern Part of the FGC lease area is not suitable for development purposes because:
  - it is adjacent to the Red Hill Nature Reserve which is comprised primarily of critically endangered Red-Gum Yellow-Box Grassy Woodland, together with associated flora and fauna, which needs to be protected;
  - areas of the golf course adjacent to the Nature Reserve also contain critically endangered woodland together with the associated flora and fauna;
  - there is a significant population of Superb Parrots, which are listed as vulnerable under ACT and Commonwealth legislation, to be found roosting and foraging in the area;
  - any development within this area would require the golf course access road, which runs through the reserve, to be upgraded thereby resulting in damage to the ecological values of the reserve;
  - a large part of this area is located within the bushfire zone;
  - there are unacceptable difficulties with providing emergency access to any residential development in this area;
- A retirement village in this northern portion of the course would be isolated from health facilities, shops and other amenities and not in close proximity to public transport.

I am happy to discuss this matter further if you wish.

Kind Regards  
[REDACTED]

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**From:** Brady, Erin <[Erin.Brady@act.gov.au](mailto:Erin.Brady@act.gov.au)>

**Sent:** Monday, 23 September 2019 3:13 PM

**To:** Brady, Erin <[Erin.Brady@act.gov.au](mailto:Erin.Brady@act.gov.au)>

**Cc:** Sayers, Caroline <[Caroline.Sayers@act.gov.au](mailto:Caroline.Sayers@act.gov.au)>; O'Neill, Carolyn <[Carolyn.O'Neill@act.gov.au](mailto:Carolyn.O'Neill@act.gov.au)>; Wilden, Karen <[Karen.Wilden@act.gov.au](mailto:Karen.Wilden@act.gov.au)>; Goddard, Laura <[Laura.Goddard@act.gov.au](mailto:Laura.Goddard@act.gov.au)>; EPSD Government Services <[EPSDGovernmentServices@act.gov.au](mailto:EPSDGovernmentServices@act.gov.au)>; Ponton, Ben <[Ben.Ponton@act.gov.au](mailto:Ben.Ponton@act.gov.au)>

**Subject:** Red Hill Integrated Plan update

UNCLASSIFIED

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Please be advised we have uploaded some material to our website to provide an update on the work we have undertaken to date and proposed next steps. We will continue to update this (and you) in relation to the sessions we have proposed for October.

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Regards  
Erin

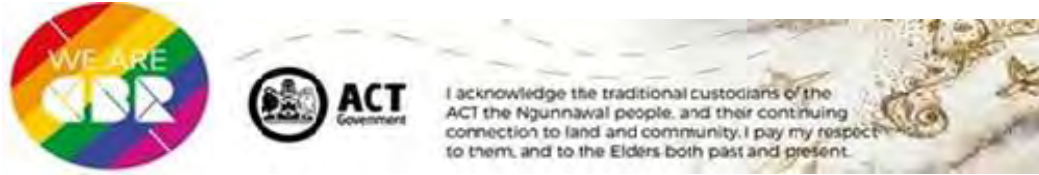
**Dr Erin Brady | Deputy Director-General**

**Land Strategy & Environment**

Ph: +61 2 6205 4522 | Email: [Erin.Brady@act.gov.au](mailto:Erin.Brady@act.gov.au)

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ACT GOVERNMENT

# Integrated Plan for Red Hill Nature Reserve and Surrounds

September 2019



**ACT**  
Government

# Background –Integrated Plan for Red Hill Nature Reserve and surrounds

## Background

- **The Legislative Assembly resolved on 25 October 2017 to prepare an Integrated Plan for the Red Hill Nature Reserve and surrounding residential areas.**
- **October 2017, two petitions with a total of some 3000 signatures were lodged with the Clerk of the Legislative Assembly**
- **The resolutions impact two proposed Territory Plan variations adjoining the Red Hill Nature Reserve:**
  - **Deakin section 66; and**
  - **Federal Golf Club.**



# Study Area - Integrated Plan for the Red Hill Nature Reserve and surrounds

## Inclusions:

### Study area:

- Blocks adjoining the Nature Reserve
- Open space network with links to the reserve.

### Broader context area:

- Residential areas of Deakin, Hughes and Garran
- Deakin office precinct



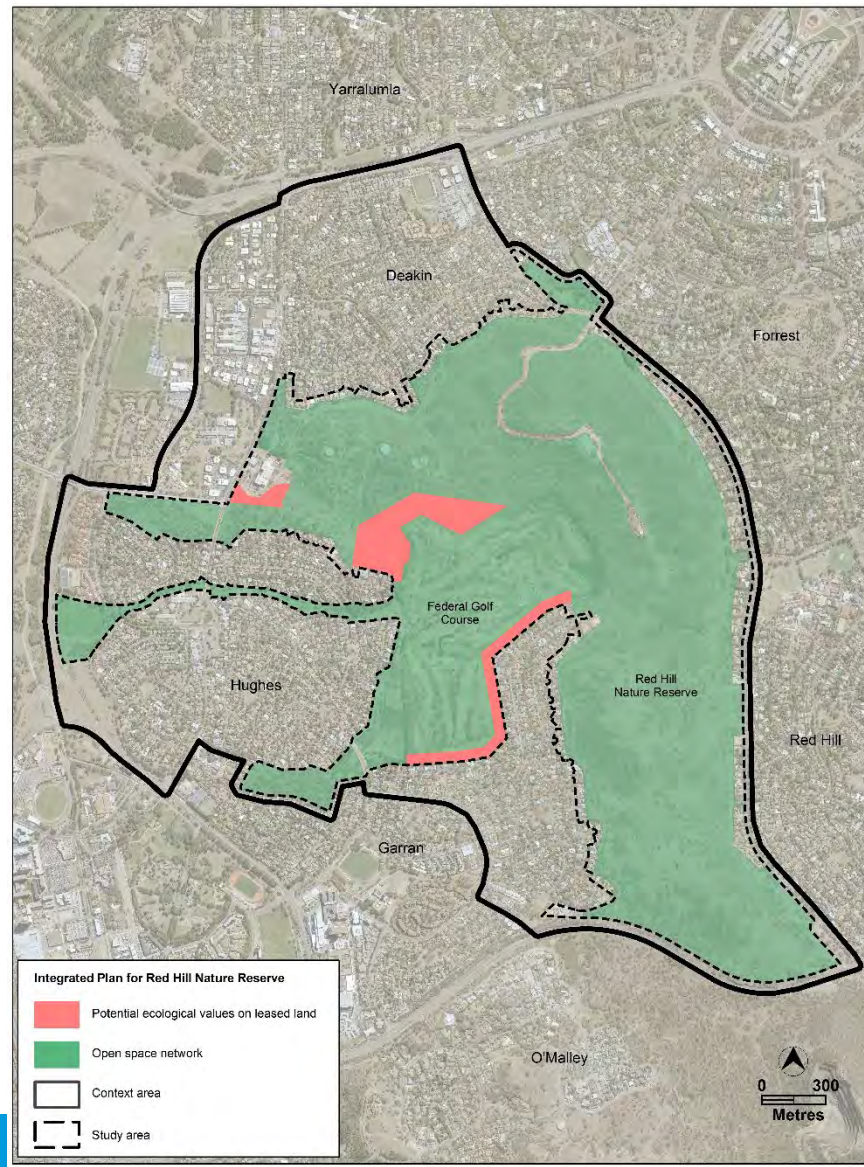
## Exclusions:

- Residential areas of Red Hill, Forrest and parts of Garran.
- Embassy and sports precincts in Deakin.
- Hospital precinct in Garran
- Hindmarsh Drive/O'Malley

# Opportunities and constraints - Ecological values of the Red Hill Nature Reserve and surrounds

**-Plan of Management for the Nature Reserve recently reviewed and is due for public release.**

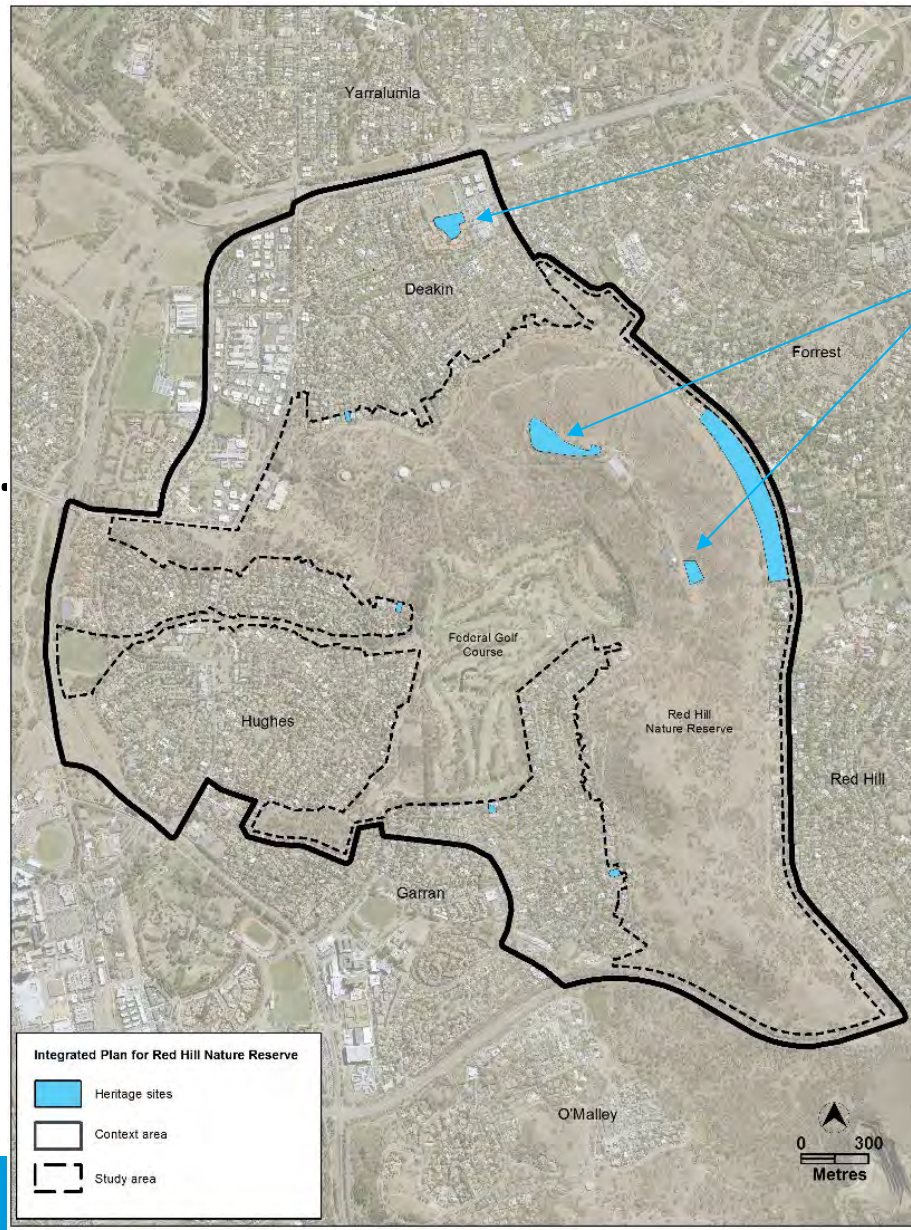
**- Open space network, including parts of the Federal Golf Course provides linkages to other high value areas including the Hughes Ridge.**



- **Potential high ecological values exist on leased land adjoining the Nature Reserve including:**
- **Part of blocks 7 and 8 Deakin section 66**
- **Part of the Federal Golf Course**
- **Public open space network.**

# Opportunities and Constraints – Heritage values

- Seven heritage places registered and protected.
- All Aboriginal places which may occur within the area are protected.
- *Heritage Act 2004* approvals may be required



- Natural heritage – Deakin Anticline

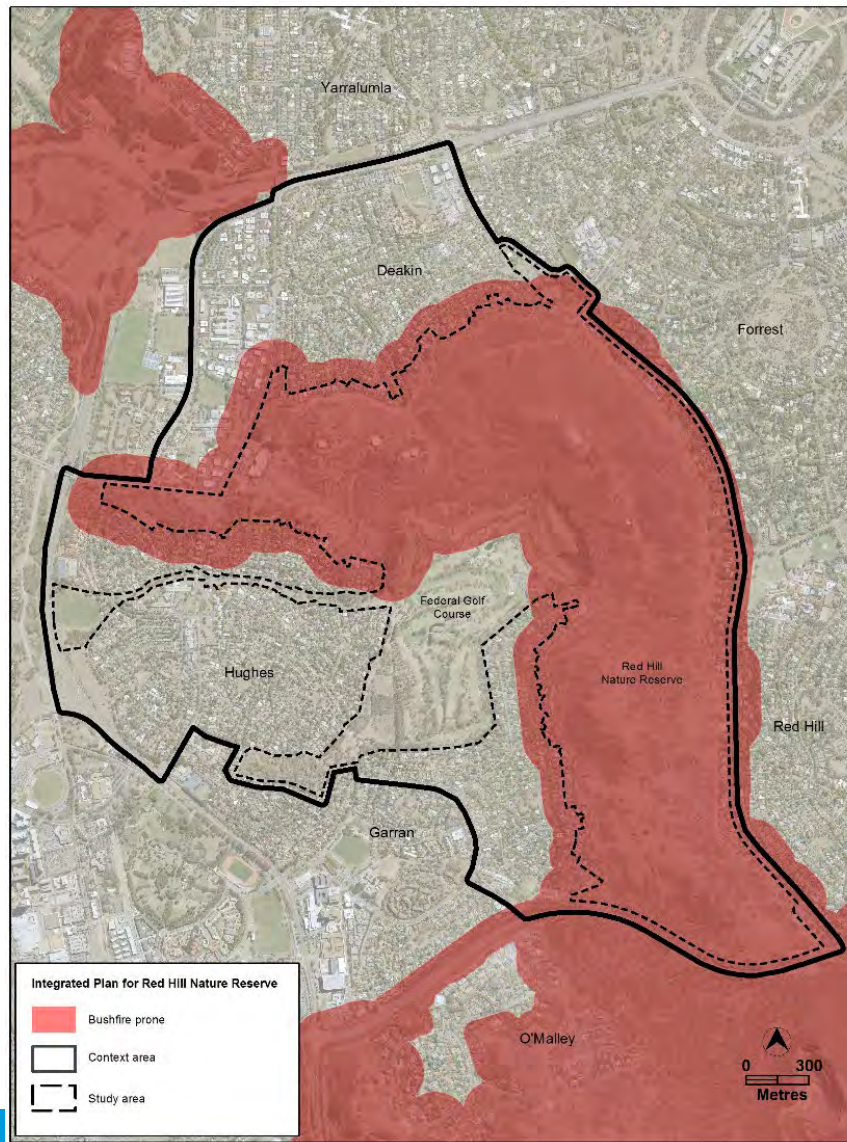
- Cultural Heritage – Red Hill Historic Planting within the Red Hill Nature Reserve

- Built form – Red Hill, Garran, Hughes and Deakin historic housing and architecture

# Opportunities and Constraints – Bushfire hazard

## Area affected include:

- Red Hill Nature Reserve
- Surrounding low density residential parts of the open space network
- Parts of the Deakin office park
- Parts of the Federal Golf Course.



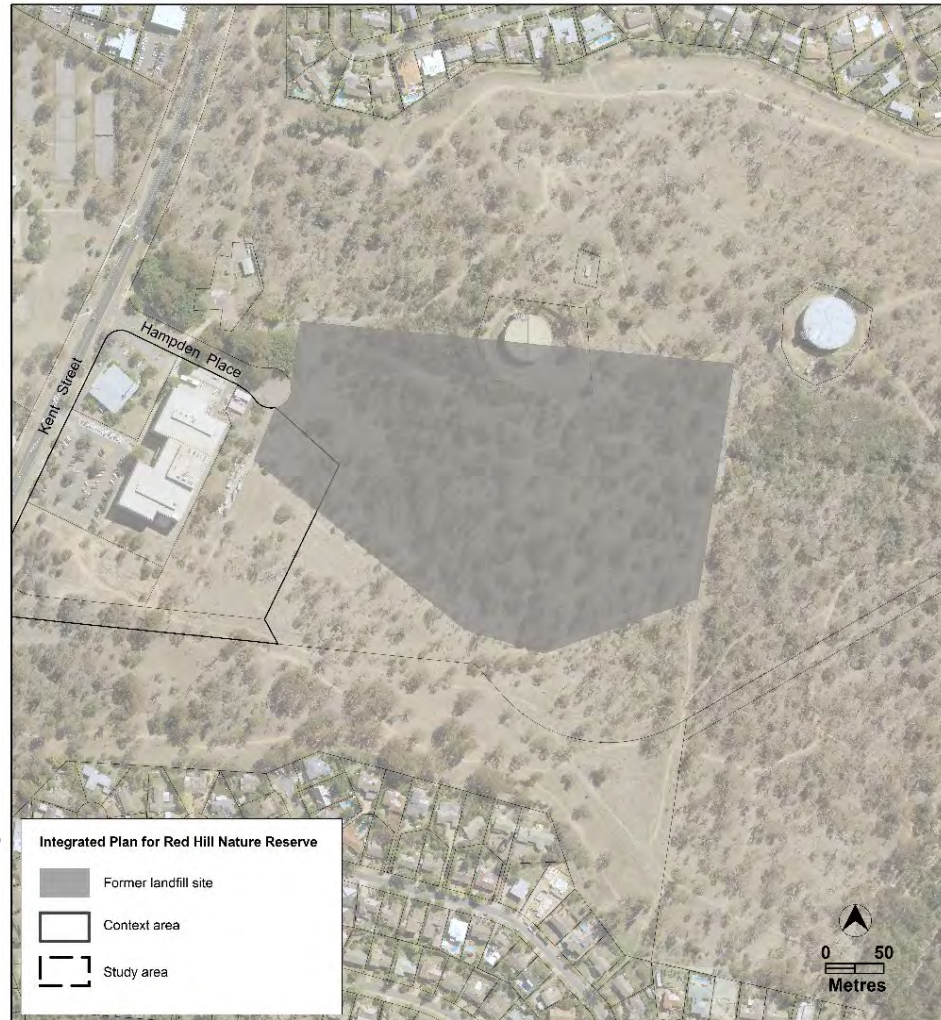
## Constraints to development potential include:

- On site buffers and separation distances at Deakin Section 66
- Upgrading of existing roads and provision of alternative emergency access at the Federal Golf Club

# Opportunities and constraints – Contaminated land

- Old Deakin land fill site is located primarily within the Red Hill Nature Reserve, but also extends into Deakin section 66.

- Prior to development, contaminated land assessment must be reviewed and endorsed by the EPA.



- Old Deakin tip is currently subject to assessment, remediation and audit by the land custodian.

- Proposed uses must be reviewed and endorsed by the EPA, prior to the landfill area being used for other purposes.

# Urban Development – Traffic and access

## Kent Street

- Running close to capacity during peak periods
- Requires upgrading for future development in its catchment.

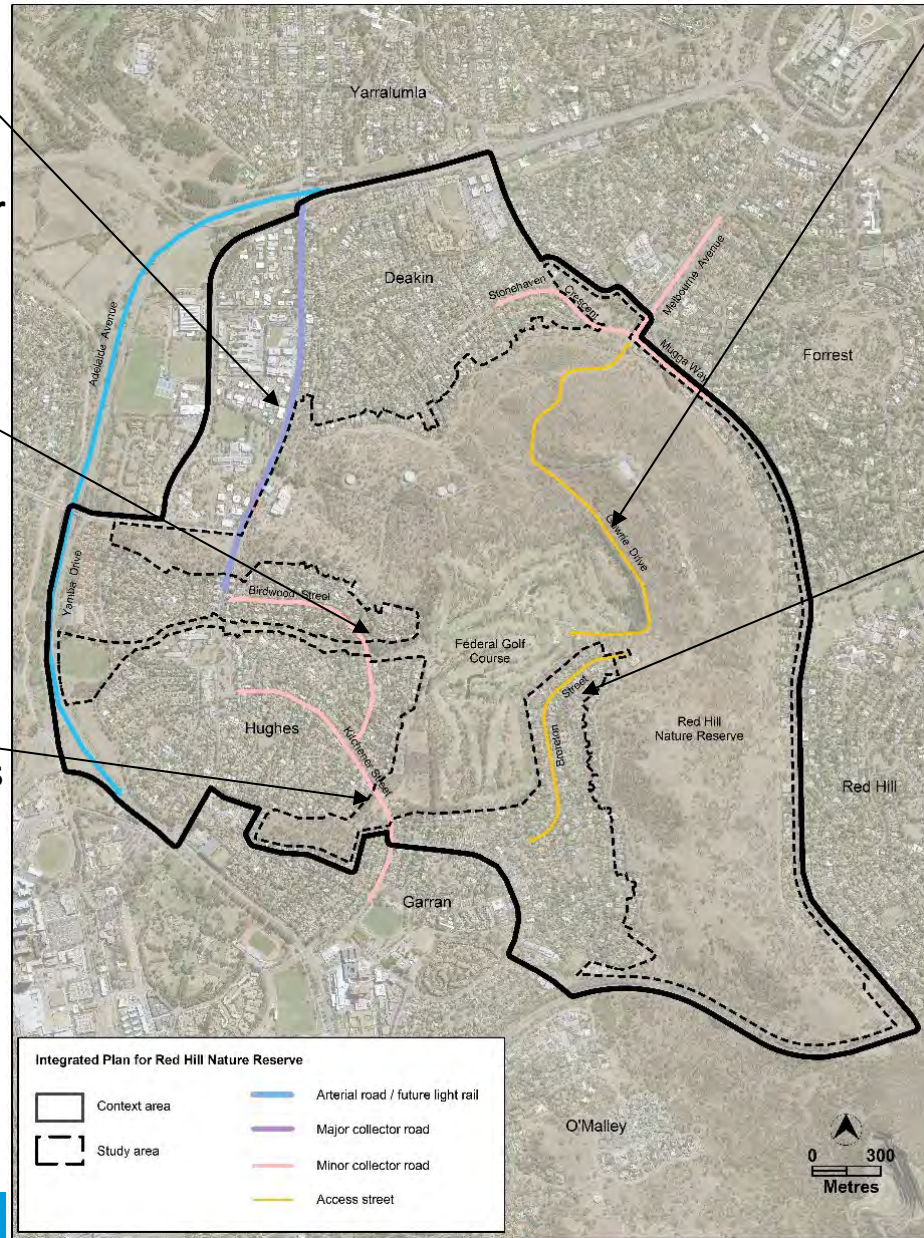
## Birdwood Street

- Presents difficult access to the Federal Golf Club due to slopes and open space.
- May impact on Kent Street

## Street

## Kitchener Street

- Offers potential access to the Federal Golf Club through public open space.
- May impact on Kent Street
- May have ecological impacts.



## Gowrie Drive

- Traverses the Nature Reserve
- Requires upgrading for future development at the Federal Golf Club subject to National Capital Authority works approval.
- May have ecological impacts.

## Brereton Street

- Is a residential access street and may impact on residential amenity.
- May be suitable as an emergency access to the Club subject to National Capital Authority works approval.
- Could create a 'rat run' from Hughes to Forrester and Deakin.
- May have ecological impacts.