TRAFFIX

OAKDALE CONCEPT PLAN
TRAFFIC IMPACT ASSESSMENT

AT

OLD WALLGROVE ROAD,

KEMPS CREEK AND HORSLEY PARK

Prepared on behalf of

GOODMAN INTERNATIONAL LIMITED

Prepared by

TRAFFIX

TRAFFIC AND TRANSPORT PLANNERS

Ref: 07098 CP v5
December 2007

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1. INTRODUCTION

T R A F F I X has been commissioned by Goodman International to undertake a traffic impact assessment for a Concept Plan for a site referred to as "Oakdale." This Concept Plan application is made under the provisions of Section 75M of the EP&A Act and will be determined by the Minister for Planning. The site lies within the Penrith and Fairfield LGA's.

This report documents the findings of our investigations and should be read in the context of the overall Concept Plan Application prepared on behalf of Goodman International. The Concept Plan establishes a planning framework to guide the delivery of the Oakdale development.

The Oakdale Distribution Park comprises a total site of 421ha which forms the major part (64%) of DOP Site 8 of the Western Sydney Employment Hub, which has a total site area of 656ha. However, these 421ha include the existing Austral Quarry site which is located on the eastern part of the Park and while it is included in the Concept Plan area, the quarry will be operational under current approvals for the foreseeable future and will ultimately require rehabilitation before it can be redeveloped. Accordingly, the Concept Plan site area is 336.8ha.

This area includes riparian zones and flood zones and the net developable area is 260.9ha. This report therefore focuses on the impacts associated with development on this site area. The development is a Schedule 1 development for the purpose of application of State Environmental Planning Policy No. 11 and accordingly will require referral to the RTA's Regional Development Committee.

The development proposed under the Concept Plan relates to predominantly warehousing/distribution and light industrial purposes and commercial office will be predominantly ancilliary to these uses.

The report is structured as follows:

- Section 2: Describes the site and its location
- Section 3: Documents existing traffic conditions
- Section 4: Assesses the traffic impacts
- Section 5: Discusses internal design aspects
- Section 6: Presents the overall study conclusions.

2. LOCATION AND SITE

The site is located within DOP Area 8 and is proposed to be accessed via a new east-west connecting public road linking Mamre Road in the west with Wallgrove Road in the east, traversing the southern side of the Sydney Water Supply pipeline. The eastern section of this road (i.e. east of the subject site) is on the existing alignment of Old Wallgrove Road, while the western section connects to Mamre Road on the alignment of Bakers Lane.

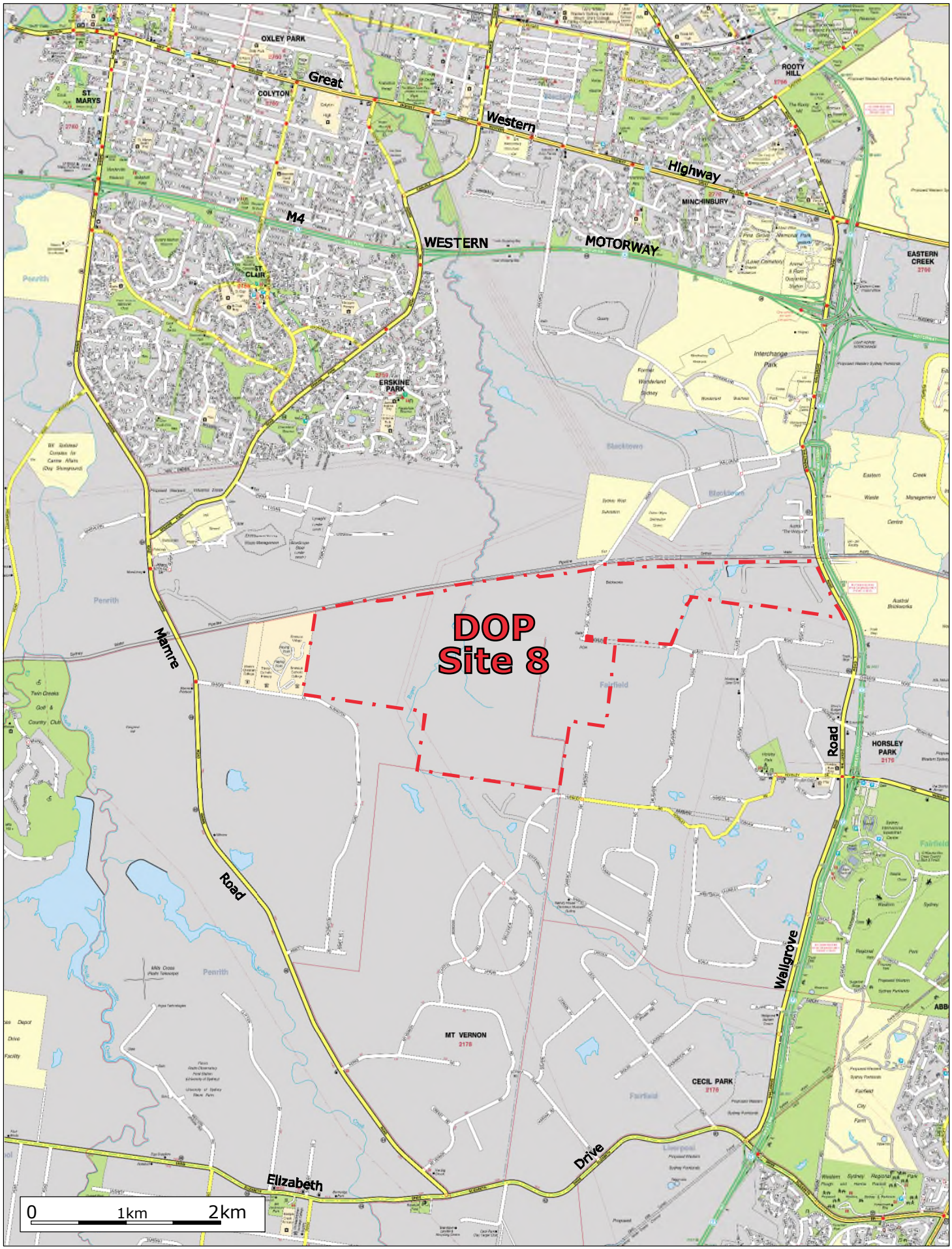
This new link road is about 5kms in length and provides the only viable access to land that is located to the south of the Sydney Water Supply pipeline, including the Concept Plan area. In this regard, it is only by virtue of the consolidated ownership of land within the study area by Goodman International that this new road link can be delivered in a timely fashion.

As mentioned, the site itself, excluding the existing Austral quarry lot, yields a developable area of 260.9ha. This land is dispersed along the proposed new link road on its northern and southern sides and access is provided by a secondary road system that creates six (6) new intersections along the length of link road within the Concept Plan area. A Location Plan is presented in ***Figure 1*** with a Site Plan presented in ***Figure 2***.

The net developable area of 260.9ha incorporates:

- Central Precinct 40.0ha
- South Precinct 59.5ha
- West Precinct 83.8ha; and
- East Precinct 77.6ha

These are shown in the Design Masterplan presented in ***Appendix B***.



Source: UBD 2006

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OLD WALLGROVE ROAD, KEMPS CREEK AND ORCHARD HILLS PARK

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Figure 1 LOCATION

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Figure **2** **SITE**

3. DEVELOPED ROAD HIERARCHY

The proposed road hierarchy is shown in the Design Master Plan (Link Road Option 1) layout presented in ***Appendix B***, as prepared by Goodman International. It can be seen that the intersections proposed with the link road are typically at intervals of between 0.5km and 1.0km and this is dictated by the constraints along the corridor and the need for an appropriate subdivisional road pattern. It is expected that the new road link will perform a sub-arterial road function and these intersection spacings are appropriate.

For the purpose of assessment and discussion, these intersections are denoted Intersections 1 to 6 as shown in Figure 2.

It will be evident that the new link road connects to Wallgrove Road via Old Wallgrove Road, with a bridge crossing of the Sydney Water Supply pipeline that is located at the north-eastern corner of the Concept Plan area. The link therefore connects to the proposed east-west link road that is being developed by the RTA via Erskine Park, through a separate Concept Plan under the provisions of Part 3A of the EP&A Act. The Concept Plan prepared by the RTA for discussion purposes shows the 'main' RTA link road on the alignment of Lenore Lane, connecting to Old Wallgrove Road at the north-western corner of the M7 Business Hub. The RTA plan therefore acknowledges the presence of the link road that is proposed under this Concept Plan. These two roads form an intersection at this location, with the longer term road hierarchy potentially incorporating a new east-west link road connection to the south of the RTA's Erskine Park link road. This would be an extension of the Oakdale link road, traversing in an easterly direction and potentially interchanging with the M7, though this is subject to further assessment.

It will therefore be important to identify the extent of development that can occur within the EPEA area as well as within Oakdale, as these both funnel traffic along Old Wallgrove Road to its intersection with Wallgrove Road and the M7 Orbital. This is discussed further in Section 4 below. It is noted in this regard that the RTA's Concept Plan does not include an eastern extension of the Goodman International link road to interchange with the M7, as previously proposed, to the north of Burley Road.

4. ASSESSMENT OF TRAFFIC IMPACTS

4.1 Warehouse Distribution Trip Rates

The rate of 15 trips per hectare has been adopted by the RTA in other comparable locations (including Eastern Creek and the M7 Business Hub), where there is a similar high proportion of warehouse and distribution facilities, with ancilliary offices and a small component of freestanding offices, such as regional corporate offices. The basis of this rate is not fully appreciated but it arguably does not take full account of public transport improvements that will underpin the 10% target set under SEPP 59. That is, it is a worst-case scenario which in the long term (pending implementation of public transport initiatives) is likely to overstate the traffic generation arising from Oakdale.

Application of this rate to the 260.9ha developable area results in 3,915 vehicle trips/hr in the morning peak and afternoon peak periods. Having regard for the proposed road hierarchy, these trips have been assigned to the road system on the basis of an assumption distribution with 35% of trips to/from the west (1,370 veh/hr via Mamre Road); and 65% of trips to/from the east (2,545 veh/hr via Old Wallgrove Road). The results are shown in ***Figure 3***. The assignment also assumes that 70% of trips are in the direction of peak flow. This is a minor adjustment to the usual 80% incorporated in the RTA's Guideline and this is due to the fact that with 24/7 operation, flows are not expected to be quite as biased in the direction of peak flow as occurs in the research that underpins the RTA's Guideline. In addition, modern distribution warehouse staff arrival and departure patterns do not usually coincide with the on-street peak periods to the same extent. Finally, the assessment assumes only limited reliance on existing and proposed new road connections to the east and south of the site as shown in the Design Masterplan presented in Appendix A. This includes future local connections to Wallgrove Road via Burley Road and also to The Horsley Road via the internal subdivisional roads. For the purpose of this assessment, it has been assumed that:

- 10% of the development of the Central and Eastern Oakdale Precincts traverse along the Burley Road corridor and therefore bypass the Oakdale link road; and
- 25% of the Jacfin and CSR PGH) sites use roads to the east and south of the site, including the Burley Road corridor and The Horsley Road corridor; and similarly bypass the Oakdale link road.

4.2 Impacts of Generated Traffic

The likely extent of external (through traffic) movement along the Oakdale link road is not known and this will ultimately depend upon the outcome of strategic modelling undertaken by the RTA in the region as part of its own link road Concept Plan proposal. In the absence of this information, an additional 600 veh/hr has been superimposed onto the through traffic link volumes at all intersections shown in Figure 3, to allow some margin for this scenario. This comprises 200 veh/hr eastbound and 400 veh/hr westbound in the AM Peak along the entire link road; with the PM peak flows (including the development flows shown in Figure 3) mirrored.

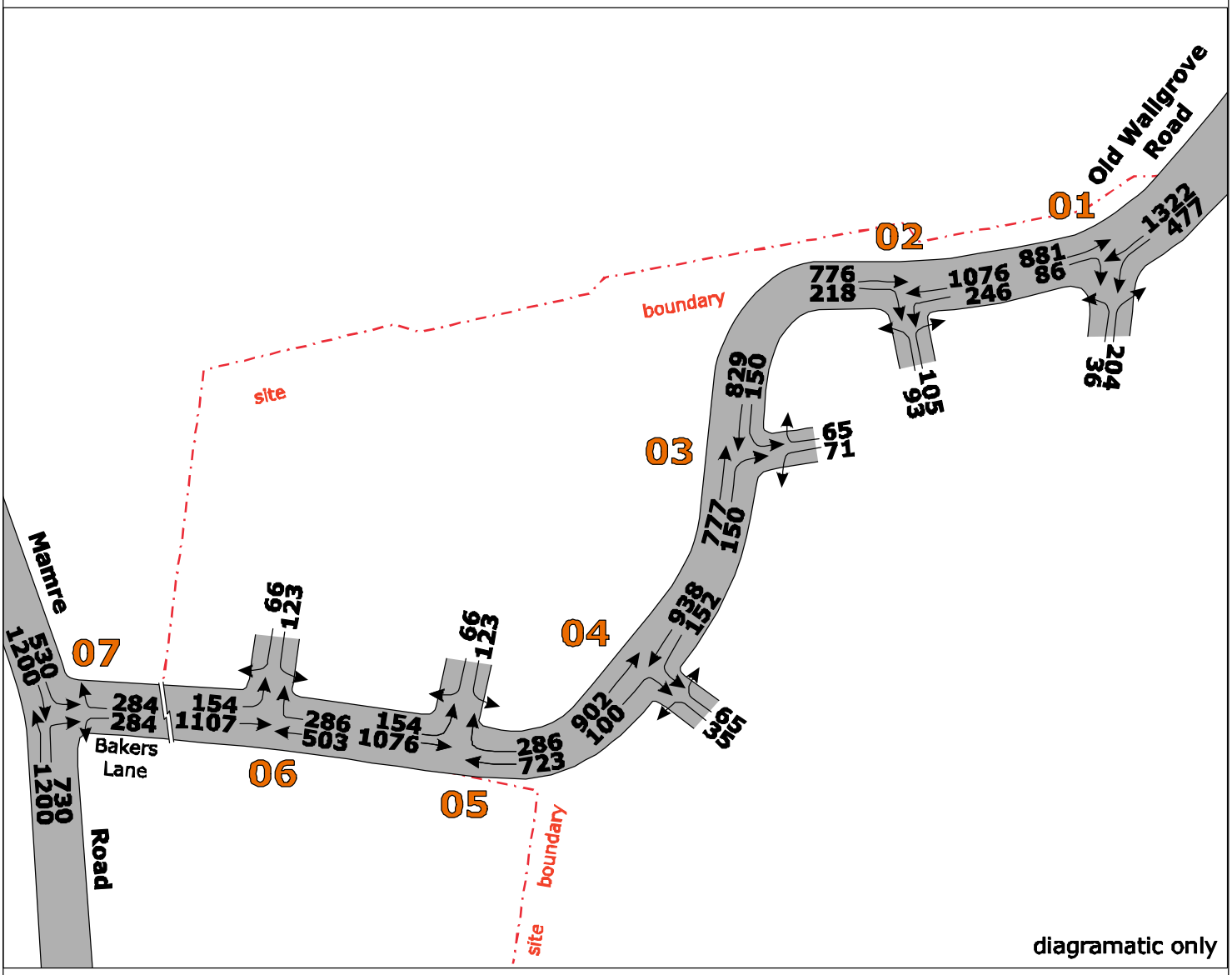

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Figure **3** **OAKDALE DEVELOPMENT TRAFFIC**

These flows have been assessed based on the layouts for Intersections 1 to 7 as shown in ***Appendix A,*** which includes the intersection of Bakers Lane with Mamre Road to the west of the site as well as the six 'internal' intersections. These intersections are all proposed with traffic signal control. The geometry of each intersection is in fact dictated by traffic conditions that will prevail when the remainder of the DOP Lot 8 site is also developed, so that the cumulative traffic impacts have been assessed. This includes both the Jacfin land and the CSR's PGH land which are shown in the Design Masterplan that is provided in ***Appendix B***.

Analysis has been undertaken using the Intanal computer model. The Intanal model produces a range of outputs, the most useful of which are the Degree of Saturation (DOS) and Average Vehicle Delay per vehicle (AVD). The AVD is in turn related to a level of service (LOS) criteria. These performance measures can be interpreted using the following explanations:

- **DOS** - the DOS is a measure of the operational performance of individual intersections. As both queue length and delay increase rapidly as DS approaches 1, it is usual to attempt to keep DS to less than 0.9. When DS exceeds 0.9 residual queues can be anticipated, as occurs at many major intersections throughout the metropolitan area during peak periods. In this regard, a practical limit at 1.1 can be assumed. For intersections controlled by roundabout or give way/stop control, satisfactory intersection operation is generally indicated by a DOS of 0.8 or less.

- **AVD** - the AVD for individual intersections provides a measure of the operational performance of an intersection. In general, levels of acceptability of AVD for individual intersections depend on the time of day (motorists generally accept higher delays during peak commuter periods) and the road system being modelled (motorists are more likely to accept longer delays on side streets than on the main road system).

- **LOS** - this is a comparative measure which provides an indication of the operating performance of an intersection as shown below:

Level of Service	Average Delay per Vehicle (secs/veh)	Traffic Signals, Roundabout	Give Way and Stop Signs
A	less than 14	Good operation	Good operation
B	15 to 28	Good with acceptable delays and spare capacity	Acceptable delays and spare capacity
C	29 to 42	Satisfactory	Satisfactory but accident study required
D	43 to 56	Operating near capacity	Near capacity and accident study required
E	57 to 70	At capacity; at signals incidents will cause excessive delays. Roundabouts require other control mode	At capacity and requires other control mode
F	More than 70	Unsatisfactory and requires additional capacity.	Unsatisfactory and requires other control mode or major treatment.

The results of the modelling are shown in Tables 1 to 7, based on the volumes shown in Figure 3 generated by Oakdale and the layouts shown in Appendix A.

Table 1: Predicted Performance of Intersection 01 at Full Oakdale Development FILE NAME: LINKI1F5		
PARAMETER	**AM PEAK**	**PM PEAK**
Degree of Saturation	0.60	0.69
Level of Service	A	A
Intersection Delay (secs)	11.1	13.5

Table 2: Predicted Performance of Intersection 02 at Full Oakdale Development FILE NAME: LINKI2F5		
PARAMETER	**AM PEAK**	**PM PEAK**
Degree of Saturation	0.65	0.53
Level of Service	A	A
Intersection Delay (secs)	12.9	11.1

Table 3: Predicted Performance of Intersection 03 at Full Oakdale Development FILE NAME: LINKI3F5		
PARAMETER	**AM PEAK**	**PM PEAK**
Degree of Saturation	0.46	0.41
Level of Service	A	A
Intersection Delay (secs)	11.0	10.3

Table 4: Predicted Performance of Intersection 04 at Full Oakdale Development FILE NAME: LINKI4F5		
PARAMETER	**AM PEAK**	**PM PEAK**
Degree of Saturation	0.42	0.44
Level of Service	A	A
Intersection Delay (secs)	9.4	9.5

Table 5: Predicted Performance of Intersection 05 at Full Oakdale Development FILE NAME: LINKI5F5		
PARAMETER	**AM PEAK**	**PM PEAK**
Degree of Saturation	0.68	0.47
Level of Service	B	A
Intersection Delay (secs)	14.0	11.1

Table 6: Predicted Performance of Intersection 06 at Full Oakdale Development FILE NAME: LINKI6F5		
PARAMETER	**AM PEAK**	**PM PEAK**
Degree of Saturation	0.70	0.50
Level of Service	B	A
Intersection Delay (secs)	15.1	11.1

Table 7: Predicted Performance of Intersection 07 at Full Oakdale Development FILE NAME: LINKI7F5		
PARAMETER	**AM PEAK**	**PM PEAK**
Degree of Saturation	0.79	0.89
Level of Service	B	B
Intersection Delay (secs)	18.8	25.2

These results show very satisfactory performance and these intersections all provide spare capacity to accommodate additional traffic volumes if required. In addition, it is noted that all intersections fail under priority control (i.e. without traffic signals). These layouts are therefore recommended for 'in principle' adoption, subject to further assessment when the results of the RTA's modelling are available.

It is evident from Figure 3 that at the western end of the study area, the Oakdale link road is expected to accommodate two-way through traffic volumes of about 1,800 veh/hr along Bakers Lane which forms a signal controlled 'T' junction with Mamre Road. This includes the additional 600 veh/hr through traffic component adopted for sensitivity testing purposes as discussed above. The analysis also assumes a through movement of 1,200 veh/hr in each direction along Mamre Road which is a broad estimate that will ultimately be further informed by the RTA's ongoing strategic modelling.

4.3 Internal Road System

Traffic volumes have been reviewed on all internal sub-divisional roads, based on the turning volumes shown in Figure 3. Maximum *two-way* flows will occur on approach to the Oakdale link road as follows:

- Collector road on approach to Intersection 1: 803 veh/hr
- Collector road on approach to Intersection 2: 662 veh/hr
- Collector road on approach to Intersection 3: 438 veh/hr
- Collector road on approach to Intersection 4: 352 veh/hr
- Collector road on approach to Intersection 5: 629 veh/hr
- Collector road on approach to Intersection 6: 629 veh/hr

These volumes are moderate and in all cases, provision of a single through lane in each direction will be acceptable along the route (other than on approach to the traffic signals with the link road) with kerbside parking also permitted. In this regard, midblock capacities are typically 1800 veh/hr to 2,400 veh/hr for urban roads of this nature (one lane in each direction).

Conditions at all minor 'internal' intersections will also be satisfactory with priority (Give Way or Stop sign) control. However, the opportunity would be available for roundabout control at intersections should this be preferred. This would be most advantageous at cross-intersections.

4.4 Implications of Development of Entire DOP Site 8

As mentioned above, Oakdale comprises a total site of 421ha which forms the major part (64%) of DOP Site 8 of the Western Sydney Employment Hub, which has a total site area of 656ha. The balance of DOP Site 8 therefore comprises the remaining 235ha. This includes the Austral Quarry site (CSR) as well as the Jacfin land, both of which lie to the east of the main north-south road that traverses the centre of the Oakdale Estate. These lands will generate an additional 3,525 veh/hr at peak times, based on the application of the same rate of 15 trips/ha as assessed for the subject Concept Plan.

These trips have been superimposed onto the road network based on the same 65/35 east-west distribution and having regard for the relative attractiveness of all available routes and intersections. The resulting traffic volumes are shown in ***Figure 4***.

The intersection performances assessed in Section 4.2 have therefore been reassessed and the results are summarised in Tables 8 to 14 below. *The assessment assumes the same intersection geometry as shown in Appendix A. The only exception is the intersection of Bakers Lane (the Oakdale link road) with Mamre Road, where three (3) through traffic lanes are required in Mamre Road on the northern approach (for southbound traffic), rather than two (2) as required for the Oakdale development. However, the assumptions upon which the volumes at this intersection are based require further examination by the RTA and may change the results, so that further sensitivity testing is recommended. In the interim, the geometry shown in Appendix A is recommended for 'in principle' adoption.*

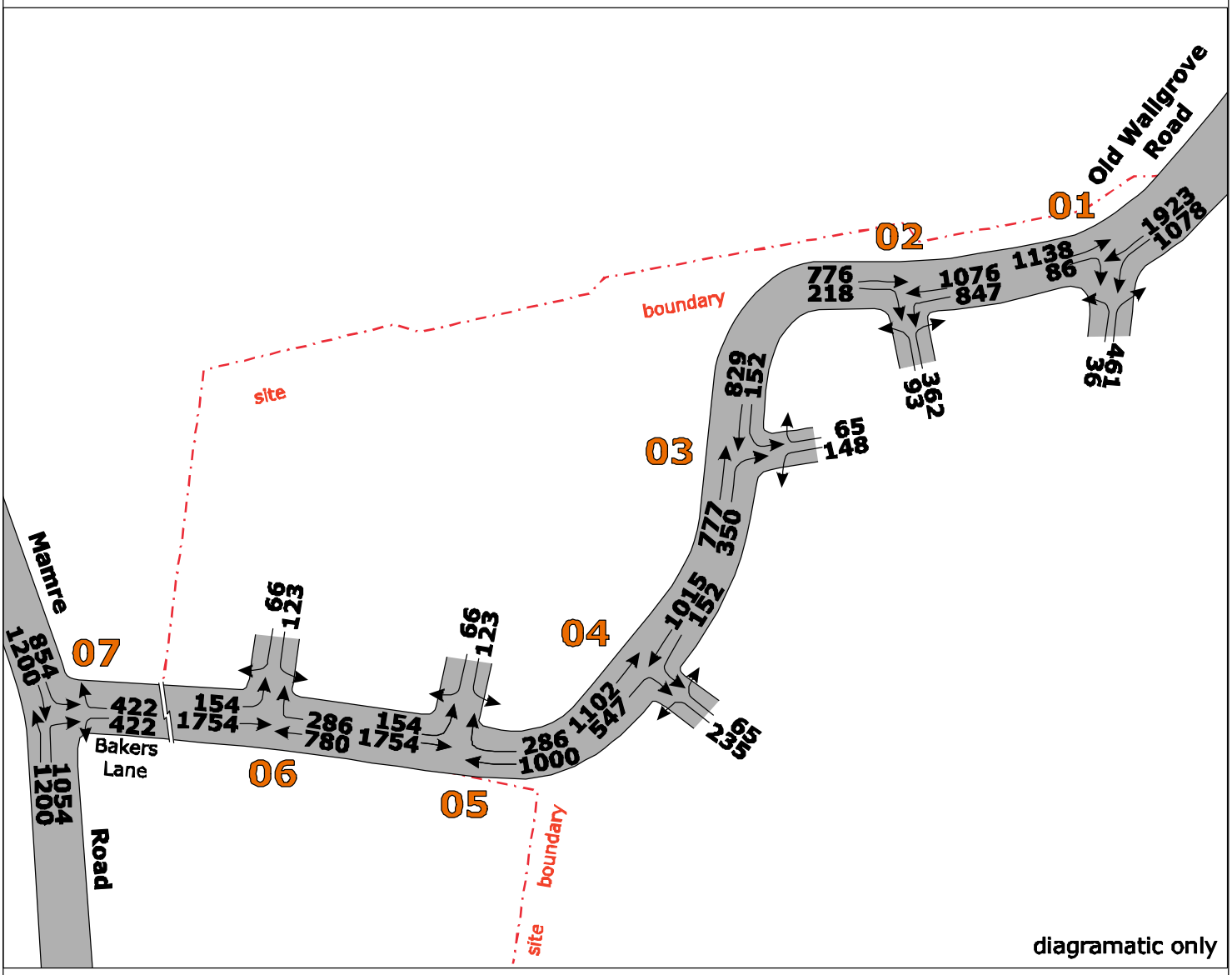

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Figure 4 **OAKDALE + BALANCE OF LOT 8 (JACFIN & PGH) - AM PEAK**

Table 8: Predicted Performance of Intersection 01 at Full Site 8 Development FILE NAME: LINKI1F7		
PARAMETER	**AM PEAK**	**PM PEAK**
Degree of Saturation	0.85	0.90
Level of Service	B	C
Intersection Delay (secs)	17.2	34.2

Table 9: Predicted Performance of Intersection 02 at Full Site 8 Development FILE NAME: LINKI2F6		
PARAMETER	**AM PEAK**	**PM PEAK**
Degree of Saturation	0.75	0.73
Level of Service	B	B
Intersection Delay (secs)	15.1	16.1

Table 10: Predicted Performance of Intersection 03 at Full Site 8 Development FILE NAME: LINKI3F6		
PARAMETER	**AM PEAK**	**PM PEAK**
Degree of Saturation	0.69	0.56
Level of Service	A	A
Intersection Delay (secs)	13.9	11.9

Table 11: Predicted Performance of Intersection 04 at Full Site 8 Development FILE NAME: LINKI4F6		
PARAMETER	**AM PEAK**	**PM PEAK**
Degree of Saturation	0.79	0.77
Level of Service	B	B
Intersection Delay (secs)	17.6	14.9

Table 12: Predicted Performance of Intersection 05 at Full Site 8 Development FILE NAME: LINKI5F6		
PARAMETER	**AM PEAK**	**PM PEAK**
Degree of Saturation	0.80	0.62
Level of Service	B	A
Intersection Delay (secs)	17.0	10.9

Table 13: Predicted Performance of Intersection 06 at Full Site 8 Development FILE NAME: LINKI6F6		
PARAMETER	**AM PEAK**	**PM PEAK**
Degree of Saturation	0.80	0.63
Level of Service	B	A
Intersection Delay (secs)	18.0	10.7

Table 14: Predicted Performance of Intersection 07 at Full Site 8 Development FILE NAME: LINKI6F6		
PARAMETER	**AM PEAK**	**PM PEAK**
Degree of Saturation	0.90	0.91
Level of Service	C	D
Intersection Delay (secs)	28.4	44.6

Note: Possible 3 southbound lanes in Mamre Road from north this scenario only

These results also show satisfactory performance and this confirms the intersection geometry shown in Appendix A.

In summary, both the Oakdale development and the balance of DOP Site 8 can occur simultaneously to full development and are both supportable, based on the assumptions made.

4.5 Development Potential Constraint with Reliance on Old Wallgrove Road Interchange with M7

Traffic conditions along Old Wallgrove Road west of the M7 were previously assessed on the basis of the RTA's EMME2 outputs with an assumed 5,565 trips during both the morning and afternoon peaks, associated with the entire Eastern Creek Precinct, with 360ha of developable land. This was acknowledged as a significant increase over the 3,230 veh/hr and 3,656 veh/hr adopted in the original TMAP study. The various intersections along Old Wallgrove Road (Intersections C0 to C4) as well as with the M7 interchange were assessed on this basis, with 100% development completion of the Eastern Creek Precinct (anticipated in about 2016).

The traffic volumes shown in Figure 4 for Oakdale and the balance of DOP Lot 8 indicate an additional 4,600 veh/hr along this eastern corridor (connecting to the M7), which will therefore increase total flows on approach to the M7 of about 10,165 veh/hr. This represents traffic associated with a total developable area of about 678ha, assuming a trip rate of 15 trips/ha.

On the basis that traffic planning along Old Wallgrove Road should be 'capped' at 5,565veh/hr as is inherent in current planning (which underpins the current intersection layout at Old Wallgrove Road with the M7), it follows that the implicit development of up to 360ha can be accommodated that feeds into this intersection *wherever this may occur.* Expressed another way, the infrastructure that is already planned will accommodate 360/678 or slightly more than 50% of the overall developable area within all areas under investigation (Eastern Creek Precinct, Oakdale and the balance of DOP Site 8). At that time, consideration will need to be given to:

- The construction of a new connection to the M7 south of Old Wallgrove Road; and/or
- The upgrading of the existing approved corridor and M7 interchange to provide increased road capacity.

This timeframe is however considered to be conservative as the development growth is likely to be slower. It will also need to be reviewed in the light of further modelling to be undertaken by the RTA.

In the event that a second link road is not provided to the M7, the Oakdale link road will need to accommodate 6 through lanes (3 in each direction) rather than 4 through lanes (2 in each direction) as assessed above, with associated capacity improvements along the Old Wallgrove Road corridor at its interchange with the M7.

It is therefore recommended that in order to provide a more certain outcome (to enable development to commence) and to provide a safety margin for future modelling, Oakdale link road be planned as a 6 lane divided road, with turn bays, resulting in a 40 metre reservation width as discussed in the Section 5. However, the staged construction of this road would only require a 4 lane divided road to accommodate traffic associated with Oakdale and the remaining DOP Site 8.

5. INTERNAL DESIGN PRINCIPLES

5.1 General Principles

Intersections O1 to O6 all form 'T' junctions with the spine link road and this is the preferred geometry as it creates reduced conflicts (when compared with a cross-intersection) with simple phasings with consequent reduced cycle lengths. It is therefore both safer and more efficient. These six intersections also avoid unnecessary traffic concentrations that would otherwise occur with fewer access opportunities onto the link road.

The road system proposed for Oakdale comprises:

- The Oakdale link road;
- Collector roads (including all 6 access roads onto the link road); and
- Local estate access roads.

These roads are shown in the documentation provided with the Concept Application.

5.2 Link Road

The link road is the primary access to Oakdale and surrounding lands. It is proposed with a 40 metre wide reservation which will accommodate:

- 3750mm wide verges on each side, both incorporating a footpath and off-road cycle path;
- 14000mm wide carriageways on both sides. This will enable 3 through lanes and a left turn deceleration lane to be provided in the event that this capacity is required. This is a conservative approach that assumes no reliance on an additional southern connection to the M7; and
- A 4500mm wide central median, which can accommodate a right turn bay where this is required.

5.3 Collector Roads

The collector roads provide the primary access to each estate precinct. They are proposed with a 23 metre reservation which will accommodate:

- 3750mm wide verges on each side incorporating a footpath; and
- 7750mm wide carriageways on both sides, providing 2 through lanes, with a wide kerbside lane that can accommodate a shared bicycle lane.

5.4 Estate Roads

The estate roads provide a local access function. They are proposed with a 21 metre reservation which will accommodate:

- 3750mm wide verges on each side incorporating a footpath; and
- 6750mm wide carriageways on both sides, providing two lanes on approach to intersections; and one through lane and a parking lane at midblock locations.

There is ample opportunity to access individual allotments from all estate and collector roads and the proposed gentle road curvatures will provide satisfactory sight distances at driveways.

6. CONCLUSIONS

- *Based on the assumptions made, the traffic generation arising from the Concept Plan Application can be accommodated on the road network as planned for the region, with reliance made on a 4 lane divided link road (2 lanes in each direction) with turn bays along the Oakdale link road;*

- *Based on the assumptions made, the above geometry provides spare capacity that will accommodate full development of the Oakdale development (the subject of this application) as well as the balance of the DOP Site 8 area, which includes the Jacfin site and the CSR (PGH) sites to the immediate east. This includes an assumption that a small proportion of overall traffic will use alternate (improved) local routes along the Burley Road corridor and The Horsley Road corridor as discussed;*

- *The provision of a 4 lane divided road (with turn bays) for the Oakdale link road is therefore recommended for adoption for staging purposes and this will accommodate all development within DOP Site 8. However, due to present planning uncertainties, it is recommended that the reservation be of sufficient width to accommodate a 6 lane divided road with turning bays (40 metres);*

- *There is a reasonable prospect that a new east-west link road to the M7 south of Old Wallgrove Road will be provided in the medium to long term. In this event, the intersections will perform with improved operation than has been assessed in this report, with a divided 4 lane link road;*

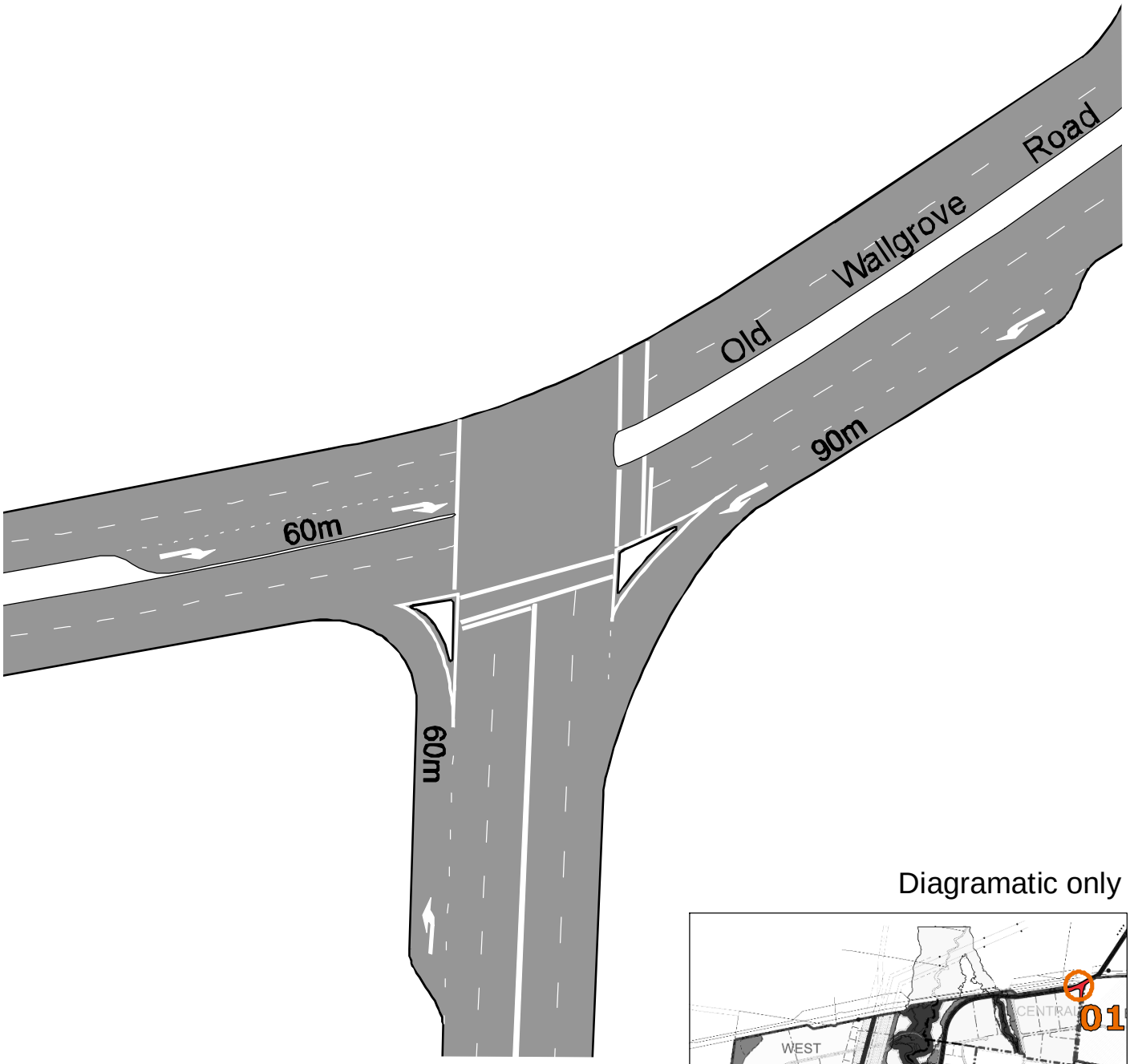
- *The road system underpinning Oakdale as proposed provides an efficient and logical road hierarchy. In particular, the provision of 'T' junctions to provide access to the secondary road system is supported;*

- *The six intersections that are created with the Oakdale link road (with a 4 lane configuration with turn bays) will operate very satisfactorily with full development of Oakdale, with spare capacity for additional development. These intersections have good levels of service under traffic signal control;*

- *The Concept Plan Application is supported and provides a suitable basis for subsequent Project Applications.*

APPENDIX A:

Intersection Layouts



Diagramatic only

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CONCEPT LAYOUT FOR INTERSECTION 01

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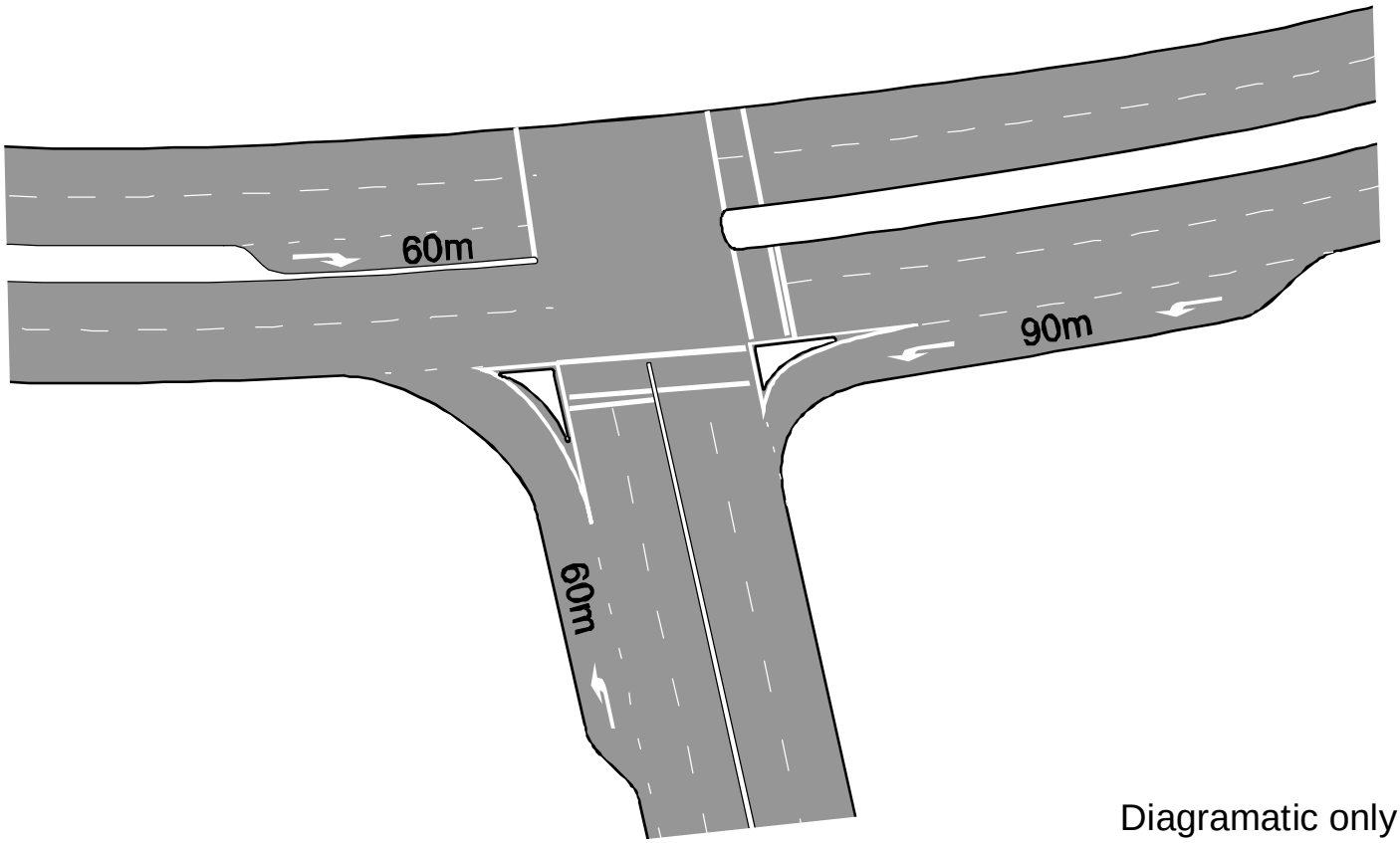

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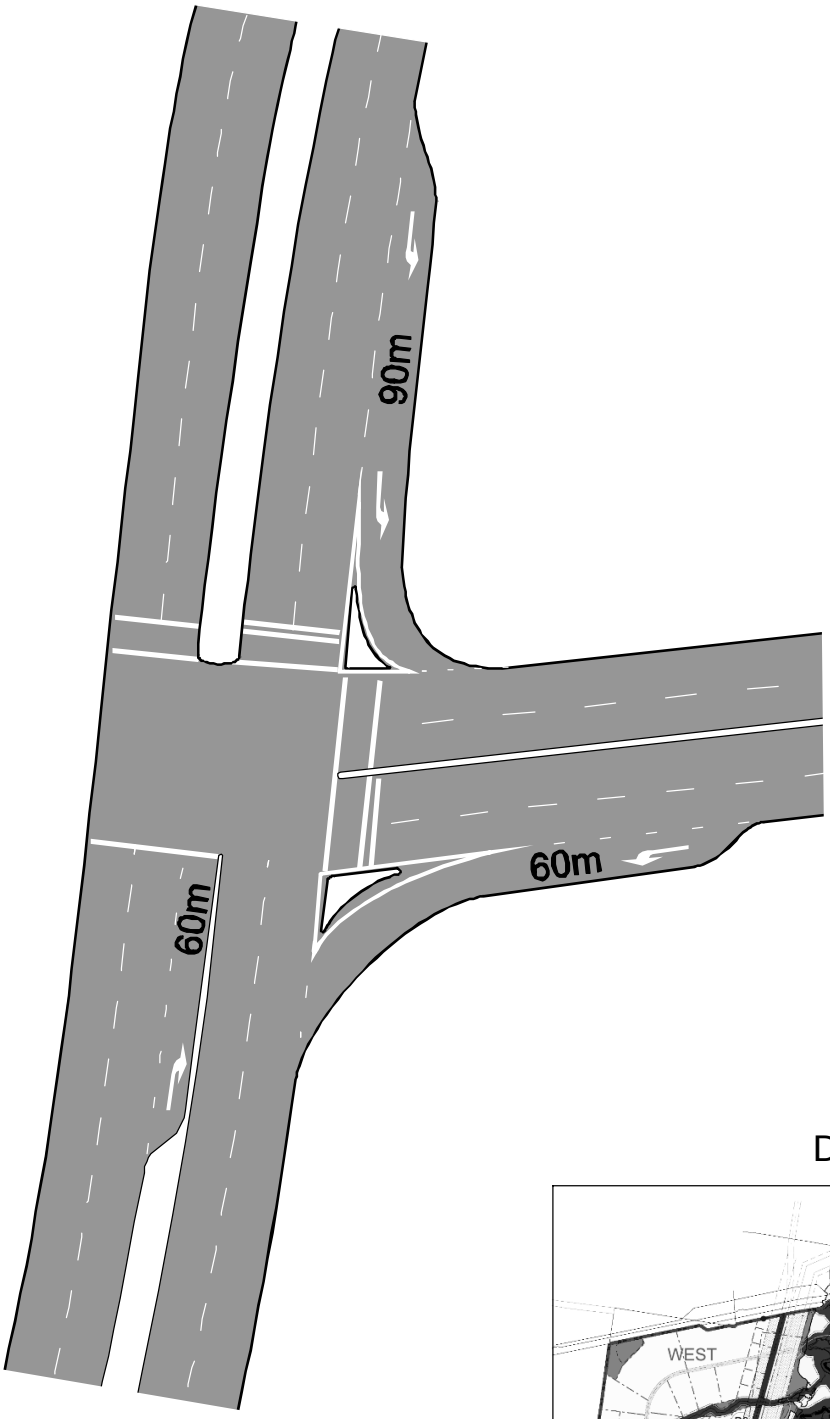
CONCEPT LAYOUT FOR INTERSECTION 02

TRAFFIX Traffic & Transport Planners: Level 2, 55 Mountain Street, Broadway, 2007.



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CONCEPT LAYOUT FOR INTERSECTION 03

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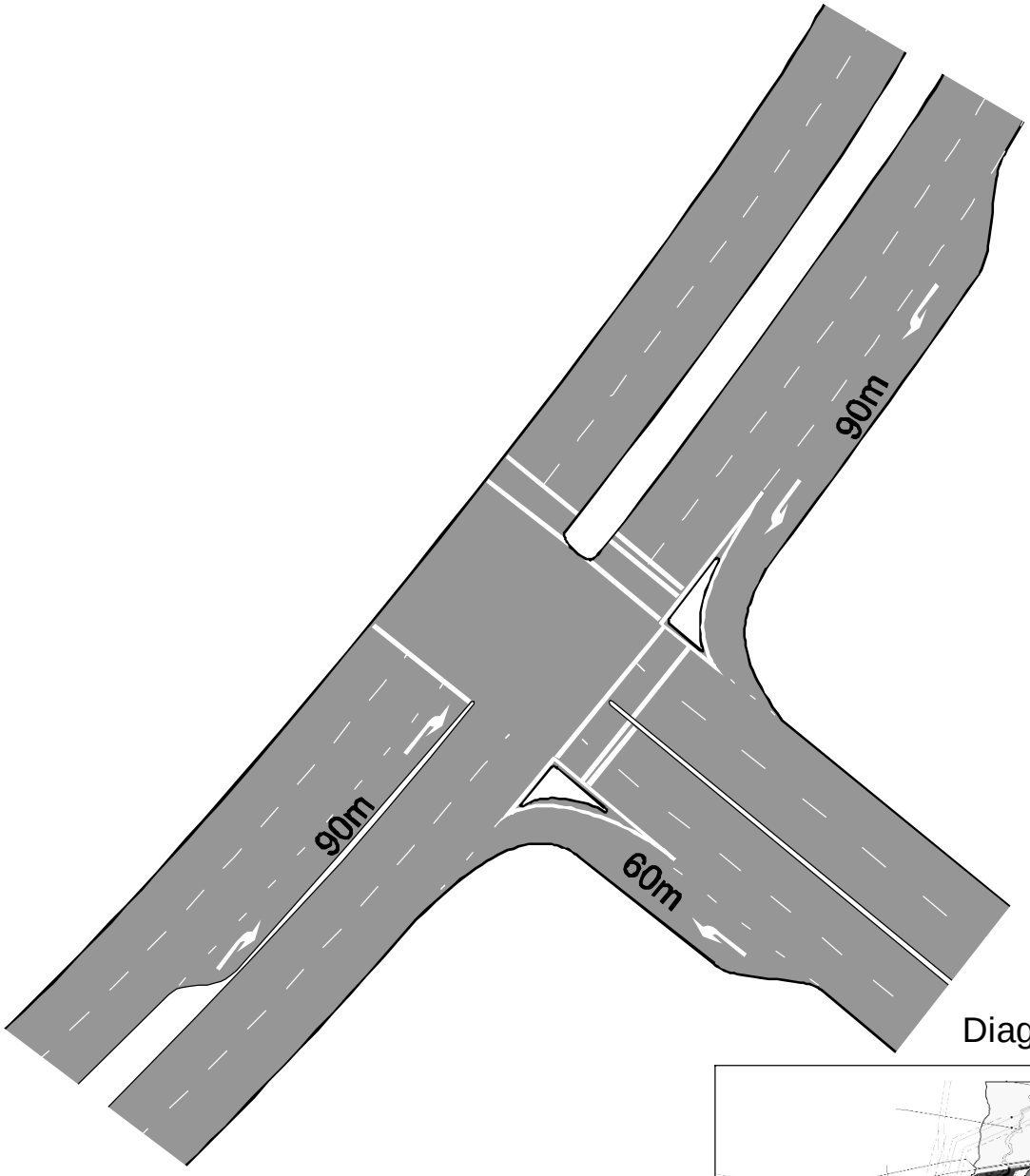

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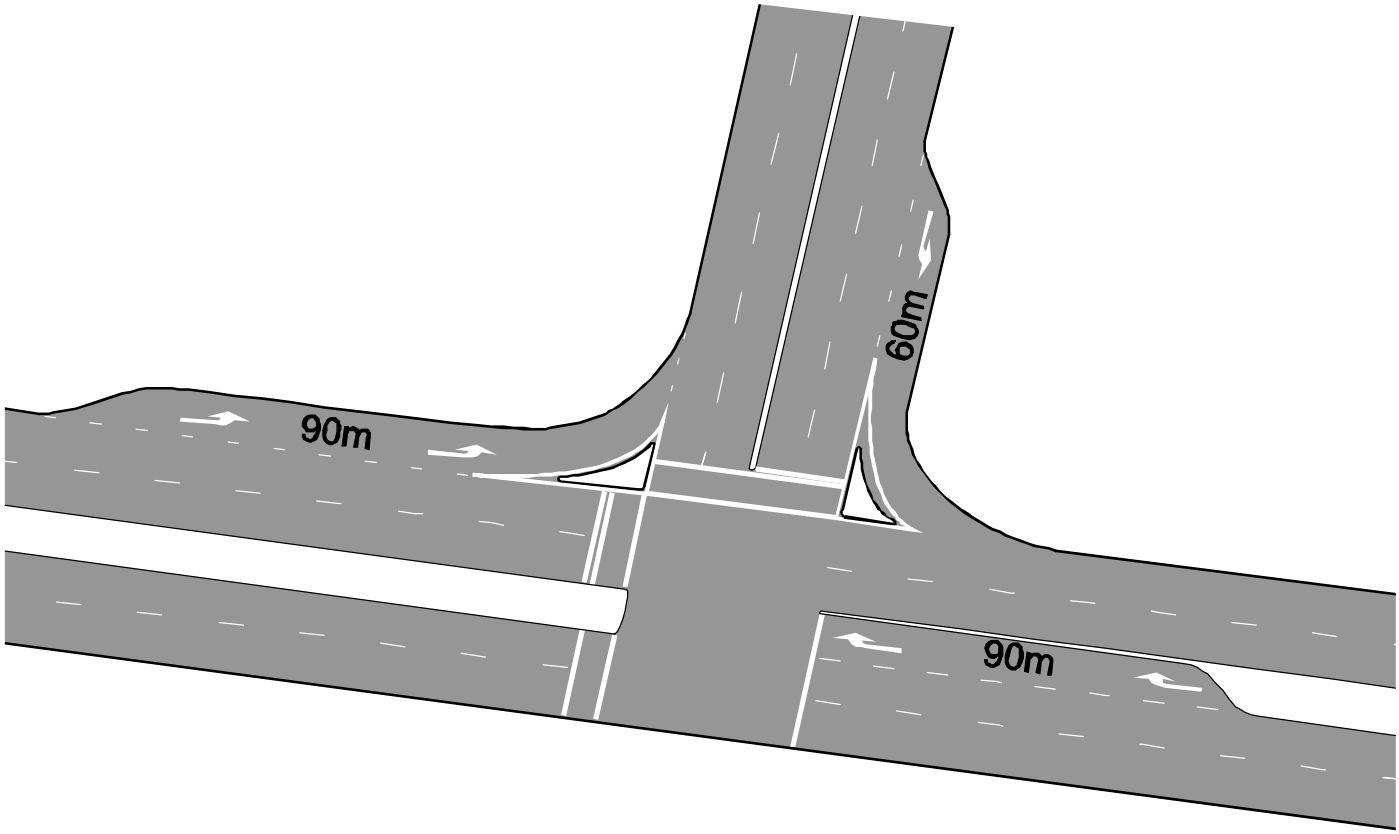
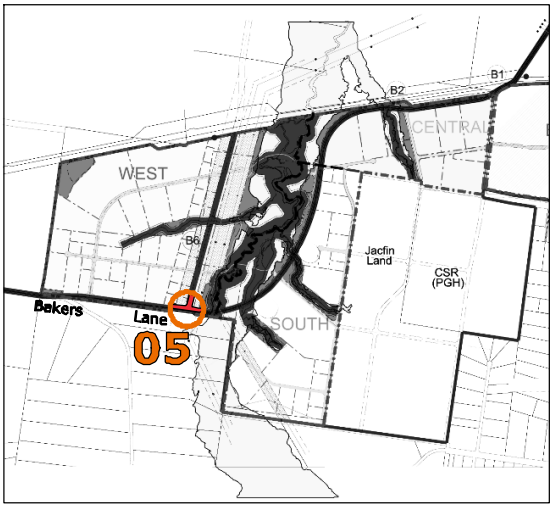
CONCEPT LAYOUT FOR INTERSECTION 04

TRAFFIX Traffic & Transport Planners: Level 2, 55 Mountain Street, Broadway, 2007.



Diagramatic only



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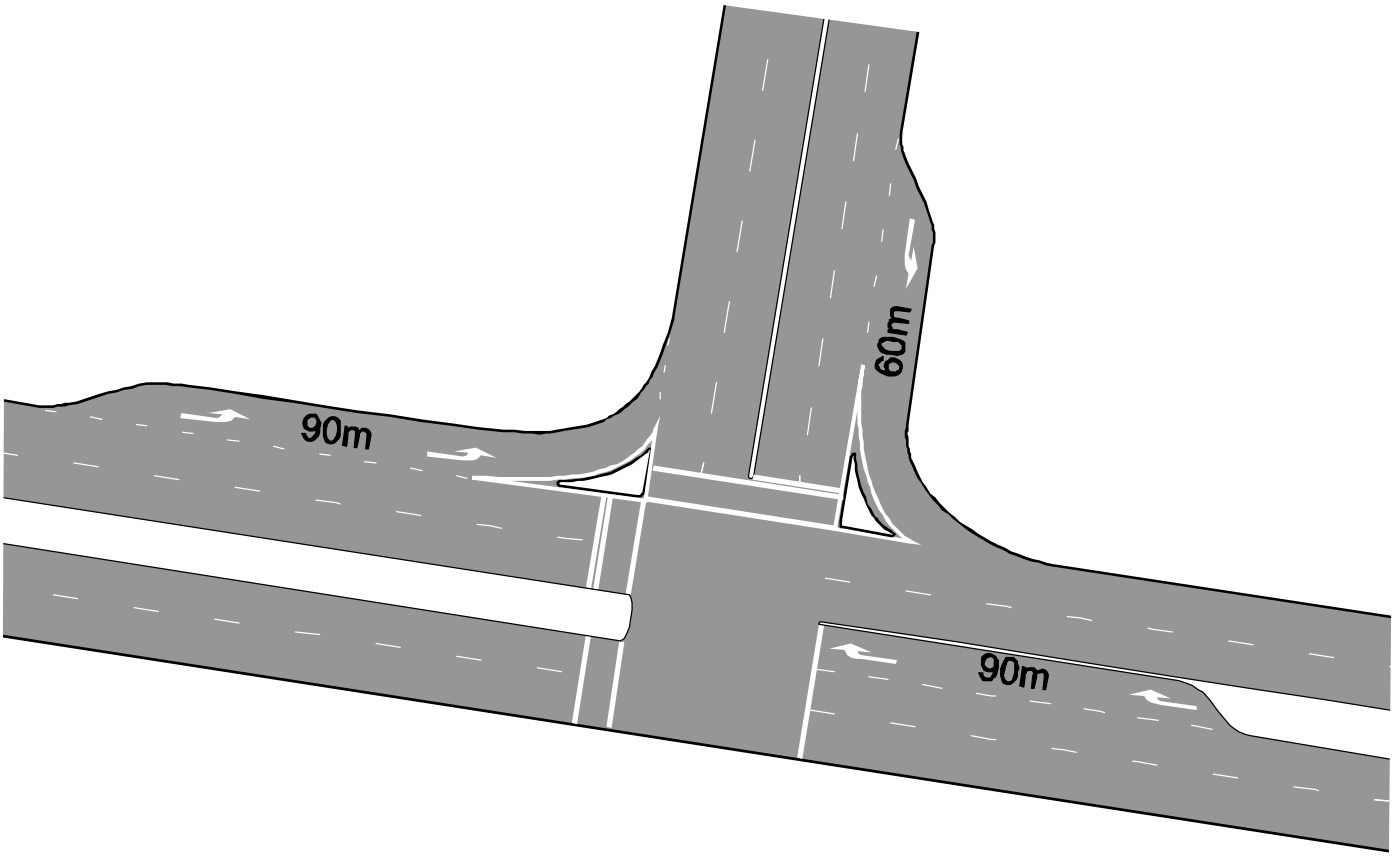
A5

CONCEPT LAYOUT FOR INTERSECTION 05



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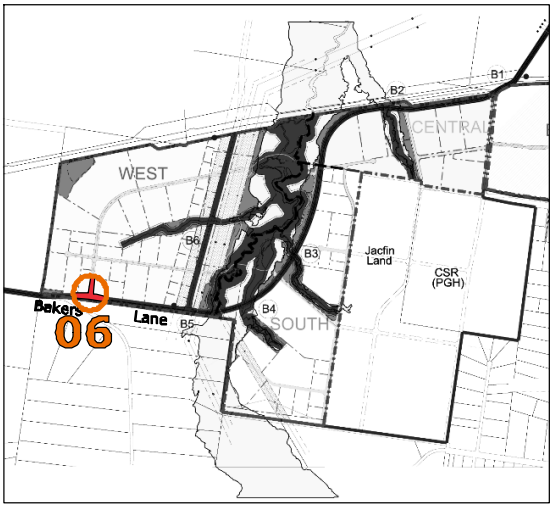
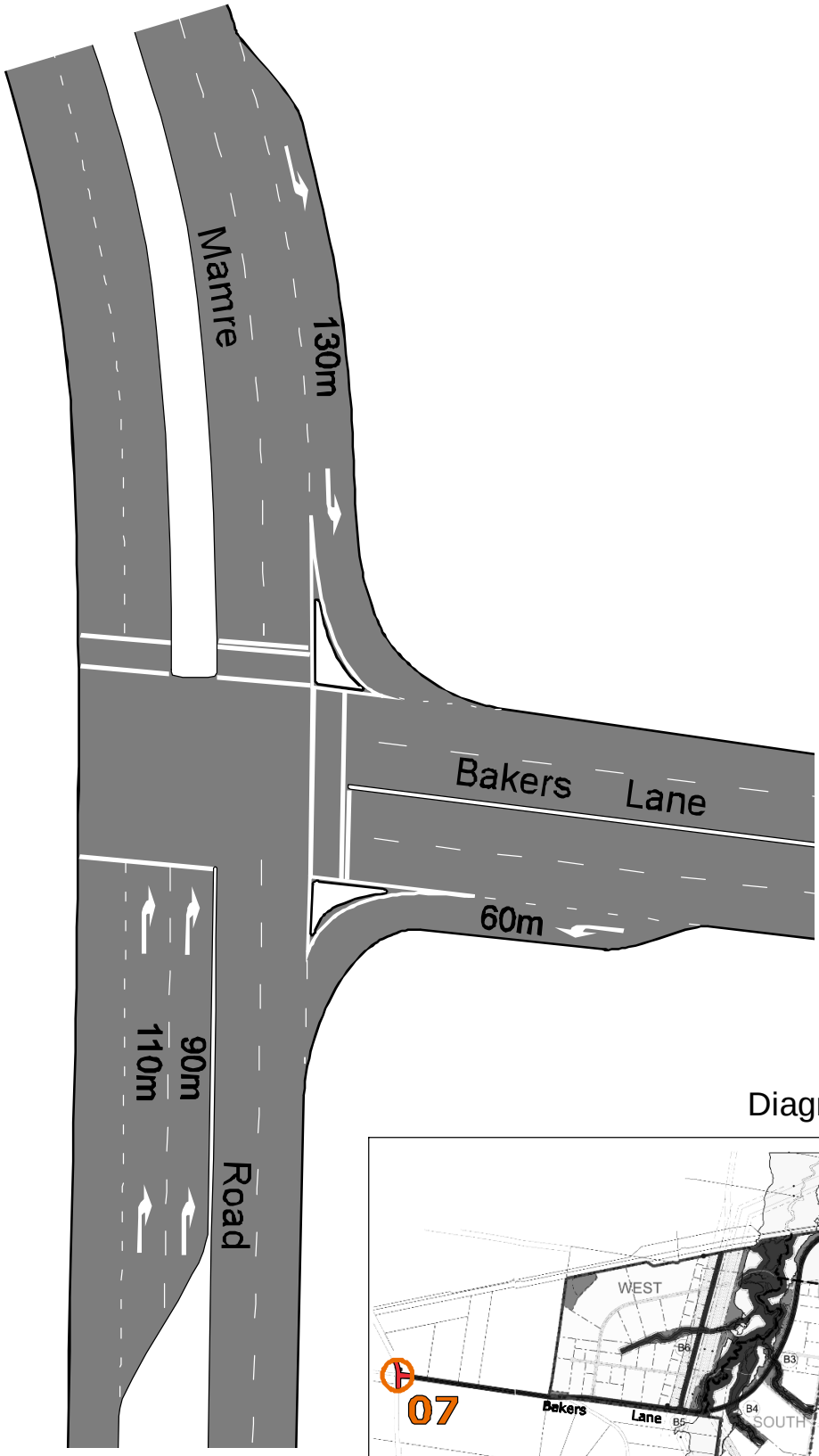


OAKDALE CONCEPT PLAN TRAFFIC ASSESSMENT
OLD WALLGROVE ROAD, KEMPS CREEK AND HORSLEY PARK

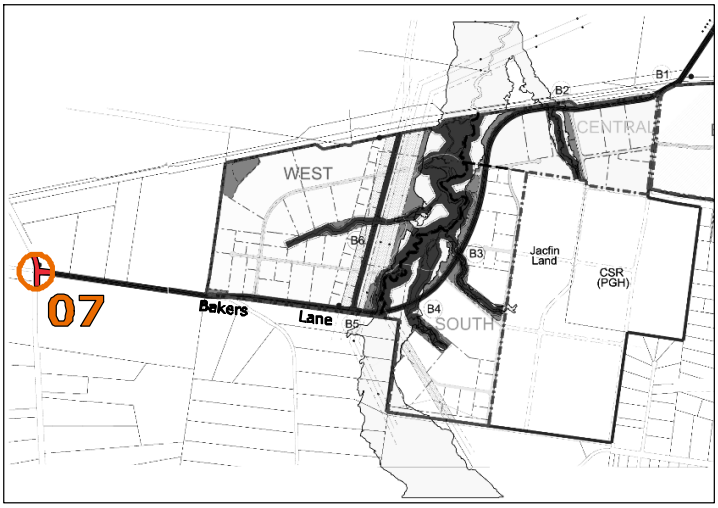
Prepared on behalf of Goodman International Limited

A6

CONCEPT LAYOUT FOR INTERSECTION 06



Diagramatic only



OAKDALE CONCEPT PLAN TRAFFIC ASSESSMENT
OLD WALLGROVE ROAD, KEMPS CREEK AND HORSLEY PARK

Prepared on behalf of Goodman International Limited

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CONCEPT LAYOUT FOR INTERSECTION 07

TRAFFIX

APPENDIX B:

Reduced Plans

Site Area Schedule

	Total	Central/ South/ West	EAST
Total Land Area	421.3 ha	333.0 ha	88.3 ha
Less: Restricted Areas	(95.3 ha)	(89.4 ha)	(6.2 ha)
DEVELOPMENT Area	325.7 ha	243.6 ha	82.1 ha
Less: Regional infrastructure Regional Roads	(21.6 ha)	(21.6 ha)	(00.0 ha)
Gross ESTATE Land Area	304.1 ha	222.0 ha	82.1 ha
Less: Estate Allocations	(43.2 ha)	(38.7 ha)	(4.5 ha)
NETT DEVELOPMENT LOTS	260.9 ha	183.3 ha	77.6 ha

Breakdown of Central/ South/ West Precinct		
Central	South	West
61.2 ha	111.2 ha	160.6 ha
(9.0 ha)	(30.3 ha)	(50.1 ha)
52.2 ha	80.9 ha	110.5 ha
(5.5 ha)	(5.2 ha)	(10.9 ha)
46.7 ha	75.7 ha	99.6 ha
(6.7 ha)	(16.2 ha)	(15.8 ha)
40.0 ha	59.5 ha	83.8 ha

Regional Roads	Length (km)	New/extra Width
OAKDALE		
Old Wallgrove Road (S-W)	1.0	20.0
"Oakdale" new road - (incl. B1, B2, B3, B4 + B5)	4.0	40.0
Bakers Lane upgrade - (incl intersection)	1.1	20.0
Total	6.1	
N-S Connection - (incl. B6)	1.3	40.0
Note: M7 Hub		
Old Wallgrove Road (M7 Hub)	1.5	20.0

Goodman

M7 Hub

B1

B2

CENTRAL

EAST

Jokona Pty Ltd

WEST

B6

B3

Jacfin Land

CSR (PGH)

B4

B5

SOUTH

HORSLEY PARK

Legend

- Riparian Zone
- 1 in 100 Flood Zone
- Detention Basin Area
- Estate Park/ Amenities
- Service Station/ Convenience
- Infrastructure Service Zone
- Substation
- Electrical Easements
- Future Road Links

design+

Oakdale

Eastern Creek

Design Masterplan - Link Rd Option 1

0 200 1000

1:10000 @ A1
1:20000 @ A3

05 Nov 07 AL

SP SK36 (I)