



Milborne St Andrew, Dorset

Traffic Management Study

Locality

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Table of Contents

1. Introduction	6
Background and Brief	6
Study Scope and Report Structure	6
2. Existing Situation	8
Highway Network	8
Existing Traffic Management Measures	9
Eastbound Dorchester Hill Approach	9
Westbound Blandford Hill Approach	12
Village Centre	14
Neighbourhood Plan Consultation	16
Site Visit and Inception Meeting	16
Consultation with Dorset County Council Highways	17
Traffic Flows and Collision Data	18
Summary and Review of Existing Situation	19
3. Prospective Development Sites	21
Neighbourhood Plan Site Selection	21
4. Analysis and Options	22
Issues	22
Traffic Management Measures	22
Opportunities and Constraints	22
Mitigation Options	22
5. Concept and Recommendations	25
Concept Masterplan	25
Indicative Costs	30
Recommendations	31

Figures

Figure 1. Milborne St Andrew Village Context	6
Figure 2. Milborne St Andrew Existing Speed Limits	8
Figure 3. Dorchester Hill - Carriageway Countdown Markings	10
Figure 4. Dorchester Hill 30mph Gateway	11
Figure 5. Dorchester Hill Junction Warning Sign	11
Figure 6. Dorchester Hill Vehicle Activated Sign	11
Figure 7. Blandford Hill Carriageway Countdown Markings	12
Figure 8. Blandford Hill 40mph Gateway	12
Figure 9. The Rings	13
Figure 10. Milborne Business Centre	13
Figure 11. Blandford Hill 30mph Gateway	14
Figure 12. Blandford Hill Vehicle Activated Sign	14
Figure 13. Village Centre Warning Sign	15
Figure 14. Village Centre Crossing, Bus Stop and Layby	15
Figure 15. Village Centre Playground Warning Sign	15
Figure 16. Village Centre Repeater Sign	16
Figure 17. Site Observation Large Goods Vehicle Passing Royal Oak PH	17
Figure 18. Neighbourhood Plan Site Selection Process Preferred Sites	21
Figure 19. Concept - Dorchester Hill 30mph Gateway	25
Figure 20. Concept - Dorchester Hill Royal Oak PH / West of The Square	26
Figure 21. Concept – East of The Square	27
Figure 22. Concept - Blandford Hill 30mph Gateway and Blandford Hill (South) Development Site	28

Figure 23. Concept - Camelco Development Site 29
Figure 24. Concept - Blandford Hill 40mph Gateway 30

Tables

Table 1. Traffic Survey Summary (Location: The Square, Milborne St Andrew) 18
Table 2. Indicative Traffic Management Costs..... 30

1. Introduction

Background and Brief

- 1.1 AECOM have been commissioned by Locality to provide transport consultancy services and advice to Milborne St Andrew Parish Council (MSAPC) with respect to the feasibility of providing traffic management measures within the village to reduce vehicle speeds and improve the pedestrian environment.
- 1.2 Milborne St Andrew is a village and civil parish in the county of Dorset, situated on the A354 between Blandford Forum and Dorchester (via the A35). The village is currently home to around 1100 people occupying approximately 400 homes to the north and south of the A354. The village community provides a range of facilities including a primary school, doctor's surgery, post office, general store, public house, church, business units, sportsground, village hall and children's playground and recreation field, located around the village on either side of the A354.
- 1.3 Figure 1 below illustrates the location of key facilities within the broad context of the village.



Figure 1. Milborne St Andrew Village Context

- 1.4 The MSAPC have set up the Milborne St Andrew Neighbourhood Plan Group (MSA NPG) to help manage the preparation of a Neighbourhood Plan for the parish. Public consultation undertaken by the MSA NPG has identified local concerns with respect to vehicular and pedestrian movements along and across the A354 within the village.

Study Scope and Report Structure

- 1.5 The scope of this report is to set out the findings of a traffic management study to consider the potential for traffic management public realm improvement measures to be delivered on the A354 in association with development through the provisions of the Neighbourhood Plan.

- 1.6 Specifically this study considers the existing situation in the context of available background data, local consultation and observed network characteristics to identify the issues of concern within the village. The study provides an analysis of the constraints and opportunities for the provision of traffic management measures within the village in association with likely development, either through S278 infrastructure provision by developers or through Community Infrastructure Levy (CIL) contributions, in the form of a concept masterplan and recommendation.
- 1.7 The remainder of this report is structured as follows:
- Section 2 outlines the existing situation, comprising a description of the existing highway network, an overview of the MSA NPG public consultation, a summary of the site visit undertaken by AECOM and inception meeting with MSA NPG, liaison with Dorset County Council highways officers and analysis of available traffic flow and collision data;
 - Section 3 considers the potential development sites within Milborne St Andrew identified through the MSA NPG Neighbourhood Plan site selection process;
 - Section 4 considers the identified issues and provides an analysis of the constraints and opportunities in respect of the potential mitigation options available; and
 - Section 5 sets out the recommended concept masterplan for Milborne St Andrew.

2. Existing Situation

Highway Network

- 2.1 Milborne St Andrew is a rural village located in the North Dorset District of the County of Dorset. The village is divided by the A354 route which runs in a broadly south-westerly direction between Blandford Forum and Dorchester (via the A35) and passes directly through the centre of the village.
- 2.2 The A354 is currently subject to a 40mph speed restriction on the approach to the village from the east on Blandford Hill, supported by count down carriageway markings and gateway signs. The A354 becomes subject to a 30mph speed restriction as it passes into the developed village envelope supported by speed limit roundels and carriageway markings and a vehicle activated sign. Similarly the approach to the village from the west on Dorchester Hill is supported by count down carriageway markings, gateway signs, speed limit roundels and carriageway markings and a vehicle activated sign as it enters the 30mph speed restriction. The 30mph speed restrictions within the village also extend northward on Milton Road and southward on The Causeway, Little England and Homefield within the developed extents of the village envelope as illustrated by Figure 2 below.

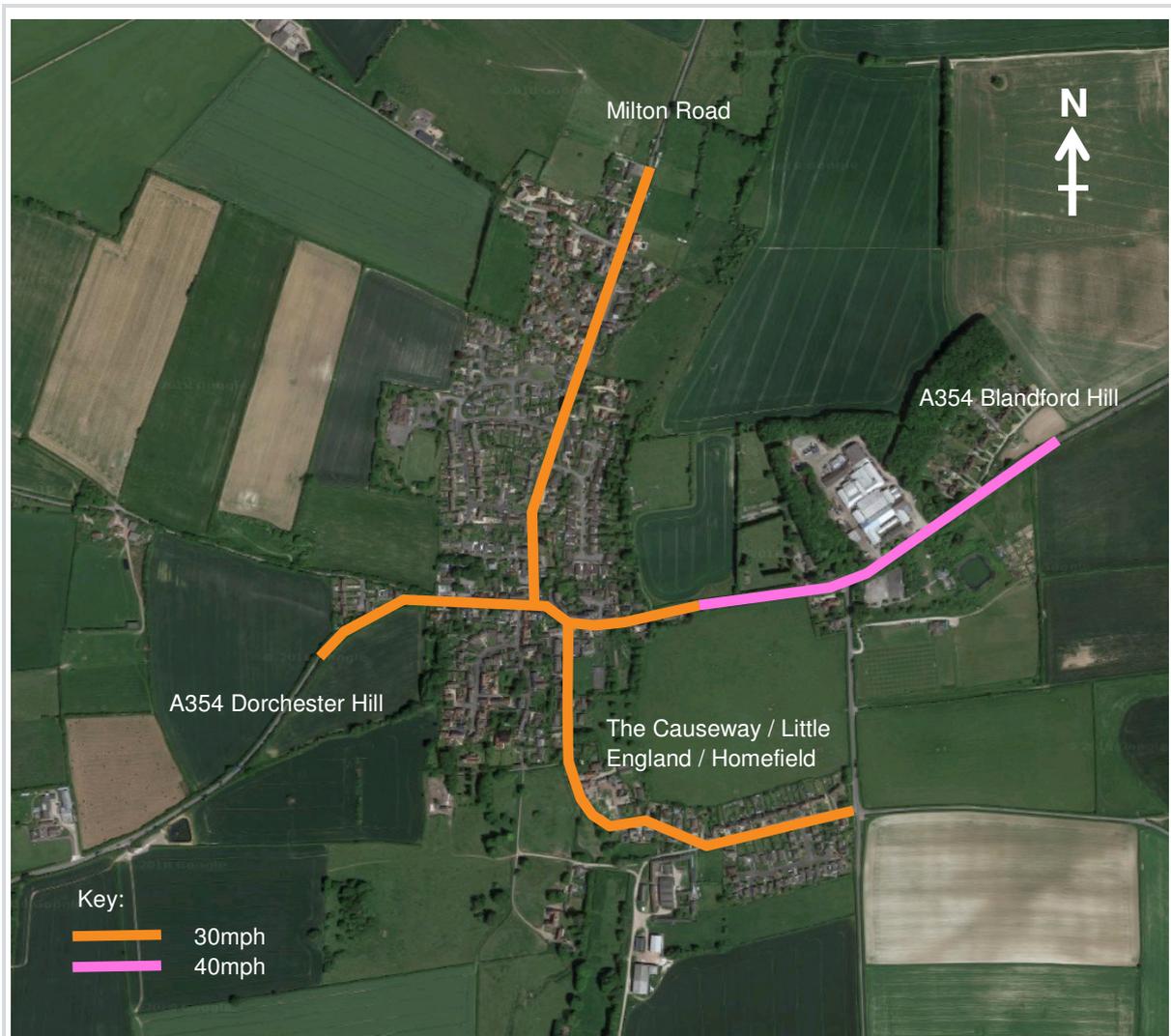


Figure 2. Milborne St Andrew Existing Speed Limits

- 2.3 The A354 serves a strategic function linking Blandford Forum and the north to Dorchester and the A35 in the south and is subject to regular use by large goods vehicles and agricultural machinery. Carriageway widths through the village appear to vary between circa 5.0m and 8.0m with the narrowest section occurring on a circa 60m section broadly fronting the Royal Oak Public House. The A354 is a

- predominantly straight or high radii curved route with the exception of a short 'double-bend' in the village centre at The Square which is signed from the west by an appropriate warning sign located outside the Royal Oak Public House and the east on Blandford Hill.
- 2.4 The village currently benefits from pedestrian footways to both sides of the A354 carriageway between the Royal Oak Public House and the property known as 'The Old Bakery' on Blandford Hill. To the east of The Old Bakery a pedestrian footway is currently provided alongside the northern kerb of the A354 only, serving the Milborne Business Centre and terminating at the junction with The Rings. The pedestrian footways within the village centre are of variable width with notable pinch points in the vicinity of the Royal Oak Public House, between the junctions of Chapel Street and The Causeway, and within The Square on the convex bend outside the Post Office.
 - 2.5 The village currently benefits from the provision of uncontrolled tactile paved dropped kerb crossings on the A354 and on Milton Road within the vicinity of The Square. Warning signs advising of 'Children crossing' with the legend "Playground" are located on each approach to The Causeway from the A354. Existing bus stops are located on either side of the A354 within The Square and to the north-east of the Milborne Business Centre.
 - 2.6 The A354 does not currently have the benefit of a system of street lighting. Individual warning signs are lit in accordance with the guidance set out in the Traffic Signs Regulations and General Directions (TSRGD).

Existing Traffic Management Measures

- 2.7 Milborne St Andrew already benefits from a number of existing traffic management measures on the A354 approaches to the village. AECOM have reviewed the existing traffic management measures which are summarised below.

Eastbound Dorchester Hill Approach

- 2.8 The eastbound approach to the village on Dorchester Hill is characterised by an enclosed rural approach with established hedgerows immediately adjacent to the carriageway edge and a downward gradient falling towards the village. Drivers approaching the village from the west currently encounter three sets of transverse yellow bar count down markings and 'SLOW' markings as illustrated by Figure 3 before approaching the existing 30mph gateway.
- 2.9 The existing gateway illustrated in Figure 4 consists of two yellow backed 30mph signs located on either side of the carriageway above the village nameplate and the legend "Watch your speed". The edge of kerb lines on the derestricted A354 currently cease at the gateway alongside a 30mph carriageway roundel marking located on the eastbound lane. The adjacent hedgerows represent a continuous maintenance issue, obscuring the visibility of the gateway signs to approaching traffic.
- 2.10 A further 'SLOW' marking is located adjacent to the junction warning sign illustrated in Figure 5, which is also subject to a continuous maintenance issue reflecting its location within the nearside verge adjacent to an established hedgerow.
- 2.11 Reflective bollards and an Armco style barrier (a measure typically used to protect buildings, pedestrians and street furniture where a collision record is identified) are located on the nearside verge adjacent to the boundary hedge and wall of the neighbouring property (Greenacres Kennels & Cattery) alongside a vehicle activated speed sign, on the post of which is located a 30mph repeater roundel sign, as illustrated by Figure 6.



Figure 3. Dorchester Hill - Carriageway Countdown Markings

Source: Google Street View (May 2017)



Figure 4. Dorchester Hill 30mph Gateway



Figure 5. Dorchester Hill Junction Warning Sign



Figure 6. Dorchester Hill Vehicle Activated Sign

Source: Google Street View (May 2017)

Westbound Blandford Hill Approach

- 2.12 The westbound approach to the village on Blandford Hill is characterised by an open rural approach with a well maintained, established hedgerow adjacent to the southern carriageway edge and an established verge and hedgerow to the northern carriageway edge. Drivers approaching the village from the east currently encounter three sets of transverse yellow bar count down markings and 'SLOW' markings as illustrated by Figure 7 before approaching the existing 40mph gateway.



Figure 7. Blandford Hill Carriageway Countdown Markings

Source: Google Street View (May 2017)

- 2.13 The existing gateway illustrated in Figure 8 consists of two 30mph signs located on either side of the carriageway above the village nameplate and the legend "Watch your speed" alongside a 40mph carriageway roundel marking located on the westbound lane. The adjacent hedgerows represent a continuous maintenance issue, having the potential to obscure the visibility of the gateway signs to approaching traffic. Existing dwellings in The Rings are visible to drivers approaching the 40mph gateway.



Figure 8. Blandford Hill 40mph Gateway

Source: Google Street View (May 2017)

- 2.14 A 40mph repeater roundel sign is located on the nearside verge of the A354 opposite the junction of The Rings as illustrated by Figure 9. A footway begins adjacent to the offside kerb of the carriageway at this location, highlighting to drivers the likely presence of pedestrian activity as they approach the village, an observation which is further enhanced by the presence of signed bus stops and the buildings comprising the Milborne Business Centre.



Figure 9. The Rings

Source: Google Street View (May 2017)

- 2.15 A further 'SLOW' carriageway marking is provided on the A354 approach to its junction with Lane End, alongside a junction warning sign located in the offside verge outside the Milborne Business Centre as illustrated by Figure 10. A further 40mph repeater roundel sign is located on the offside verge opposite the junction with Lane End. A bench located in the verge opposite the junction also highlights the likely presence of pedestrian activity to drivers.



Figure 10. Milborne Business Centre

Source: Google Street View (May 2017)

- 2.16 The approach to the 30mph gateway on Blandford Hill is characterised by a long straight section of carriageway forming a rural approach with established verges and hedgerows, a pedestrian footway adjacent to the northern kerb and a downward gradient falling towards the village.
- 2.17 The existing gateway illustrated in Figure 11 consists of two 30mph signs located on either side of the carriageway in the verge, with 40mph roundels on the reverse for drivers leaving the 30mph limit. The edge of kerb lines on the 40mph A354 cease at the gateway alongside a 30mph carriageway roundel marking located on the westbound lane and a 40mph carriageway roundel marking on the eastbound lane. Existing dwellings in Milborne St Andrew are visible to drivers approaching the 30mph gateway on Blandford Hill, in addition to the provision of a pedestrian footway adjacent to the southern kerb, emphasising the likely increased presence of pedestrian activity.
- 2.18 AECOM note that the southern footway on Blandford Hill, between the 30mph gateway and village centre, is characterised by vehicular parking on the footway adjacent to the existing properties which it serves.



Figure 11. Blandford Hill 30mph Gateway

Source: Google Street View (May 2017)

- 2.19 A vehicle activated speed sign is located within the 30mph speed restriction towards the bottom of Blandford Hill as illustrated by Figure 12. Warning signs identifying 'double bend' and 'children crossing / playground' are also located on this approach to the village centre. A 30mph repeater roundel sign is located on the post of the warning sign.



Figure 12. Blandford Hill Vehicle Activated Sign

Source: Google Street View (May 2017)

Village Centre

- 2.20 The village centre is characterised by a mix of land uses and buildings centred on the section of the A354 between The Square and the Royal Oak Public House. The A354 forms a right-left double bend alignment in the village centre which is signed on each approach as illustrated by Figure 12 and 13.
- 2.21 Milton Road, Chapel Street and The Causeway each form priority T-junctions with the A354 in the village centre. Existing bus stops are located in The Square, the eastbound route served by a marked bay located within a larger 'layby' to the north of the main carriageway which also serves informal parking for the village centre, and the westbound route served from the main carriageway. An uncontrolled pedestrian crossing with tactile paving and dropped kerbs is located between the junctions of Chapel Street and Milton Road as illustrated by Figure 14.
- 2.22 Approaching drivers are advised of the potential for children crossing the A354 in the vicinity of The Causeway to access the playground adjacent to the village hall by the provision of warning signs located on each approach as illustrated by Figures 12 and 15. AECOM note that the eastbound warning sign,

which is located at the back of the offside footway, represents a continuous maintenance issue and is likely to be obstructed by vegetation overhanging the highway from the adjacent property.



Figure 13. Village Centre Warning Sign



Figure 14. Village Centre Crossing, Bus Stop and Layby



Figure 15. Village Centre Playground Warning Sign

Source: Google Street View (May 2017)

2.23 A 30mph repeater roundel sign is provided within the village centre just east of the Royal Oak Public House as illustrated by Figure 16.



Figure 16. Village Centre Repeater Sign

Source: Google Street View (May 2017)

Neighbourhood Plan Consultation

- 2.24 The MSA NPG is currently in the process of preparing a Neighbourhood Plan for Milborne St Andrew. Early consultation conducted by the MSA NPG in 2016 identified concerns within the village that the A354 is not perceived by residents to feel safe to walk along or cross due to the size and speed of vehicles, the narrowness of the pavements in places and the road and junction alignments which limit visibility.
- 2.25 The MSA NPG report that the household questionnaire conducted in 2016 identified good agreement across all age groups with respect to the following two statements:
- *“We need to make the main road (A354) safer and more easy for pedestrians to walk along and cross”*; and
 - *“There could be better ways to slow down vehicles as they come into the village from either direction on the A354 than the standard urban solution of flashing speed signs”*.
- 2.26 AECOM understand that the MSA NPG is seeking to address these issues within the pending Neighbourhood Plan with a view to identifying traffic management measures that can be pursued by the MSAPC in conjunction with the Highway Authority (Dorset County Council) and through support for developments where highway infrastructure improvements are facilitated.
- 2.27 It is anticipated that this Traffic Management Study will inform the MSA NPG in the development of emerging Neighbourhood Plan policies and related infrastructure improvements.

Site Visit and Inception Meeting

- 2.28 AECOM met with representatives of the MSA NPG on site on Wednesday 21 March 2018 in order to conduct a site visit and inception meeting. Site conditions were dry and the site visit was conducted during the daylight hours of 13:00 to 16:00.
- 2.29 The site visit and discussion comprised a number of issues of concern to the MSA NPG arising in respect of the A354 including:
- The speed of vehicles approaching from the west on Dorchester Hill, highlighting the restricted forward visibility available for westbound vehicles turning right into Dewlish Road;
 - The ‘engineered’ nature of existing measures on the Dorchester Hill approach to the village (i.e. the Armcoc barrier) considered “not to be in keeping with the character of a village environment”;

- The narrowness of the carriageway and footways outside the Royal Oak Public House and in the vicinity of The Square;
- The restricted visibility for drivers of vehicles exiting from Chapel Street on to the A354;
- The location of the westbound bus stop in The Square and its impact upon forward visibility;
- Absence of perceived safe pedestrian crossing location for main 'desire line' between Milton Road and The Causeway. Previous application for a formal pedestrian crossing facility (i.e. a zebra crossing) rejected by Dorset County Council;
- The speed of vehicles approaching and passing through The Square from the east;
- Existing pedestrian footway adjacent to southern kerb of A354 on Blandford Hill regularly obstructed by parked vehicles and would be a concern if the pavement were extended to link up to the top of Blandford Hill;
- Absence of crossing facilities to the east of the village envelope in the vicinity of Milborne Business Centre and bus stops; and
- The potential for Neighbourhood Plan development sites adjacent to the A354 to contribute to improved pedestrian infrastructure and/or speed reduction measures.

2.30 AECOM observed the passage of a number of varying vehicles along the A354 within the village centre, including the movement of agricultural vehicles and large goods vehicles past the Royal Oak Public House as illustrated by Figure 17 below.



Figure 17. Site Observation Large Goods Vehicle Passing Royal Oak PH

2.31 AECOM also note the MSA NPG aspiration to identify measures that would provide a safer and more pleasant experience for the pedestrian, designed in a manner which is self-enforcing and conducive to a Dorset village character, rather than a 'typical' engineered approach.

Consultation with Dorset County Council Highways

2.32 AECOM undertook an initial informal consultation with Dorset County Council (DCC) highways officers by telephone conversation on Wednesday 28 March 2018 in order to understand the highway authority's

attitude towards the potential for additional measures on the A354 to address the concerns raised by the MSA NPG.

- 2.33 DCC confirmed the function of the A354 as a strategic route between Blandford Forum and Dorchester. Accordingly the highway authority has an objection in principle to any form of physical vertical (e.g. speed humps) or horizontal (e.g. carriageway narrowing, chicanes) deflection measures that would obstruct the free-flow of traffic using this route.
- 2.34 DCC also confirmed that the A354 in Milborne St Andrew does not currently meet the criteria for provision of a formal pedestrian crossing facility by the highway authority. However, AECOM understand that the highway authority do not have an objection, in principle, to the provision of a pedestrian crossing facility on the A354 within the village, subject to appropriate location and detailed design, funded by a developer contribution.
- 2.35 DCC advised that the highway authority would not be likely to support any changes to the existing speed limits within the village (e.g. the extension of the existing 30mph to include the current 40mph limit) due to the difficulty of enforcement and the likely objection in principle by Dorset Police.
- 2.36 On the basis of the initial informal consultation with DCC highways officers AECOM understand that this traffic management study will need to consider the potential for measures on the A354 associated with permitted development and/or funded by CIL contributions that will enhance the pedestrian environment and promote driver awareness, thereby reducing vehicle speeds, but which will not introduce any physical vertical or horizontal deflection measures that would obstruct the function and free-flow of the route unless exceptional justifications can be demonstrated.

Traffic Flows and Collision Data

- 2.37 The MSA NPG has provided AECOM with a set of observed traffic data, compiled by DCC on the 8th December 2016 to inform the assessment of the MSAPC application for a pedestrian crossing facility on the A354 in the vicinity of The Square. The traffic data has been provided to AECOM on the following terms of use: **“Please be advised this data is for the Milborne St Andrew Neighbourhood Plan Group. The data must not be used for any other purpose, disclosed to third parties, placed on the internet or otherwise placed in the public domain.”** The MSA NPG has confirmed with DCC that AECOM can use the data in connection with the current work (i.e. the traffic management study) in respect of the Milborne St Andrew Neighbourhood Plan, subject to the above terms.
- 2.38 The traffic survey was conducted by DCC on the section of the A354 between the Post Office (opposite The Causeway) and Milton Road on Thursday 8 December 2016 between the hours of 07:00 and 19:00. The weather conditions were described as “cloudy with showers” and the data collected in 15 minute intervals comprised a directional east/westbound traffic flow on the A354 and directional north/southbound pedestrian flow across the A354. Additionally a traffic speed figure was provided (assumed to be an 85%ile average speed) by direction.

Table 1. Traffic Survey Summary (Location: The Square, Milborne St Andrew)

Time Period	Traffic Flow (Eastbound) All Vehicles	Traffic Flow (Westbound) All Vehicles	Traffic Speed (Eastbound)	Traffic Speed (Westbound)	Pedestrian Flow (Northbound)	Pedestrian Flow (Southbound)
AM Peak (07:45-08:45)	380	384	-	-	18	19
PM Peak (16:30-17:30)	304	364	-	-	3	3
Typical Day (07:00-19:00)	3019	3285	34.2 mph*	29.8 mph*	95	98

Note: * Assumed 85%ile Speed (mph)

Source: Dorset County Council (Count No. 16181, 08/12/2016)

- 2.39 Table 1 identifies that two-way vehicle flows on the A354 during the observed peak hours are typically in the region of 764 vehicles in the AM Peak (07:45 to 08:45) and 668 vehicles in the PM Peak (16:30 to 17:30). Vehicle flows are observed to be fairly even by direction with no identifiable tidal flow. Typical two-way vehicle flows across the twelve hour day (07:00 to 19:00) are likely to be in the order of 6304 vehicles

of which large goods vehicles (including agricultural vehicles), buses and coaches are observed to constitute approximately 4% of the total flow.

- 2.40 It is unclear precisely where the speed data was recorded within the traffic survey study area on the A354, which extends for approximately 75m in length between Milton Road to a point east of The Causeway. However, the observed 85thile vehicle speeds (i.e. the speed at which 85% of drivers are travelling at or below) appear to indicate that a higher proportion (i.e. greater than 15%) of eastbound vehicles travelling past the Royal Oak Public House toward The Square are likely to exceed the posted 30mph speed limit with an 85thile average speed of 34.2 mph recorded. Vehicles travelling in the westbound direction towards The Square are likely to be travelling within the posted 30mph speed limit with an 85thile average speed of 29.8 mph, although given the 85thile speed is close to the posted speed limit it can be determined that approximately 15% of westbound drivers are therefore likely to currently exceed the 30mph speed restriction on a typical day.
- 2.41 Two-way pedestrian flows across the A354 during the network peaks were observed to be in the region of 37 pedestrian movements in the AM Peak (07:45 to 08:45) and 6 pedestrian movements in the PM Peak (16:30 to 17:30). The maximum observed hourly pedestrian movements across the A354 recorded by the survey comprised a total of 41 two-way pedestrian movements during the period 08:30 to 09:30. AECOM note that the survey was conducted in December 2016 and that the extent to which the shorter daylight hours and recorded weather conditions 'cloudy with showers' may have impacted upon typical pedestrian movements is unclear.
- 2.42 AECOM have also reviewed the available collision data for the five year period January 2013 to December 2017 inclusive, obtainable free to view on the www.crashmap.co.uk website or via the DCC Road Traffic Collision Map <https://mapping.dorsetforyou.gov.uk/roadsafety/map>, which identify that no recorded personal injury accidents (PIAs) have occurred within the village (as defined by the extent of the existing 30mph and 40mph speed restrictions) during the study period. AECOM recognise that non-reported incidents, such as 'near misses' and minor collisions not resulting in a recorded injury, are not included within this data.
- 2.43 AECOM have considered the available data which provides a basis for review of typical traffic conditions and pedestrian movements on the A354 within the village centre in the vicinity of The Square. At the time of writing no vehicle speed data was available to AECOM in the vicinity of the village gateways on Dorchester Hill or Blandford Hill.

Summary and Review of Existing Situation

- 2.44 AECOM have considered the existing situation in Milborne St Andrew in the context of the evidence set out above. Given the rural location of the village and the status and function of the A354 as a strategic road serving vehicle movements between Dorchester and Blandford Forum, AECOM acknowledge that movement of large goods vehicles and agricultural machinery should be expected and accommodated on this route. Based upon the traffic data provided, AECOM consider that the observed volume of heavy vehicle movements as a percentage of total traffic flow (i.e. circa 4%) is typical of the expected volume on such a road. AECOM note the position of DCC that physical measures providing either vertical or horizontal deflection to the A354 will not be supported by the highway authority.
- 2.45 AECOM note that Milborne St Andrew already benefits from a 30mph speed limit throughout the existing development envelope of the village and a 40mph speed limit on the eastern approach on Blandford Hill, supported by a range of traffic management measures including gateway signs, carriageway markings and vehicle activated speed signs. Observed vehicle speeds within the village centre indicate that vehicles travelling eastbound are more likely to exceed the posted speed limit at that location although some westbound traffic is also likely to exceed the posted speed limit. No speed data is currently available on the approaches to the village from Dorchester Hill or Blandford Hill.
- 2.46 AECOM have considered the visibility issues raised by MSA NPG in respect of the right turn into Dewlish Road and the exit from Chapel Street. Based on a desktop appraisal, AECOM note that forward visibility on the A354 at Dewlish Road appears to be consistent with the DMRB requirement for the posted 30mph speed limit, however AECOM acknowledge that no observed speed data is currently available for vehicles approaching the village from the west on Dorchester Hill and that, in practice, the prevailing speeds of approaching traffic is likely to exceed the posted speed limit. Visibility splays from Chapel Street, particularly to the east, are restricted by the position of existing dwellings, the operation of the westbound

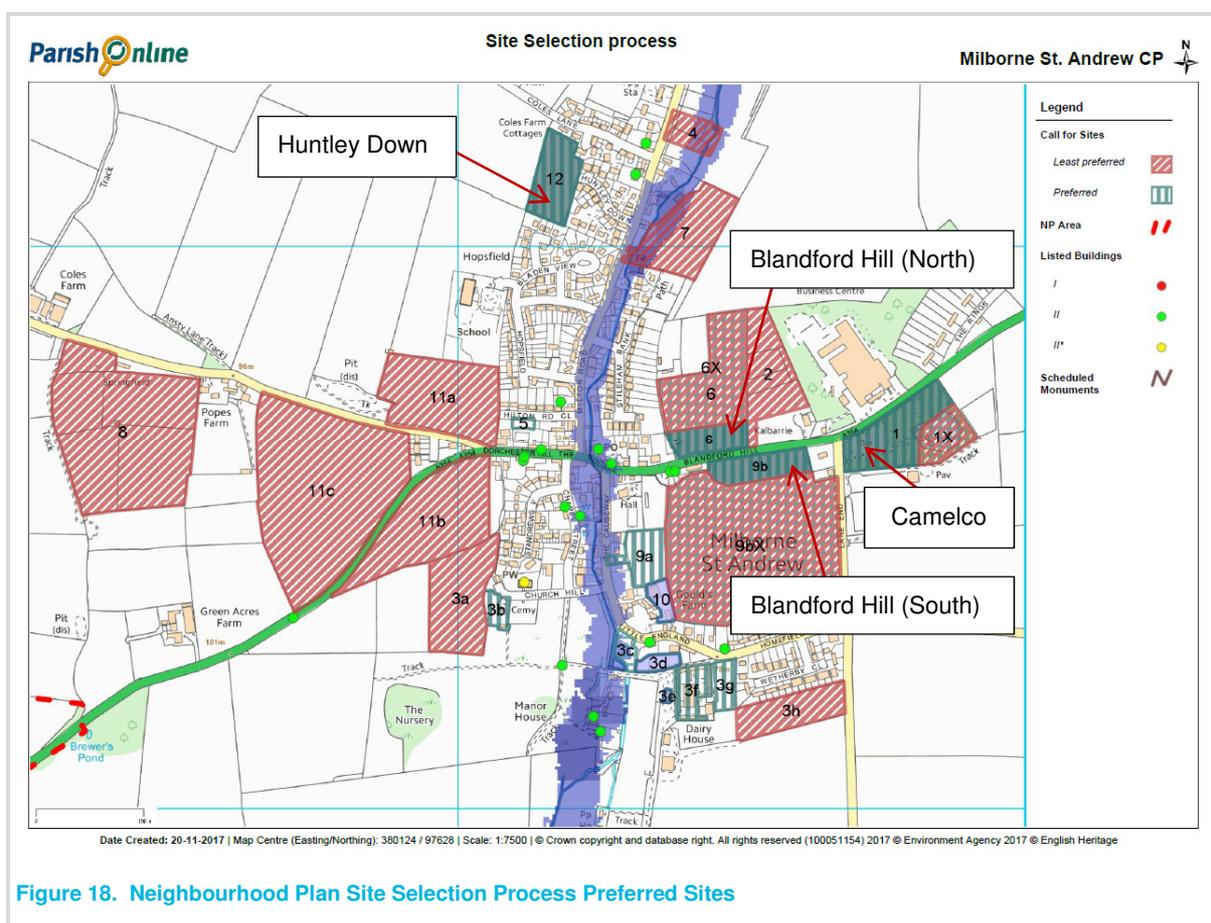
bus stop and the alignment of the A354 through The Square. Other than measures that will reduce traffic speed along the A354, the visibility issues raised are not readily resolvable and further traffic management measures to address these visibility issues specifically have been excluded from the scope of this study.

- 2.47 AECOM acknowledge that footway widths in the vicinity of the Royal Oak Public House are narrow and that the public house itself is a valued community facility and likely to be a notable trip attractor. Pedestrian movements along the A354 to the west of the village beyond the public house are likely to be low given the absence of significant residential development or notable trip attractors in this direction. AECOM also note the physical constraints of the public highway (between the façade of the Royal Oak Public House and boundary wall of Heathcote House). Based on the observed vehicle speeds recorded in The Square, AECOM consider it reasonable to assume that 85%ile vehicle speeds in the vicinity of the Royal Oak Public House are likely to currently exceed the posted speed limit in both directions. AECOM note the DCC in principle objection with respect to physical measures that would reduce the already narrow carriageway width of the A354 at this location, and consider that solutions that do not require narrowing should be explored in preference.
- 2.48 AECOM note that observed traffic flows on the A354 fall comfortably within the theoretical capacity of the road and are equivalent to approximately one vehicle movement every 5 seconds. AECOM consider that it is reasonable to assume that sufficient gaps in the traffic flow are likely to be available, in principle, to enable pedestrians to cross the road, even during the peak traffic hours. The absence of any recorded personal injury accident data within the five year study period appears to support this understanding.
- 2.49 Based upon the available data, site visit observations and the preceding summary and review of the existing situation, AECOM consider the key issues for this traffic management study to address to be:
- Vehicle speeds, both within the village centre and on approach to the village from the east on Blandford Hill and west on Dorchester Hill;
 - Pedestrian permeability and the potential to enhance safe and pleasant pedestrian movements along and across the A354; and
 - The potential for Neighbourhood Plan development sites adjacent to the A354 to contribute to improved pedestrian infrastructure and/or speed reduction measures.

3. Prospective Development Sites

Neighbourhood Plan Site Selection

- 3.1 The MSA NPG, in its role of managing the preparation of a Neighbourhood Plan for the parish, has undertaken a site selection process to identify potential development sites within the village to accommodate the possible need for approximately 60 additional dwellings within the parish over the next 15 years that could be supported within the Neighbourhood Plan.
- 3.2 The Neighbourhood Plan will seek to allocate preferred sites for development, with an emphasis on the types of development required within the village including the aspiration for affordable and mobility-friendly homes, community facilities (e.g. pre-school and improved local healthcare) and small-scale employment premises.
- 3.3 At the time of writing the site selection process has identified four preferred sites, identified in Figure 18 below as Huntley Down, Camelco and Blandford Hill (North and South).



- 3.4 AECOM understand that the prospective developers of each site have made representations to MSAPC with regard to the potential for development and how their respective sites might address the aspirations of the parish. AECOM understand that the MSA NPG will seek to draft a plan that contains potentially two or more of these sites, however at this stage in the process the MSA NPG are not committed to guarantee any site inclusion within the plan.
- 3.5 AECOM have cognisance to the representations presented by the prospective developers of each site and considers the holistic opportunities for each site to contribute towards a traffic management strategy for the village. However, this traffic management study does not consider the likely scale or viability of any individual development site.

4. Analysis and Options

Issues

- 4.1 AECOM have reviewed the existing situation as set out in Section 2 of this report and consider the key issues for this traffic management study to address to be:
- Vehicle speeds, both within the village centre and on approach to the village from the east on Blandford Hill and west on Dorchester Hill;
 - Pedestrian permeability and the potential to enhance safe and pleasant pedestrian movements along and across the A354; and
 - The potential for Neighbourhood Plan development sites adjacent to the A354 to contribute to improved pedestrian infrastructure and/or speed reduction measures.

Traffic Management Measures

Opportunities and Constraints

- 4.2 AECOM have considered the opportunities and constraints within Milborne St Andrew to address the issues identified above with cognisance to the aspirations of the MSA NPG to provide a safer and more pleasant experience for the pedestrian, designed in a manner which is self-enforcing and conducive to a Dorset village character, rather than a 'typical' engineered approach.
- 4.3 AECOM consider that the key opportunities for the traffic management study comprise:
- Potential for improvement and reduction of existing observed 85thile vehicle speeds on the A354 through the village centre to posted speed limit;
 - Potential to increase driver awareness of likely pedestrian activity, both within and on approach to the village centre;
 - Potential for enhancement of existing traffic management measures to reinforce psychological traffic calming effects; and
 - Potential for Neighbourhood Plan development sites to contribute towards highway infrastructure improvements.
- 4.4 AECOM consider that the key constraints for the traffic management study comprise:
- The existing status and strategic function of the A354 route;
 - The physical constraints of the public highway in the vicinity of the Royal Oak Public House, precluding the potential to widen footways in this location without adversely impacting on carriageway width;
 - Objection in principle by the highway authority to any physical form of vertical/horizontal deflection on the A354;
 - Possible objection in principle by the highway authority and/or Dorset Police to any amendments to the currently posted speed restrictions on the A354;
 - Funding availability as the concept masterplan scheme is likely to require development based funding in light of DCC's competing funding priorities; and
 - Some infrastructure improvements, principally new footways fronting prospective development sites, are likely to be deliverable only with the associated development (i.e. are not guaranteed).

Mitigation Options

- 4.5 AECOM have reviewed the available data collected from a range of sources in order to understand the existing traffic and pedestrian environments in Milborne St Andrew. The data comprises a mix of

qualitative and quantitative information, in order to support a more complete picture and analysis of the current situation.

- 4.6 The information collected from the DCC traffic survey identified that traffic flows are well within the theoretical capacity of the A354 with vehicle speeds recording an average speed above the posted speed limit in the eastbound direction only. Pedestrian movements along and across the A354 are observed to be relatively low with no recorded PIAs on the A354 within the village during the last 5 years of available collision data.
- 4.7 The available data, supported by on-site observations, indicates that compliance with the signed speed limits, particularly in the village centre, is being observed by the majority of motorists however there are still some drivers travelling above the signed limits. This is particularly important in areas where pedestrians and vehicles interact such as outside the Royal Oak Public House and in the vicinity of The Square.
- 4.8 There are a number of different traffic management measures available for consideration to address issues of vehicle speed and pedestrian connectivity, however there are some measures that are unlikely to be appropriate for Milborne St Andrew and have therefore been dismissed by AECOM as follows:
- Speed Cameras: AECOM consider that there is insufficient evidence (based on observed speeds and recorded PIA data) to consider the implementation of speed cameras. AECOM also consider that the provision of speed cameras would conflict with the MSA NPG aspirations for a less 'engineered' approach.
 - Street Lighting: The Department for Transport requires that any vertical traffic calming measures installed on a road with a speed limit of 30mph or more must have appropriate street lighting. The installation of street lighting in line with the standards is not considered appropriate in Milborne St Andrew as it would likely have a negative impact on the feel of the village and may require planning considerations.
 - 20mph speed limit / zone: AECOM consider that there is insufficient evidence (based on observed speeds) to consider the implementation of a 20mph speed limit / zone within the village. AECOM also consider that a 20mph limit, which is required to be self-enforcing, would conflict with the status and strategic function of the A354 and be unacceptable to the highway authority.
 - Vehicle Activated Signs / Speed Indicator Devices (SID): Milborne St Andrew already benefits from the provision of vehicle activated signs on each approach to the village. Although there is limited published evidence, AECOM understand that many SID locations have been found to have reduced impact on compliance over time. AECOM do not consider that additional vehicle activated sign or SID locations would be beneficial.
 - Countdown Markings: Milborne St Andrew already benefits from the provision of countdown markings on approach to the primary village gateways on the A354. Countdown markings are traditionally used to warn drivers when they are approaching a junction or other highway feature that will require a reduction in speed. In order for countdown markings to be used solely to make drivers aware of a slower speed limit, local highway authorities must apply for special authorisation from the Department of Transport before they can be designed and implemented. AECOM do not consider that additional countdown marking locations would be beneficial.
 - Pedestrian Refuge: Pedestrian refuges can only be used on roads that have sufficient width so as to meet the minimum lane width and pedestrian refuge requirements and can benefit pedestrians by allowing them to cross each lane individually rather than together. AECOM consider that based on existing carriageway widths and observed traffic flows pedestrians are likely to have sufficient gaps in the traffic flow to cross the full width of the carriageway without the requirement for a pedestrian refuge.
 - Chicanes / Pinch Points: AECOM note and concur with the advice of the highway authority that horizontal deflections in the form of chicanes and/or pinch points are unlikely to be appropriate on this section of the A354 given its current status and strategic function and the observed traffic flows using this route unless exceptional justifications can be demonstrated.
 - Humps / Cushions: AECOM note and concur with the advice of the highway authority that vertical deflections in the form of round or flat top humps and/or cushions are not appropriate on this section

of the A354 given its current status and strategic function and the observed traffic flows using this route.

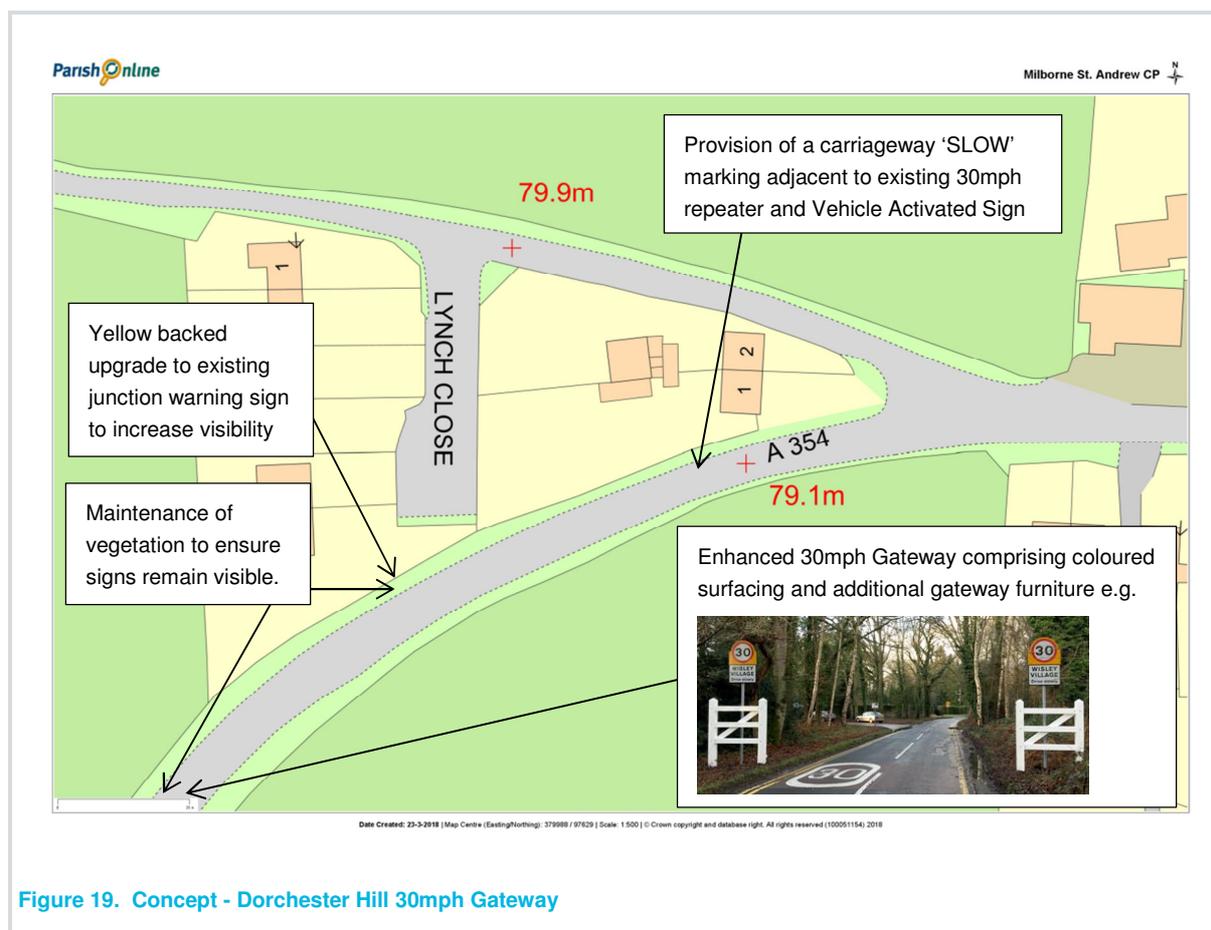
4.9 The following traffic management measures are considered to have potential for inclusion in a scheme of measures for Milborne St Andrew as part of a concept masterplan for promotion within the emerging Neighbourhood Plan:

- **Gateway Enhancement:** Milborne St Andrew already benefits from the provision of entry gateways on the primary approaches to the village, entering the 30mph speed limit from Dorchester Hill and the 40mph speed limit from Blandford Hill. Additionally a secondary gateway exists at the change point between the 40mph and 30mph speed limit on Blandford Hill. AECOM consider that potential exists to enhance the existing gateway infrastructure through the provision of coloured surfacing and additional gateway furniture to raise driver awareness of the change in village environment, likelihood of pedestrian activity and change in speed restrictions as well as offering an attractive entry point to the village.
- **Road Signs / Road Markings:** AECOM consider that potential exists to enhance driver awareness of existing road signs and hazards through a combination of vegetation maintenance, upgrades to existing signs (e.g. with yellow backing boards) and/or removal of (e.g. centre line outside Royal Oak Public House) or additional road markings (e.g. 'SLOW' road markings adjacent to existing signs) whilst avoiding unnecessary clutter / over-proliferation.
- **Coloured Surfacing:** AECOM consider that potential exists to utilise coloured surfacing to break up the continuous carriageway through the village and raise driver awareness of key locations such as the narrower section of carriageway outside the Royal Oak Public House, pedestrian desire lines (e.g. at uncontrolled crossing locations) and areas of highway adjacent to the carriageway (e.g. layby/bus stop adjacent to The Square).
- **Uncontrolled Pedestrian Crossings:** AECOM consider that there is potential for the provision of additional uncontrolled crossings on the A354, i.e. where physical infrastructure is provided to facilitate the movement of pedestrians but there are no pedestrian priority measures in place, designed to help focus pedestrian movements at fewer, more visible locations potentially in conjunction with new footways provided by prospective development sites.
- **Zebra Crossing:** AECOM note and concur with the advice of the highway authority (based on observed traffic and pedestrian flows) that the A354 does not currently qualify for the provision of a zebra crossing by the highway authority. However, AECOM also note the advice of the highway authority that potential exists, subject to design and developer funding, for such a facility to be pursued by the Parish Council through the Neighbourhood Plan.
- **Pedestrian footways:** AECOM consider that potential exists for the provision of new sections of footway to the southern kerb line of the A354 in conjunction with the prospective Neighbourhood Plan development sites at Blandford Hill (South) and Camelco, connecting with and enhancing the existing pedestrian and public transport networks in Milborne St Andrew.

5. Concept and Recommendations

Concept Masterplan

- 5.1 Following a review of the existing situation, the concerns and aspirations of the MSA NPG and the opportunities and constraints presented by the function of the A354 and potential development sites within Milborne St Andrew, AECOM propose the following concept masterplan, which addresses the potential for traffic management public realm improvement measures to be delivered on the A354 in association with development through the provisions of the Neighbourhood Plan.



- 5.2 Figure 19 illustrates the potential improvements proposed on the eastbound A354 Dorchester Hill approach to the village, principally with the aim of enhancing the existing provision on this approach and raising the awareness of drivers that they are entering the village environment.
- 5.3 AECOM note that maintenance of the adjacent hedgerows is required in order to maintain the visibility of the existing gateway and warning signs and consider that enhanced carriageway surfacing and markings, alongside enhancements to the existing signing, will significantly improve driver awareness of the 30mph speed limit on the approach to the village.
- 5.4 AECOM propose that the concept masterplan provides for the enhancement of the existing 30mph gateway, comprising the introduction of coloured surfacing to complement the existing 30mph carriageway roundel and the provision, subject to detailed design, of enhanced gateway furniture to highlight the gateway entrance to the village.
- 5.5 Additionally AECOM propose that the concept masterplan provides for the enhancement of the existing junction warning sign and vehicle activated speed sign by the provision of a yellow backing board and an additional 'SLOW' carriageway marking respectively.

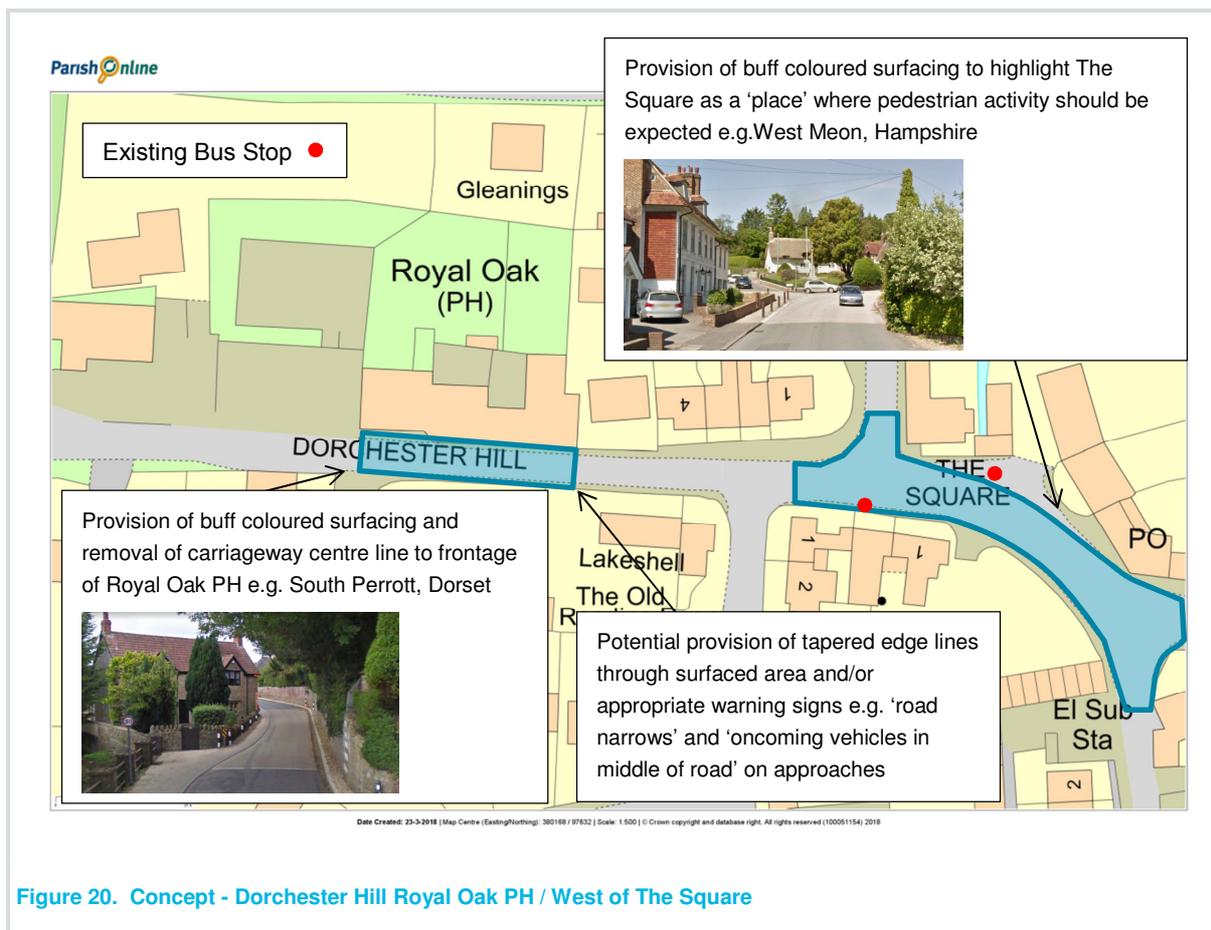
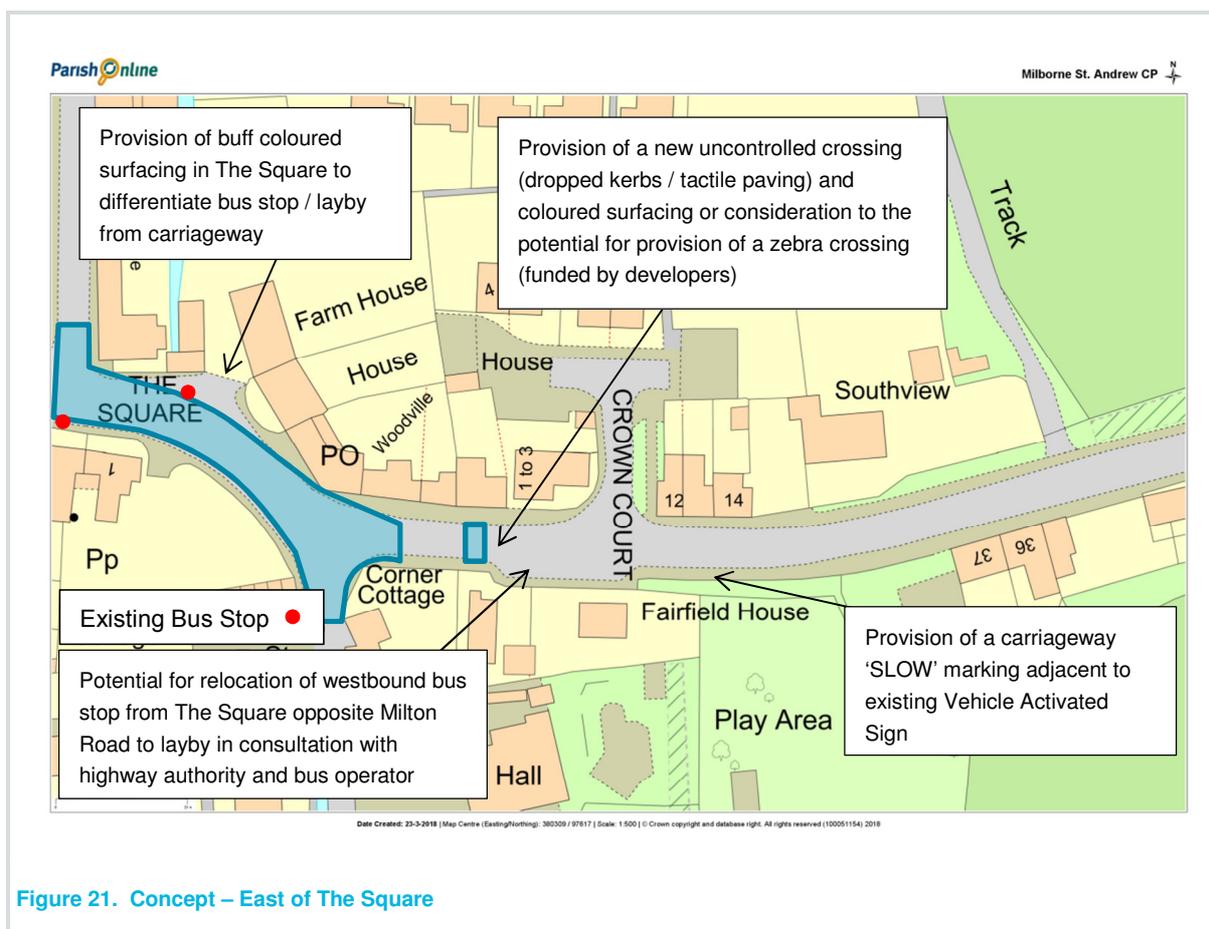
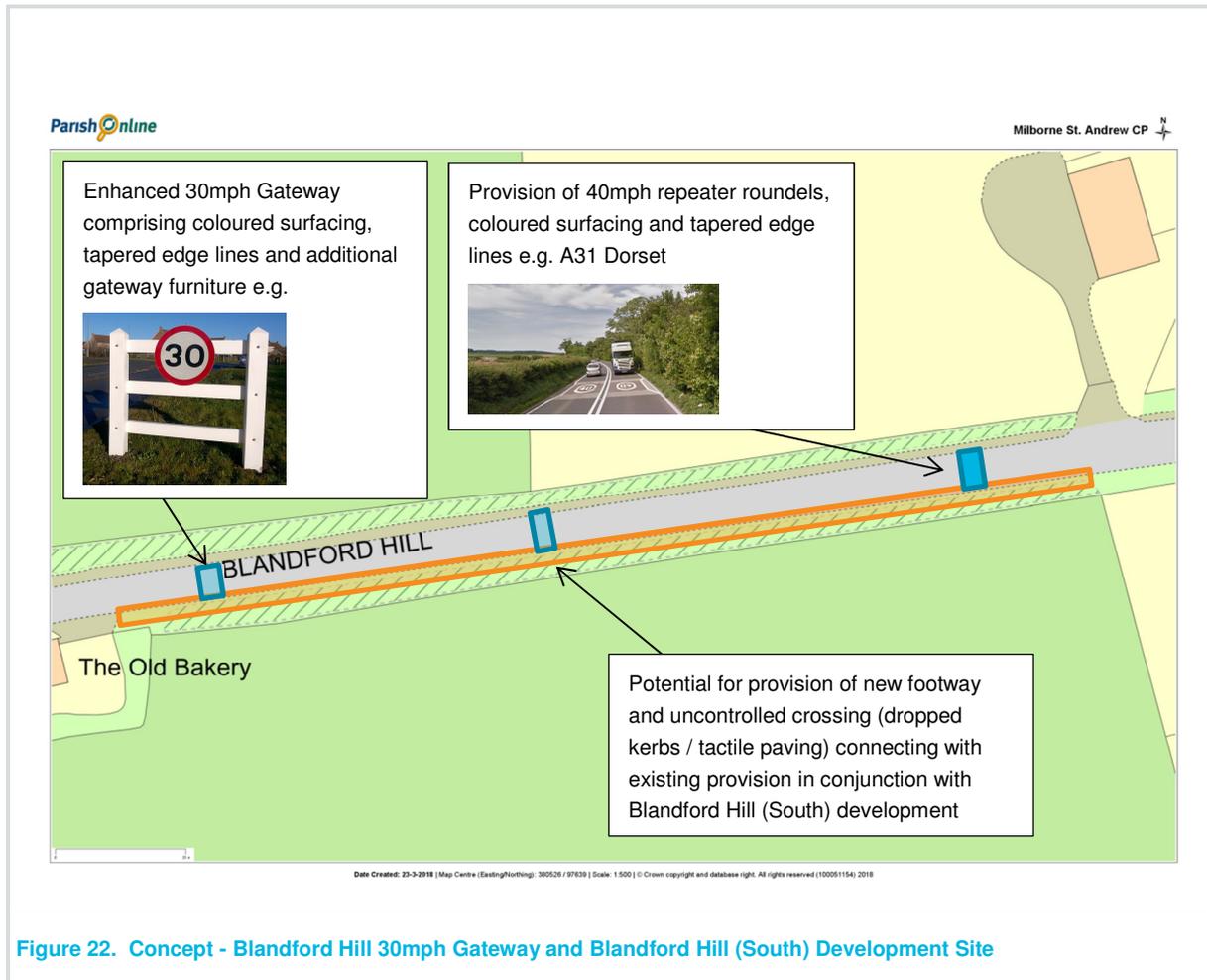


Figure 20. Concept - Dorchester Hill Royal Oak PH / West of The Square

- 5.6 Figure 20 illustrates the potential improvements proposed on the A354 Dorchester Hill in the vicinity of the Royal Oak Public House and The Square (West), principally with the aim of raising the awareness of drivers that they are passing through a village environment with the attendant pedestrian activity that should be anticipated.
- 5.7 AECOM propose that the concept masterplan provides for the provision of coloured surfacing and removal of centre lines from the narrowest section of carriageway fronting the Royal Oak Public House over a distance of approximately 40m, potentially supported by tapered edge lines and/or appropriate warning signing such as 'road narrows' and 'oncoming vehicles in middle of road' to give the impression to drivers of a narrower carriageway, raising driver awareness and reducing vehicle speeds.
- 5.8 Additionally AECOM propose that the concept masterplan provides for the enhancement of The Square as a 'place' where pedestrian activity should be expected. AECOM propose that the existing uncontrolled crossing located between the junctions of the A354 with Chapel Street and Milton Road is amalgamated into a wider 'place' by the introduction of coloured surfacing between and including the junctions of Milton Road and The Causeway to highlight the likelihood of pedestrian activity adjacent to and across the A354 within The Square by breaking up the existing continuous carriageway surface.



- 5.9 Figure 21 illustrates the potential improvements proposed on the A354 in the vicinity of The Square (East), principally with the aim of raising the awareness of drivers that they are passing through a village environment with the attendant pedestrian activity that should be anticipated.
- 5.10 AECOM propose that the concept masterplan provides for the provision of coloured surfacing only on the A354 carriageway through The Square, retaining the existing surfacing or utilising an alternative surfacing material within the existing layby / bus stop adjacent to the eastbound lane to differentiate this area from the carriageway and raise driver awareness of the attendant pedestrian activity in the vicinity of The Square.
- 5.11 AECOM also propose that the concept masterplan provides for the provision and enhancement of an uncontrolled crossing located between the junctions of the A354 with The Causeway and Crown Court by the introduction of dropped kerbs, tactile paving and coloured surfacing to highlight the proposed crossing point and pedestrian desire line by breaking up the existing continuous carriageway surface. Alternatively, there may be potential, subject to design, to provide a zebra crossing funded by development supported through the Neighbourhood Plan.
- 5.12 Additionally AECOM propose that the concept masterplan provides for the enhancement of the existing vehicle activated speed sign by the provision of an additional 'SLOW' carriageway marking.
- 5.13 AECOM note that the existing westbound bus stop is located adjacent to a narrow section of footway on the southern kerb line immediately opposite the junction with Milton Road and that buses currently stop on the A354 carriageway for passengers to board and alight. AECOM consider that the concept masterplan provides an opportunity for the relocation of the westbound bus stop currently located opposite Milton Road in to the existing layby adjacent to Fairfield House, subject to consultation with the highway authority, bus operators and a review of the road safety implications should an uncontrolled or zebra crossing be pursued.



- 5.14 Figure 22 illustrates the potential improvements proposed on the A354 Blandford Hill in the vicinity of the existing 30mph gateway and the prospective development sites Blandford Hill (North and South), principally with the aim of raising the awareness of drivers that they are approaching a village environment with a 30mph limit from a 40mph speed restriction with the attendant pedestrian activity that should be anticipated. AECOM consider that the prospective development on the Blandford Hill (North and South) and Camelco sites represents an opportunity for further discussion with the highway authority and Dorset Police with respect to the current extents of the existing 30 and 40mph speed limits.
- 5.15 AECOM propose that the concept masterplan provides for the enhancement of the existing 30mph gateway, comprising the introduction of coloured surfacing and tapered edge lines to complement the existing 30mph/40mph carriageway roundels and the provision, subject to detailed design, of enhanced gateway furniture to highlight the gateway entrance to the 30mph speed restriction.
- 5.16 AECOM propose that the concept masterplan provides for the provision of 40mph repeater roundels supported by coloured surfacing and tapered edge lines in order to raise driver awareness and reduce vehicle speeds.
- 5.17 AECOM note the potential for development of either or both of the Blandford Hill (North and South) sites to increase the active frontage of the A354 on Blandford Hill, thereby increasing driver awareness and influencing driver speeds and responses.
- 5.18 AECOM also note the potential for a new footway and uncontrolled crossing to be provided alongside the southern kerb of the A354 in conjunction with potential development of the Blandford Hill (South) site, connecting with the existing pedestrian provision.

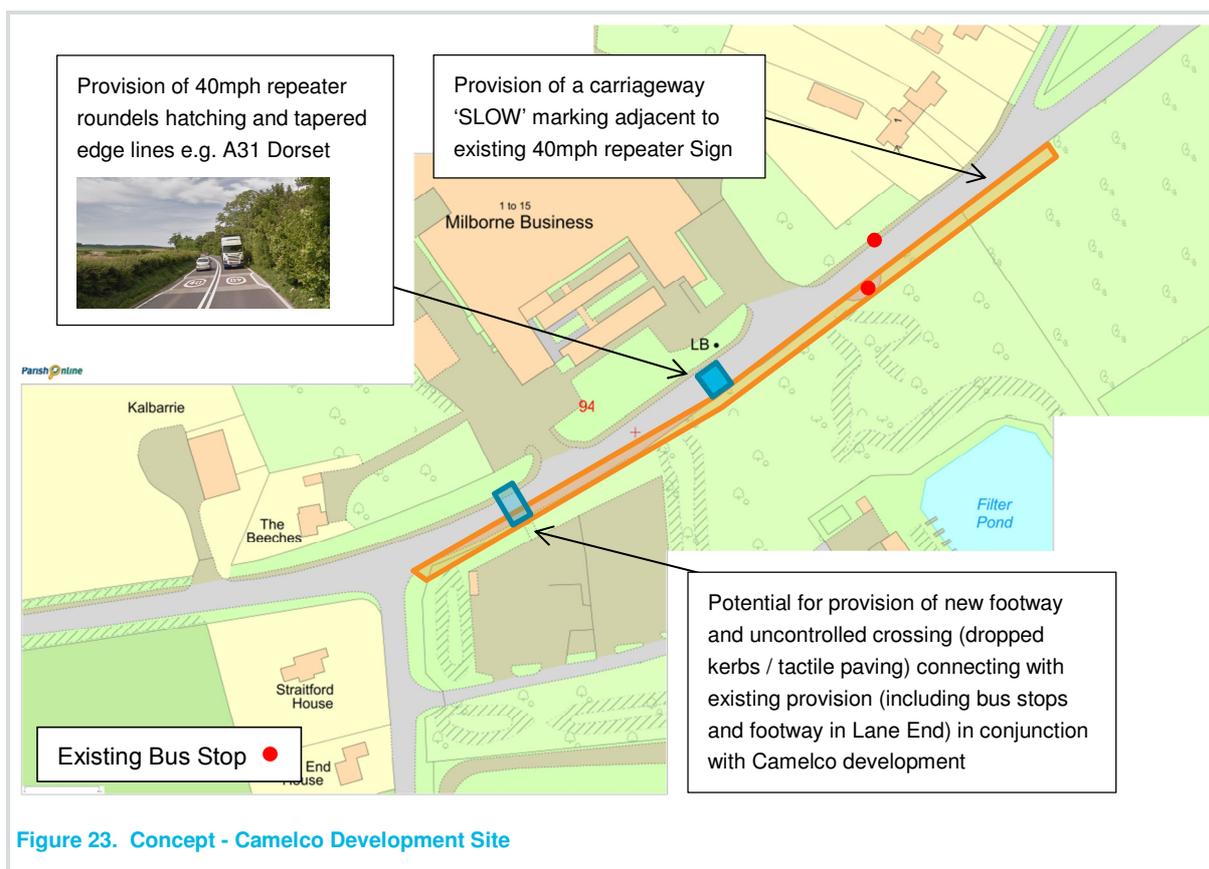


Figure 23. Concept - Camelco Development Site

- 5.19 Figure 23 illustrates the potential improvements proposed on the A354 Blandford Hill in the vicinity of Milborne Business Centre and the prospective Camelco development site, principally with the aim of raising the awareness of drivers that they are approaching a village environment within a 40mph speed restriction with the attendant pedestrian activity that should be anticipated.
- 5.20 AECOM note the potential for development of the Camelco site to increase the active frontage of the A354 on Blandford Hill, thereby increasing driver awareness and influencing driver speeds and responses. AECOM consider that the prospective development on the Blandford Hill (North and South) and Camelco sites represents an opportunity for further discussion with the highway authority and Dorset Police with respect to the current extents of the existing 30 and 40mph speed limits.
- 5.21 AECOM also note the potential for a new footway and uncontrolled crossing to be provided alongside the southern kerb of the A354 in conjunction with potential development of the Camelco site, connecting with the existing bus stops and footway provision alongside the northern kerb of the A354 and in Lane End.
- 5.22 AECOM propose that the concept masterplan provides for the provision of 40mph repeater roundels supported by coloured surfacing and tapered edge lines in order to raise driver awareness and reduce vehicle speeds. The precise location of the roundels will be dependent upon the location of any vehicular access to the Camelco development site should proposals be progressed.
- 5.23 Additionally AECOM propose that the concept masterplan provides for the enhancement of the existing 40mph repeater sign by the provision of an additional 'SLOW' carriageway marking. In the event that a development on the Camelco site proceeds with a vehicular access opposite Milborne Business Centre, it may be appropriate to locate the 40mph repeater roundels at this location in place of an additional 'SLOW' marking.

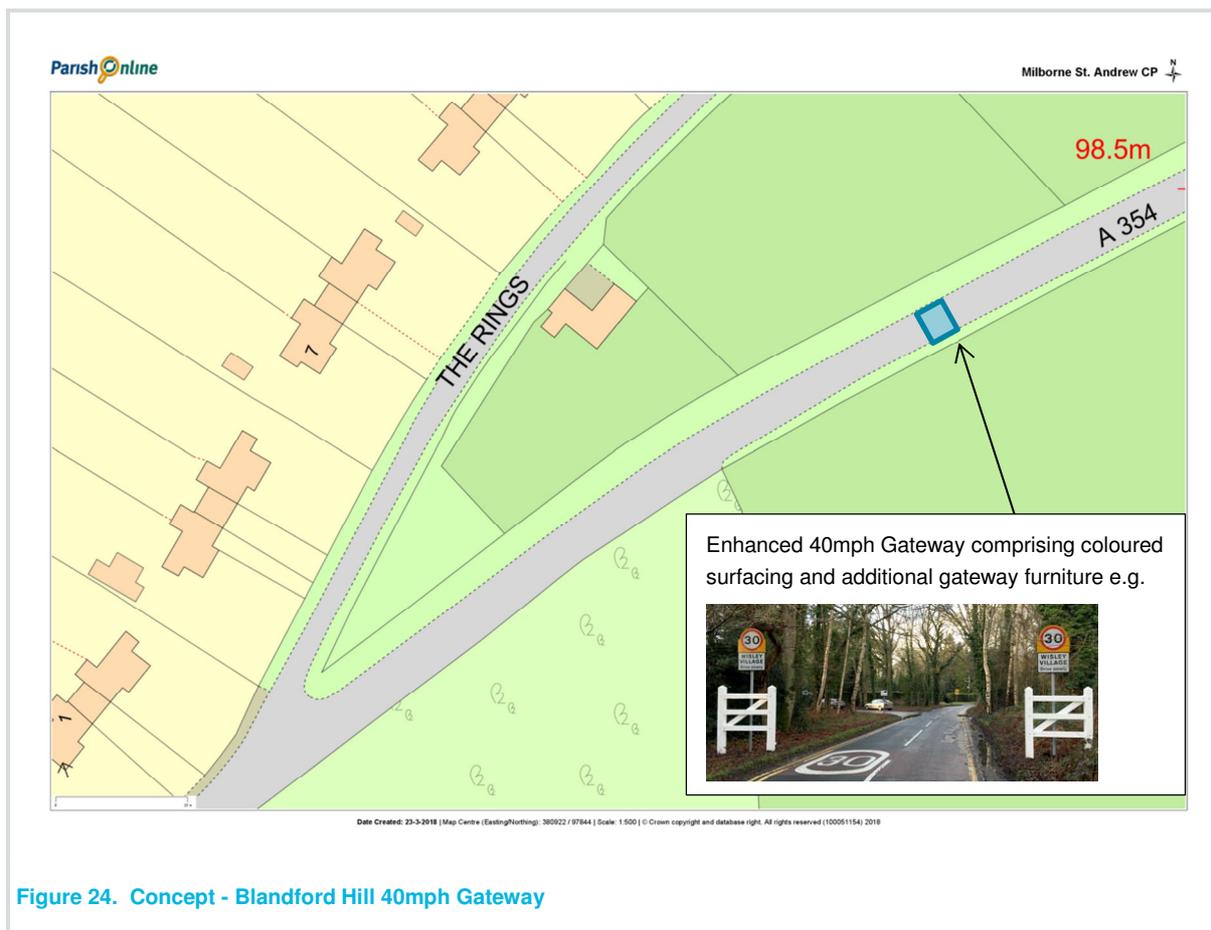


Figure 24. Concept - Blandford Hill 40mph Gateway

- 5.24 Figure 24 illustrates the potential improvements proposed on the westbound A354 Blandford Hill approach to the village at the existing 40mph gateway, principally with the aim of enhancing the existing provision on this approach and raising the awareness of drivers that they are entering the village environment.
- 5.25 AECOM propose that the concept masterplan provides for the enhancement of the existing 40mph gateway, comprising the introduction of coloured surfacing and tapered edge lines to complement the existing 40mph carriageway roundel and the provision, subject to detailed design, of enhanced gateway furniture to highlight the gateway entrance to the 40mph speed restriction.

Indicative Costs

- 5.26 The concept masterplan sets out a range of proposed measures that would each go some way to calming traffic and reducing vehicle speeds in Milborne St Andrew but would have a greater impact if all of the measures could be delivered together. Table 2 provides a range of indicative costs for the types of traffic management measures proposed.

Table 2. Indicative Traffic Management Costs

Type of Traffic Management Measure	Indicative Cost (£)
Entry Gateway Features (enhancement of existing)	£5,000 to £10,000
Road Markings / Coloured Surfacing (per location)	£250 to £2,500
Uncontrolled Crossing (per location)	£1,500 to £2,500
Zebra Crossing	£10,000 to £15,000

- 5.27 AECOM note for clarity that the indicative costs presented in Table 2 are estimates only. Actual costs will be subject to design, contractor’s quotations and where appropriate detailed topographical and utilities surveys.

Recommendations

- 5.28 AECOM note that, whilst many aspects of this report consider matters, including those dealt with under the Highways Act, beyond the scope of the Neighbourhood Plan, there are a number of points that the MSA NPG can use to inform the Neighbourhood Plan such as:
- Identifying 'next steps' e.g. local consultation and formal discussion with DCC highway officers and Dorset Police;
 - Developing policies in the Neighbourhood Plan e.g. draft policies MSA2 and MSA1, potentially a CIL policy and/or design policy; and
 - Inclusion of the proposed concept masterplan within a 'non-planning' section of the Neighbourhood Plan.
- 5.29 AECOM have presented a concept masterplan which reflects the local aspirations identified through the MSA NPG household questionnaire to *"make the main road (A354) safer and more easy for pedestrians to walk along and cross"* and to investigate *"better ways to slow down vehicles as they come into the village from either direction on the A354"*.
- 5.30 The concept masterplan seeks to enhance the psychological traffic calming effect of existing traffic management measures on the A354 by raising driver awareness and influencing driver responses and speed on the approach to the village and through the village centre without impeding the strategic function of the route between Dorchester and Blandford Forum.
- 5.31 AECOM propose that the concept masterplan is adopted within the emerging Neighbourhood Plan as a suite of preferred traffic management measures that can be pursued by the MSAPC in conjunction with the Highway Authority (Dorset County Council) through support for developments where highway infrastructure improvements are facilitated.
- 5.32 AECOM have not consulted with the Highway Authority at this stage regarding the acceptability in principle of the proposed traffic management measures set out within the concept masterplan. AECOM recommend that DCC are consulted at the earliest opportunity to confirm that the highway authority has no objection in principle to the measures proposed.
- 5.33 AECOM recommend that MSAPC adopt the proposed concept masterplan within the emerging Neighbourhood Plan in conjunction with the emerging Neighbourhood Plan policies with regard to the promotion of a walkable village and minimising potential traffic problems.
- 5.34 AECOM recommend that the emerging Neighbourhood Plan seeks to positively promote the measures presented within the concept masterplan through its developing policies and proffers support for development sites that actively contribute to delivering highway infrastructure improvements within the village.
- 5.35 AECOM recommend the following suggested amendments to the working draft policies MSA2 and MSA1 and/or their successors in title:
- **Policy MSA2. Supporting Highway Infrastructure Improvements**
The Parish Council will support development proposals that actively contribute towards the provision of highway infrastructure improvements identified through Project MSA1, either through direct provision or where reasonable and necessary through developer contributions.
 - **Policy MSA1. Traffic Management in Milborne St Andrew**
The following traffic management measures will be pursued by the Parish Council in conjunction with the Highways Authority:
 - a) *Project MSA1 Concept Masterplan*

