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Griffith City Council

Report for Expansion of Tharbogang Quarry and Landfill Traffic Impact Assessment

December 2007



Contents

1.	Introduction	1
2.	Existing Conditions	2
2.1	Site Description	2
2.2	Existing Road Network Characteristics	2
2.3	Existing Traffic Generation	6
2.4	Existing Traffic Volumes	8
2.5	Existing Internal Site operation	9
2.6	Traffic Assignment	10
2.7	Crash Statistics	10
3.	Post Development – Traffic Impacts	11
3.1	Future Traffic Generation of the Site	11
3.2	Future Road Network and Intersection Performance	13
4.	Conclusion	15
4.1	Existing Conditions	15
4.2	Crash History	15
4.3	Post Development	15
4.4	Pedestrians and Cyclists	15

Table Index

Table 1	Total Existing Traffic Generation	8
Table 2	Average Weekday Traffic Volumes (veh/day)	8
Table 5	Total Proposed Traffic Generation 2008 (Includes Existing)	12
Table 6	Existing and Proposed Total Traffic Generation	12

Figure Index

Figure 1 Locality Plan	2
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Appendices

- A Traffic Volumes
- B Crash Statistics



1. Introduction

Griffith City Council are proposing to expand the existing Tharbogang quarry and landfill facility in Griffith NSW.

The Tharbogang quarry currently operates under a 50,000 tonne per annum extraction restriction. This proposal would take the starting volume for 2008 up to 150,000 tonnes with the increase to approximately 300,000 tonnes per annum after 25 years or so.

This Traffic Impact Assessment has been prepared to assess the impacts of the expansion of the existing quarry and landfill and is in accordance with the Roads and Traffic Authority (RTA) *Guide to Traffic Generating Developments* procedure manual where applicable.

This report discusses the following:

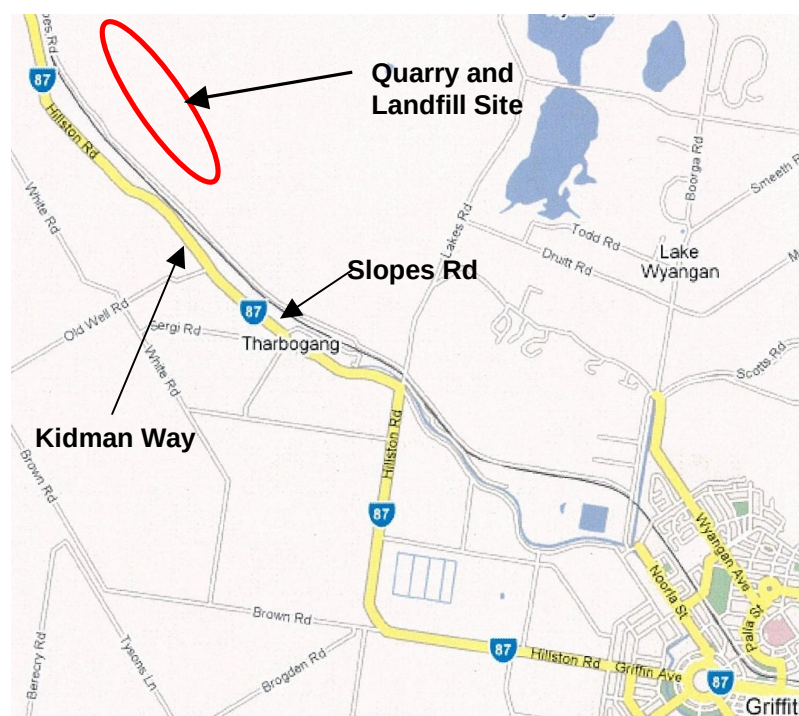
- » Existing Conditions – a review of existing road characteristics, adjacent development, traffic volumes, intersections performance and pedestrian and cyclist facilities;
- » Future Conditions – calculates additional traffic generated during the future operation of the proposed facility, assesses the adequacy of the network to support the proposed activity and the performance of the network under these proposed conditions.

2. Existing Conditions

2.1 Site Description

The existing site to be expanded is currently situated to the northwest of the town centre of Griffith. Access to this site is obtained from Kidman Way (Hwy 87).

Figure 1 Locality Plan



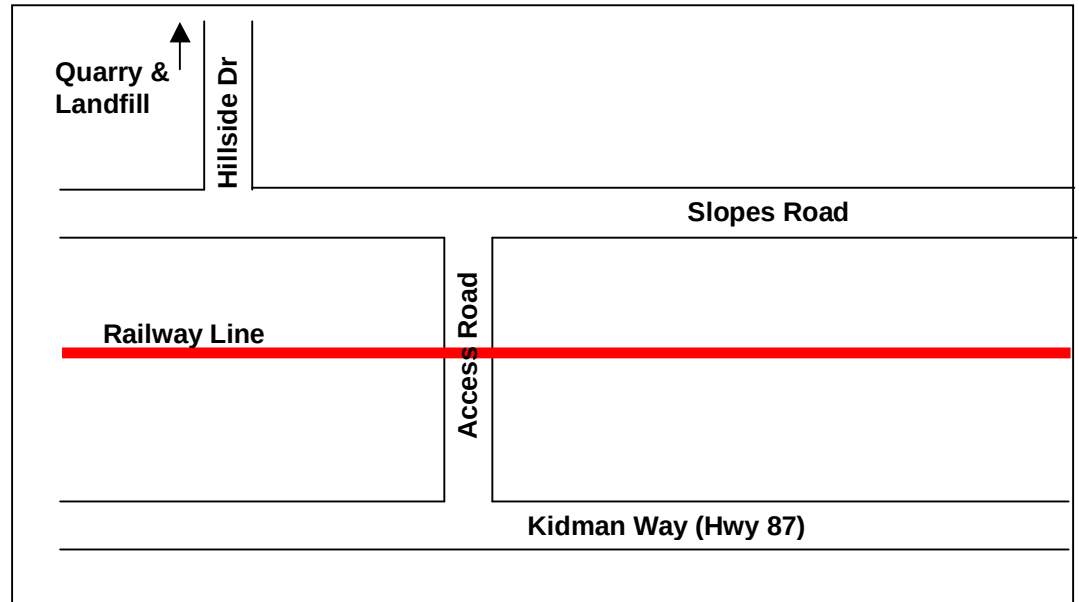
2.2 Existing Road Network Characteristics

The classifications of roads on the existing road network can be used as an indication of the functional role each road plays with respect to the volume of traffic they should appropriately carry. The Roads and Traffic Authority (RTA) have developed a set of road hierarchy classifications detailed in Table 1 indicating typical nominal volumes expressed in terms of average annual daily traffic (AADT) serviced by various classes of roads.

Table 1 Functional Classifications of Road

Type of Road	Traffic Volume (vpd)	Peak Hour Volume (vph)
Arterial Road	>20,000	>2,000
Sub-Arterial Road	10,000 – 20,000	1,000 – 2,000
Collector Road	2,000 – 10,000	200 – 1,000
Local Road	<2,000	0 - 200

Figure 2 Road Network



2.2.1 Hillside Drive

Hillside Drive is a 6 -7m sealed road with no roadmarking providing access to the quarry and landfill. This road is a 'No Through Road', which becomes the access to the quarry and landfill. The intersection of Hillside Drive and Slopes Road is Give Way controlled and appropriate sight distances are provided. Hillside Drive would be classified as a local road under **Table 1**.



Photo 1 –Hillside Drive

2.2.2 Slopes Road

Slopes Road runs parallel to the Kidman Hwy and provides an alternative route to Griffith; this however is not classified as a B-Double route. Slopes Road is a 6-7m sealed road with no roadmarking, which carries approximately 300 vpd. Slopes Road would be classified as a local road under **Table 1**.



Photo 2 –Slopes Road



Photo 3 –Slopes Road / Access Road Intersection

The intersection of Slopes Road and the access road to Kidman Way shows the heavy turning movements on the pavement, the existing pavement is in very poor condition

as shown in **Photo 3**.

2.2.3 Access Road (between Slopes and Kidman Way)

The access road which connects Slopes Road to Kidman Way is sealed and has an at grade level crossing. There are no warning lights or barriers at this crossing point, however there is good sight distance in both directions. This road carries approximately 140 vpd.



Photo 4 –Road connecting Slopes Road to Kidman Way

2.2.4 Kidman Way Hwy 87 (also referred to as Hillston Road)

Kidman Way is an arterial road providing connection with Griffith and regional centres to the northwest, although classified as an arterial road its current function based on traffic volumes is more of a collector road. The speed environment changes when exiting Griffith from 50km/h to 80km/h just north of Harward Road and then changes to 100km/h just north of Lakes Road. Therefore in the vicinity of the access to the quarry and landfill, Kidman Way has a speed environment of 100km/h. Kidman Way is a sealed road with edgelines and a centreline with one lane in each direction. Kidman Way is classified as a B-Double route and should be the route used by the majority of the vehicles using the quarry and landfill.



Photo 5 –Kidman Way

In summary the existing intersection of Slopes Road and the access road to Kidman Way needs the pavement to be constructed to industrial standard to accommodate the existing and future heavy vehicle movements to and from Kidman Way and the landfill/quarry.

Slopes Road is not classified as a B-double route and therefore all heavy vehicles should access the landfill/quarry to and from Kidman Way.

Kidman Way is constructed to industrial standards and is classified as a B-double route and therefore can accommodate the landfill/quarry traffic.

2.3 Existing Traffic Generation

2.3.1 Staff Vehicle Traffic Generation

The number of staff on the existing site is in the order of 5 employees. Based on information provided by Griffith City Council, the existing traffic generation characteristics of the site revealed a typical car driver rate of 100% (i.e. each employee travel to work by a car). Application of that car driver rate to the existing staff numbers yields a traffic generation in the order of 10 vehicle trips per day (two-way).

The site currently operates seven (7) days a week from 8:00am to 5:30pm.

It is important to note that the peak hour traffic flows on the surrounding road network under the existing situation vary between 8:00 am – 11:00 am and 2:00 pm – 4:00 pm for the morning and evening peak periods respectively. Further information on peak period traffic movement is also provided in **Section 2.4** of this report. The staff traffic movements are likely to be distributed based on a 100/0 split between arrivals and departures. It is noted from the above information that staff arrivals and departures will most likely occur during the morning and evening peak periods.



Using these assumptions, the traffic generation during the weekday peak periods is as follows:

- » 5 vehicle trips per hour (vtph), comprising 5 In/ 0 Out during the morning peak period; and
- » 5 vehicle trips per hour (vtph), comprising of 0 In/ 5 Out during the evening peak period.

In summary the traffic generation in the morning and evening peak periods is in the order of 5 vtph.

2.3.2 Light Vehicle Traffic Generation

The existing light vehicle traffic generation is mostly associated with the landfill. Figures have been provided by Griffith City Council and have been obtained from data collected at the site weighbridge. For the purposes of this assessment the peak day has been used to obtain the existing worst case scenario. The peak days are clearly defined as the weekend with Sunday having the largest traffic generation of light vehicles accessing the landfill. The peak hour is between 11 am and 12 pm however this data has been assessed against the impact on the weekday AM and PM peak hours to obtain a worst case scenario.

Therefore the traffic generation during the weekday peak periods is as follows:

- » 8 vehicle trips per hour (vtph), comprising 4 In/ 4 Out during the morning peak period; and
- » 8 vehicle trips per hour (vtph) comprising of 4 In/4 Out during the evening peak period.

In summary the traffic generation in the morning and evening peak periods is in the order of 8 vtph.

2.3.3 Heavy Vehicle Traffic Generation

The existing heavy vehicle traffic generation figures have been provided by Griffith City Council and have been obtained from data collected at the site weighbridge. For the purposes of this assessment the peak day has been used to obtain the existing worst case scenario. The peak hour is between 11 am and 12 pm, however this data has been assessed against the impact on the weekday AM and PM peak hours to obtain a worst case scenario.

Therefore the total heavy vehicle traffic generation for both the quarry and the landfill during the weekday peak periods is as follows:

- » 16 vehicle trips per hour (vtph), comprising 8 In/ 8 Out during the morning peak period; and
- » 16 vehicle trips per hour (vtph) comprising of 8 In/ 8 Out during the evening peak period.

In summary the traffic generation in both the morning and evening peak periods is in

the order of 16 vtph.

Griffith City Council have provided graphs separating the quarry and the landfill heavy vehicles, these have been separated in **Table 2**

Table 2 Total Existing Traffic Generation

Component	Morning Peak (vtph)*	Evening Peak (vtph)*	Daily Trips (vtpd)**
Employee Traffic	5	5	10
Light Vehicle Traffic	8	8	84
Quarry Heavy Vehicle Traffic	8	8	46
Landfill Heavy Vehicle Traffic	8	8	60
Total	29	29	200

*vtph = Vehicle trips per hour

** vtpd = Vehicle trips per day

2.4 Existing Traffic Volumes

Traffic count data was obtained from automatic counters that were installed by Griffith City Council in July 2007. The following are the locations that automatic counters were placed:

- » Hillside Drive – north of Slopes Road;
- » Kidman Way – north of the access road; and
- » Kidman Way – south of the access road.

Table 3 below summarises the results of the average seven (7) day traffic volumes.

Table 3 Existing Traffic Volumes (both directions) – July 2007

Road	Location	Total Vehicles per day (vpd)	AM Peak (vph)	PM Peak (vph)
Hillside Drive	North of Slopes Road	120	20	26
Kidman Way	North of the access road	974	110	109
Kidman Way	South of the access road	1094	123	123

The results of the automatic counts indicate that the Kidman Way carries around 1,000 vehicles per day, with a peak of around 120 vehicles per hour and Hillside Drive carries around 120 vehicles per day, with a peak of around 25 vehicles per hour.

The peak hour on Hillside Drive varied during the seven day survey period between 8 am and 4 pm. The morning and evening peak periods on Kidman Way varied between 8 am – 11 am and 2 pm to 4 pm respectively.

2.5 Existing Internal Site operation

This site is accessed from a weighbridge, which is located on Hillside Drive at the entrance of the site.

There is one internal road, which is sealed to the entry of the quarry. From the quarry to the landfill area the road is unsealed but is wide enough to accommodate two way traffic.

Adequate signing is provided on site to direct traffic appropriately.



Photo 6 –Entrance to Weighbridge

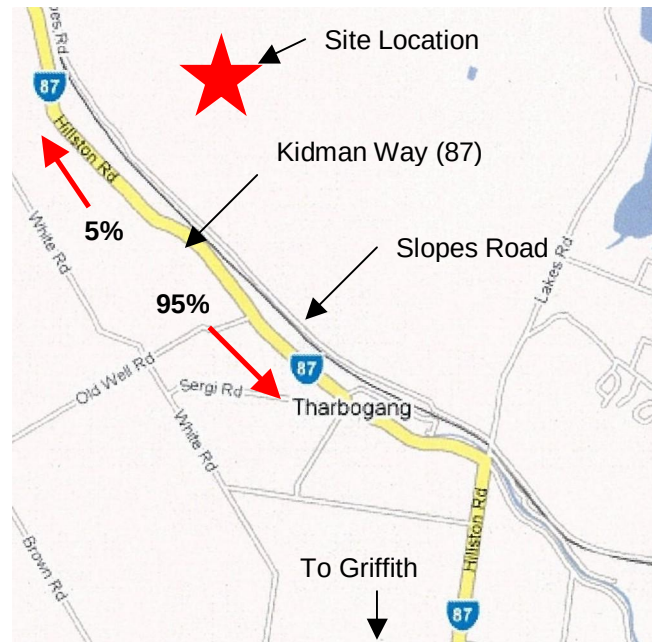


Photo 7 –Existing Site – Internal Operation

2.6 Traffic Assignment

Griffith City Council has provided the below trip distribution for heavy vehicles to and from the site. Slopes Road has a B double restriction therefore traffic is assigned to Kidman Way.

Figure 3 Traffic Assignment



2.7 Crash Statistics

A search of the Roads and Traffic Authority crash database has been undertaken for the last five-years. Details of the crash database records are shown in Appendix B.

The data shows that there were no crashes recorded by the RTA on Hillside Drive or Slopes Road in the vicinity of the quarry/landfill. The data indicates that in total of four (4) crashes occurred on the Kidman Way/Hillston Road highway within a 500m distance from the access road to the quarry/landfill. Two of these crashes resulted in injuries.

The crash data does not indicate whether the crashes were related or not to the operation or activities in the quarry/landfill.



3. Post Development – Traffic Impacts

Griffith City Council are proposing to expand the existing Tharbogang quarry and landfill facility in Griffith NSW.

The proposal would have a starting volume for 2008 of up to 150,000 tonnes with the increase to approximately 300,000 tonnes per annum after 25 years or so.

3.1 Future Traffic Generation of the Site

3.1.1 Future Employee Traffic Generation

The expansion of the quarry will not result in any additional staff on site.

Therefore based on the existing employee traffic generation as stated in **Section 2.3.1** the traffic generation during the weekday peak periods would continue to be as follows:

- » 5 vehicle trips per hour (vtph), comprising 5 In/ 0 Out during the morning peak period; and
- » 5 vehicle trips per hour (vtph) comprising of 0 In/ 5 Out during the evening peak period.

In summary the traffic generation in the morning and evening peak periods after the expansion of the site is in the order of 5 vtph.

3.1.2 Light Vehicle Traffic Generation

The existing light vehicle traffic generation is mostly associated with the landfill. It is therefore reasonable to assume that with the quarry expansion, the light vehicle traffic generation will not increase.

Based on this assumption the light vehicle traffic generation would remain as follows:

- » 8 vehicle trips per hour (vtph), comprising 4 In/ 4 Out during the morning peak period; and
- » 8 vehicle trips per hour (vtph) comprising of 4 In/4 Out during the evening peak period.

In summary the traffic generation in the morning and evening peak periods is in the order of 8 vtph.

3.1.3 Future Heavy Vehicle Traffic Generation of the Site

Loading and hauling of gravel is required to be carried out at any time between Monday and Friday excluding public holidays. Future truck generation is based on an average truck capacity of 30 tonnes (B-doubles) and the expected excavation volume of 150,000 tonnes in 2008, which is expected to increase to 300,000 tonnes per annum after 25 years.

Using these assumptions, the total expected future heavy traffic generation during the

weekday peak periods will be as follows:

- » 22 vehicle trips per hour (vtph), comprising 11 In/ 11 Out during the morning peak period; and
- » 22 vehicle trips per hour (vtph) comprising of 11 In/ 11 Out during the evening peak period.

In summary the traffic generation in both the morning and evening peak periods is in the order of 22 vtph.

The total proposed traffic generation including the quarry expansion in 2008 is outlined in **Table 4**

Table 4 Total Proposed Traffic Generation 2008 (Includes Existing)

Component	Morning Peak (vtph)*	Evening Peak (vtph)*	Daily Trips (vtpd)**
Employee Traffic	5	5	10
Light Vehicle Traffic	8	8	84
Quarry Heavy Vehicle Traffic	14	14	96
Landfill Heavy Vehicle Traffic	8	8	60
Total	35	35	250

*vtph = Vehicle trips per hour

** vtpd = Vehicle trips per day

A comparison of daily and peak hour traffic generation incorporating both light and heavy vehicles under existing and proposed conditions is set out in **Table 5**.

Table 5 Existing and Proposed Total Traffic Generation

Component	Existing			Proposed (2008)			Proposed (+ 25 years)		
	Morning Peak (vtph)	Evening Peak (vtph)	Daily Trips (vtpd)	Morning Peak (vtph)	Evening Peak (vtph)	Daily Trips (vtpd)	Morning Peak (vtph)	Evening Peak (vtph)	Daily Trips (vtpd)
Employee Traffic	5	5	10	5	5	10	5	5	10
Light Vehicle Traffic	8	8	84	8	8	84	8	8	84
Quarry Heavy Vehicle Traffic	8	8	46	14	14	96	19	19	146
Landfill Heavy Vehicle Traffic	8	8	60	8	8	60	8	8	60
Total	29	29	200	35	35	250	40	40	300

Therefore in 2008 the expansion of the quarry would increase the total heavy vehicles by 25 vpd (50 vtpd), from 200 vtpd to 250 vtpd. After 25 years when the extraction volume increases to 300,000 tonnes per annum, the total site traffic generation would further increase from the existing by 50 vpd (100 vtpd) to 350 vtpd.

3.2 Future Road Network and Intersection Performance

Based on the above future traffic generation estimates in **Table 5**, the surrounding network will need to accommodate an additional 3 vph in 2008 from the expansion and an additional 10 vph in 25 years.

Referencing to Austroads – Part 5 Intersections at Grade Fig 6.5 Practical Absorption Capacity this increase can easily be accommodated for both 2008 and in 25 years based on the extraction rate provided by Griffith City Council.

3.2.1 Traffic Assignment during Operation

The traffic assignment to and from the site is expected to remain as existing as outlined in **Section 2.6**. Therefore based on this assignment the traffic generated by the expansion of the quarry and landfill is expected to be distributed along the external road network as follows:

- » 95% of traffic would approach/depart the site from Kidman Way south of the site access; and
- » 5% of traffic would approach/depart the site from Kidman Way north of the site access.

Given the assumptions above, the additional traffic demand on the road network serving the site will expect the following increases:

- » Additional two-way traffic flows along Kidman Way south of the access road is in the order of 3 vehicles per hour in the peak hour in 2008;
- » Additional two-way traffic flows along Kidman Way south of the access road is in the order of 10 vehicles per hour in the peak hour in 2033;
- » Additional two-way traffic flows along Kidman Way north of the access road is in the order of 1 vehicle per hour in the peak hour in 2008;
- » Additional two-way traffic flows along Kidman Way north of the access road is in the order of 1 vehicle per hour in the peak hour in 2033;
- » Additional two-way traffic flows along Hillside Drive is in the order of 3 vehicles per hour in the peak hour in 2008;
- » Additional two-way traffic flows along Hillside Drive is in the order of 10 vehicles per hour in the peak hour in 2033;
- » Additional two-way traffic flows along the access road between Kidman Way and Slopes Road is in the order of 3 vehicles per hour in the peak hour in 2008;
- » Additional two-way traffic flows along the access road between Kidman Way and



Slopes Road is in the order of 10 vehicles per hour in the peak hour in 2033;

- » Additional two-way traffic flows along Slopes Road between the access road and Hillside Drive is in the order of 3 vehicles per hour in the peak hour in 2008; and
- » Additional two-way traffic flows along Slopes Road between the access road and Hillside Drive is in the order of 10 vehicles per hour in the peak hour in 2033.

These additional traffic flows are well within the design capacity threshold for these roads as shown in **Table 1**.

3.2.2 Intersection Performance

The additional truck movements generated from the operation of the expansion is considered to be minimal and unlikely to have a significant affect on the performance of intersections in the vicinity of the proposed site.

3.2.3 Pedestrian and Cyclists

The increase in truck movements generated by the operation of the site is not likely to impact on the pedestrian and cyclists in the vicinity of the site. The site is located in a rural area where pedestrian and cyclist facilities are not provided.



4. Conclusions

The following conclusions are made based on the investigations contained in this report.

4.1 Existing Conditions

The existing pavement at the intersection of Slopes Road and the access road to Kidman Way needs to be constructed to industrial standard to accommodate the existing heavy vehicle movements to and from Kidman Way and the landfill/quarry.

Slopes Road is not classified as a B-double route and therefore all heavy vehicles should access the landfill/quarry to and from Kidman Way.

Kidman Way is constructed to industrial standards and is classified as a B-double route and therefore can accommodate the landfill/quarry traffic.

4.2 Crash History

The data shows that there were no crashes recorded by the RTA on Hillside Road or Slopes Road in the vicinity of the quarry/landfill. The data indicates that in total of four (4) crashes occurred on the Kidman Way/Hillston Road highway within a 500m distance from the access road to the quarry/landfill. Two of these crashes resulted in injuries. The data does not show whether these crashes were related or not to the operation or activities in the quarry/landfill.

4.3 Post Development

In conclusion based on the traffic generation predictions, the surrounding network will need to accommodate an additional 3 vph in 2008 from the expansion and an additional 10 vph in 25 years. This increase can easily be accommodated for both 2008 and in 25 years based on the extraction rate provided by Griffith City Council.

The additional truck movements generated from the operation of the expansion is considered to be minimal and unlikely to have a significant affect on the performance of intersections in the vicinity of the proposed site.

4.4 Pedestrians and Cyclists

The increase in truck movements generated by the operation of the site is not likely to impact on the pedestrian and cyclists in the vicinity of the site. The site is located in a rural area where pedestrian and cyclist facilities are not provided.



Appendix A

Traffic Volumes

MetroCount Traffic Executive **Weekly Vehicle Counts**

WeeklyVehicle-16 -- English (ENA)

Datasets:

Site: [mmmm] Hillston Rd - nth of tip turnoff
Direction: 7 - North bound A>B, South bound B>A., **Lane:** 0
Survey Duration: 10:16 Tuesday, 10 July 2007 => 9:07 Wednesday, 1 August 2007
File: G:\FPDes\Traffic\Traffic Count Data\Kidman Way\2007_july.EC0 (Regular)
Identifier: U671ZJ59 MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm: Factory default
Data type: Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time: 10:16 Tuesday, 10 July 2007 => 9:07 Wednesday, 1 August 2007
Included classes: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
Speed range: 10 - 160 km/h.
Direction: North, East, South, West (bound)
Separation: All - (Headway)
Name: Factory default profile
Scheme: Vehicle classification (AustRoads94)
Units: Metric (meter, kilometer, m/s, km/h, kg, tonne)
In profile: Vehicles = 21031 / 21045 (99.93%)

Weekly Vehicle Counts

WeeklyVehicle-16

Site: mmmm.OSN
Description: Hillston Rd - nth of tip turnoff
Filter time: 10:16 Tuesday, 10 July 2007 => 9:07 Wednesday, 1 August 2007
Scheme: Vehicle classification (AustRoads94)
Filter: Cls(1 2 3 4 5 6 7 8 9 10 11 12) Dir(NESW) Sp(10,160) Headway(>0)

Averages	Mon	Tue	Wed	Thu	Fri	Sat	Sun	
	09 Jul	10 Jul	11 Jul	12 Jul	13 Jul	14 Jul	15 Jul	1 -
5 1 - 7								
Hour								
0000-0100	*	*	3	6	8	3	4	
5.7 4.8								
0100-0200	*	*	2	4	6	4	2	
4.0 3.6								
0200-0300	*	*	2	1	1	1	2	
1.3 1.4								
0300-0400	*	*	2	0	6	5	2	
2.7 3.0								
0400-0500	*	*	2	3	3	1	4	
2.7 2.6								
0500-0600	*	*	15	14	18	9	5	
15.7 12.2								
0600-0700	*	*	34	30	33	17	3	
32.3 23.4								
0700-0800	*	*	51	56	58	28	10	
55.0 40.6								
0800-0900	*	*	74	77	71	43	23	
74.0 57.6								
0900-1000	*	*	87	80	85	78	50	
84.0 76.0								
1000-1100	*	47	96<	77	75	82<	49	
73.8 71.0								
1100-1200	*	90	87	82<	90<	69	61<	
87.3< 79.8<								
1200-1300	*	66	66	68	67	64	57	
66.8 64.7								
1300-1400	*	78	74	67	73	67<	59	
73.0 69.7								
1400-1500	*	84	91	68	80	55	60	
80.8 73.0								
1500-1600	*	71	71	85	91	58	48	
79.5 70.7								
1600-1700	*	96	87	78	92<	52	63<	
88.3 78.0								
1700-1800	*	97<	92<	91<	86	45	60	
91.5< 78.5<								
1800-1900	*	55	56	57	62	44	31	
57.5 50.8								
1900-2000	*	30	25	32	37	18	18	
31.0 26.7								
2000-2100	*	12	17	24	30	13	16	
20.8 18.7								
2100-2200	*	19	14	12	13	10	13	
14.5 13.5								
2200-2300	*	9	9	7	14	2	9	

9.8	8.3							
2300-2400		*	10	5	12	9	4	3
9.0	7.2							
Totals								
—								
0700-1900		*	*	932	886	930	685	571
911.3	810.4							
0600-2200		*	*	1022	984	1043	743	621
1009.8	892.6							
0600-0000		*	*	1036	1003	1066	749	633
1028.6	908.1							
0000-0000		*	*	1062	1031	1108	772	652
1060.6	935.7							
AM Peak		*	*	1000	1100	1100	1000	1100
		*	*	96	82	90	82	61
PM Peak		*	1700	1700	1700	1600	1300	1600
		*	97	92	91	92	67	63

* - No data.

Weekly Vehicle Counts

WeeklyVehicle-16

Site: mmmm.OSN
Description: Hillston Rd - nth of tip turnoff
Filter time: 10:16 Tuesday, 10 July 2007 => 9:07 Wednesday, 1 August 2007
Scheme: Vehicle classification (AustRoads94)
Filter: Cls(1 2 3 4 5 6 7 8 9 10 11 12) Dir(NESW) Sp(10,160) Headway(>0)

	Mon	Tue	Wed	Thu	Fri	Sat	Sun	
Averages	16 Jul	17 Jul	18 Jul	19 Jul	20 Jul	21 Jul	22 Jul	1 -
5 1 - 7								
Hour								
0000-0100	2	3	4	5	5	5	2	
3.8 3.7								
0100-0200	1	1	5	1	1	4	3	
1.8 2.3								
0200-0300	3	2	0	4	1	3	1	
2.0 2.0								
0300-0400	2	2	1	1	1	2	0	
1.4 1.3								
0400-0500	0	0	4	1	5	3	1	
2.0 2.0								
0500-0600	17	16	15	20	16	7	4	
16.8 13.6								
0600-0700	25	26	30	38	27	10	8	
29.2 23.4								
0700-0800	57	70	74	71	58	18	10	
66.0 51.1								
0800-0900	67	75	81	96<	85	56	24	
80.8< 69.1								
0900-1000	81	72	86<	78	81	83<	40	
79.6 74.4								
1000-1100	76	82<	84	73	86<	77	54<	
80.2 76.0<								
1100-1200	81<	67	70	66	64	62	40	
69.6 64.3								
1200-1300	103	57	67	68	70	83<	58	
73.0 72.3								
1300-1400	68	63	72	72	78	61	48	
70.6 66.0								
1400-1500	79	83	85	81	95	73	64<	
84.6 80.0								
1500-1600	104<	91<	87	88	79	60	39	
89.8 78.3								
1600-1700	80	83	80	88	85	61	53	
83.2 75.7								
1700-1800	86	79	99<	97<	109<	60	59	
94.0< 84.1<								
1800-1900	33	38	51	62	64	45	43	
49.6 48.0								
1900-2000	24	21	25	39	31	19	34	
28.0 27.6								
2000-2100	16	22	16	17	14	23	9	
17.0 16.7								
2100-2200	8	11	15	14	9	15	8	
11.4 11.4								
2200-2300	8	5	7	8	13	4	5	

8.2	7.1							
2300-2400		3	5	2	9	9	6	4
5.6	5.4							
Totals								
—								
0700-1900		915	860	936	940	954	739	532
921.0	839.4							
0600-2200		988	940	1022	1048	1035	806	591
1006.6	918.6							
0600-0000		999	950	1031	1065	1057	816	600
1020.4	931.1							
0000-0000		1024	974	1060	1097	1086	840	611
1048.2	956.0							
AM Peak		1100	1000	0900	0800	1000	0900	1000
		81	82	86	96	86	83	54
PM Peak		1500	1500	1700	1700	1700	1200	1400
		104	91	99	97	109	83	64

* - No data.

Weekly Vehicle Counts

WeeklyVehicle-16

Site: mmmm.OSN
Description: Hillston Rd - nth of tip turnoff
Filter time: 10:16 Tuesday, 10 July 2007 => 9:07 Wednesday, 1 August 2007
Scheme: Vehicle classification (AustRoads94)
Filter: Cls(1 2 3 4 5 6 7 8 9 10 11 12) Dir(NESW) Sp(10,160) Headway(>0)

		Mon	Tue	Wed	Thu	Fri	Sat	Sun	
Averages		23 Jul	24 Jul	25 Jul	26 Jul	27 Jul	28 Jul	29 Jul	1 -
5	1 - 7								
Hour									
0000-0100		1	1	1	3	4	5	6	
2.0	3.0								
0100-0200		1	1	1	2	1	3	1	
1.2	1.4								
0200-0300		1	0	2	2	2	1	2	
1.4	1.4								
0300-0400		0	1	2	0	0	2	0	
0.6	0.7								
0400-0500		1	3	2	4	5	1	1	
3.0	2.4								
0500-0600		18	18	19	15	20	8	5	
18.0	14.7								
0600-0700		23	35	28	24	30	12	9	
28.0	23.0								
0700-0800		68	70	77	61	61	22	13	
67.4	53.1								
0800-0900		86	98<	71	101<	82	47	31	
87.6<	73.7								
0900-1000		74	94	84	88	92<	79	41	
86.4	78.9								
1000-1100		89<	68	87<	87	89	110<	62<	
84.0	84.6<								
1100-1200		71	67	59	63	63	72	37	
64.6	61.7								
1200-1300		59	63	63	71	70	76	57<	
65.2	65.6								
1300-1400		76	72	78	78	73	66	54	
75.4	71.0								
1400-1500		65	105	77	73	78	48	56	
79.6	71.7								
1500-1600		79<	74	83	82	89	61	42	
81.4	72.9								
1600-1700		77	106<	91<	91<	93<	85<	48	
91.6<	84.4<								
1700-1800		78	105	86	87	81	70	42	
87.4	78.4								
1800-1900		44	64	46	68	58	42	43	
56.0	52.1								
1900-2000		30	35	31	36	32	19	30	
32.8	30.4								
2000-2100		17	20	16	19	21	5	16	
18.6	16.3								
2100-2200		7	15	12	28	19	8	12	
16.2	14.4								
2200-2300		7	14	13	10	13	13	7	

11.4	11.0							
2300-2400		6	7	5	6	9	13	4
6.6	7.1							
Totals								
—								
0700-1900		866	986	902	950	929	778	526
926.6	848.1							
0600-2200		943	1091	989	1057	1031	822	593
1022.2	932.3							
0600-0000		956	1112	1007	1073	1053	848	604
1040.2	950.4							
0000-0000		978	1136	1034	1099	1085	868	619
1066.4	974.1							
AM Peak		1000	0800	1000	0800	0900	1000	1000
		89	98	87	101	92	110	62
PM Peak		1500	1600	1600	1600	1600	1600	1200
		79	106	91	91	93	85	57

* - No data.

Weekly Vehicle Counts

WeeklyVehicle-16

Site: mmmm.OSN
Description: Hillston Rd - nth of tip turnoff
Filter time: 10:16 Tuesday, 10 July 2007 => 9:07 Wednesday, 1 August 2007
Scheme: Vehicle classification (AustRoads94)
Filter: Cls(1 2 3 4 5 6 7 8 9 10 11 12) Dir(NESW) Sp(10,160) Headway(>0)

	Mon	Tue	Wed	Thu	Fri	Sat	Sun	
Averages	30 Jul	31 Jul	01 Aug	02 Aug	03 Aug	04 Aug	05 Aug	1 -
5 1 - 7								
Hour								
0000-0100	2	4	3	*	*	*	*	
3.0 3.0								
0100-0200	1	6	1	*	*	*	*	
2.7 2.7								
0200-0300	1	1	0	*	*	*	*	
0.7 0.7								
0300-0400	0	3	0	*	*	*	*	
1.0 1.0								
0400-0500	0	5	4	*	*	*	*	
3.0 3.0								
0500-0600	23	15	18	*	*	*	*	
18.7 18.7								
0600-0700	30	21	27	*	*	*	*	
26.0 26.0								
0700-0800	58	62	66	*	*	*	*	
62.0 62.0								
0800-0900	71<	82<	70	*	*	*	*	
74.3< 74.3<								
0900-1000	60	64	9	*	*	*	*	
44.3 44.3								
1000-1100	68	68	*	*	*	*	*	
68.0 68.0								
1100-1200	62	80	*	*	*	*	*	
71.0 71.0								
1200-1300	64	99<	*	*	*	*	*	
81.5 81.5								
1300-1400	67	52	*	*	*	*	*	
59.5 59.5								
1400-1500	83<	62	*	*	*	*	*	
72.5 72.5								
1500-1600	76	93	*	*	*	*	*	
84.5 84.5								
1600-1700	60	87	*	*	*	*	*	
73.5 73.5								
1700-1800	79	92	*	*	*	*	*	
85.5< 85.5<								
1800-1900	46	46	*	*	*	*	*	
46.0 46.0								
1900-2000	20	33	*	*	*	*	*	
26.5 26.5								
2000-2100	10	17	*	*	*	*	*	
13.5 13.5								
2100-2200	10	16	*	*	*	*	*	
13.0 13.0								
2200-2300	6	10	*	*	*	*	*	

8.0	8.0								
2300-2400		10	8	*	*	*	*	*	
9.0	9.0								
Totals									
—									
0700-1900		794	887	*	*	*	*	*	
822.7	822.7								
0600-2200		864	974	*	*	*	*	*	
901.7	901.7								
0600-0000		880	992	*	*	*	*	*	
918.7	918.7								
0000-0000		907	1026	*	*	*	*	*	
947.7	947.7								
AM Peak		0800	0800	*	*	*	*	*	
		71	82	*	*	*	*	*	
PM Peak		1400	1200	*	*	*	*	*	
		83	99	*	*	*	*	*	

* - No data.

MetroCount Traffic Executive **Weekly Vehicle Counts**

WeeklyVehicle-20 -- English (ENA)

Datasets:

Site: [0001] Hillside Dve - bet Slopes Rd & Tip Entrance
Direction: 5 - South bound A>B, North bound B>A., Lane: 0
Survey Duration: 10:21 Tuesday, 10 July 2007 => 9:11 Wednesday, 1 August 2007
File: G:\FPDes\Traffic\Traffic Count Data\Hillside Drive\2007_JULY.EC0
(Regular)
Identifier: 2445SB5Z MC56-6 [MC55] (c)Microcom 02/03/01
Algorithm: Factory default
Data type: Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time: 10:21 Tuesday, 10 July 2007 => 9:11 Wednesday, 1 August 2007
Included classes: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
Speed range: 10 - 160 km/h.
Direction: North, East, South, West (bound)
Separation: All - (Headway)
Name: Factory default profile
Scheme: Vehicle classification (AustRoads94)
Units: Metric (meter, kilometer, m/s, km/h, kg, tonne)
In profile: Vehicles = 2856 / 2858 (99.93%)

Weekly Vehicle Counts

WeeklyVehicle-20

Site: 0001.ONS
Description: Hillside Dve - bet Slopes Rd & Tip Entrance
Filter time: 10:21 Tuesday, 10 July 2007 => 9:11 Wednesday, 1 August 2007
Scheme: Vehicle classification (AustRoads94)
Filter: Cls(1 2 3 4 5 6 7 8 9 10 11 12) Dir(NESW) Sp(10,160) Headway(>0)

Averages	Mon	Tue	Wed	Thu	Fri	Sat	Sun	
	09 Jul	10 Jul	11 Jul	12 Jul	13 Jul	14 Jul	15 Jul	1 -
5 1 - 7								
Hour								
0000-0100	*	*	0	0	0	0	0	
0.0 0.0								
0100-0200	*	*	0	0	0	0	0	
0.0 0.0								
0200-0300	*	*	0	0	0	0	0	
0.0 0.0								
0300-0400	*	*	0	0	0	0	0	
0.0 0.0								
0400-0500	*	*	0	0	0	0	0	
0.0 0.0								
0500-0600	*	*	0	0	0	0	0	
0.0 0.0								
0600-0700	*	*	1	1	1	0	0	
1.0 0.6								
0700-0800	*	*	2	4	1	2	1	
2.3 2.0								
0800-0900	*	*	14	3	12	7	4	
9.7 8.0								
0900-1000	*	*	8	17	17	7	9	
14.0 11.6								
1000-1100	*	8	15<	17	21	18<	12	
15.3 15.2								
1100-1200	*	20	11	19<	21<	16	12<	
17.8< 16.5<								
1200-1300	*	15	10	10	21<	8	26<	
14.0 15.0								
1300-1400	*	16<	17<	19	16	16<	18	
17.0< 17.0<								
1400-1500	*	15	13	12	15	15	15	
13.8 14.2								
1500-1600	*	11	7	33<	11	14	15	
15.5 15.2								
1600-1700	*	13	3	7	6	11	7	
7.3 7.8								
1700-1800	*	4	7	5	4	2	3	
5.0 4.2								
1800-1900	*	0	1	2	0	0	0	
0.8 0.5								
1900-2000	*	0	0	1	0	0	0	
0.3 0.2								
2000-2100	*	1	0	0	1	0	0	
0.5 0.3								
2100-2200	*	0	0	0	0	0	0	
0.0 0.0								
2200-2300	*	0	1	0	0	0	0	

0.3	0.2							
2300-2400		*	0	0	0	0	0	0
0.0	0.0							
Totals								
—								
0700-1900		*	*	108	148	145	116	122
132.3	127.1							
0600-2200		*	*	109	150	147	116	122
134.0	128.2							
0600-0000		*	*	110	150	147	116	122
134.3	128.4							
0000-0000		*	*	110	150	147	116	122
134.3	128.4							
AM Peak		*	*	1000	1100	1100	1000	1100
		*	*	15	19	21	18	12
PM Peak		*	1300	1300	1500	1200	1300	1200
		*	16	17	33	21	16	26

* - No data.

Weekly Vehicle Counts

WeeklyVehicle-20

Site: 0001.ONS
Description: Hillside Dve - bet Slopes Rd & Tip Entrance
Filter time: 10:21 Tuesday, 10 July 2007 => 9:11 Wednesday, 1 August 2007
Scheme: Vehicle classification (AustRoads94)
Filter: Cls(1 2 3 4 5 6 7 8 9 10 11 12) Dir(NESW) Sp(10,160) Headway(>0)

	Mon	Tue	Wed	Thu	Fri	Sat	Sun	
Averages	16 Jul	17 Jul	18 Jul	19 Jul	20 Jul	21 Jul	22 Jul	1 -
5 1 - 7								
Hour								
0000-0100	0	0	0	0	0	0	0	
0.0 0.0								
0100-0200	0	0	0	0	0	0	0	
0.0 0.0								
0200-0300	0	0	0	0	0	0	0	
0.0 0.0								
0300-0400	0	0	0	0	0	0	0	
0.0 0.0								
0400-0500	0	0	0	0	0	0	0	
0.0 0.0								
0500-0600	0	0	0	0	0	0	0	
0.0 0.0								
0600-0700	2	1	2	1	2	0	0	
1.6 1.1								
0700-0800	5	7	9	8	9	3	3	
7.6 6.3								
0800-0900	7	17	6	7	10	14<	1	
9.4 8.9								
0900-1000	13	15	11	14<	5	4	5	
11.6 9.6								
1000-1100	19<	19<	11	6	10	7	9	
13.0< 11.6								
1100-1200	11	10	11<	13	13<	11	19<	
11.6 12.6<								
1200-1300	16<	20<	9	14<	16	9	17	
15.0< 14.4<								
1300-1400	14	12	16<	11	15	11	19	
13.6 14.0								
1400-1500	8	19	8	7	16<	16<	26<	
11.6 14.3								
1500-1600	15	9	14	10	8	10	15	
11.2 11.6								
1600-1700	15	5	9	5	11	8	9	
9.0 8.9								
1700-1800	5	7	5	8	5	4	4	
6.0 5.4								
1800-1900	0	0	2	0	1	0	0	
0.6 0.4								
1900-2000	1	1	0	0	0	0	0	
0.4 0.3								
2000-2100	0	0	0	0	0	0	0	
0.0 0.0								
2100-2200	0	0	3	0	0	0	0	
0.6 0.4								
2200-2300	1	1	0	0	0	0	0	

0.4	0.3							
2300-2400		0	0	0	0	0	0	0
0.0	0.0							
Totals								
—								
0700-1900	128	140	111	103	119	97	127	
120.2	117.9							
0600-2200	131	142	116	104	121	97	127	
122.8	119.7							
0600-0000	132	143	116	104	121	97	127	
123.2	120.0							
0000-0000	132	143	116	104	121	97	127	
123.2	120.0							
AM Peak	1000	1000	1100	0900	1100	0800	1100	
	19	19	11	14	13	14	19	
PM Peak	1200	1200	1300	1200	1400	1400	1400	
	16	20	16	14	16	16	26	

* - No data.

Weekly Vehicle Counts

WeeklyVehicle-20

Site: 0001.ONS
Description: Hillside Dve - bet Slopes Rd & Tip Entrance
Filter time: 10:21 Tuesday, 10 July 2007 => 9:11 Wednesday, 1 August 2007
Scheme: Vehicle classification (AustRoads94)
Filter: Cls(1 2 3 4 5 6 7 8 9 10 11 12) Dir(NESW) Sp(10,160) Headway(>0)

		Mon	Tue	Wed	Thu	Fri	Sat	Sun	
Averages		23 Jul	24 Jul	25 Jul	26 Jul	27 Jul	28 Jul	29 Jul	1 -
5	1 - 7								
Hour									
0000-0100		0	0	0	0	0	0	0	
0.0	0.0								
0100-0200		0	0	0	0	0	0	0	
0.0	0.0								
0200-0300		0	0	0	0	0	0	0	
0.0	0.0								
0300-0400		0	0	0	0	0	0	0	
0.0	0.0								
0400-0500		0	0	0	0	0	0	0	
0.0	0.0								
0500-0600		0	0	0	0	0	0	0	
0.0	0.0								
0600-0700		1	2	2	1	3	0	0	
1.8	1.3								
0700-0800		8	5	5	7	4	2	1	
5.8	4.6								
0800-0900		11	7	7	13	20<	7	7	
11.6	10.3								
0900-1000		10	10	10	10	9	9<	6	
9.8	9.1								
1000-1100		17	11	12<	10	11	8	12<	
12.2	11.6								
1100-1200		18<	17<	11	20<	11	3	6	
15.4<	12.3<								
1200-1300		21<	12	11<	15	15	6	4	
14.8	12.0								
1300-1400		12	11	10	19	8	11<	13<	
12.0	12.0								
1400-1500		8	15	10	24<	22<	9	5	
15.8<	13.3<								
1500-1600		15	24<	2	12	19	3	6	
14.4	11.6								
1600-1700		9	6	7	8	0	7	0	
6.0	5.3								
1700-1800		3	4	5	7	4	2	4	
4.6	4.1								
1800-1900		0	1	0	0	0	1	0	
0.2	0.3								
1900-2000		1	0	0	0	0	0	0	
0.2	0.1								
2000-2100		0	0	0	0	0	0	0	
0.0	0.0								
2100-2200		0	0	1	0	0	2	0	
0.2	0.4								
2200-2300		1	1	0	0	0	0	0	

0.4	0.3							
2300-2400		0	0	0	0	0	0	0
0.0	0.0							
Totals								
—								
0700-1900		132	123	90	145	123	68	64
122.6	106.4							
0600-2200		134	125	93	146	126	70	64
124.8	108.3							
0600-0000		135	126	93	146	126	70	64
125.2	108.6							
0000-0000		135	126	93	146	126	70	64
125.2	108.6							
AM Peak		1100	1100	1000	1100	0800	0900	1000
		18	17	12	20	20	9	12
PM Peak		1200	1500	1200	1400	1400	1300	1300
		21	24	11	24	22	11	13

* - No data.

Weekly Vehicle Counts

WeeklyVehicle-20

Site: 0001.ONS
Description: Hillside Dve - bet Slopes Rd & Tip Entrance
Filter time: 10:21 Tuesday, 10 July 2007 => 9:11 Wednesday, 1 August 2007
Scheme: Vehicle classification (AustRoads94)
Filter: Cls(1 2 3 4 5 6 7 8 9 10 11 12) Dir(NESW) Sp(10,160) Headway(>0)

	Mon	Tue	Wed	Thu	Fri	Sat	Sun	
Averages	30 Jul	31 Jul	01 Aug	02 Aug	03 Aug	04 Aug	05 Aug	1 -
5 1 - 7								
Hour								
0000-0100	0	0	0	*	*	*	*	
0.0 0.0								
0100-0200	0	0	0	*	*	*	*	
0.0 0.0								
0200-0300	0	0	0	*	*	*	*	
0.0 0.0								
0300-0400	0	0	0	*	*	*	*	
0.0 0.0								
0400-0500	0	0	0	*	*	*	*	
0.0 0.0								
0500-0600	0	0	0	*	*	*	*	
0.0 0.0								
0600-0700	0	7	2	*	*	*	*	
3.0 3.0								
0700-0800	5	18	7	*	*	*	*	
10.0 10.0								
0800-0900	12	32	16	*	*	*	*	
20.0 20.0								
0900-1000	18	34	2	*	*	*	*	
18.0 18.0								
1000-1100	18	31	*	*	*	*	*	
24.5 24.5								
1100-1200	24<	38<	*	*	*	*	*	
31.0< 31.0<								
1200-1300	27	29	*	*	*	*	*	
28.0 28.0								
1300-1400	34<	25	*	*	*	*	*	
29.5 29.5								
1400-1500	29	37<	*	*	*	*	*	
33.0< 33.0<								
1500-1600	13	19	*	*	*	*	*	
16.0 16.0								
1600-1700	15	6	*	*	*	*	*	
10.5 10.5								
1700-1800	4	5	*	*	*	*	*	
4.5 4.5								
1800-1900	1	0	*	*	*	*	*	
0.5 0.5								
1900-2000	0	0	*	*	*	*	*	
0.0 0.0								
2000-2100	0	0	*	*	*	*	*	
0.0 0.0								
2100-2200	0	0	*	*	*	*	*	
0.0 0.0								
2200-2300	0	0	*	*	*	*	*	

0.0	0.0								
2300-2400		0	0	*	*	*	*	*	
0.0	0.0								
Totals									
—									
0700-1900	200	274	*	*	*	*	*	*	
225.5	225.5								
0600-2200	200	281	*	*	*	*	*	*	
228.5	228.5								
0600-0000	200	281	*	*	*	*	*	*	
228.5	228.5								
0000-0000	200	281	*	*	*	*	*	*	
228.5	228.5								
AM Peak	1100	1100	*	*	*	*	*	*	
	24	38	*	*	*	*	*	*	
PM Peak	1300	1400	*	*	*	*	*	*	
	34	37	*	*	*	*	*	*	

* - No data.

MetroCount Traffic Executive **Weekly Vehicle Counts**

WeeklyVehicle-18 -- English (ENA)

Datasets:

Site: [nnnnn] Hillston Rd - sth of tip turnoff
Direction: 7 - North bound A>B, South bound B>A., Lane: 0
Survey Duration: 10:11 Tuesday, 10 July 2007 => 9:03 Wednesday, 1 August 2007
File: G:\FPDes\Traffic\Traffic Count Data\Kidman Way\2007_july1.EC0
(Regular)
Identifier: U5445044 MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm: Factory default
Data type: Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time: 10:11 Tuesday, 10 July 2007 => 9:03 Wednesday, 1 August 2007
Included classes: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
Speed range: 10 - 160 km/h.
Direction: North, East, South, West (bound)
Separation: All - (Headway)
Name: Factory default profile
Scheme: Vehicle classification (AustRoads94)
Units: Metric (meter, kilometer, m/s, km/h, kg, tonne)
In profile: Vehicles = 23442 / 23523 (99.66%)

Weekly Vehicle Counts

WeeklyVehicle-18

Site: nnnnn.0SN
Description: Hillston Rd - sth of tip turnoff
Filter time: 10:11 Tuesday, 10 July 2007 => 9:03 Wednesday, 1 August 2007
Scheme: Vehicle classification (AustRoads94)
Filter: Cls(1 2 3 4 5 6 7 8 9 10 11 12) Dir(NESW) Sp(10,160) Headway(>0)

Averages	Mon	Tue	Wed	Thu	Fri	Sat	Sun	
	09 Jul	10 Jul	11 Jul	12 Jul	13 Jul	14 Jul	15 Jul	1 -
5 1 - 7								
Hour								
0000-0100	*	*	3	6	8	9	4	
5.7 6.0								
0100-0200	*	*	2	4	6	4	2	
4.0 3.6								
0200-0300	*	*	2	1	1	1	2	
1.3 1.4								
0300-0400	*	*	2	0	6	5	3	
2.7 3.2								
0400-0500	*	*	2	3	3	1	6	
2.7 3.0								
0500-0600	*	*	16	14	18	9	5	
16.0 12.4								
0600-0700	*	*	36	31	33	17	3	
33.3 24.0								
0700-0800	*	*	51	60	56	28	16	
55.7 42.2								
0800-0900	*	*	86	90	82	57	26	
86.0 68.2								
0900-1000	*	*	96	89	92	81	55	
92.3 82.6								
1000-1100	*	55	102<	92	86	92<	57	
83.8 80.7								
1100-1200	*	96	94	96<	104<	75	69<	
97.5< 89.0<								
1200-1300	*	72	71	80	77	74<	77<	
75.0 75.2								
1300-1400	*	86	92	78	82	73	68	
84.5 79.8								
1400-1500	*	89	92	73	88	70	63	
85.5 79.2								
1500-1600	*	83	75	99	98	66	57	
88.8 79.7								
1600-1700	*	107<	97	92	101<	62	72	
99.3 88.5<								
1700-1800	*	103	107<	104<	93	51	63	
101.8< 86.8								
1800-1900	*	57	58	60	67	41	37	
60.5 53.3								
1900-2000	*	30	26	41	36	19	17	
33.3 28.2								
2000-2100	*	13	19	27	32	14	17	
22.8 20.3								
2100-2200	*	27	14	13	13	10	14	
16.8 15.2								
2200-2300	*	10	18	8	15	3	9	

12.8	10.5							
2300-2400		*	11	5	14	9	5	3
9.8	7.8							
Totals								
—								
0700-1900		*	*	1021	1013	1026	770	660
1010.5	905.2							
0600-2200		*	*	1116	1125	1140	830	711
1116.6	992.8							
0600-0000		*	*	1139	1147	1164	838	723
1139.1	1011.2							
0000-0000		*	*	1166	1175	1206	867	745
1171.4	1040.8							
AM Peak		*	*	1000	1100	1100	1000	1100
		*	*	102	96	104	92	69
PM Peak		*	1600	1700	1700	1600	1200	1200
		*	107	107	104	101	74	77

* - No data.

Weekly Vehicle Counts

WeeklyVehicle-18

Site: nnnnn.0SN
Description: Hillston Rd - sth of tip turnoff
Filter time: 10:11 Tuesday, 10 July 2007 => 9:03 Wednesday, 1 August 2007
Scheme: Vehicle classification (AustRoads94)
Filter: Cls(1 2 3 4 5 6 7 8 9 10 11 12) Dir(NESW) Sp(10,160) Headway(>0)

	Mon	Tue	Wed	Thu	Fri	Sat	Sun	
Averages	16 Jul	17 Jul	18 Jul	19 Jul	20 Jul	21 Jul	22 Jul	1 -
5 1 - 7								
Hour								
0000-0100	2	3	5	5	4	5	4	
3.8 4.0								
0100-0200	1	1	5	1	1	8	3	
1.8 2.9								
0200-0300	3	2	0	4	1	4	1	
2.0 2.1								
0300-0400	2	2	1	1	1	2	1	
1.4 1.4								
0400-0500	0	0	4	1	5	3	1	
2.0 2.0								
0500-0600	17	16	15	21	17	7	4	
17.2 13.9								
0600-0700	28	30	32	39	29	9	8	
31.6 25.0								
0700-0800	61	76	76	75	63	20	12	
70.2 54.7								
0800-0900	75	94<	87	99<	94	67	24	
89.8< 77.1								
0900-1000	94<	83	100<	85	85	88<	46	
89.4 83.0								
1000-1100	85	93	90	80	95<	87	57<	
88.6 83.9<								
1100-1200	91	78	81	73	78	70	46	
80.2 73.9								
1200-1300	115<	74	79	73	84	86<	60	
85.0 81.6								
1300-1400	78	77	86	87	88	75	55	
83.2 78.0								
1400-1500	86	95	95	90	104	81	72<	
94.0 89.0								
1500-1600	105	99<	95	103<	84	66	52	
97.2 86.3								
1600-1700	87	87	91	97	94	65	62	
91.2 83.3								
1700-1800	91	88	97<	102	113<	68	65	
98.2< 89.1<								
1800-1900	37	38	56	67	65	44	46	
52.6 50.4								
1900-2000	26	24	27	40	36	19	34	
30.6 29.4								
2000-2100	15	22	17	19	15	23	10	
17.6 17.3								
2100-2200	14	12	13	14	9	15	8	
12.4 12.1								
2200-2300	10	7	8	9	15	4	6	

9.8	8.4							
2300-2400		3	5	2	11	9	6	4
6.0	5.7							
Totals								
—								
0700-1900	1005	982	1033	1031	1047	817	597	
1019.6	930.3							
0600-2200	1088	1070	1122	1143	1136	883	657	
1111.8	1014.1							
0600-0000	1101	1082	1132	1163	1160	893	667	
1127.6	1028.3							
0000-0000	1126	1106	1162	1196	1189	922	681	
1155.8	1054.6							
AM Peak	0900	0800	0900	0800	1000	0900	1000	
	94	94	100	99	95	88	57	
PM Peak	1200	1500	1700	1500	1700	1200	1400	
	115	99	97	103	113	86	72	

* - No data.

Weekly Vehicle Counts

WeeklyVehicle-18

Site: nnnnn.0SN
Description: Hillston Rd - sth of tip turnoff
Filter time: 10:11 Tuesday, 10 July 2007 => 9:03 Wednesday, 1 August 2007
Scheme: Vehicle classification (AustRoads94)
Filter: Cls(1 2 3 4 5 6 7 8 9 10 11 12) Dir(NESW) Sp(10,160) Headway(>0)

	Mon	Tue	Wed	Thu	Fri	Sat	Sun	
Averages	23 Jul	24 Jul	25 Jul	26 Jul	27 Jul	28 Jul	29 Jul	1 -
5 1 - 7								
Hour								
0000-0100	1	1	2	3	4	7	6	
2.2 3.4								
0100-0200	1	1	1	2	1	5	2	
1.2 1.9								
0200-0300	1	0	2	2	2	2	3	
1.4 1.7								
0300-0400	0	1	2	0	0	2	1	
0.6 0.9								
0400-0500	1	3	3	4	5	2	1	
3.2 2.7								
0500-0600	18	18	19	15	20	7	6	
18.0 14.7								
0600-0700	25	37	31	29	34	12	9	
31.2 25.3								
0700-0800	73	70	80	69	67	23	14	
71.8 56.6								
0800-0900	94	105<	89<	123<	100	60	37	
102.2< 86.9								
0900-1000	85	99	86	107	102<	88	46	
95.8 87.6								
1000-1100	97<	88	88	95	95	119<	76<	
92.6 94.0<								
1100-1200	91	77	76	77	74	76	43	
79.0 73.4								
1200-1300	72	85	74	91	81	79	60	
80.6 77.4								
1300-1400	92<	84	84	99	77	82	61<	
87.2 82.7								
1400-1500	74	123<	87	90	84	48	59	
91.6 80.7								
1500-1600	91	88	91	96	100<	61	49	
93.2 82.3								
1600-1700	85	109	94	99	96	85<	48	
96.6 88.0<								
1700-1800	87	111	94<	116<	86	74	47	
98.8< 87.9								
1800-1900	46	70	63	68	61	47	42	
61.6 56.7								
1900-2000	33	38	27	35	35	20	30	
33.6 31.1								
2000-2100	16	36	18	22	23	7	16	
23.0 19.7								
2100-2200	6	15	13	28	19	9	13	
16.2 14.7								
2200-2300	9	45	14	11	14	13	7	

18.6	16.1							
2300-2400		6	7	6	6	12	13	5
7.4	7.9							
Totals								
—								
0700-1900	987	1109	1006	1130	1023	842	582	
1051.0	954.1							
0600-2200	1067	1235	1095	1244	1134	890	650	
1155.0	1045.0							
0600-0000	1082	1287	1115	1261	1160	916	662	
1181.0	1069.0							
0000-0000	1104	1311	1144	1287	1192	941	681	
1207.6	1094.3							
AM Peak	1000	0800	0800	0800	0900	1000	1000	
	97	105	89	123	102	119	76	
PM Peak	1300	1400	1700	1700	1500	1600	1300	
	92	123	94	116	100	85	61	

* - No data.

Weekly Vehicle Counts

WeeklyVehicle-18

Site: nnnnn.0SN
Description: Hillston Rd - sth of tip turnoff
Filter time: 10:11 Tuesday, 10 July 2007 => 9:03 Wednesday, 1 August 2007
Scheme: Vehicle classification (AustRoads94)
Filter: Cls(1 2 3 4 5 6 7 8 9 10 11 12) Dir(NESW) Sp(10,160) Headway(>0)

	Mon	Tue	Wed	Thu	Fri	Sat	Sun	
Averages	30 Jul	31 Jul	01 Aug	02 Aug	03 Aug	04 Aug	05 Aug	1 -
5 1 - 7								
Hour								
0000-0100	2	4	3	*	*	*	*	
3.0 3.0								
0100-0200	1	6	1	*	*	*	*	
2.7 2.7								
0200-0300	1	1	0	*	*	*	*	
0.7 0.7								
0300-0400	0	3	0	*	*	*	*	
1.0 1.0								
0400-0500	0	5	4	*	*	*	*	
3.0 3.0								
0500-0600	24	15	18	*	*	*	*	
19.0 19.0								
0600-0700	31	29	31	*	*	*	*	
30.3 30.3								
0700-0800	60	73	70	*	*	*	*	
67.7 67.7								
0800-0900	80	93<	84	*	*	*	*	
85.7< 85.7<								
0900-1000	74	86	6	*	*	*	*	
55.3 55.3								
1000-1100	75	72	*	*	*	*	*	
73.5 73.5								
1100-1200	81<	89	*	*	*	*	*	
85.0 85.0								
1200-1300	72	107<	*	*	*	*	*	
89.5 89.5								
1300-1400	79	66	*	*	*	*	*	
72.5 72.5								
1400-1500	85<	81	*	*	*	*	*	
83.0 83.0								
1500-1600	79	106	*	*	*	*	*	
92.5< 92.5<								
1600-1700	73	93	*	*	*	*	*	
83.0 83.0								
1700-1800	81	101	*	*	*	*	*	
91.0 91.0								
1800-1900	50	53	*	*	*	*	*	
51.5 51.5								
1900-2000	21	34	*	*	*	*	*	
27.5 27.5								
2000-2100	11	18	*	*	*	*	*	
14.5 14.5								
2100-2200	18	17	*	*	*	*	*	
17.5 17.5								
2200-2300	5	11	*	*	*	*	*	

8.0	8.0								
2300-2400		11	8	*	*	*	*	*	
9.5	9.5								
Totals									
—									
0700-1900		889	1020	*	*	*	*	*	
930.2	930.2								
0600-2200		970	1118	*	*	*	*	*	
1020.0	1020.0								
0600-0000		986	1137	*	*	*	*	*	
1037.5	1037.5								
0000-0000		1014	1171	*	*	*	*	*	
1066.8	1066.8								
AM Peak		1100	0800	*	*	*	*	*	
		81	93	*	*	*	*	*	
PM Peak		1400	1200	*	*	*	*	*	
		85	107	*	*	*	*	*	

* - No data.



Appendix B

Crash Statistics

Detailed Crash Report

NOTES: Crashes on Kidman Way from Lakes Rd to 500m NW of Hillside Rd

Crash No.	Date	Day of Week	Time	Distance	ID Feature	Loc Type	Alignment	Weather	Surface Condition	Speed Limit	No. of Tus	Tu Type/Obj	Age/Sex	Street Travelling	Speed Travelling	Manoeuvre	Degree of Crash	Killed	Injured	Factors	
South West Region																					
Griffith City LGA																					
Griffith																					
Kidman Way																					
374747	05/03/2003	Wed	17:30	5 km W	GRIFFITH TN	2WY	CRV	Fine	Dry	100	1	TRN	M26	E in KIDMAN WAY	70	Proceeding in lane	N	0	0	S	
16963734	DCA: 805 Out of control on bend																				
Tharbogang																					
Hillston Rd																					
406687	02/12/2003	Tue	10:15		at BRAITHWAITE RD	XJN	STR	Fine	Dry	100	2	SEM	M55	N in BRAITHWAITE RD	8	Proceeding in lane	N	0	0		
20565755	DCA: 101 Adj - Cross traffic SEM M48 W in HILLSTON RD 75 Proceeding in lane																				
Kidman Way																					
519171	22/04/2006	Sat	09:15		at BALLINGAL RD	TJN	STR	Fine	Dry	100	2	UTE	M44	W in KIDMAN WAY	Unk	Turning right	I	0	1		
27229967	DCA: 308 Same - Rgt turn side swipe TRK M30 W in KIDMAN WAY Unk Proceeding in lane																				
519725	10/05/2006	Wed	15:00	40 m W	LAKES RD	2WY	CRV	Fine	Dry	100	1	TRK	M U	E in KIDMAN WAY	80	Proceeding in lane	I	0	1		
27052038	DCA: 803 Off right bend into obj Tree/bush																				
Report Totals:		Total Crashes: 4			Fatal Crashes: 0			Injury Crashes: 2			Killed: 0			Injured: 2							

Crashid dataset Crashes on Kidman Way from Lakes Rd to 500m NW Hillside Rd

Note: Data for the 9 month period prior to the generated date of this report are incomplete and are subject to change.



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