

**APPENDIX 2: THE IMA TRANSPORT PLANNING HIGHWAYS SCOPING  
REPORT**



## BRIDPORT WASTE MANAGEMENT FACILITY

Highways Scoping Report  
Volume 1 - Text  
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## 1 Introduction

### 1.1 Background

1.1.1 IMA Transport Planning have been commissioned by Dorset County Council to provide transport and highways advice as part of a site selection process the purpose of which is to select the most appropriate location for a new waste management facility (WMF) to service Bridport.

1.1.2 A household waste recycling facility (HRC) currently exists off South Street, in the centre of Bridport. However the facility has a temporary planning permission which is due to lapse on 2010. The WMF would be its replacement.

1.1.3 The purpose of this report is to establish the in-principle acceptability of a site, bearing in mind its vehicular impact on the surrounding A35 network and its vehicular access. The report only deals with vehicular highways-issues, and not non-car access. The reason for this is that the only real non-car users of the site would be staff the majority of trips would be by car and hence this is easily the most dominant mode of transport. However, for completeness, a broad overview of existing non-car access to/from each site is given.

### 1.2 Scope of Report

1.2.1 The report firstly describes the existing site, its shortcomings and the existing travel patterns to it.

1.2.2 The discussions that have occurred with the Highways Agency are summarised, and establishes the areas that need to be examined in detail within this report.

1.2.3 The proposed facility is described, and the shortlisted sites described. Access proposals or junction improvements put forward as part of each are given.

1.2.4 A set of traffic flows for the A35 network are then established. The existing HRC traffic, committed development and traffic growth factors are also given.

1.2.5 The highway impact of site relocation (from a worst-case perspective) is then quantified and mitigation measures proposed as necessary.

1.2.6 Finally, the report is summarised and conclusions drawn.

## 2 Existing Site & Surroundings

### 2.1 Existing Site

- 2.1.1 Bridport has an existing household recycling centre (HRC) located off South Street. It's location is shown at Plan 1.
- 2.1.2 The HRC opened in 1998 after the closure of the Bothenhampton facility, and was intended to be a short-term solution. The original planning consent reflected this, being valid only for 2 years, subject to a suitable replacement facility being found. A suitable replacement facility has yet to materialise, with a total of 4 extensions to the original permission being granted. The current permission is due to expire in July 2010. At the time of granting, members expressed their concern that an alternative facility was yet to be found.
- 2.1.3 The HRC occupies just 0.1Ha (1/4 Acre) and is the smallest facility in the county, made operationally more difficult by its irregular size. Space restrictions are such that when containers are removed from the facility, it must be closed to the public. This results in vehicles queuing on South Street, although there is no formal space for them to do so. The nearest residential properties lie just 33m distant.
- 2.1.4 The facility is open 1 April - 31 October, between 9.00 - 18.00 daily and 1 November - 31 March, between 9.00 - 17.00 daily.
- 2.1.5 In order to ensure the on-going supply of a suitable facility for the residents of Bridport, Dorset County Council are undertaking a site audit/selection process to ascertain which site is, on balance, preferential. This report forms one part of this site-selection process. A number of the sites lie on, or close to the A35 trunk road. The sites themselves are detailed further in section 5.

### 2.2 Surrounding Highway Network

- 2.2.1 The existing South Street facility lies relatively centrally within Bridport. The B3157 South Street runs north to south. To the north, some 550m distant, the B3157 South Street meets the B3162 at a 3-arm signal junction. The western arm is known as the B3162 West Street and the eastern arm as the B3162 East Street. These two arms comprise the main shopping area of Bridport.
- 2.2.2 550m to the south, the B3157 South Street meets the A35 at a 5-arm roundabout known locally at the Crown roundabout. South Street merges in from the north, with the A35 forming the eastern and western arms. The eastern A35 arm is known as Sea Road South and the western arm simply as the A35. Merging in from the southeast is Burton Road and from the southwest is West Bay Road; both of these roads head off to the west bay area and surrounding coast.
- 2.2.3 To the west, the A35 is a single carriageway, subject to a 50mph speed limit. Some 2.5Km distant it meets the B3162 from the east at a 3-arm priority junction, known locally as the Miles Cross junction. The B3162 is subject to a 40mph speed limit. The junction arrangement is unconventional in that a large central island splits the A35 in two, so vehicles turning right onto, or (in particular) right out of the minor arm essentially have to give way at the island, in the 'centre' of the junction. The A35 is essentially free running at this point, and continues west towards Lyme Regis.

2.2.4 At the Crown roundabout, the A35 bears northeast, where is subject to a 30mph speed limit. 1Km distant, the A35 meets the B3157 and A3066 at a 4-arm roundabout known locally as Greens roundabout. The B3162 arm merges in from the west, and leads to the main shopping area in Bridport (described earlier). The A3066 merges in from the north, and is known as Sea Road North. The second A35 arm merges in from the east and is known as East Road. The A35 heads east to Dorchester, some 20km distant, where it is largely subject to a 60mph speed limit.

### 2.3 Existing Traffic Patterns & Usage.

2.3.1 Two main sources of traffic and user data exist at the South Street site; a permanent tube counter installed across the site entrance and a user postcode survey undertaken in January/February 2008.

2.3.2 A copy of the permanent South Street tube counter data covering the October 2007 to September 2008 period is given at Appendix 1. It is noted that the counter failed for the start of May and 2 weeks to the end of March. Table 2.1 below summarises traffic flows for the average weekday, Saturday and Sunday, by month.

Month	Total 2-Way traffic		
	5-Day	Saturday	Sunday
Oct	614	646	755
Nov	645	661	697
Dec	621	764	855
Jan	730	839	896
Feb	634	765	866
<del>Mar*</del>	<del>878*</del>	<del>808*</del>	<del>646*</del>
Apr	619	627	715
<del>May*</del>	<del>611*</del>	<del>800*</del>	<del>879*</del>
Jun	752	643	784
Jul	702	667	774
Aug	702	628	700
Sep	667	668	762

Table 2.1 - Average Daily, Saturday and Sunday Trips to South Street HRC

\*Denotes partial Counter Failure

2.3.3 Considering firstly a weekday, the lowest level of flow is seen in October with 614 2-way vehicle movements. The highest, peak level of traffic is seen in January, with 730 2-way movements. Thus, the weekday range of trips from highest to lowest is some 120 vehicles.

2.3.4 On a Saturday, the lowest level of site traffic is seen in April (627 2-way traffic movements) and the highest in January at 839 2-way movements, giving a high-low range of 212 vehicles

2.3.5 On a Sunday, overall levels are slightly higher than on a weekday or Saturday; The lowest traffic flow occurs in November with 697 2-way movements (giving an average traffic flow of 81 2-way movements per hour) and the highest level of traffic occurring in January with 896 vehicle movements.

2.3.6 Overall, flows remain quite constant over the year, varying by at most some 200 vehicles or +/- 10% to 15%. Spread equally over the day, this 200 vehicle difference amounts to a change of just 22, 2-way vehicle movements every hour.



2.3.7 In order to ascertain where users of the HRC travel from, a postcode survey, recording the postcode district only (i.e. first postcode half) was undertaken in January/February 2008. A total of 2608 persons were surveyed. The results of the survey are given at table 2.2 below.

Postcode District - Area	% Split
DT6 - Bridport & Immediate Surroundings	83%
DT7 - Lyme Regis	4%
DT8 - Beaminster	6%
DT2 - Dorchester (rural)	6%
Weymouth	1%
<b>Total</b>	<b>100%</b>

Table 2.2 - Existing Site users by postal area.

2.3.8 As would reasonably be expected, the majority of users (83%) of the HRC facility fall within the local DT6 postcode district. DT7 (Lyme Regis) lies to the far west and accounts for 4% of site users. Beaminster accounts for 6% of users (Beaminster lying to the far north) and Dorchester also account for 6%, and lying to the east of Bridport.

### 3 Discussions with Highways Agency

#### 3.1 General

3.1.1 In April 2009 a meeting was held with the Highways Agency (HA). The purpose of the meeting was to discuss the sites that, at the time, were shortlisted for consideration in the site selection process, and to establish what data or information would be required in order for the HA to indicate whether they would recommend approval or refusal, were a planning application to be made on each of the sites.

3.1.2 The HA's formal response is given at the front of Appendix 2 (dated 10<sup>th</sup> June 2009), with a further response being given to the rear of Appendix 2 (dated 23<sup>rd</sup> July) which clarifies some outstanding points. The key thing to note are;

- The A35 highway network, during the summer months, is subject to congestion, this being concentrated around the Greens and Crown roundabout in particular.
- In order to assess any WMC proposal on or in proximity to the A35, the HA would require a traffic impact assessment and appropriate modelling to be undertaken. The modelling should incorporate at least each of the junctions between the Miles Cross junction and the Greens roundabout.
- The operation of the strategic Road Network (SRN) should be made no worse throughout the review period than if the development had not taken place.
- The periods for analysis should be taken as a neutral weekday and Saturday, and also a summer (i.e. peak), Weekday and Saturday. The impact on daily flow should also be considered.
- Conversion from summer to neutral month (or vice-versa) should be on the basis of local ATC data.
- Growth should be assumed as central to 2020. An allowance for nearby committed developments should also be made.

## 4 Proposed Facility

### 4.1 Background

- 4.1.1 The proposed facility will be a Waste Management Facility (WMF). It will comprise an improved household recycling centre (HRC) element to replace the South Street facility, a Waste Transfer Station and also a Bulking facility.
- 4.1.2 The Waste Transfer Station would accept and subsequently bulk the household waste collected by West Dorset District Council. The bulking facility would also accept recyclates collected by West Dorset District Council.
- 4.1.3 In terms of traffic, the HRC element will be relocated from South Street to the new site. No additional traffic will be generated as a result of this, the HRC simply represent a like for like replacement with more appropriately sized facilities. The waste transfer/bulking elements are predicted to add an additional 20 vehicle movements to and from the site, so resulting in 40, 2-way traffic movements per day. For the purposes of this assessment, all of these vehicles will be assumed as HGV's, (although in reality this will not be the case) and their arrival/departure profile be distributed equally thought the weekday period (4 PCU arrivals and 4 PCU departures per hour). No HGV trips will occur on a Saturday.

### 4.2 Shortlisted Sites

- 4.2.1 A total of 10 sites have been shortlisted as possible future locations for a WMF. It is noted that the number of shortlisted sites has increased since the April 2009 discussions with the HA. The locations of the sites are given on Plan 2.

8 Gore Cross  
 14 Green Lane Nursery  
 16 Broomhills  
 17 Watton Farm  
 20 Miles Cross#1  
 21 Broad Road Farm  
 27 Uploaders Farm  
 32a Stony Head  
 32b Stony Head  
 36 Miles Cross#2

- 4.2.2 Sites 8 and 21 are located to the far north of Bridport, and are accessed off the A3066. The nearest part of the A35 network is the Greens roundabout which is some 2Km distant from the Gore Cross site and 2.8Km distant from Watton Farm. Given that the sites are accessed from a road under the control of the Dorset County Council, they should be consulted with regard to access suitability. At this stage it is anticipated that both sites would be accessed by way of a simple priority junction with right turn lane. However, the sites would be expected to give rise to a change in traffic patterns on the A35 network, so it is appropriate to consider their vehicular impact in this regard.

### 4.3 Access Proposals

- 4.3.1 The access proposals to the eight remaining sites are given at Plans 3 to 11. The accesses are drawn such that they conform to broad highway criteria (such as visibility, width etc) and are intended to show the shape, form and type of access proposed. Naturally, were any site to be carried forward to a full planning application, then the access would be subject to a full design and audit process (either beforehand or as part of the application). Therefore, the purpose of the site access drawings and this report is to establish the in-principle acceptability of an access, subject to the necessary checking and audits at a later date. Future, more detailed access proposals would as a minimum be expected to be designed on a topographical base (as opposed to Ordnance Survey) for a greater level of accuracy.
- 4.3.2 Also, were an application to be submitted, all accesses would be subject to future capacity testing and would need to operate 'in-capacity'. It is the view of IMA that given the flows on the highway, all proposed accesses will be able to operate within capacity. Furthermore, given that the accesses are likely to be subject to revisions and alterations as part of the detailed design process, capacity analysis at this stage would not reflect the true capacity of any proposed site access.
- 4.3.3 Acceptability of site accesses should assume that they can indeed be design to operate in capacity.

### 4.4 14 - Green Lane Nursery

- 4.4.1 Green Lane Nursery lies to the east of the Bridport. An access proposal to this site is shown at Plan 3. The site is largely an unmade field, with a residential dwelling to the east. The site is bound to the south by the A35, to the west/north by an unmade path/route with public access (The Monarchs Way) and to the east by the residential dwelling.
- 4.4.2 The A35 is subject to a change in speed limit close to the site; 40mph to the western side of the site and 60mph to the eastern side. The site is currently accessed by way of a gated entrance in the south-western corner of the site. It is worth noting that the adjoining residential dwelling gains access to the A35 some 60m to the east. The dwellings access is long in order to overcome the gradient difference.
- 4.4.3 The site itself is comparatively at-grade with the A35 towards its eastern end, becoming more elevated above the A35 to the east. The level difference is such that to the east a large retaining wall elevates the site and adjoining residential dwelling above the A35.
- 4.4.4 The nearest bus stops lies to the west, some 50m distant from the site, and typically sees an hourly service. The nearest pedestrian footway provision also starts in this location. There is no nearby cycle infrastructure.
- 4.4.5 In order to access the site, a priority junction with right turn lane, formed with the A35 is considered the most appropriate solution. The right turn lane is positioned as far to the east as possible, to minimise level changes.

- 4.4.6 Visibility splays for traffic emerging from the site of 120m to the right and 215m to the left are provided. It is noted that the visibility splay to the left falls over what is believed to be third party land; namely the access to the adjoining residential dwelling. Although it may be possible to re-grade the access (subject to landowner agreement) the residential access would still be very close to the proposed new site access, which may result in traffic conflict. To overcome this, it is felt necessary, again subject to agreement with landowners, to divert the residential access into the site, so removing traffic conflict.
- 4.4.7 It is likely the access on foot/cycle would occur via a separate route linking in with the existing pedestrian footways in the southwest corner of the site.
- 4.4.8 The majority of traffic travelling to/from the site would be anticipated to head to/from the west, towards Bridport. Nearly all of this traffic would travel through the Greens roundabout.
- 4.4.9 Dorset County Council have passed comment on the acceptability of the site to the HA, given that it is accessed from the A35.
- 4.5 16 - Broomhills**
- 4.5.1 Broomhills lies to the southwest of Bridport, and is accessed off the A35. The proposed access arrangement to this site is given at Plan 4. The site is currently used as a garden nursery and generates around 80, 2-way traffic movements on a weekday, and around 100 2-way traffic movements on a single day at the weekend; this data being provided from a survey undertaken at the site earlier this year.
- 4.5.2 The site is bound the east, south and west by fields, and to the north by the A35. Thus, the A35 represents the sites only point of access for pedestrians and vehicles. The existing site access take the form of what would be best described as an informal priority junction formed with the A35. There are no give-way markings on the minor (site access) arm, nor are there any turning facilities provided on the A35.
- 4.5.3 The A35 is subject to a 50mph speed limit within the vicinity of the site and naturally being a trunk road, is of good-quality. Typical carriageway width is 8m with each running lane being some 4m wide.
- 4.5.4 With regards to non-car access, there are no footways and therefore no bus stops alongside the A35. The nearest bus stops and pedestrian footways lie off the Crown roundabout (500m distant), with service frequency being typically hourly. The nearest cycle route lies north and south of the crown roundabout, around 1000m distant from the site.
- 4.5.5 In order to access the WMF, formalisation of the existing priority junction is considered the most appropriate access arrangement. A dedicated right-turn lane is provided for traffic arriving at the site from the west, along with a deceleration lane for traffic arriving at the site from the east. A visibility splay of 160m to the left and right for traffic emerging from the site is provided. It is anticipated that a site access junction would be able to meet all required design criteria given the flat and level nature of the surroundings.
- 4.5.6 Traffic is anticipated to arrive/depart the site to both the east and west and would thus travel through the nearby 'Crown' roundabout and also the A35/B3162 priority junction to the west.

- 4.5.7 Accessing the site on foot is likely to be problematic, given that there are no pedestrian facilities nearby. A footway may need to be provided to link the site in with the nearby built up area (located off the Crown roundabout, 500m distant) The same is true of access by bus; although there are bus stops/services within a reasonable distance, no footway exists to link the site with the bus stops. Cyclists would need to use the A35 to access the site.
- 4.5.8 Dorset County Council have passed comment on the acceptability of the site to the Highways Agency, given that it is accessed from the A35 (a trunk road).
- 4.6 17 - Watton Farm
- 4.6.1 Watton Farm lies to the west of Bridport, to the immediate west of the A35 picnic/rest stop. The site is currently an unmade field. The proposed access arrangement to this site is given at Plan 5.
- 4.6.2 It is bound to the south by Higher Eype Road, to the west and north by fields. Broad Lane, the most major road, abuts the sites southeastern perimeter for 80m or so. New Street Lane, runs along the sites northwestern boundary.
- 4.6.3 The site is currently accessed at its southwestern corner, from Higher Eype Road. The A35 lies some 70m distant to the northeast, being connected to the site by Broad Lane. The A35 picnic site is sandwiched between the western side of the A35 and the eastern boundary of the site. The picnic site is accessed via Broad Lane, which in turn forms a priority T-junction with the A35.
- 4.6.4 Broad Lane is some 6.0 - 6.5m in width. A grass verge separated Broad lane from the adjoining hedges/undergrowth, giving drivers a sense of space. To the east, Broad Lane passes over the A35, in turn dropping down into the eastern side of Bridport, into a residential area known as Skilling. Much of this route is narrow and steep.
- 4.6.5 To the west/northwest, Broad Lane meets the A35 at a priority junction. Broad Lane between the site and the A35 is comparatively steep. The A35 picnic site access merges into Broad Lane by way of a priority junction, from the east, some 30m back from the A35. Much of the picnic site is below the level of Broad Lane.
- 4.6.6 Non-car access to the site is limited. The nearest bus stops are some 1.3Km distant (in Skilling) but there is no real footway provision to this area. There are no nearby cycle routes.
- 4.6.7 In order to access the site, the most appropriate access solution is considered to be modification of the existing Broad Lane/A35 junction and provision of a new 'link' on the eastern side of the A35, dropping down from Broad Lane onto the A35. This improvement removes the need for any right turn movements on the A35. All vehicles would turn left in or out, via either Broad Lane or the new link.
- 4.6.8 With regard to the actual access into the site, two options are considered; improvement of Higher Eype Road to allow vehicular access to the site along it or creation of a new priority junction opposite the existing picnic site access.

- 4.6.9 In order to accommodate the revised traffic movements to and from the A35, it would also be necessary to modify the access to the adjoining picnic site. At present, large vehicles wishing to head eastbound towards Bridport, turn right out of the picnic site access, and right onto the A35. With the proposed road layout, they would instead turn left out of the picnic site, loop around Broad Lane, then bear left onto the new link and left again onto the A35. The left turn out of the picnic site is both steep and sharp, so would need re profiling.
- 4.6.10 As such, the new site access formed with Broad lane is purely illustrative, as its final layout would depend on how the picnic site access would be re-profiled. If felt appropriate in order to allow the site to be acceptable in highways terms, then a short right turn lane could be accommodated. A second illustrative access is also shown into the site, from Higher Eype Road.
- 4.6.11 Dorset County Council has indicated that, from a highways perspective, they would be likely to raise an objection to redevelopment of the site for use as a WMC, as traffic may be encouraged to use travel to the site via Skilling Hill Road, which is unsuitable for increased traffic levels.
- 4.7 20 - Miles Cross #1
- 4.7.1 The Miles Cross #1 site lies to the west of Bridport, on the western side of the 'Miles Cross' A35/B3162 priority junction. The site is bound to the south and east by grassland, with the A35 bounding the site to its far eastern and northern sides. Access to the site is currently by way of a simple gated entrance formed with the A35. This entrance is formed directly opposite the B3162 arm. It is an informal entrance, unmade and with no road markings where it meets the A35. There would be little to no regular traffic associated with the extant agricultural use. In terms of topography, there is a slight drop from the site, down onto the A35. The proposed access arrangement to this site is given at Plan 6
- 4.7.2 The A35 curves around the north-eastern side of the site and has single running lanes (some 4.5m wide) in either direction. The A35 heads west to Charmouth and Lyme Regis, and east into Bridport.
- 4.7.3 Immediately opposite the existing site access, on the western side of the A35 lies the B3162. The B3162 merges into the A35 forming the minor arm of a priority junction. The B3162 is a local access road running east to west and is subject to a 40mph speed limit (the A35 being subject to a 50mph limit). Residential properties front onto the B3162 from the north, and fields to the south.
- 4.7.4 The A35/B3162 junction sees deceleration/turning lanes provided for vehicles turning onto the minor arm. The junction arrangement is unconventional in that a large central island splits the A35 in two, so vehicles turning right onto, or (in particular) right out of the minor arm essentially have to give way at the island, in the 'centre' of the junction. No specific turning facilities are provided for traffic entering or exiting the site as it currently stands, which is to be expected given its limited use.
- 4.7.5 In terms of non-car access, there are no pedestrian facilities on or along the A35. However, footways are provided on the northern side of the B3162 (some 1.8m wide) and bus stops are provided on the B3162 which give broadly an hourly service in any one direction. The B3162 to the east of the site forms a local cycle route.

- 4.7.6 It terms of access to the site, initial discussions with the HA have shown the need to improve the A35/B3162 junction. An initial scheme involving a roundabout has been discounted by the HA, as it would bring no net benefit to users of the A35. Signalisation of this A35 junction has therefore been considered.
- 4.7.7 Access to the site would be by way of a new, fourth arm created with the A35/B3162 junction. The A35/B3162 junction would be signalised; this is shown at Plan 6
- 4.7.8 In terms of non-car access to the site, the A35 is likely to create a barrier to pedestrian movement. Pedestrian crossing facilities provided as part of the new traffic signal junction are proposed. These facilities route non-car users to/from the B3162, where bus services and footway links to surrounding residential areas exist. This would also direct cyclists to the nearby local cycle route on the B3162.
- 4.8 27 - Uploders Farm
- 4.8.1 Uploders lies to the east of Bridport. The proposed access to the site is given at Plan 7. The site is bound to the north by Dorchester Road, and to the east, west and south by fields. Dorchester Road runs east to west along the northern boundary of the site. To its east, Dorchester Road forms the minor arm of a priority T-junction formed with Shipton Lane. Shipton Lane runs north to Uploders, (running under the A35, in doing so becoming New Road) and south to Shipton Gorge.
- 4.8.2 At its eastern end, Dorchester Road meets the A35 at a priority T-junction, with Dorchester Road being the minor arm. The A35 runs east (to Bridport) and west (to Dorchester), north of the site.
- 4.8.3 The A35 is subject to a 60mph speed limit close to the site. The majority of vehicles appear to travel at or close to this speed. The rural nature of Dorchester Road/New Road and Shipton Lane mean that observed vehicles speed are comparatively low - generally sub 30mph.
- 4.8.4 Non car access to the site is limited. There are no nearby footways (either on the A35, Dorchester Road, New Road or Shipton Lane). The nearest bus stop lies some 200m to the west of the Dorchester Road/A35 junction, and gives access to an hourly service. New Road and Shipton Lane form part of National Cycle Route 2. The site is on the whole distant from the built up area.
- 4.8.5 It is envisaged that a priority junction with right turn lane made with the A35 would be needed to serve the site. Given that the majority of users to the existing South Street HRC originate from within Bridport, the majority of traffic would be anticipated to head to/from the west, towards Bridport itself.
- 4.8.6 Reaching the site by non car modes, given the lack of non car access would be difficult; a point particularly relevant to employees. Shipton Lane and New Road could be used by those travelling to the cycle by cycle.
- 4.8.7 Dorset County Council Highways department have indicated that they would raise an objection to redevelopment of the site for use as a WMC as the A35, within Bridport itself is subject to heavy congestion, particularly during the summer 'holiday' periods. This congestion may encourage the use of New Road/Shipton Lane (and adjoining rural roads) as alternative routes. These roads are considered to be unsuitable for increased traffic levels by the County.



4.8.8 In order to overcome this, it would be possible to align the site access such that traffic would only be able to route to/from the direction of the A35 - i.e. left in, right out only, thus prohibiting use of the adjoining rural road.

#### 4.9 32a Stony Head

4.9.1 The Stony Head 32a site lies to the east of Bridport. The proposed access arrangement to this site is shown at Plan 8. The site is bound to the north, south and east by fields, and to the south by the A35. The site itself is a field and thus would generate little to no traffic.

4.9.2 The A35, is subject to a 60mph speed limit, and rises gradually from the west to the east. To the far east of the site, the A35 is largely 'in-cutting' and is thus far lower than the surrounding landscape. Across the sites frontage with the A35 exists a lay-by.

4.9.3 With regards to non car facilities and access, this is limited. There are no footways on the A35. The nearest bus stops lie to the southwest corner of the site and see an hourly frequency. There is, at present however, no way of crossing from the site, to the westbound bus stop. New Road and Shipton Lane lie over 1Km distant to the east and form part of 'National Cycle Route 2'. The site is largely distant from the built up area.

4.9.4 In order to access the site a priority junction with right turn lane is considered the most appropriate solution. Visibility splays of 215m to the left and right would be provided. It is noted that the proposed site access emerges into the A35 layby that runs along the frontage of the site. Plan 8 shows this lay-by being shortened. If a shortened lay-by is not acceptable in access terms, then relocation of the lay-by will be considered. If relocation is preferred, then access acceptability should be made on this basis (subject to finding a suitable alternative location at a later date).

#### 4.10 32b Stony Head

4.10.1 Stony Head lies to the east of Bridport. The site is bound to the north and east by fields, to the south by the A35 and to the east by a narrow, steep lane that will be referred to as Knowle Lane. The site itself is a field and thus would generate little to no traffic. There is no real vehicular access to it at present. The proposed access to the site can be seen at Plan 9. It lies to the immediate east of the 32a Stony Head site.

4.10.2 The A35, is subject to a 60mph speed limit, and rises gradually from the west to the east. To the east of the site, the A35 is largely 'in-cutting' and is thus far lower than the surrounding landscape.

4.10.3 Knowle Lane is subject to a very steep gradient both along its length and where it meets the A35. The Knowle Lane priority junction meets the A35 at a comparatively acute angle - this angle makes turning onto Knowle Lane easy for vehicles travelling from the west, but difficult for vehicles travelling from the east (i.e. they are subject to a sharp right-turn). There is no entry from Knowle Lane, onto the A35.

- 4.10.4 With regards to non car facilities and access, this is limited. There are no footways on the A35. The nearest bus stops lie opposite the site and sees an hourly frequency although there is no formal way of crossing from the site to the westbound bus stop. New Road and Shipton Lane lie over 1Km distant to the east (and would be accessed via Knowle Lane) and form part of 'National Cycle Route 2'. The site is largely distant from the built up area.
- 4.10.5 In order to access the site a priority junction with right turn lane is considered the most appropriate solution. Visibility splays of 215m to the left and right are provided. It is noted that the visibility to the left falls over Knowle Lane. Although no detailed level information is available for this area, it is likely that Knowle Lane, and the immediate surroundings, where they meets the A35 will need to be re-profiled.
- 4.11 36 - Miles Cross #2**
- 4.11.1 The Miles Cross site lies to the west of Bridport. The site is currently unmade grassland, and bound to the north by the B3162, the east by the A35 and to the south and west by fields. The site is accessed by one or more gated entrances formed with the B3162. There would be little to no regular traffic associated with the extant use. The site is large and as yet it is unclear what portion would be redeveloped.
- 4.11.2 The B3162 runs east to west along the northern boundary of the site and is typically 7m in width. Residential properties front onto the B3162 from the north. To the west, the B3162 leads to the centre of Bridport and to the east, it meets the A35 at a 3-arm priority junction.
- 4.11.3 The A35 runs north to south, with the B3162 forming the minor give-way arm. There are single running lanes on the A35. Deceleration/turning lanes are provided for vehicles turning onto the minor arm. The junction arrangement is unconventional in that a large central island splits the A35 in two, so vehicles turning right onto, or (in particular) right out of the minor arm essentially have to give way at the island, in the 'centre' of the junction. Within the vicinity of the site, the B3162 is subject to a 40mph speed limit, and the A35 a 50mph speed limit.
- 4.11.4 In terms of non-car access, footways are provided on the northern side of the B3162 (some 1.8m wide) and bus stops are provided on the B3162, close to the site, with a typical frequency of a service an hour in any direction. The B3162 is dedicated as a local cycle route.
- 4.11.5 It terms of access to the site, initial discussions with the Highways Agency have shown the need to improve the A35/B3162 junction. A scheme involving a runabout has been discounted by the HA, as it would bring no net benefit to users of the A35. Signalisation of this junction is therefore being considered. A signalised junction is shown at Plan 10.
- 4.11.6 Dorset County Council have indicated that they would have no objection on highways grounds to site redevelopment for a WMC. The suitability of signals at the A35/B3162 junction needs to be established with the HA, and discussions in this regard are on-going.

4.11.7 With regards to the site access itself, this would be by way of a priority junction with right turn lane. Given that the site is large and it is unclear which portion of the site would be developed, no access is shown as of yet. However, the B3162 is comparatively straight and flat along its frontage with the site, so no issues are envisaged with regards to deliverability and compliance with highway standards. It is anticipated that any junction would be located at least 100m away from the A35.

#### 4.12 Queuing Traffic

4.12.1 Concern has been raised by the HA with regards to the possibility of traffic queuing from the site, out onto the A35. It would be possible to eliminate this by accommodating all queuing traffic within the site.

4.12.2 The 2-way traffic profile of the existing South Street facility is given at is given on the CD at Appendix 1. Operationally, a quick turnover of vehicles would be expected at the new WMF (due to better internal site layout) and it would be reasonable to assume that individuals could fully unload a vehicle in 5 to 7 minutes.

4.12.3 Given that the existing in/out South Street profile would be expected to transfer across to a new site, we would welcome the HA's view on the minimum level of internal site queuing/storage that should be incorporated into any layout, in order to make a site acceptable to the HA.

#### 4.13 Summary

4.13.1 The following table summarises the key points of all 10 sites with regards to the status any type of access.

	8 Gore Cross	14 Green Lane Nursery	16 Broomhills	17 Watton Farm	20 Miles Cross#1	21 Broad Road Farm	27 Up loaders Farm	32a Stony Head	32b Stony Head	36 Miles Cross#2
Site is not Directly accessed from A35	a					a				
Improvement & Intensification of Indirect Access formed with A35				a			a			a
Improvement & Intensification of more Heavily Trafficked, Direct Access with A35			a							
Improvement & Intensification of V. Lightly Trafficked, Direct Access with A35		a			a					
New, Direct Access Formed with A35								a	a	

Table 4.1 - Key Site Points - Access

## 5 Baseline Traffic Flows

### 5.1 Introduction

5.1.1 Discussions with the HA (detailed at section 4) have shown the need to assess development impact at;

- Greens Roundabout
- Crown Roundabout
- A35/B3162 priority junction

5.1.2 Impact at the above junctions should be considered on;

- A 'neutral' Weekday and Saturday peak hour with central growth applied to 2020
- A summer 'holiday', Weekday and Saturday peak hour, with central growth to 2020

5.1.3 In order to assess the network, various sets of permanent survey data have been obtained;

- ATC data for the A35 Sea Road North (i.e. between the Crown and Green roundabouts)
- ATC data for the A35 west of the Crown roundabout.

5.1.4 With regards to turning count data, the following has been obtained

#### Greens Roundabout

- Turning Count Weekday Sept 2004, supplied by Dorset County Council.
- Turning Count Saturday, factored to 2009, taken from Lidl TA.

#### Crown Roundabout

- Turning Count Weekday, Oct 2006, supplied by Dorset County Council
- Turning Count Saturday, Sept 2009, undertaken for this project

#### Miles Cross junction

- Turning Count Weekday, Sept 2004, supplied by Dorset County Council
- Turning Count Saturday, Sept 2009, undertaken for this project

5.1.5 The above survey results are contained on a CD appended to the rear of this document.

### 5.2 Traffic Survey Data

5.2.1 Before examining the data in detail, it is worthwhile considering the overall operation of the A35 network as a point of principle. Both the Crown and Greens roundabout are known to be subject to congestion during peak periods. This congestion is exacerbated in the summer holiday period due to the additional 'tourist' traffic that occurs in the area, as the A35 represent the only east-to west route in the area.

- 5.2.2 The largest queues are known to form on the A35 arms as opposed to the side arms, as this is the route with the highest level of flow. The Crown roundabout is in particular is subject to heavy congestion which tends to be of a greater level than that experienced by the Greens roundabout.
- 5.2.3 Through-traffic at the A35/B3162 junction is on the whole free flowing given that any turning traffic has dedicated turning lanes, keeping the A35 through-route traffic free, assuming no blocking-back from the turning lanes occurs.
- 5.2.4 The South Street HRC is located off the Crown roundabout. Both lie centrally within Bridport. As a result, the Crown roundabout act as the focus point for traffic travelling to/from the HRC. The Crown therefore acting as the convergence point for traffic.
- 5.2.5 Were the HRC facility to be moved from its central position, then the Crown roundabout could, theoretically, see a reduction in flow as it is no longer the focus point for traffic.
- 5.2.6 Conversely a site moved away from the Crown runabout (to the A3066 for example) would be expected to move the focus point of traffic from Crown to Greens. Subsequently, Greens roundabout, would be expected to see an increase in traffic, seeing flow from the west and south that would previously not have travelled through it. Conversely, the Crown would be expected to see a reduction, as it is no longer the focus.

#### Traffic Flows

- 5.2.7 All of the traffic surveys were undertaken outside of the holiday period so it is appropriate to use this as a starting point, and then uplift flows to account for higher summertime flows.
- 5.2.8 Firstly it was necessary to establish a 'neutral' period. This was done using the table 3.1 of '*Transport Statistics Bulletin; Road Traffic Statistics 2005*'. A value of 100 in the table is considered as 'average'.
- 5.2.9 The '*All Urban, Major and Minor Roads*' part of the table shows that September is given a index rating of 101, and is one of the closest average or neutral month (i.e. has a value close to 100). Given that the majority of the surveys have been taken around September, this will be taken as the neutral month.
- 5.2.10 Having quantified September as a neutral period, average 5-day weekday and Saturday ATC data for this month was then queried to establish the peak hourly periods. When both sets of network ATC flows were combined, the average weekday and Saturday periods of peak traffic flows were found to be 16:00-17:00 and 11:00 - 12:00 respectively.
- 5.2.11 Having derived peak hours and given that the weekday surveys were conducted in 2004, and 2006, an NRTF growth factor was applied to bring all data up to 2009 levels. All Saturday survey data was 2009, so no factoring was required. The resulting data is given at Figure 1a and 1b.

#### Miles Cross Data

- 5.2.12 If the survey flows at the Miles Cross junction are compared to the nearby ATC, to the west, then the two sets of flows match favourably. Thus the Miles Cross data is considered accurate to use 'as-is'

### Crown Data

- 5.2.13 The survey at the nearby Miles Cross junction was undertaken at the same time as the Crown survey. Therefore, flow between the two junctions would be expected to be similar (the only real location for traffic to be 'lost' is via Broad Lane/towards Eype, but this is on the whole lightly trafficked, so minimal loss would be expected).
- 5.2.14 When flow on the A35 east arm, to/from the Crown and to/from the Miles Cross junction was compared, it was clear that a large discrepancy in flow existed, with Miles Cross being far higher than Crown. (This discrepancy can be seen at Figures 1a and 1b).
- 5.2.15 Discussions with the survey company suggested that there the survey data was accurate, and that the difference in flow was attributable to queuing on the western A35 arm.
- 5.2.16 Firstly, the change, or lost flow between the Crown roundabout and the Miles cross junction was added, in proportion to turning movements onto the Crown roundabout arms. A small allowance (i.e. reduction) of 20% was made for traffic travelling to/from Eype.
- 5.2.17 The recent survey at this location also recorded queue lengths on each arm of the roundabout. Queuing traffic was recorded at the Crown roundabout at the start and end of the survey. This queuing traffic needs to be added onto the surveyed level of turning traffic in order to represent actual demand.
- 5.2.18 An allowance for queuing was made by adding the maximum observed queues during the peak period onto each arm of the roundabout. Queuing traffic was added onto the dominant traffic movement on each arm, as queuing would be less likely to occur on the lightly trafficked movements.
- 5.2.19 Having made an allowance for this, flow to /from the Miles Cross junction, flow to/from the Crown roundabout and the ATC data compared favourably. The resulting flows are given in Figure 2a and 2b.

### Greens Roundabout

- 5.2.20 The weekday data for this roundabout, when uplifted to 2009, compared favourably with flow to/from the nearby Crown roundabout and also the ATC positioned between the two roundabouts.
- 5.2.21 Saturday data however, which was obtained from the transport assessment submitted as part of the nearby Lidl application, was less suitable. Raw data is given at Figures 1a and 1b.
- 5.2.22 Southbound flows on the A35, between the two roundabouts were broadly similar; 757 vehicles travelling from the direction of Greens, 905 vehicles recorded on the ATC and 1256 vehicles recorded at the Crown. Although flows at the Crown are higher than the adjacent ATC, higher flows represent a worst-case scenario, so are robust.

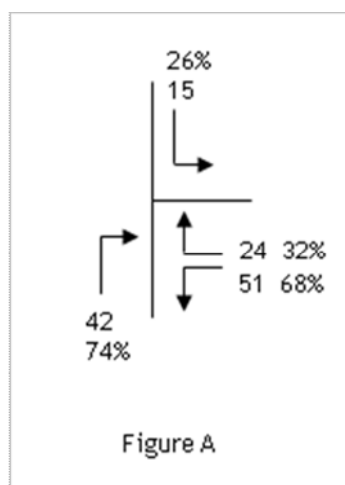
- 5.2.23 Northbound flows to Greens appeared far lower than adjacent data sources however; 617 vehicles arriving at Greens with the ATC recording 1029 vehicles and 943 vehicles recorded as leaving the Crown. The difference between ATC flows exiting the Crown and those arriving at Greens is some 50%. To allow for this, flows arriving at Greens have been uplifted, pro rata per arm, by 50%. The resulting flows are given at Figures 2a and 2b.
- 5.2.24 Having quantified a 'neutral' period, it was necessary to make an allowance for the increased traffic flows that occur in the summer holiday period which traditionally lies falls in August.
- 5.2.25 The ATC data was used to gauge a local uplift factor. On average, flows were found to be 15% higher on a weekday August period over September and 3% higher on a Saturday over the same period. The resulting uplifted flows are given at Figures 3a and 3b.
- 5.3 Comparison of Flows**
- 5.3.1 Given that an uplift factor is being applied to the neutral September period, the holiday period is likely to represent the most critical, due to the higher background traffic flows.
- 5.3.2 Considering 3a and 3b, the A35 network, over the hour sees a total of 8362 movements in the weekday PM and 8552 in the Saturday, combined, at all junctions.
- 5.3.3 The Greens Roundabout sees a total of 3379 and 2703 vehicles movements in the weekday PM and Saturday peak respectively. Therefore, the weekday PM peak period is likely to be the most critical due to the higher background flows.
- 5.3.4 The Crown roundabout is subject to 3109 vehicle movements in the Weekday PM and 3702 on a Saturday. The higher flow of 593 vehicles suggests that the Saturday will be the more critical assessment period for this junction due to the higher background flow.
- 5.3.5 The Miles Cross junction shares a similar pattern to the Crown Roundabout; with higher Saturday flows (2147) compared to the weekday (1874) again suggesting the Saturday is the critical assessment period.
- 5.4 Existing South Street HRC Traffic Distribution**
- 5.4.1 It is necessary to make an allowance for the future change in flows that would occur as a result of the existing South Street HRC facility being closed. Flows arising as a result of the relocation will be considered later.
- 5.4.2 The closure of the South Street HRC will see the land returned to its original (i.e. pre-temporary planning permission) intended land use which saw it forming part of the adjacent highways depot. To accommodate the HRC, the highways depot was simply consolidated into a smaller site area (at the time, planning permission was granted for 2-years, so consolidation temporary). Therefore, the return of the HRC to a highways depot will not generate any additional traffic other than already occurring. It would simply the highways depot operating on a larger site (as originally intended).

- 5.4.3 Naturally, if it is the case that the site is not returned to a Highways Depot, and a planning application submitted on the site, then it would be subject to the relevant traffic/transport appraisal as part of the application.
- 5.4.4 A permanent counter giving total 2-way traffic movements is in place at the South Street site. Data from this counter is given at Appendix 1. Given that the site is subject to a short turn-around time (persons would only take 5 minutes or so to load/unload their waste/recyclables) then it is reasonable to assume that arrivals are equal to departures. Given that the A35 network is being examined on a weekday (16:00-17:00) and Saturday (11:00-12:00) periods in August and September, based on Average ATC results, it is appropriate to use the average in/out flows during the August & September period. These are given at table 5.1 below;

Period	Existing HRC Traffic		
	Arrive	Depart	Total 2-Way
August - Weekday PM peak	42	42	84
August - Saturday peak	34	34	68
September - Weekday PM peak	38	38	76
September - Saturday peak	36	36	72

Table 5.1 - Average Aug & Sept, Weekday & Saturday peak hour trips to HRC

- 5.4.5 Table 5.1 shows that although August and September are 'holiday' and 'neutral' periods on the highway network, the site itself is subject to very little change in traffic over these periods. 2-way weekday peak traffic is 84 and 76 vehicles (a difference of just 8 vehicles over an hour) and the Saturday sees a 2-way flow of just 68 and 72 vehicle trips respectively, a change of just 4 vehicles an hour.
- 5.4.6 Given such a low difference in site flows between month, and in order to present a worst case scenario, only the higher of the Weekday and Saturday flows will be used for modelling purposes; these are highlighted in table 5.1 above.
- 5.4.7 In addition to the permanent counter, a sample in/out survey was undertaken by IMA on Tuesday 4<sup>th</sup> August 2009 at 15:00. The results of this survey are summarised at Figure A below.





- 5.4.8 The figure shows that the majority of traffic (around 70%) arrives/departs to the south thus travels through the Crown roundabout. The relative arrival and departure split is relatively constant being broadly a 30/70, north/south split.
- 5.4.9 In order to further refine the split of traffic, particularly away from the existing HRC, the postcode survey data given at table 3.2 was used. The survey shows that 83% of traffic is locally based, with the remaining 17% being from nearby town/villages.
- 5.4.10 In order to distribute this 83% onto both A35 network and in/around Bridport, the use of population data is considered the most appropriate tool, as it is an accurate reflection of where people would be expected to travel to/from (the vast majority of HRC trips start at home).
- 5.4.11 Population data for Bridport is available from National Statistics. Areas are broken into 'super-output' zones. Plan 11 shows the super-output zones for Bridport, the population of each zone as both a number and a percentage (the percentage being of 100%)
- 5.4.12 Some of the superoutput areas fall over more than one major road, so individuals have more than one route to reach the site. An allowance has been made for this by assuming where persons would route - this is noted on Plan 11 as a north/south split. On the whole a worst case but realistic approach has been adopted by assuming that persons would prefer to use the A35 as opposed to local roads.
- 5.4.13 With regards to the remaining 17% 'non' local traffic their routing to/from the existing site is simpler;
- Lyme Regis - To/from site via A35 west (4%)
  - Beaminster - To/from site via A35 Sea Road South/A3066 (6%)
  - Dorchester - To/from site via A35 east (6%)
  - Weymouth - To/from site via A35 East (1%)
- 5.4.14 Figure 4 shows the distribution of traffic to/from the existing site. Local Bridport traffic is shown underlined, and separate from non Bridport traffic (shown without underlining). Given that for the purposes of this report only traffic travelling on/through the A35 network is of concern, traffic not using the A35 is omitted from the Figure for clarity. (For example persons travelling from the B3162, turning right onto the B3157 South Street and into the site have no impact on the A35, so are not shown).
- 5.4.15 Figure 4 does however, for checking purposes, show the resulting distribution at the existing HRC site access. It broadly shows a 30% to/from the immediate north (not routing on the A35), 70% to/from the south (i.e. A35 traffic) split. This split compares favourably with the observed split of traffic at the site access, (given at Figure A earlier) so indicating that the proposed flow distribution is reflective of what was observed. Distribution has been assumed to be identical on both a weekday and Saturday.
- 5.4.16 The resulting flows to/from the existing HRC on a weekday and Saturday are given at Figure 5a and 5b. It is noted that given that these flows occur on the network at present, they are inherently allowed for as part of any traffic survey/in the baseline data (Figures 2a to 3b).

5.4.17 Table 5.2 below summarises the level of HRC traffic occurring on the Greens Roundabout.

Green Roundabout - Total Development Traffic								
Weekday					Saturday			
Site	Sea Rd (N)	A35 (E)	A35 (S)	East Rd (W)	Sea Rd (N)	A35 (E)	A35 (S)	East Rd (W)
South Street	8	8	16	0	7	7	14	0

Table 5.2 - HRC Traffic (approach flow only) on Greens roundabout

5.4.18 In the weekday PM, a total of 32 vehicles are anticipated as travelling through the Greens roundabout, with 28 on a Saturday. This represents 39% of all HRC traffic.

5.4.19 Table 5.3 below summarises the level of HRC traffic occurring on the Crown roundabout.

Crown Roundabout - Total Development Traffic										
Weekday						Saturday				
Site	West Bay Rd (N)	A35 (N)	Burton Rd	West Bay Rd	A35 (West)	West Bay Rd (N)	A35 (N)	Burton Rd	West Bay Rd	A35 (West)
Miles Cross#1	29	17	5	2	5	26	15	5	2	4

Table 5.3 - HRC Traffic (approach flow only) on Crown roundabout

5.4.20 In the weekday PM, a total of 58 vehicles are anticipated as travelling through the Crown roundabout, with 52 on a Saturday. This represents nearly 71% of all HRC traffic. As already noted, the proximity of the Crown roundabout to the existing South Street site suggests that the Crown acts as the focal point for traffic using the HRC. The above suggests that this is indeed the case.

5.4.21 Table 5.4 below summarises the level of HRC traffic occurring at the Miles Cross junction.

Miles Cross Junction - Total Development Traffic						
Weekday				Saturday		
Site	B3162	A35(E)	A35 (W)	B3162	A35(E)	A35 (W)
South Street	0	5	5	0	4	4

Table 5.3 - HRC Traffic (approach flow only) on Miles Cross Junction

5.4.22 In the weekday PM and Saturday peak periods, just 10 and 8 vehicles are predicted to use this junction, all of which are through-movements. This accounts for 12% of all traffic using the HRC.

## 5.5 Existing Highway Network Modelling

- 5.5.1 Having arrived at a set of baseline traffic surveys for the A35 network and also the existing HRC site traffic in 2009, it is now pertinent to examine the operation of the Greens and Crown roundabouts and Miles Cross junction to ensure that any traffic models reflect observed on the ground conditions.
- 5.5.2 ARCADY has been used to model the Greens and Crown roundabouts, with PICADY being used on the Miles Cross junction.
- 5.5.3 The results of modelling the Greens roundabout for the 2009 period, using the flows at Figures 3a and 3b are given at table 5.5 below. It is noted this is the modelling for the busier holiday period.

Arm	2009 Baseline Holiday Weekday			2009 Baseline Holiday Sat		
	RFC	Q	Delay	RFC	Q	Delay
Sea Road North	0.638	1.7	5.4	0.472	0.9	3.6
A35 East Road East	0.762	3.1	7.2	0.465	0.9	4.2
A35 Sea Road South	0.918	9.2	15	0.545	1.2	4.8
East Road West	0.584	1.4	5.4	0.299	0.4	3

Table 5.5 - Modelling Output 2009 Baseline - Crown Roundabout

- 5.5.4 It is worth noting that this roundabout sees slightly higher flows in the weekday PM than in on the Saturday; all other junctions in the network see the reverse scenario.
- 5.5.5 The PM results shows that the southern A35 arm is beginning to approach practical capacity, with an RFC of 0.918, over 9 vehicles queuing and a delay of 15 second per vehicle. The remaining arms of the roundabout sees RFC's well below 1.0, and the arms operating within capacity.
- 5.5.6 The Saturday sees lower overall RFC and delay levels, with the roundabout, operating in capacity. The model is considered reflective of on-the ground conditions.
- 5.5.7 The results of modelling the Crown roundabout for the 2009 period, using the flows at Figures 3a and 3b are given below.

Arm	2009 Baseline Holiday Weekday			2009 Baseline Holiday Sat		
	RFC	Q	Delay	RFC	Q	Delay
West Bay Road (N)	0.422	0.7	3.6	0.479	0.9	4.2
A35 Sea Road S'th	0.678	2.1	5.4	0.891	7.4	10.8
Burton Road	0.396	0.7	3.6	0.55	1.2	5.4
West Bay Road (S)	0.453	0.8	6.6	0.586	1.4	8.4
A35 (w)	1.04	30.2	47.4	1.08	46.1	67.8

Table 5.6 - Modelling Output 2009 Baseline - Crown Roundabout

- 5.5.8 The modelling output shows that the westernmost A35 arm is operating over capacity, with queues of over 30 vehicles, and RFC's in excess of 1.0. Vehicles on this arm experience a delay of between 50 - 70 seconds. This is broadly in-keeping with on-site observations, although the level of predicted queuing is slightly below what has been observed on site. This can be explained by the fact that ARCADY becomes increasingly unable to accurately model queues and delays when arms exceed and RFC of 1.
- 5.5.9 The A35 Sea Road South is, in the Saturday peak period, shown as approaching practical reserve capacity, with an RFC of nearly 0.9, and queues of around 10 vehicles. The A35 arms carry the highest level of through-traffic, so show the highest RFC & queue levels, which is again broadly concurrent with on-site observations. The remainder of the roundabout sees comparatively little congestion, which is again broadly in-line with observed conditions.
- 5.5.10 The results of modelling the Miles Cross junction for the 2009 period, using the flows at Figures 3a and 3b are given below.

Movement	2009 Baseline Holiday Weekday			2009 Baseline Holiday Sat		
	RFC	Q	Delay	RFC	Q	Delay
B3162 - A35(E)	0.133	0.2	7.2	0.172	0.2	7.8
B3162 - A35(W)	0.366	0.6	8.4	0.376	0.6	9.6
A35(E) - B3162	0.094	0.1	6	0.149	0.2	6.6

Table 5.7 - Modelling Output - Miles Cross Junction

- 5.5.11 During both weekday and Saturday peak periods, the junction is shown to be operating within capacity. Peak RFC is just 0.376, with queues of under 1 vehicle being predicted, and these queuing vehicles typically waiting under 10 seconds to turn in the junction. The result tally with observed conditions.
- 5.5.12 In summary the results from the modelling are representative of the observed operation of the junctions, and thus the models and traffic flows are considered accurate.

## 5.6 Traffic Growth

- 5.6.1 It has been requested that an allowance for local growth up to the year 2020 be made. This growth factor has been derived from NRTF using a central factor and was found to be 8.9% for the period 2009 - 2020. Future flows are given at figures 6a through to 7b. It is noted that growth has not been applied to traffic bound for the South Street HRC (i.e. that shown figures 5a and 5b) as this would serve to artificially inflate traffic levels and may bias any future change in traffic.
- 5.6.2 Therefore HRC traffic has been removed from the network, growth applied, and then HRC traffic re-added.

## 5.7 Committed Development Traffic

- 5.7.1 An allowance for flows arising from the nearby Lidl and South West Quadrant (SWQ) developments has also been made.

- 5.7.2 Flows to/from the Lidl were supplied by the HA. Flows were given at the Crown Roundabout only. Lidl Traffic has been distributed though the rest of the A35 network by allocating flows according to baseline turning proportions. Lidl traffic flows are given at Figures 8a and 8b.
- 5.7.3 Flows to/from the SWQ were supplied by the HA. Flows were given at the Crown Roundabout only. Traffic has been distributed though the rest of the A35 network by allocating flows according to baseline turning proportions. SWQ traffic flows are given at Figures 9a and 9b.
- 5.7.4 It is also noted that the SWQ proposal includes an improvement to the easternmost A35 arm of the Greens roundabout. This proposal is shown at Plan 12 having been interpreted from an original drawing supplied by the HA. Given that the proposal would reasonably be expected to materialise in the future as part of SWQ, an allowance should be made for it as part of any future (2020) modelling of the Greens roundabout.

## 6 Traffic Distribution and Flows - Possible WMF Sites.

### 6.1 WMF Sites

6.1.1 Having derived a set of traffic flows for the existing HRC site off South Street, it is now possible to apply a similar distribution methodology to the 10 proposed sites.

6.1.2 Given the position of some sites relative to both one-another, the A35 network, and Bridport, many will share the same distribution pattern;

- 32a (Stony Head A), 32b (Stony Head B), 27 (Uploders Farm) and 14 (Green Lane Nursery) are all located off the easternmost A35 arm, and so share the same distribution pattern as the A35 is the only point of access to the site(s). This is referred to as the A35 East distribution
- 8 (Gore Cross) and 21 (Broad Road Farm) are all accessed off the A3066 north, and would share the same distribution pattern. This is referred to as the A3066 Distribution pattern.

6.1.3 Thus, a total of 6 traffic distribution scenarios will be considered, these distributions covering the 10 sites.

6.1.4 To predict flows to these sites, a similar methodology has been adopted as used for the existing South Street site; the national statistics super-output zones were examined and then a likely distribution pattern predicted to each proposed site based on the relative population density of each super-output zone. The overall attractiveness of a route from a particular zone to each site was gauged, with traffic generally assumed to use the A35 as opposed to local roads, in order to present a worst case.

6.1.5 The resulting traffic distributions for each site are given at Figures 10 to 15.

6.1.6 The additional proposed HGV traffic due to the bulking element of the WMF facility (which amounts to 2 HGV's In and 2 HGV's out per hour) has been split according the baseline traffic distribution patterns. The HGV's were converted to PCUs (1 HGV = 2 PCU's) as part of this process. There will be no HGV traffic on a Saturday, as the bulking facility will be closed.

6.1.7 Aside from the above HGV traffic, no additional traffic is proposed, other than traffic generated by the existing HRC simply being relocated to the WMF.

6.1.8 The resulting traffic for each of the 6 scenarios, on a weekday for a weekday and Saturday being given at 16a to 21b.

6.1.9 Tables 6.1 to 6.3 below summarise the predicted level of additional traffic occurring on each arm of the Greens, Crown and Miles Cross junctions as a result of site relocation. No reduction due to the existing south street HRC traffic has yet been made. The Miles Cross junction would be improved as part of the Miles Cross sites, so traffic impact arising from these sites, at the Miles Cross junction, is ignored for the time being.

Green Roundabout - Total Development Traffic								
Site	Weekday				Saturday			
	Sea Rd (N)	A35 (E)	A35 (S)	East Rd (W)	Sea Rd (N)	A35 (E)	A35 (S)	East Rd (W)
Miles Cross#1	8	8	17	0	7	6	13	0
Miles Cross#2	8	8	17	0	7	6	13	0
Broomhills	9	8	17	0	7	6	13	0
A35 (East)	9	36	14	13	7	29	12	10
A3066 Sites	34	8	17	0	27	6	13	0
Watton Farm	8	8	17	0	7	6	13	0

Table 6.1 - Total Development Traffic at Greens Roundabout

6.1.10 Table 6.1 shows the predicted total level of traffic resulting directly from each site. It is clear that the southern A35 arm of the Greens roundabout is subject to an almost identical level of traffic, irrespective of which site is would be taken forward.

6.1.11 Only one scenario is predicted to generate traffic on the East Road (West) arm, this being any of the A35 (East) scenario. The A35 (East) sites are also predicted to increase the level of traffic on the A35 (E) to a larger degree than any other site, which is to be expected, as the A35 (E) naturally acts as the focus point for any traffic departing from the A35 (East) sites.

6.1.12 Sea Road North would see its highest level of traffic were any of the site to the north of Bridport (located off the A3066) to be developed. Redevelopment of any site off the A3066 (north) would see nearly four times more traffic travelling through this roundabout than any other site redevelopment option.

6.1.13 In summary, the Greens roundabout is likely to see its highest level of traffic were any of the A35 (East) sites or A3066 site to be taken forward as a WMF.

6.1.14 Table 6.2 below examines the additional level of traffic generated by taking forward any of the 10 sites. No reductions due to the resulting closure of the South Street HRC have been made

Crown Roundabout - Total Development Traffic										
Site	Weekday					Saturday				
	West Bay Rd (N)	A35 (N)	Burton Rd	West Bay Rd	A35 (West)	West Bay Rd (N)	A35 (N)	Burton Rd	West Bay Rd	A35 (West)
Miles Cross#1	3	19	5	1	28	2	15	4	1	22
Miles Cross#2	3	19	5	1	28	2	15	4	1	22
Broomhills	6	19	5	1	31	4	15	4	1	25
A35 (East)	2	13	5	1	5	2	11	4	1	4
A3066 Sites	3	15	5	1	5	3	12	4	1	4
Watton Farm	3	19	5	1	28	2	15	4	1	22

Table 6.2 - Total Development Traffic at Crown Roundabout

- 6.1.15 A single site stands out above all other as generating the most traffic on all arms of the Crown roundabout, this being Broomhills. This is to be expected given that Broomhills can only be accessed by using the westernmost section of the A35. As a result, this concentrates traffic onto this arm and the Crown roundabout.
- 6.1.16 Other sites can generate a similar level of traffic on some arms (e.g. Watton Farm on the A35 (N) arm), but on an arm by arm basis, Broomhills generates the highest.
- 6.1.17 Therefore, redevelopment of Broomhills is likely to add the most traffic onto the Crown roundabout and would be the worst case.
- 6.1.18 Table 6.2 below shows the additional traffic that would be added to the Miles Cross junction were either Broomhills, the A35 East sites, the A3066 sites or Watton Farm to be redeveloped.

Miles Cross Junction - Total Development Traffic						
Site	Weekday			Saturday		
	B3162	A35(E)	A35 (W)	B3162	A35(E)	A35 (W)
Miles Cross#1	NA	NA	NA	-	NA	NA
Miles Cross#2	NA	NA	NA	-	NA	NA
Broomhills	9	14	5	7	11	4
A35 (East)	0	5	0	0	4	0
A3066 Sites	0	5	5	0	4	4
Watton Farm	12	17	5	10	14	4

Table 6.3 - Total Development Traffic at Miles Cross Junction

- 6.1.19 The peak level of traffic added onto any arm of the Miles Cross junction would be 17 vehicles, this being added onto the Easternmost A35 arm by the Watton Farm site in the Weekday PM period.
- 6.1.20 Indeed, overall, it is the Watton Farm site that adds the highest level of traffic to the junction, out of all the sites. Therefore, it is likely that Watton farm is the site that would impact this junction the greatest.

## 6.2 Comparison of Flows

- 6.2.1 By subtracting the current HRC traffic flows (tables 5.2, 5.3 and 5.4) from the predicted MWF traffic (tables 6.1, 6.2 and 6.3) it is possible to calculate the net change in traffic that would occur as a result of relocating to any of the shortlisted sites. The results of this subtraction process are given at tables 6.4 to 6.6 below. Minus figures represent reductions in traffic, compared to what would otherwise exist with the HRC in its current South Street location.



Green Roundabout - Net Traffic Change										
Site	Weekday					Saturday				
	Sea Rd (N)	A35 (E)	A35 (S)	East Rd (W)	Total	Sea Rd (N)	A35 (E)	A35 (S)	East Rd (W)	Total
Miles Cross#1	0	0	1	0	1	0	-1	-1	0	-2
Miles Cross#2	0	0	1	0	1	0	-1	-1	0	-2
Broomhills	1	0	1	0	2	0	-1	-1	0	-2
A35 (East)	1	28	-2	13	40	0	22	-2	10	30
A3066 Sites	26	0	1	0	26	20	-1	-1	0	19
Watton Farm	0	0	1	0	1	0	-1	-1	0	-2

Table 6.4 - NET CHANGE in traffic at Greens roundabout due to site relocation

- 6.2.2 Table 6.4 shows that at the Greens Roundabout, locating the WMF at Miles Cross 1 or 2, Broomhills or Watton Farm would bring about a minimal net increase in traffic in the Weekday (at most 2 vehicles an hour - a level that would be imperceptible) and on the Saturday, the roundabout would see a net decrease of -2 vehicles. Both these levels would be imperceptible at a roundabout seeing some 3000 vehicle movements in total.
- 6.2.3 However, were the A35 (East) or A3066 sites to be put forward as a location for a WMF, then the Greens roundabout would see a total change of between 26 to 40 vehicles in the weekday PM period and between 19 and 30 vehicles on a Saturday. The two scenarios change flows on differing arms of the junction - Sites off the A35 East for example would add traffic onto the A35 East and East Road (W), with sites off the A3066 adding traffic onto Sea Road North in particular.
- 6.2.4 This is to be expected given that the Greens roundabout essentially acts as the focal point for the majority of traffic (which is destined for Bridport) travelling to/from either the A3066 sites or the A35 East sites.
- 6.2.5 Therefore, the modelling of either the A35 East scenario or A3066 scenario would represent the worst case at this junction.
- 6.2.6 The net change in traffic at the Crown roundabout, due to relocation of the HRC facility is given at Table 6.5 below.

Crown Roundabout - Total Development Traffic												
Site	Weekday						Saturday					
	West Bay Rd (N)	A35 (N)	Burton Rd	West Bay Rd	A35 (West)	Total	West Bay Rd (N)	A35 (N)	Burton Rd	West Bay Rd	A35 (West)	Total
Miles Cross#1	-26	2	0	-1	23	-2	-24	0	-1	-1	18	-7
Miles Cross#2	-26	2	0	-1	23	-2	-24	0	-1	-1	18	-7
Broomhills	-23	2	0	-1	26	4	-22	0	-1	-1	21	-2
A35 (East)	-27	-4	0	-1	0	-31	-24	-4	-1	-1	0	-31
A3066 Sites	-26	-2	0	-1	0	-29	-23	-3	-1	-1	0	-29
Watton Farm	-26	2	0	-1	23	-2	-24	0	-1	-1	18	-7

Table 6.5 - NET CHANGE in traffic at Crown roundabout due to site relocation.

- 6.2.7 It is noted that with regard to negative or minus figures, the largest net increase relates to the smallest negative figure (i.e. a value closer to zero, is higher).
- 6.2.8 On the Saturday, redevelopment of all sites is predicted to give rise to a net decrease in traffic flows at the Crown. Net, total reductions are between -2 and -31 vehicles. The net reduction of -31 or -29 vehicles would be expected to bring about a material improvement in the operation of this junction.
- 6.2.9 On a weekday, all sites bar one are predicted to reduce traffic flows at the Crown roundabout. The reduction in flow is predicted to be between -2 and -31 vehicles and would be expected to manifest itself as an improvement to how the junction would otherwise operate. This is to be expected as at present, Crown act as the focus point for traffic. Moving the site also moves the focus of traffic, which manifests itself as a reduction in flow at the Crown.
- 6.2.10 Only Broomhills is predicted to increase flows, this being by just 4 vehicles. The Crown roundabout sees some 3000 vehicles on a weekday PM, so an additional 4 vehicles represents an increase in flow of only 0.1%. (typical day-to-day variation is generally taken as +/- 10%, by way of comparison)
- 6.2.11 The Broomhills site, given that it results in a small overall increase inflows at the junction (+4) represent the worst case in terms of modelling. It is also noted that the Broomhills site, along with others results in a change in flow distribution at the roundabout; most notably adding flow onto the A35 (N) arm, but removing it from West Bay Road North and the A35 West (the arm generally regarded as being subject to the largest level of congestion).
- 6.2.12 Therefore, Broomhills represents the worst case in terms of highway impact at the Crown Roundabout.
- 6.2.13 Table 6.6 shows the net change in traffic at the Miles Cross priority junction as a result of relocating the HRC.

Miles Cross Junction - Total Development Traffic								
Site	Weekday				Saturday			
	B3162	A35(E)	A35 (W)	Total	B3162	A35(E)	A35 (W)	Total
Miles Cross#1	NA	NA	NA	-	NA	NA	NA	-
Miles Cross#2	NA	NA	NA	-	NA	NA	NA	-
Broomhills	9	9	0	18	7	7	0	14
A35 (East)	0	0	-5	-5	0	0	-4	-4
A3066 Sites	0	0	0	0	0	0	0	0
Watton Farm	12	12	0	24	10	10	0	19

Table 6.6 - NET Change in traffic flow at Miles Cross Junction

- 6.2.14 Two sites give rise to a net reduction, or no change to flow at the Miles Cross junction - This being the A35 east sites (-6 and -4 vehicles) and A3066 sites (no net change).

6.2.15 Relocation of the HRC to Broomhills is predicted to add a total of 18 vehicles in the weekday and 14 on the Saturday. The Watton Farm site is however predicted to add a higher level of traffic; 24 vehicles in total in the weekday PM and 19 on the Saturday and would thus represent the worst case in term of any impact.

6.2.16 There are junction proposals as part of the Miles Cross scheme, so the impact of this will be considered later.

### 6.3 Modelling Methodology

6.3.1 There are a total of 4 time periods to examine (weekday and Saturday, neutral and holiday). There are a total of 6 sites, (5 proposed and the 1 existing South Street Site) with 3 junctions per site. Were each period, site and junction to be examined, this would result in 90 separate modelling runs (30 modelling runs per junction).

6.3.2 This number of modelling runs would result in a report that is difficult to comprehend as the relative changes, and merits/demerits of one site over another in terms of traffic change or impact would be difficult to quantify. This is particularly important in the context of putting forward meaningful highway improvements (if they are necessary).

6.3.3 Section 6.2 above has demonstrated that at each junction there are certain sites that generate far higher level of traffic than any other. Therefore any modelling will be undertaken on the basis of using these sites at a particular junction as they represent the worst case scenario. Thus;

- Greens Roundabout will be modelled using flows from the A35 (east) sites and A3066 Sites.
- Crown Rbt will be modelled using Broomhills Flows
- Miles Cross (in its current form) will be modelled using Watton Farm flows

6.3.4 If these assessments demonstrate that the additional development traffic at each junction can be mitigated, then it stands to reason that the traffic associated with any development option could also be mitigated.

6.3.5 If it is the case that a full planning application is carried forward on a particular site, then a lower level of network traffic would be expected and if necessary, mitigation works can be tailored to that particular scheme/site, although any mitigation works as part of the 'worst case' modelling in this report would also mitigate a lower level of traffic from any other site.

## 7 Traffic Impact Assessment - Proposed Sites

### 7.1 Future Modelling

7.1.1 Section 5 has quantified the traffic flows predicted to occur in 2020. Committed development traffic was also quantified, and distributed onto the highway network. Models for the Greens, Crown and Miles Cross junction were also validated.

7.1.2 A worst case traffic scenario was quantified in the preceding section.

7.1.3 Considering these flows in unison, Figures 23a/b and 24 a/b show the 2020 'Do Nothing Neutral' and 'Do Nothing Holiday' traffic for a weekday and Saturday. This is made up of 2020 Baseline Flows (Neutral or holiday) + Committed Development. It is not necessary to add-in the existing HRC traffic, as this is allowed for in the survey flows.

7.1.4 The 2020 'With Worst Case Development Neutral and Holiday' Flows are given at Figures 25a/b and 26a/b these being made up of 2020 Baseline Flows (Neutral or Holiday) minus Existing South Street Traffic Flows plus Worst Case Change In traffic.

7.1.5 It is noted that the proposed Miles Cross junctions will be treated in a slightly different manner to all other junctions. This is considered further as part of the Miles Cross signal junction modelling.

7.1.6 The HA have requested that a nil detriment position be maintained on the A35 network. Modelling generally considers RFC, queue or delay. The most appropriate gauge of overall network operation of is considered to be delay (in seconds per vehicle) value as this helps to demonstrate the actual driving experience through a junction or network whereas the RFC value is merely a hypothetical value of how well an arm/junction is operating, and has little in terms of the network as a whole. The same is true of the 'queue' value; it is difficult to quantify queues in a manner that reflects the operation of a network or travel through it.

#### 7.1.7 Greens Roundabout

7.1.8 Table 7.1 below considers how the junction would operate in the 'Do Nothing' 2020 neutral period in a weekday and Saturday. The improvements proposed as part of the South West Quadrant (widening of the A35 east arm) are included in this modelling.

Arm	2020 'Do Nothing' Neutral Week (SWQ)			2020 'Do Nothing' Neutral Sat (SWQ)		
	RFC	Q	Delay (sec/veh)	RFC	Q	Delay (sec/veh)
Sea Road North	0.646	1.8	5.4	0.628	1.7	4.8
A35 East Road East	0.721	2.5	6.6	0.584	1.4	5.4
A35 Sea Road South	0.872	6.2	12	0.968	15.9	21
East Road West	0.565	1.3	4.8	0.436	0.8	4.2

Table 7.1 - 2020 Do Nothing, Neutral month, Greens Roundabout

7.1.9 Table 7.1 shows how the Crown roundabout is predicted to operate in 2020, neutral month. On a weekday, all arms operate within capacity, with minimal levels of RFC, queuing and delay. The Saturday is similar, albeit with the A35 Sea South Road approaching capacity with an RFC of 0.968.

7.1.10 Table 7.2 below considers how the junction would operate in the 'Do Nothing' 2020 holiday period on a weekday and Saturday.

Arm	2020 'Do Nothing' Holiday Week (SWQ)			2020 'Do Nothing' Holiday Sat (SWQ)		
	RFC	Q	Delay (sec/veh)	RFC	Q	Delay (sec/veh)
Sea Road North	0.736	2.7	6.6	0.653	1.8	5.4
A35 East Road East	0.866	6	10.2	0.617	1.6	5.4
A35 Sea Road South	1.063	46.5	50.4	1.007	25.8	29.4
East Road West	0.676	2	6.6	0.453	0.8	4.2

Table 7.2 - 2020 Do Nothing, Holiday period, Greens Roundabout

7.1.11 On a weekday and Saturday, three out of four arms of the roundabout are shown to be operating within capacity; Sea Road North, A35 East Road and East Road West. All have RFC's lower than 1.0, and low levels of vehicle queuing and delay.

7.1.12 On both a weekday and Saturday, the A35 South is operating over capacity with and RFC of 1.063 on a weekday and 1.007 on a Saturday. Queuing levels are 46.5 and 25.8 vehicles respectively, with delay being 50 seconds on the weekday PM and nearly 30 seconds on a Saturday.

7.1.13 The future 'With Development' scenarios consider two development scenarios - development of any sites off the eastern A35 and A3066 arms of the Crown roundabout. These sites give rise to additional traffic on, in particular, Sea Road North (A3066 sites), the A35 east (A35 east sites).

7.1.14 Given the proposed additional traffic, and that the junction is operating close to or over capacity in the two tables above, it is appropriate to consider improvement works at this junction, to arrive at a nil-detriment position, with development traffic.

7.1.15 Improvements to the eastern A35 and northern A3066 arms are shown at Plan 13. The improvements see a wider roundabout entry width (typically 1.5m wider) with more 'flare'. Both of these improvements will be put forward as schemes for either scenario. It is noted (and dealt with at greater depth at the end of this section) that the A35 sites and A3066 sites see large decreases in traffic at the adjoining Crown roundabout; typically either scenario sees 30 fewer vehicles travelling through the Crown roundabout to the south.

7.1.16 Table 7.3 shows the operation of the Greens roundabout in a 2020 neutral month, assuming the A3066 site development. The modelling includes the effect of the improvement shown at Plan 13. Traffic flows are given at Figures 29a/b and 30a/b.

Arm	2020 'A3066' Neutral Week (IMA)			2020 'A3066' Neutral Sat (IMA)		
	RFC	Q	Delay (sec/veh)	RFC	Q	Delay (sec/veh)
Sea Road North	0.565	1.3	3.6	0.545	1.2	3.6
A35 East Road East	0.704	2.3	6	0.52	1.1	4.2
A35 Sea Road South	0.923	9.6	16.2	0.977	17.8	22.8
East Road West	0.575	1.3	5.4	0.444	0.8	4.2

Table 7.3 - 2020 'With A3066' site, Neutral Month, Greens Roundabout

7.1.17 Table 7.3 shows that total delay on a weekday amounts to 31.2 seconds, compared to 28.8 seconds during the equivalent 'Do Nothing' period. On a Saturday, total delay amounts to 34.8 seconds compared to 35.4 seconds in the equivalent 'Do Nothing' scenario. Thus, the 'With A3066' development scenario would see drivers experiencing 2.5 seconds additional delay on a weekday and 0.6 seconds less delay on a Saturday. This of course does not make an allowance for the 30 fewer vehicles that would travel through the Crown roundabout to the south. This is considered in detail at the end of this section.

7.1.18 Table 7.4 examines the operation of the Greens roundabout in 2020, for a holiday period, with the addition of development traffic and the improvement shown at Plan 13.

Arm	2020 'A3066' Holiday Week (IMA)			2020 'A3066' Holiday Sat (IMA)		
	RFC	Q	Delay (sec/veh)	RFC	Q	Delay (sec/veh)
Sea Road North	0.637	1.7	4.8	0.565	1.3	4.2
A35 East Road East	0.839	5	9	0.548	1.2	4.8
A35 Sea Road South	1.078	52.9	57.6	1.017	29	32.5
East Road West	0.684	2.1	6.6	0.460	0.8	4.2

Table 7.4 - 2020 'With A3066' site, Holiday Month, Greens Roundabout

7.1.19 On a weekday and Saturday, the overall pattern of congestion at the roundabout is similar to that of the equivalent 'Do Nothing' Holiday period. The A35 south arm is operating slightly over capacity, with all other arms operating below.

7.1.20 In terms of vehicle delay through the junction the 'With A3066' scenario gives rise to total vehicle delay of 78 seconds on a weekday and 45.7 on a Saturday. When compared to the 'Do Nothing' period (which sees delay of 73.8 and 44.4 seconds respectively) driver, or vehicle delay has increased by just 4 and 1 seconds. This level would be imperceptible at the junction.

7.1.21 However, as mentioned earlier, were the A3066 sites, to the north of the Greens roundabout to be taken forward there would be large reductions in traffic flow on the Crown roundabout to the south. Flow reductions would be in the order of 30 vehicles (table 6.5). Such a significant reduction will make the Crown roundabout operate better than would otherwise be the case.

7.1.22 Therefore, on balance, the reduction in traffic at the Crown roundabout combined with the improvements put forward to the Greens roundabout would result in a 'nil detriment' position on the A35 (and in likelihood a 'better than would otherwise be the case position'), were one of the 'worst case', A3066 sites to be developed as a WMF.

7.1.23 Moving now onto the second ‘worst case’ site at the Greens roundabout - assumed development of one of the site off the easternmost A35 arm of the Greens roundabout.

7.1.24 Table 7.5 below shows the operation of the Greens roundabout in a 2020 neutral period, with the IMA improvements, and with the net change in traffic resulting from site redevelopment. Flows are given at 27a/b and 28a/b.

Arm	2020 ‘A35 East’ Neutral Week (IMA)			2020 ‘A35 East’ Neutral Sat (IMA)		
	RFC	Q	Delay (sec/veh)	RFC	Q	Delay (sec/veh)
Sea Road North	0.556	1.2	3.6	0.538	1.2	3.6
A35 East Road East	0.715	2.5	6	0.531	1.1	4.2
A35 Sea Road South	0.924	9.7	16.2	0.977	17.8	22.8
East Road West	0.578	1.4	5.4	0.446	0.8	4.2

Table 7.5 - Greens Roundabout, ‘With A35 East’ scenario, neutral, 2020.

7.1.25 Three arms of the junction (Sea Road North, the A35 east and East Road West) are shown as operating within capacity in both the weekday and Saturday period. The A35 Sea Road is approaching capacity. However, when total delay is examined in detail (the only real way of evaluating the change in journey time in a network) there is little change over the equivalent Do Nothing period (table 7.1).

7.1.26 Total weekday delay in the ‘A35 East’ scenario is 31.2 seconds which is just 2.4 seconds greater than the ‘Do Nothing’ period (28.8 seconds). The Saturday ‘A35 East’ scenario sees a reduction in vehicle delay of 0.5 seconds, decreasing from 35.4 to 34.8 seconds.

7.1.27 The 2020, ‘Holiday’ modelling of the A35 east site scenario is given at table 7.6 below.

Arm	2020 ‘A35 East’ Holiday Week (IMA)			2020 ‘A35 East’ Holiday Sat (IMA)		
	RFC	Q	Delay (sec/veh)	RFC	Q	Delay (sec/veh)
Sea Road North	0.629	1.7	4.8	0.558	1.3	4.2
A35 East Road East	0.848	5.3	9	0.56	1.3	4.8
A35 Sea Road South	1.078	52.8	58.2	1.017	29.2	32.4
East Road West	0.687	2.1	6.6	0.462	0.9	4.2

Table 7.6 - Greens Roundabout, with A35 East Development, Holiday, 2020.

7.1.28 On the whole, in terms of arms being over or under capacity, the results given at table 7.6 mirror that of the 2020 Do Nothing (table 7.2); three arms are under capacity and one arm over capacity.

7.1.29 With regards to delay, the weekday and Saturday scenarios above show total vehicle delay of 78.6 seconds and 45.6 seconds. The equivalent ‘Do Nothing’ scenario shows delays of 73.8 seconds and 44.4, representing changes of +4.8 seconds and -1.2 seconds

7.1.30 However, the marginal increases to delay in the weekday ‘With Development’ scenarios are more than offset by the reduction of approximately 30 vehicle movements that would occur at the Crown roundabout to the south.

7.1.31 To demonstrate this, ARCADY has been used to quantify the reduction in vehicle delay that would occur due to the net reduction in traffic. In the 2020 ‘With Development’ Holiday scenario, total roundabout delay would be 260 seconds compared to the 273 seconds that would otherwise exist (the following table 7.8), giving a reduction in delay at the most congested roundabout of 13 seconds. This would more than offset the increase of 4.8 seconds.

7.1.32 Thus, the highway network, on balance, will operate better than would otherwise be the case resulting in a nil detriment position.

### 7.1.33 Crown Roundabout

7.1.34 Table 7.7 below considers how the Crown roundabout would operate in the ‘Do Nothing’ 2020 neutral period on a weekday and Saturday.

Arm	2020 'Do Nothing' Neutral Week			2020 'Do Nothing' Neutral Sat		
	RFC	Q	Delay (sec/veh)	RFC	Q	Delay (sec/veh)
West Bay Road (N)	0.399	0.7	3.6	0.509	1	4.2
A35 (N) Sea Road South	0.657	1.9	4.8	1.018	34.7	29.4
Burton Road	0.371	0.6	3.6	0.638	1.7	6.6
West Bay Road (S)	0.42	0.7	6.6	0.659	1.9	10.2
A35 (w)	0.972	14.8	27.6	1.178	85.7	149.4

Table 7.7 - Crown Roundabout, 2020 Neutral Period, Do Nothing Modelling

7.1.35 On a weekday, the Crown roundabout sees its highest RFC, queue and delay values on the A35 west arm, these being 0.972, 14.8 and 27.6 respectively. The arm can therefore be considered at practical capacity. The remainder of the junction operates with low RFC, queue and delay values, so is considered to be within capacity.

7.1.36 On a Saturday, both A35 arms see RFC’s greater than 1.0 and thus the roundabouts are operating over capacity. Vehicle delay is in the order of 30 to 150 seconds per vehicle. The remainder of the junction is operating within capacity, with RFC’s being no higher than 0.659, queues of between 1 to 2 vehicles and vehicle delay of around 10 seconds.

7.1.37 Table 7.8 below shows how the Crown roundabout is predicted to operate with the addition of holiday growth, which amounts to +15% on a weekday and +3% on a Saturday.



Arm	2020 'Do Nothing' Holiday Week			2020 'Do Nothing' Holiday Sat		
	RFC	Q	Delay (sec/veh)	RFC	Q	Delay (sec/veh)
West Bay Road (N)	0.455	0.8	4.2	0.522	1.1	4.8
A35 Sea Road South	0.752	3	6	1.053	53.9	43.8
Burton Road	0.459	0.8	4.2	0.662	1.9	7.2
West Bay Road (S)	0.546	1.2	8.4	0.692	2.2	11.4
A35 (w)	1.191	83.3	153	1.228	107.7	205.8

Table 7.8 - Crown Roundabout, 2020 Holiday Period, Do Nothing Modelling.

7.1.38 As would be expected, the operation of the junction is worsened over the 'Neutral' period given above, with elevated RFC values on the critical arms (A35 west in the weekday and A35 sea Road south/A35 west on a Saturday). The remainder of the junction however, would operate within capacity.

7.1.39 The 2020, 'With development', neutral month assessment is given at table 7.9 below. The 'worst case' assumes that the Broomhills site is redeveloped, and that there is a net addition of 4 vehicles on a weekday and a loss of 2 vehicles on a Saturday (but a change in flow distribution for both scenarios). Flows are given at Figures 25a/b and 26 a/b.

Arm	2020 'Worst Case' Neutral Week			2020 'Worst Case' Neutral Sat		
	RFC	Q	Delay (sec/veh)	RFC	Q	Delay (sec/veh)
West Bay Road (N)	0.386	0.6	3.6	0.496	1	4.2
A35 Sea Road South	0.658	1.9	4.8	1.017	34.3	29.4
Burton Road	0.371	0.6	3.6	0.639	1.7	6.6
West Bay Road (S)	0.42	0.7	6.6	0.659	1.9	10.2
A35 (w)	0.991	18.4	31.8	1.193	93.6	166.8

Table 7.9 - Crown Roundabout, 2020 Neutral Period, With Development

7.1.40 In the weekday, the 'With Development' scenario sees a net increase of 4 vehicles, and a reduction of 2 vehicles on a Saturday, although importantly, there is a re-distribution of flows on the junction (see table 6.5).

7.1.41 On the weekday and Saturday, there is no change to vehicle delay on the West Bay Road, Sea Road South, Burton Road and West Bay Road South arms. These arms see a combined delay of 18.6 and 50.4 seconds in the weekday/Saturday 'Do Nothing' periods and 'With Development Periods'.

7.1.42 It is only the A35 west arm that sees any increase in RFC/queue/delay. This is dealt with in more detail below.

7.1.43 Table 7.10 looks at how the Crown Roundabout would operate in 2020, with development traffic in the holiday period.

Arm	2020 'Worst Case' Holiday Week			2020 'Worst Case' Holiday Sat		
	RFC	Q	Delay (sec/veh)	RFC	Q	Delay (sec/veh)
West Bay Road (N)	0.441	0.8	4.2	0.507	1	4.2
A35 Sea Road South	0.753	3	6	1.053	54.2	44.4
Burton Road	0.46	0.8	4.2	0.663	1.9	7.2
West Bay Road (S)	0.548	1.2	8.4	0.692	2.2	11.4
A35 (w)	1.209	92.4	174	1.245	117.6	227.4

Table 7.10 - Crown Roundabout, 2020 Holiday Period, With Development

7.1.44 The table shows that the West Bay Road, A35 Sea South Road, Burton Road and West Bay Road are subject to a total of 22.8 seconds of delay in the weekday and 67.2 seconds of delay on the Saturday. By comparison, the Do nothing period sees identical levels of delay, thus these arms/roads would see no change in how they would operate.

7.1.45 It is only the A35 west arms that see a change in how they operate, with slightly higher RFC's, queuing and delay.

7.1.46 As already mentioned, this 'worst case' modelling (both neutral weekday and holiday) for the Crown roundabout assumes that the Broomhills site is redeveloped. To the north, Broomhills will add just 2 vehicles to the nearby Greens roundabout in the weekday and remove 2 vehicles from the roundabout on the Saturday.(see table 6.4)

7.1.47 However, plan 13 shows improvements to two arms of the Greens roundabout widening of the A3066 and A35 west approaches by some 1.5m, and increasing flare. The scale of the works is such that they are considered meaningful, and would be expected to bring about real, tangible, on-the ground improvements.

7.1.48 If these improvements were put forward as part of the Broomhills site, then traffic would be expected to travel through the adjoining Greens roundabout with lower levels of RFC, queue and delay. This would service to make conditions better than would otherwise exist, bringing about a nil detriment position of the A35 network, by essentially removing a small amount of capacity form the Crown roundabout, but then reinstating a larger amount of capacity at Greens.

7.1.49 Thus, there would be nil detriment on the highway network were the Broomhills to be developed, along with improvements to Greens.

## 7.2 Miles Cross (Priority) Junction

7.2.1 The operation of the Miles Cross junction in 2020, Do Nothing, for a neutral month and a Holiday period is given at tables 7.11 and 7.12 below.

Movement	2020 'Do Nothing' Neutral Week			2020 'Do Nothing' Neutral Sat		
	RFC	Q	Delay (sec/veh)	RFC	Q	Delay (sec/veh)
B3162 - A35(E)	0.124	0.1	6.6	0.211	0.3	8.4
B3162 - A35(W)	0.339	0.5	7.8	0.461	0.8	11.4
A35(E) - B3162	0.09	0.1	6	0.172	0.2	7.2

Table 7.11 - Miles Cross Priority Junction, 2020 Do Nothing, Neutral

Movement	2020 'Do Nothing' Holiday Week			2020 'Do Nothing' Holiday Sat		
	RFC	Q	Delay (sec/veh)	RFC	Q	Delay (sec/veh)
B3162 - A35(E)	0.158	0.2	7.8	0.23	0.3	9
B3162 - A35(W)	0.433	0.8	9.6	0.497	1	12.6
A35(E) - B3162	0.108	0.1	6.6	0.181	0.2	7.2

Table 7.12 - Miles Cross Priority Junction, 2020 Do Nothing, Holiday

7.2.2 During both neutral and holiday modelling scenarios, the junction operates with a large degree of reserve capacity, infact there is little difference between the neutral and 'holiday' modelling periods, despite the addition of growth to allow for the 'holiday' period.

7.2.3 The 'With Development' modelling in 2020, for a neutral and 'holiday' period is given at tables 7.13 and 7.14 below. Flows are given at Figures 25a/b and 26a/b. The modelling assumes that Watton Farm is developed, as this is the site that would give rise to the highest level of traffic at the Miles Cross junction, and so is a worst case.

Movement	2020 'Worst Case' Neutral Week			2020 'Worst Case' Neutral Sat		
	RFC	Q	Delay (sec/veh)	RFC	Q	Delay (sec/veh)
B3162 - A35(E)	0.148	0.2	7.2	0.236	0.3	8.4
B3162 - A35(W)	0.346	0.5	8.4	0.47	0.9	12
A35(E) - B3162	0.111	0.1	6	0.193	0.2	7.2

Table 7.13 - Miles Cross Priority Junction, 2020 With Worst-Case Development, Neutral

Movement	2020 'Worst Case' Holiday Week			2020 'Worst Case' Holiday Sat		
	RFC	Q	Delay (sec/veh)	RFC	Q	Delay (sec/veh)
B3162 - A35(E)	0.185	0.2	7.8	0.254	0.3	9
B3162 - A35(W)	0.443	0.8	9.6	0.507	1	12.6
A35(E) - B3162	0.131	0.1	6.6	0.201	0.2	7.8

Table 7.14 - Miles Cross Priority Junction, 2020 With Worst-Case Development, Holiday

7.2.4 Tables 7.13 and 7.14 shows that the existing Miles Cross priority junction would operate within capacity for all future 'With Development' modelling scenarios.

7.2.5 With regards to change in delay at the junction, the maximum change is seen in the 2020 Worst Case Neutral compared to the 2020 Do Nothing Neutral. The total increase in delay as a result of the development is just 1.2 seconds.

7.2.6 The improvement of a junction that is operating well within capacity, to cope with an additional 1.2 seconds delay (a level which would be imperceptible, irrespective of conditions at the junction) is unnecessary as it would make no material or discernable difference to the operation of the A35 network.

### 7.3 Miles Cross - 4-arm Traffic Signal Junction

- 7.3.1 As part of redevelopment of the Miles Cross#1 site (No. 20) it is proposed to improve the existing Miles Cross junction to form a 4-arm traffic signal junction. A plan of the proposed junction can be seen at Plan 6. The junction includes pedestrian facilities on the A35 east arm to allow site-bound pedestrian access to/from the site and also access by the general public to the footpath that runs close to the site.
- 7.3.2 The improvement, and importantly traffic associated with the site would only materialise as a result of redeveloping the Miles Cross#1 site, hence there is no worst case or alternate modelling scenario as is the case with other junctions (the the junction improvement would not have otherwise materialised).
- 7.3.3 Traffic Flows for this scenario are given at figures 31a/b and 32 a/b. The junction will be modelled using LINISG, with the actual modelling outputs included on a CD appended to the rear of this report.
- 7.3.4 It is noted that there is a very low level of demand for right turn into the site (1 vehicle every 10/15 mins or so). Were the junction to be built, the right turn would be initiated 'on-demand' by a ground detector. As such, the arm would not run every cycle. To allow for this, the junction has been modelled with this arm running every other cycle, on a cycle time of 120 seconds (or an every-other cycle time of 240 seconds). Given the low level of pedestrian demand that is anticipated, the same methodology has been applied to pedestrians; they are assumed to use the crossing every other cycle (i.e. in tandem with the right turners)
- 7.3.5 In reality, we would expect this to be a worst case, and the junction would operate with less demand from the above users, and hence have more capacity.
- 7.3.6 Table 7.15 below summarises how the junction would operate in 2020, 'With Development', and in a 'neutral' period.

Movement	2020 'Do Nothing' Neutral Week			2020 'Do Nothing' Neutral Sat		
	RFC	Q	Delay	RFC	Q	Delay
B3162 > A35(E)	16	1.7	45	29.1	2.7	53.3
B3162 > A35(W) + Site	64.5	6.6	63.8	80	9.4	100.2
A35(E) > A35(W) + Site	59.9	17.6	16.5	67.4	19	15.2
A35(E) > B3162	39.5	1.9	77.6	66.1	3.9	96.3
A35(W) > Site	4	0.3	120	3.2	0.3	119.9
A35(W) > B3162 + A35(E)	65.2	19.2	19.4	80	32.8	22.5
Site > A35(W)	1.4	0.1	44.4	1.5	0.1	50.5
Site > B3162 + A35(E)	10.6	1.1	46.3	12.4	1	54.5
Practical Reserve for Junction	38.1			12.4		

Table 7.15 - Proposed signal 3 arm signal junction, Neutral period, 2020

- 7.3.7 Table 7.15 shows that the propose junction to access the Miles Cross site on the western side of the A35 would operate within capacity, with a PRC of 38% (weekday PM) and 12% (Saturday peak). Peak RFC is just 67.1.

7.3.8 Table 7.16 below summarises how the junction would operate in 2020, With development, and in a 'holiday' period.

Movement	2020 'Do Nothing' Holiday Week			2020 'Do Nothing' Holiday Sat		
	RFC	Q	Delay	RFC	Q	Delay
B3162 > A35(E)	18.3	2	45.4	30.2	3	53.6
B3162 > A35(W) + Site	74.1	8.1	70.9	82.5	10.1	107.7
A35(E) > A35(W) + Site	67.8	22.3	18.5	69.4	20.2	15.7
A35(E) > B3162	45.2	2.3	80.1	68.5	4.2	99.7
A35(W) > Site	4	0.3	120	3.2	0.3	119.9
A35(W) > B3162 + A35(E)	73.6	23.7	22.1	82.5	35.3	24
Site > A35(W)	1.4	0.1	44.4	1.5	0.1	50.7
Site > B3162 + A35(E)	10.9	1.2	46.9	12.4	1	54.8
Practical Reserve for Junction	21.5			9.1		

Table 7.16 - Proposed signal 3 arm signal junction, Neutral period, 2020

7.3.9 Table 7.16 shows that the proposed 4-arm, Miles Cross signal junction would operate within capacity. The weekday holiday period sees peak RFC levels of just 73.6, this occurring on the A35 west arm, ahead/right. The junction has a practical reserve capacity of 21.5%.

7.3.10 In the Saturday the junction continues to operate within capacity. Practical reserve capacity is 9.1%, and arms operate with a maximum RFC of 82.5.

#### 7.4 Miles Cross - 3-arm Traffic Signal Junction

7.4.1 Redevelopment of site 36, Miles Cross 2 will also bring about an improvement to the existing Miles Cross priority junction. The improvement will see the junction being turned into a 3-arm traffic signal junction. A proposed layout is given at Plan 13.

7.4.2 Traffic associated with the redevelopment of this site is given at Figures 33a/b and 34a/b. The junction operates on an 80 second cycle time.

7.4.3 Table 7.17 below summarises how the junction would operate in 2020, 'With Development', and in a 'neutral' period.

Movement	2020 'Do Nothing' Neutral Week			2020 'Do Nothing' Neutral Sat		
	RFC	Q	Delay	RFC	Q	Delay
B3162 > A35	52.3	5.9	38.5	68.1	7.1	47.3
A35(E) > A35(W)	50.6	7.5	7.3	58.8	9.3	6.9
A35(E) > B3162	41.4	2	50.2	55.9	2.8	56
A35(W) > A35(E)	51.5	8.5	13.5	66.8	12.9	14.5
A35(W) > B3162	18.4	2.1	10.2	19.6	2.2	8.9
PRC	72.2			32.2		

Table 7.17 - Proposed signal 3 arm signal junction, Neutral period, 2020

7.4.4 Table 7.17 shows that the junction would operate within capacity in the 2020 weekday and Saturday periods. Practical reserve capacity is 72.2% on a weekday and 32.2% on a Saturday.

7.4.5 Table 7.18 below summarises how the junction would operate in 2020, 'With Development', and in a 'holiday' period.

Movement	2020 'Do Nothing' Holiday Week			2020 'Do Nothing' Holiday Sat		
	RFC	Q	Delay	RFC	Q	Delay
B3162 > A35	56.5	6.7	38.3	63.9	7.1	44
A35(E) > A35(W)	58.5	9.8	8.7	61.6	10.4	7.7
A35(E) > B3162	45.2	2.2	51.5	57.5	2.9	56.8
A35(W) > A35(E)	59.1	10.4	15.3	70.2	14.1	16
A35(W) > B3162	21.5	2.5	11	20.7	2.4	9.4
PRC	52.3			28.2		

Table 7.18 - Proposed signal 3 arm signal junction, Holiday period, 2020

7.4.6 Table 7.18 shows that the proposed 3-arm traffic signal junction on place of the existing Mile Cross priority junction would operate well within capacity, even during the 'holiday' peak period. Peak RFC is just 70.2 (A35 west to A35 east movement). All queuing could be accommodated within the available lane lengths.

## 8 Summary and Conclusion

- 8.1.1 IMA Transport Planning have been commissioned by Dorset County Council to provide transport and highways advice as part of a site selection process the purpose of which is to select the most appropriate location for a new waste management facility (WMF) to service Bridport.
- 8.1.2 The purpose of this report is to establish the in-principle acceptability of a site, bearing in mind its vehicular impact on the surrounding A35 network and its vehicular access.
- 8.1.3 Bridport has an existing household recycling centre (HRC) located off South Street. The HRC opened in 1998 after the closure of the Bothenhampton facility, and was intended to be a short-term solution. The original planning consent reflected this, being valid only for 2 years.
- 8.1.4 Two main sources of traffic and user data exist at the South Street site; a permanent tube counter installed across the site entrance and a user postcode survey undertaken in January/February 2008.
- 8.1.5 Overall, in/out flows remain quite constant over the year, varying by at most some 200 vehicles or +/- 10% to 15%. Spread equally over the day, this 200 vehicle difference amounts to a change of just 22, 2-way vehicle movements every hour. The postcode data showed that the majority of users (83%) come from within Bridport.
- 8.1.6 In April 2009, a meeting was held with the Highways Agency to discuss the possibility of a site off the A35. The HA noted that in order to assess the suitability of a site, they would require a traffic report which examines the impact of each site on the Greens, Crown and Miles Cross junctions.
- 8.1.7 The proposed facility will be a Waste Management Facility (WMF). It will comprise an improved household recycling centre (HRC) element to replace the South Street facility, a Waste Transfer Station and also a Bulking facility.
- 8.1.8 A total of 10 sites have been shortlisted as possible future locations for a WMF. The locations of the sites are given on Plan 2. Table 4.1 summarises the sites in terms of their access and status. It is anticipated that each access can be built to satisfy current highway design standards.

	8 Gore Cross	14 Green Lane	16 Broomhills	17 Watton Farm	20 Miles Cross#1	21 Broad Road F'm	27 Uploaders F'm	32a Stony Head	32b Stony Head	36 Miles Cross#2
Site is not Directly accessed from A35	a					a				
Improvement & Intensification of Indirect Access formed with A35				a			a			a
Improvement & Intensification of more Heavily Trafficked, Direct Access with A35			a							
Improvement & Intensification of V. Lightly Trafficked, Direct Access with A35		a			a					
New, Direct Access Formed with A35								a	a	

Table 4.1 - Key Site Points

- 8.1.9 Congestion on the A35 network in Bridport is exacerbated in the holiday peak due to the additional 'tourist' traffic seen by the area. The Crown roundabout in particular is subject to more congestion than the Greens.
- 8.1.10 The existing South Street HRC lies just off the Crown roundabout, with the Crown roundabout therefore acting as the focus or convergence point for traffic. A replacement facility located away from this point (closer to the Greens roundabout, for example) would be expected to move the focus point, resulting in a decrease in traffic at the Crown, but an increase at Greens.
- 8.1.11 A set of September (neutral month) traffic flows were obtained for the network. These were validated against adjacent ATC data sources, and uplifted to an August 'holiday' peak. These were then uplifted to 2020 through the use of NRTF.
- 8.1.12 On a typical weekday and Saturday, the South Street HRC would see up to 84 and 72, 2-way vehicle movements. The observed split of this traffic is 70% to/from the South 30% to/from the north.
- 8.1.13 The relative distribution of traffic to/from the existing and proposed sites was gauged using postcode data. The likely routes to/from the sites, to/from the population centres were examined, and a distribution pattern derived.
- 8.1.14 When the relative net change in traffic, for each site is distributed onto the highway network it is clear that at each junction, key sites result in the addition of more traffic than others. These sites are considered to be the 'worst case' as they generate the highest level of traffic. If it is the case that a nil detriment position can be maintained under the 'worst-case' sites, then a lesser level of traffic (from other sites) would also result in a 'nil detriment position'. In addition, the sites that result in a 'worst-case' at a particular junction can result in a 'best case' (i.e. highest reduction in traffic) at adjoining junctions.



- 8.1.15 At the Greens roundabout, the 'A3066' and 'A35' scenarios result in the highest level of traffic, giving a net increase of approximately 30 vehicles. Improvements to the Greens roundabout (by way of widening the A35 east and A3066 north arms) would see the vast majority of this traffic mitigated. When combined with the corresponding reduction in flows occurring at the Crown roundabout, all traffic would be mitigated on the A35 network, resulting in a nil detriment position.
- 8.1.16 The worst case scenario at the Greens roundabout would occur with development of the Broomhills site, resulting in the addition of up to 4 vehicles, but a change in flow distribution at the roundabout. The addition of such a small level of traffic results in a very minor worsening in operation. However, this can more than offset by improving the Crown roundabout to the North giving rise to a better than nil-detriment position.
- 8.1.17 The Watton Farm sites give rise to the worst case scenario at the Miles Cross priority junction. However, this junction operates well within capacity, and the 'worst case' gives rise to a net increase in delay of just 1.2 second at the junction; The improvement of a junction that is operating well within capacity, to cope with an additional 1.2 seconds delay (a level which would be imperceptible, irrespective of conditions at the junction) is unnecessary as it would make no material or discernable difference to the operation of the A35 network.
- 8.1.18 Improvements to the Miles Cross junction (conversion from priority to signal control) are being put forward as part of the Miles Cross 1 and 2 sites. The proposed signal junction is predicted to operate within capacity for both sites, in 2020.
- 8.1.19 Therefore, each site can be accessed by way of a junction designed to current highway standards. The traffic resulting from redevelopment of any site can be mitigated, resulting in a 'nil detriment' position on the A35 network.