

Dunsbury Hill Farm

Non-Motorised User (NMU) Context

Report

Partnership for Urban South Hampshire (PUSH)
Portsmouth City Council (PCC)
Havant Borough Council (HBC)

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Notice

This document and its contents have been prepared and are intended solely for the Partnership for Urban South Hampshire (PUSH), Portsmouth City Council (PCC) and Havant Borough Council's (HBCs) information and use in relation to the Non-Motorised User (NMU) Context Report for the Dunsbury Hill Farm Development.

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Document History

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1. Introduction

- 1.1. Atkins has been commissioned jointly by the Partnership for Urban South Hampshire (PUSH), Portsmouth City Council (PCC) and Havant Borough Council (HBC) to prepare a Non-Motorised User (NMU) Context Report for the Preferred Scheme for the new access junction, link road and road network layout put forward to serve the proposed business park development at Dunsbury Hill Farm. The location of the Dunsbury Hill Farm development site is shown in Appendix A.1.
- 1.2. Dunsbury Hill Farm is located in south Hampshire within the strategic gap between the urban areas of Havant to the south east and Waterlooville to the west. The site is within an area owned by PCC but is situated in HBC, who is the Planning Authority for the site. It is a Strategic Site in the Havant Borough Core Strategy which was adopted on 1st March 2011.
- 1.3. Dunsbury Hill Farm comprises a series of extensive open fields enclosed within established hedgerow, lying to the west of Leigh Park residential area and to the east of the A3(M). It is dissected across the north east corner by Park Lane which leads to the north-west edge of the Leigh Park estate and also connects to the east of Waterlooville.
- 1.4. The development proposal involves the construction of a business park in two phases with an associated hotel development. The site remains key to delivering employment in the local and sub-regional areas and is seen as a potential new business gateway to south Hampshire via the A3 (M) corridor.
- 1.5. This NMU context report was prepared in accordance with the Highways Agency's Design Manual for Roads and Bridges Non-Motorised User Audits Standard HD42/05.

2. Scheme Description

- 2.1. As a result of the Stage 1 Feasibility Report a new 3-arm roundabout is proposed to be located on the B2150 Hulbert Road on the western boundary of the proposed development site. It is proposed that the roundabout has single lane approaches flaring to two lanes at the give way line and a dedicated left turn lane into the development. This proposed roundabout on Hulbert Road is shown in Appendix A.2.
- 2.2. A link road alignment from the new roundabout on the B2150 with a bridge across Hermitage Stream is proposed and a preferred road network layout has been produced for the proposed development. Appendix A.3 is the Draft Masterplan for the site which shows the proposed link road and the preferred road network layout for the proposed development.

Scope of NMU Context Report

- 2.3. This context report reviews the impact of the scheme on the movement of NMUs between the A3 (M) Junction 3 and the B2150 Hulbert Road junction with Purbrook Way. It considers all severance, level of use and provision aspects associated with NMU movements within the vicinity of the scheme proposals.

Trip Generators

- 2.4. The Dunsbury Hill Farm development site predominantly comprises agricultural land that lies within an undeveloped strategic gap, and as such, only farm vehicle trips are generated by the site.
- 2.5. It is likely that the development will generate some NMU trips from south east Waterlooville located to the west of the proposed development site. However there is a severance issue as the Waterlooville lies west of the A3 (M). It is therefore likely that the development will generate trips primarily from the east of the site where the following trip generators are located:
- Leigh Park residential estate is likely to be a key trip generator to the development;
 - Park Community School located in the north-west area of the Leigh Park residential estate; and
 - Prospect School is located on (the newly constructed) Freeley Road, leading off of Calshot Road.
- 2.6. As the scheme develops it will be necessary to consider the connections between the proposed development and the established residential areas.

Development Proposals of Relevance

- 2.7. The known key major developments are summarised below in Table 2.1. More details regarding these developments will be provided in the Transport Assessment Report to quantify associated trip generation and any supporting transport interventions.

Table 0.1 – Major Development Proposals

Planning Applications & Approvals	Status
Land south of Scratchface Lane, adjacent to A3M and West of Brooklands Road & Hillmead Gardens, Havant (APP/10/00497) Outline application for the erection of 92No. open market and affordable dwellings comprising 4No. 1 bed flats, 4 No. 2 bed flats, 31 No. 2 bed houses , 44 No. 3 bed houses, 9 No. 4 bed houses, new pumping station; new vehicular access from Brooklands Road including demolition of 2 No dwellings; and new pedestrian and cycle access from Brooklands Road including demolition of 2No dwellings; and new pedestrian and cycle accesses onto Scratchface and Portsdown Hill Road.	Current Application
Former Proctor and Gamble site, Dunsbury Way Havant (05/51184/052) Application for approval of reserved matter with regard to the erection of 275 dwellings with associated car parking, open space and landscaping with new vehicular access to Dunsbury Hill.	Approved 24/04/2006
Hampshire Farm, Westbourne Road, Emsworth (10/74014/000) Outline application for demolition of existing dwelling and erection of 280No. residential dwellings, doctor's surgery and pharmacy with associated parking and landscaping, improvements to roundabout, and realignment of southern section of Redlands Lane to provide access and southern section of Redlands Lane to provide access and provision of public open space with parking, landscaping and construction of balancing pond with some matters reserved.	Resolution to Approve 22/11/2010 Subject to s.106 (nearing completion April 2011)
Little Oaks Hollybank Lane and, 8A Oaktree Drive, Emsworth (09/72129/002) Demolition of 2No. dwellings and erection of 48No. dwellings with associated garages and parking with associated garages and parking with access from Oak Tree Drive.	Approved 28/02/2011
Ramsdale Playing Fields, Woolston Road, Havant (08/61332/004) Reserved Matters Application for residential development comprising 135No. dwelling houses & associated public open space, with new roundabout & vehicular access onto Woolston Road, emergency vehicular access onto Ramsdale Avenue & pedestrian/cycle access to Whaddon Court.	Approved 15/07/2008

Land at. Old Park Farm (Part of West of Waterlooville Major Development Area), South of Hambledon Road, Waterlooville (05/40000/007) Outline application for development of land for residential (450 units), live/work (24 units), employment (7.1ha including B1, B2 and B8 and a Household Waste Recycling Centre), mixed use including retail, food & health, open space/recreational purposes & the construction of two accesses from Hambledon Road.	Approved 04/01/2008
Land at. Old Park Farm (Part of West of Waterlooville Major Development Area), South of Hambledon Road, Waterlooville (05/40000/007) Extension of time limit for the implementation of Planning Permission 07/54901/007 for development comprising 12No. Industrial units (1822.6sqm within B1 (b&c) and 3No. Office units (395sqm). Open storage and provision of commuter car park with new access to New Brighton Road.	Resolution to Approve 10/02/2010 Subject to s.106
Land south of Eastbound Petrol Service Station, Emsworth Bypass Extension of time limit for Planning Permission 07/57199/008 for the construction of a petrol filling station; shop and cafe; 78 bed hotel and restaurant with access and egress from the A27; and creation of a 3m wide cycle/footway to Washington Road.	Resolution to Approve 24/03/2010 Subject to s.106
Tesco Stores Ltd, Solent Road, Havant (06/58840/014) Redevelopment of retail supermarket site with new superstore together with change of use of employment land at the western end of the application site to accommodate car wash, recycling centre, associated car parking, highways and landscaping.	
Salvador Caetano Coach Builders, Hambledon Road, Waterlooville (APP/10/00793) Demolition of existing buildings and erection of food store, undercroft car park, 6No. pump PFS, pedestrian access ramp and associated landscaping.	Current Application
Grainger Development Site Land West of, London Road, Waterlooville (APP/10/00828) Outline application for the development of approx 2,550 no. dwellings including the construction of a new access from Ladybridge Roundabout, milk lane and completion of Maurepas Way access, a local centre (comprising retail, community building, land for health care, land for elderly care) public house, land for 2 primary schools, land for a nursery, land for employment uses, associated amenity space along with substantial green infrastructure, SuDS,	Resolution to Approve 21/03/2011 Subject to s.106

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3. Flows

- 3.1. No pedestrian, cyclist or equestrian surveys were carried out as part of the Stage 1 Feasibility Report. In order to fully consider NMUs in the scheme's development it is recommended that surveys of pedestrians, cyclists and equestrians are carried out at appropriate locations at, or near to, the proposed link road and the preferred road network layout for the development. This recommendation is discussed further in Section 9.

Traffic

- 3.2. As is detailed in the Stage 1 Feasibility Report, in order to understand the current level of traffic on the B2150 Hulbert Road, Automatic Traffic Counters (ATCs) were positioned to the south of the junction with the A3 (M) Junction 3. These recorded traffic for a full week from Thursday 15th July through to Wednesday 21st July 2010.
- 3.3. Using the ATC data it was identified that, on average, there was a two-way traffic flow of between 1,300 and 1,400 vehicles on the B2150 Hulbert Road during peak hours (0800-0900 hours and 1700-1800 hours). This equates to around 800 Passenger Car Units (PCUs) in the busiest one-way direction from the A3 (M) Junction 3. This traffic flow information is included in the contextual information shown in Appendix A.4.

Public Transport

- 3.4. The nearest bus stops to the site are located at Calshot Road (Larkwhistle Walk) and Middle Park Way (Woolston Road), approximately 400m and 500m respectively, from the centre of the proposed development. These bus stop locations are shown in the contextual information in Appendix A.4.
- 3.5. Route 23 stops at the bus stop at Calshot Road and serves Havant and Bedhampton, with a destination of Leigh Park. Route 39 stops at the bus stop at Middle Park Way and serves Havant and also provides a link to the west of the A3(M) with a destination point of Wecock Farm. A summary of these services is shown in Table 3.1 below. Both services are operated by Stagecoach.

Table 3.1– Existing bus services near Dunsbury Hill Farm

Route number	Nearest stop	Origin	Destination	AM Peak Hour Frequency
23	Calshot Road (Larkwhistle Walk)	Southsea	Leigh Park	10 minutes
39	Middle Park Way (Woolston Road)	Havant	Wecock Farm	15 minutes

- 3.6. Route 37 runs to the west of the A3(M) along Tempest Avenue and provides a link from Havant to Waterlooville. Additional detail relating to route 37 and other bus services to the west of the A3(M) are outside of the scope of this NMU report but are considered in the Transport Assessment.
- 3.7. The nearest railway station is Bedhampton, which is just over 2km from the site. Rail services at Bedhampton are operated by Southern and Southwest Trains and a summary of the services at Bedhampton station are shown in Table 3.2 below.

Table 3.2 – Existing rail services at Bedhampton Station

Train Operating Company	Origins	Destinations	AM Peak Hour Frequency
Southern	Barnham Brighton Ford Littlehampton London Victoria	Havant Portsmouth & Southsea Portsmouth Harbour Southampton Central	4 trains / hour
Southwest Trains	Guildford London Waterloo	Havant Hilsea Portsmouth & Southsea Portsmouth Harbour	2 trains / hour

- 3.8. Havant station is just over 2.5km from the site and connects with Bedhampton. Rail services at Havant are operated by First Great Western, Southern and Southwest Trains. A summary of the services at Havant station is shown in Table 3.3 below.

Table 3.3 - Existing rail services at Havant Station

Train Operating Company	Origins	Destinations	AM Peak Hour Frequency
First Great Western	Bristol Parkway	Brighton	N/A (limited daytime service)
Southern	Barnham Brighton Ford Littlehampton London Victoria	Portsmouth & Southsea Portsmouth Harbour Southampton Central	5 trains / hour
Southwest Trains	Guildford London Waterloo	Hilsea Portsmouth & Southsea Portsmouth Harbour	3 trains / hour

4. Existing Rights of Way (RoW) Routes

Pedestrians

- 4.1. There is an existing footpath through the proposed development site between Park House Farm Way and Ramsdale Avenue and between Ramsdale Avenue and Park Lane. This footpath is sketched in the contextual drawing shown in Appendix A.4 (RoW Nos. 508, 509 and 503) which shows the existing NMU routes and other contextual information.
- 4.2. There is a possible conflict point between the Preferred Scheme and NMUs at the part of the footpath that is located south of the bridleway on Park Lane (also shown in Appendix A.4 – RoW No. 123), because one of the proposed link roads into the site cuts across part of the footpath. The needs of NMUs need to be adequately accommodated at this location (as is discussed in Section 9).
- 4.3. The Masterplan for the development (Appendix A.3) shows that additional pedestrian/cyclist routes are proposed. Appendix A.3 indicates that a pedestrian/cyclist route is proposed alongside the proposed east-west and north link road of the development.

Equestrians

- 4.4. Park Lane is a bridleway which runs on a north-west south-east axis across the proposed development site. Park Lane continues north-westwards across the A3 (M) via a bridge to the north of Junction 3 and links with Tempest Avenue. It also continues south eastwards running adjacent to Calshot Road and to the north east of Woolston Road, finishing just north of Middle Park Way. This bridleway is shown in Appendix A.4 (RoW No. 123).
- 4.5. There is a possible conflict point between the proposed development and NMUs and the bridleway because one of the suggested access routes into the site cuts across the bridleway approximately 500m north of where it interconnects with Calshot Road. The needs of NMUs need to be adequately accommodated at this location (as is discussed in Section 9).

Cyclists

- 4.6. Cyclists can use the bridleway described in point 4.4 above. There is also an off-road cycle route southbound from Woolston Road roundabout along Middle Park Way. The route continues off-road along Hermitage Stream path which heads south towards Havant town centre.
- 4.7. As previously mentioned in point 4.3, the Masterplan (Appendix A.3) for the development shows that a pedestrian/cyclist route is proposed alongside the proposed east-west and north link roads of the development.
- 4.8. Additional detail regarding cycle routes outside of the vicinity of the proposed development, including cycle routes to the west of the A3(M) are outside of the scope of this NMU context report but are considered in the Transport Assessment.

5. Strategic Objectives

Hampshire Local Transport Plan 3 (LTP3) - 2011-2031

- 5.1. The Hampshire Local Transport Plan 3 (LTP3) builds on the previous local transport plans and is a long term strategy that sets out how the transport network of Hampshire will be developed over the next 20 years. Hampshire's LTP3 also includes a three-year Implementation Plan that sets out planned expenditure on transport over the period April 2011 to March 2014.

Part A: Long Term Strategy 2011 – 2031, Vision, Priorities and Context

- 5.2. Policies are included in Hampshire's LTP3 that aim to improve NMU infrastructure and promote NMU modes:

Theme B – Management of Traffic, Policy Objective 11: Reduce the need to travel through encouragement of a high-speed broadband network, supporting the local delivery of services and in urban areas the application of 'Smarter Choices' initiatives.

Theme B – Management of Traffic, Policy Objective 12: Invest in sustainable transport measures, including walking and cycling infrastructure, principally in urban areas, to provide a healthy alternative to the car for local short journeys to work, local services or schools; and work with health authorities to ensure that transport policy supports local ambitions for health and well-being.

Theme B – Management of Traffic, Policy Objective 14: Outline and implement a long-term transport strategy to enable sustainable development in major growth areas.

Part A: Long Term Strategy 2011 – 2031, Local Area Strategies

South Hampshire joint Strategy

- 5.3. The South Hampshire joint Strategy was developed jointly by the three local Transport Authorities of Hampshire County Council, PCC and Southampton City Council working together as Transport for South Hampshire (TfSH).
- 5.4. Policy H of the South Hampshire Area Strategy is to promote active travel modes and develop supporting infrastructure. The rationale given for this Policy is to encourage walking or cycling for everyday journeys, as travel by active modes will help to tackle obesity, reduce congestion and improve air quality.
- 5.5. In order to promote active travel modes and develop supporting infrastructure it is proposed that the TfSH authorities will work with health and activity partners, including public health teams, to develop a network of high-quality, direct, safe routes targeted at pedestrians and cyclists. Pro-active marketing and participative events are also intended in order to increase the profile and understanding of the benefits of active travel. It is also the aim that well-designed routes and secure cycle parking can be partly delivered through the planning system.
- 5.6. The delivery options for Policy H include the following:
- A Legible South Hampshire project to provide integrated, high-quality information for public transport, walking and cycling;
 - Delivery of comprehensive walking and cycling networks (which could form part of a proposed 'Green Grid' – see below);

- A Green Grid is a network of interlinked, multi-functional and high quality open spaces (such as parks and local nature reserves) that through footpaths, bridleways and cyclepaths connect town centres, public transport nodes, the countryside, and major employment and residential areas;
- Delivery of walking and cycling measures identified within Town Access Plans;
- Crossing improvements for pedestrians and cyclists;
- Cycle hire scheme for urban centres;
- Delivery of improved secure cycle parking facilities at key destinations; and
- Support for the delivery of measures contained within Rights of Way Improvement Plans (ROWIPS).

Hampshire Sustainable Community Strategy 2008 – 2018, *Shaping our Future Together*

- 5.7. Hampshire's Sustainable Community Strategy forecasts that the existing road network cannot accommodate the predicated traffic growth and the new-development agenda requires new investment in public transport and highways. The strategy states that this investment must accompany better management of traffic and demand and the promotion of 'smarter' travel choices and working practices, as well as local planning policies that reduce the need for travel.

Hampshire's Rights of Way Improvement Plan (ROWIP)

- 5.8. As a requirement of the Countryside and Rights of Way Act 2000 it is necessary for Hampshire County Council as a highway authority to produce a 'Rights of Way Improvement Plan'. Hampshire County Council meets this requirement by producing the Countryside Access Plans.
- 5.9. The Hampshire Countryside Access Plan, consists of seven local area plans and a countywide 'Overview' document. The development site at Dunsbury Hill Farm falls under the local area covered by the Solent. The Countryside Action Plan for the Solent 2008 – 2013 summarised that the main issues were the limited supply of routes and fragmentation of the local network rather than the condition and maintenance of paths and sites.
- 5.10. The Countryside Action Plan for the Solent found that countryside users often have to cross busy roads to link up paths and that there was also a lack of information about local access opportunities. There was found to be a need for better co-ordination between the many local authorities and other information providers within the area. This is recognised by the Solent Forum, a stakeholder group which is working to achieve a more unified approach to promoting understanding and enjoyment of the whole area.

Solent Transport Sub-Regional Strategy (STSS)

- 5.11. The STSS sets out the broad strategy within which Hampshire County Council, PCC and Southampton City Council aim to manage the transportation challenges and opportunities that the South Hampshire Sub-Region will face over the next 20 years.
- 5.12. The Strategy incorporates the four shared priorities of the three authority's new LTPs (2006 – 2011). These shared priorities are:
- Accessibility;

- Congestion;
- Road Safety; and
- Air Quality.

Havant Borough Council Local Development Framework Core Strategy

- 5.13. Within HBC's Local Development Framework Core Strategy, Strategic Policy CS18 and Development Management Policy DM11 relate to NMUs as outlined below.
- 5.14. Strategic policy CS18 (Transport and Access Strategy) states that development will be permitted that:
- Maintains or improves the range of transport modes accessible to the users of the development site with specific emphasis on public transport, especially high quality/frequency buses and includes walking and cycling where appropriate; and
 - Improves highway, cycling and pedestrian links between the western built up area of the borough (Waterlooville) and the eastern area of the borough (centred on Havant) to create a strong east/west communication axis that passes through Dunsbury Hill Farm/Leigh Park.
- 5.15. Development Management Policy DM11 Planning for More Sustainable Travel states that the Council will seek to ensure that every opportunity is taken to increase integration of sustainable travel modes and availability of non-motorised modes by appropriate measures including:
- Securing on-site and/or off-site interventions that promote integrated travel and access by non-motorised modes;
 - Requiring safe and secure vehicular and cycle parking and turning facilities to adopted standards; and
 - Ensuring that new developments are located and designed at the outset to encourage lower vehicle speeds and safe, permeable, inclusive layouts that integrate with existing pedestrian, cycle and public transport routes. This will facilitate and encourage short distance trips by cycle and walking, including to public transport interchanges.

6. Accident Data

- 6.1. Accident data was provided by Hampshire Constabulary for the three year period January 2008 to December 2010 for the following roads and junctions: the A3(M) Junction 3, the A3(M) up to but not including Junctions 2 and 4, Hulbert Road (B2150) West including the roundabout up to 20m from the give way line of each arm, Hulbert Road (B2150) East including the roundabout up to 20m from the give way line of each arm.
- 6.2. Appendix A.6 shows the locations of the accidents. There are clusters of accidents at the A3 (M) Junction 3 and the Hulbert Road (B2150) east and west roundabouts.
- 6.3. There were a total of 45 accidents during the period from January 2008 to December 2010, of which 5 (9%) were serious and 41 (91%) were slight. Table 6.1 summarises the accident (and casualty) numbers and the injury severity breakdown by year.

Table 6.1 - Accident (and casualty) numbers by severity by year – January 2008 to December 2010

Accident (casualty) severity	2008	2009	2010	Total
Fatal	0	0	0	0
Serious	3 (4)	1 (1)	0	4 (5)
Slight	11 (13)	15 (20)	15 (19)	41 (52)
Total	14 (17)	16 (21)	15 (19)	45 (57)

- 6.4. Table 6.2 shows the accidents by severity and user groups; motor vehicles, powered two wheelers, pedal cyclists, horses and other. Table 6.3 shows the resultant casualties by user groups; vehicle driver, passenger, motorcycle rider, cyclist and pedestrian.

Table 6.2 - Accidents by User Groups and Severity – January 2008 to December 2010

User Group	Fatal	Serious	Slight	Total
Motor vehicles (excluding Powered Two Wheelers)	0	4	38	42
Powered Two Wheelers	0	0	3	3
Pedal Cycles	0	0	0	0
Horses and other	0	0	0	0
Total	0	4	41	45

- 6.5. As Table 6.3 below shows there was one pedestrian casualty in the period January 2008 to December 2010. There were no other NMU casualties during this time period.

Table 6.3 – Casualties by user groups and injury severity – January 2008 – December 2010

User Group	Fatal	Serious	Slight	Total
Vehicle Driver	0	4	37	41
Passenger	0	0	12	12
Motorcycle rider	0	0	3	3
Cyclist	0	0	0	0
Pedestrian	0	0	1	1
Other	0	0	0	0
Total	0	4	53	57

- 6.6. The slight pedestrian casualty was the result of an accident that occurred on Purbrook Way at the roundabout junction of Hulbert Road when a vehicle travelling east went through a red light at the pelican crossing and collided with a pedestrian that was travelling north along Purbrook Way. Appendix A.4 shows the location of this accident and Appendix A.6 is the interpreted listing extract for this accident.

7. Views of User Groups

- 7.1. The Stage 1 Feasibility Report identified that there is local concern (Ramsgate Environmental Group) regarding the provision of a cycle route/right of way through the open space between Ramsgate Avenue, the Dunsbury Hill Farm site and Hermitage Stream.
- 7.2. There should be further contact with local groups such as equestrians, cyclists and ramblers to identify routes that they use and their concerns and suggestions. These local groups include:

Sustrans
Regional Manager for the South East
Sustrans c/o Ethical Property Company
9 Park End Street
Oxford
OX1 1HH
Tel: 01865 205230
Fax 01865 201301

Solent Forum
c/o Hampshire County Council
The Castle
Winchester
Hants SO23 8UD
Tel: 01962 846027

Hampshire Ramblers
Secretary: David Nixon
Email: dnixon27@waitrose.com

Cyclists' Touring Club (CTC) South Hampshire
Jim Probert
Club Secretary
023 8034 9985

The British Horse Society – Hampshire
Email: BHSHants@yahoo.com

Hants and West Sussex Borders Bridleway Group
Sue Montila – Co-ordinator/Chair
Email: sue.montila@ntlworld.com
Tel: 023 9245 5685

Hampshire Horsewatch
Email: equine@hampshire.pnn.police.uk
Tel: 01962 814816

Hampshire rural riding club
Chairman: Mrs L Ruffe (01962 772338 / rruffe@globalnet.co.uk)
Sec: Ms D Peters (01256 389625) / hrrc.sec@virgin.net)

Solent Riding club
Chairman: Mrs K Bartlett (01489 583424 / kate.bartlett1@ntlworld.co.uk)
Sec: Mrs C Shanks / claireshanks192@ntlworld.co.uk

- 7.3. It is recommended that consultation with the NMU groups suggested above takes place as a meeting with the leaders or appropriate representative of the groups.

8. Scheme Objectives

- 8.1. As set out in the Stage 1 Feasibility Report, the site was designated by PCC for development following publication of the Dunsbury Hill Development Brief in June 2007, and was allocated for employment use under Local Plan policy EMP1.4.
- 8.2. The development of Dunsbury Hill Farm is key to delivering employment in the local and sub-regional areas and is seen as a potential new business gateway to South Hampshire via the A3 (M) corridor.
- 8.3. The Countryside Action Plan for the Solent 2008 – 2013 has identified that there are a limited supply of NMU routes, the local network is fragmented and that countryside users often have to cross busy roads to link up paths. The design of the scheme should seek to address these issues and create improved NMU links and safe accessible crossing points.
- 8.4. Essentially the site design and landscape structure, including all the environmental opportunities and constraints need to be developed to reflect broadscale issues. These include ensuring that sustainable transport corridors to Dunsbury Hill as a new employment site are developed and that accessibility for NMUs is fully incorporated, including safe crossing facilities for NMUs as appropriate and minimal diversion for NMUs i.e. networks should meet desire lines.

9. Recommendations

- 9.1. Completion of the NMU Context Report has identified a number of issues that need to be addressed in the next stage of the scheme's development. The resultant recommendations are summarised in this section.
- 9.2. In order to fully consider NMUs in the scheme's development it is recommended that surveys of pedestrians, cyclists and equestrians are carried out at locations at, or near to the Preferred Scheme link road and road network layout for the development. It is anticipated that approximately ten NMU survey count locations would be necessary in order to collect data at all the relevant locations. It is recommended that the survey locations are selected by:
- Reviewing the mapping to look for existing and potential walking, cycling and horse riding routes;
 - Reviewing the Transport Assessment document that is also being produced with regard to trip generation analysis; and
 - Considering the information that has been obtained from the public consultation that has been carried out and utilise the results from the further recommended consultation with local cyclists, equestrians and ramblers.
- 9.3. It is recommended that seasonal variations that could affect NMU activity are considered when carrying out the surveys, and that counts are carried out on representative weekday morning peak, evening peak and interpeak periods, and similarly over selected hours on weekend days.
- 9.4. Two possible conflict points have been identified and the needs of NMUs need to be adequately accommodated at these locations:
- Between the proposed scheme and NMUs at the part of the footpath that is located south of the bridleway on Park Lane; and
 - Between the proposed scheme and NMUs at the bridleway approximately 500m north of where it interconnects with Calshot Road.
- 9.5. There also needs to be further contact with local groups such as cyclists, equestrians and ramblers in order to identify routes that they use and their concerns and suggestions. This could take place as a meeting of the leaders of the groups.
- 9.6. It is also recommended that there is further examination of Ordnance Survey maps in order to confirm any additional designated recreational NMU and routes between communities and other trip generators.

Current Options

- 9.7. The options for the various junctions along the scheme were not sufficiently developed to enable their assessment in this report. In order to enable design teams to assess the junctions the following assessment tool below is recommended. This will also help act as a record of decisions affecting NMUs in the scheme's development, in line with the NMU process.

Option Assessment and Scoring

- 9.8. Each option can be assessed to provide a relevant score. This helps prioritise options from an NMU point of view, for consideration in the overall design.

- 9.9. The categories included in Table 9.1 below are design to meet both the scheme and strategic sustainable transport objectives.

Table 9.1 – Ratings against scheme objectives

Much Better	Better	Slightly Better	Neutral	Slightly Worse	Worse	Much Worse
3	2	1	0	-1	-2	-3

Table 9.2 – Junction ‘X’

Assessment Criteria	Score (3 to -3)	Comments
Accessibility for the widest possible range of people		
NMU safety and security		
NMU crossing points		
Continuity for NMUs (within and outside the scheme)		
Convenience for NMUs		
Minimal diversions for NMUs		
Severance effect minimised (or preferably improved)		
Attractiveness of user environment		
Encourage sustainable travel modes		
Overall Score		

- 9.10. The overall scores for each option can then be added into Table 9.3 below in order to compare options with one another and outline the main issues to be addressed.

Table 9.3 – Overall junction ratings and issues to be addressed

Junction Option	Overall Score	Issues to be addressed
Junction 'X'		
Junction 'Y'		

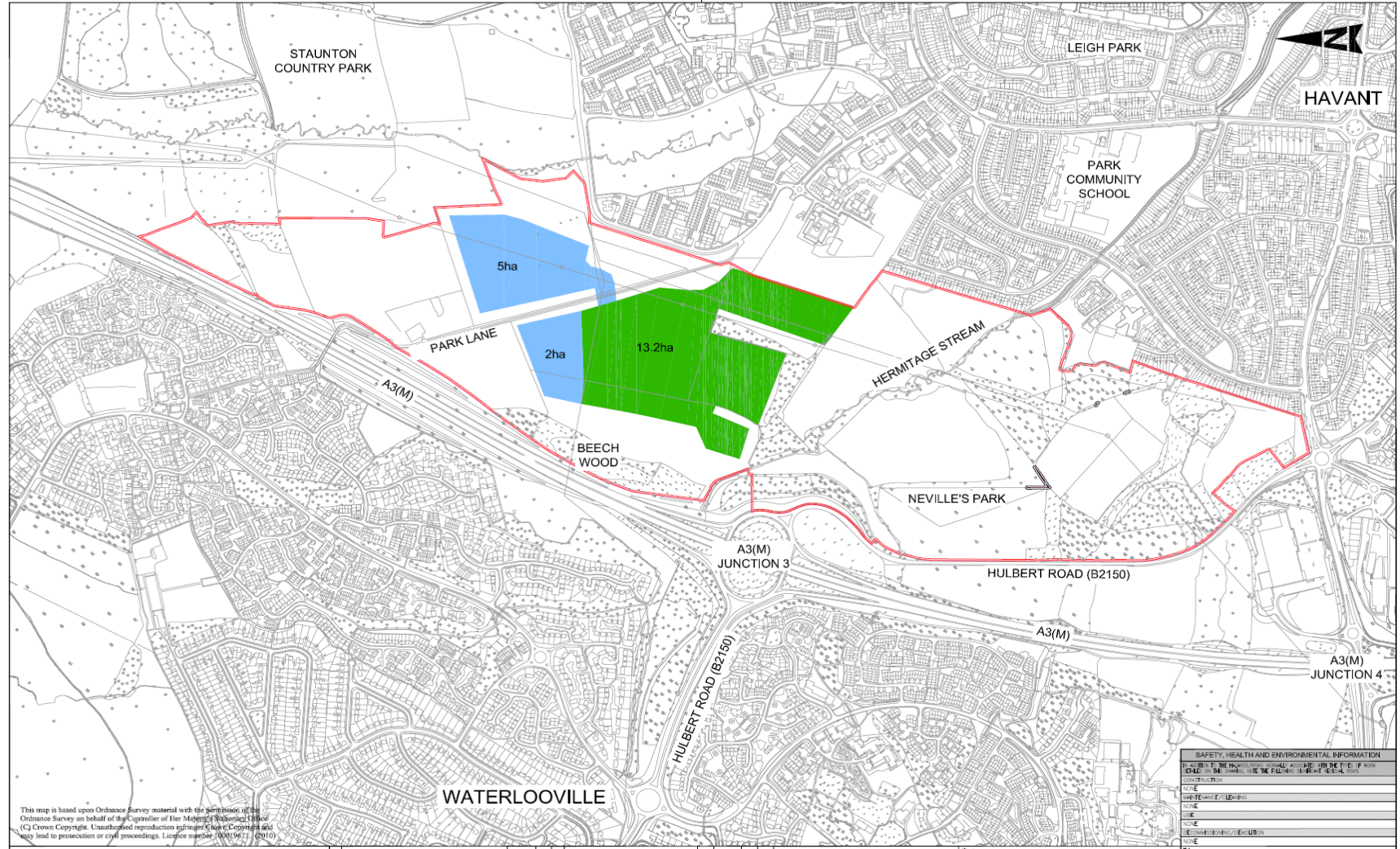
NMU Audit Reporting

- 9.11. An NMU Audit report will also need to be produced for each relevant design stage of a scheme, as agreed by the Project Sponsor and in accordance with HD42/05. It is recommended that an NMU Audit is carried out during the preliminary design, detailed design and prior to completion of construction.

Appendices

A.1. Site Location Plan

DO NOT SCALE



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KEY	DESCRIPTION
Red line	PCC LAND OWNERSHIP BOUNDARY
Green fill	PHASE 1 DEVELOPMENT PLOTS
Blue fill	PHASE 2 DEVELOPMENT PLOTS

REV	DATE	BY	CHKD	DESCRIPTION
1	09/10/2010	ATKINS	ATKINS	Initial Issue

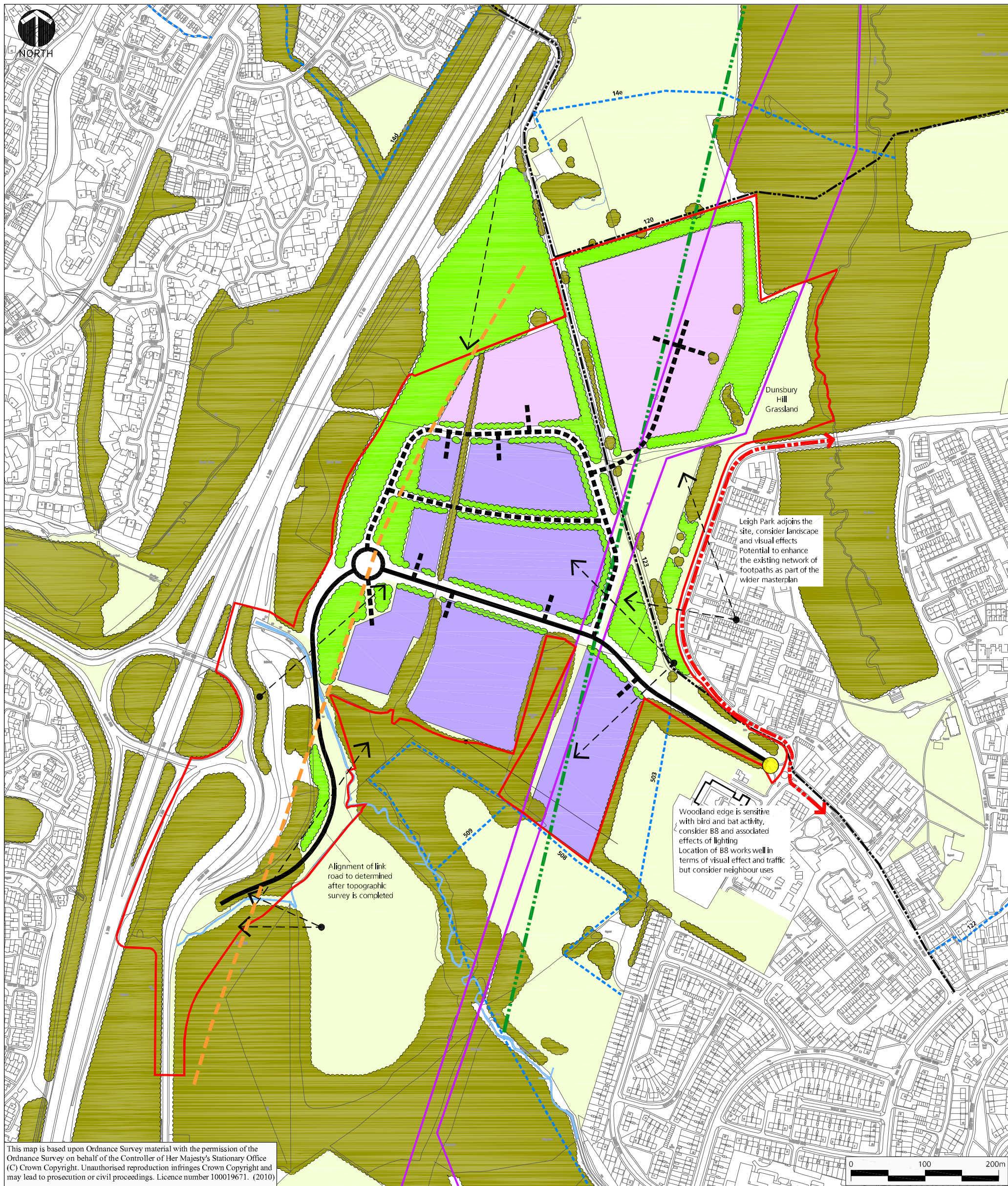
ATKINS
 Atkins Limited
 Consulting Engineers,
 Wootton Bassett, Wiltshire, UK
 Tel: (01722) 726140
 Fax: (01722) 740055
 www.atkins.co.uk

DUNSLEY HILL FARM
 Portsmouth City Council
 100000 Square Feet
 Portsmouth, PO1 2BG

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION			
HAZARD	NO	NO	NO
ENVIRONMENTAL	NO	NO	NO
NOISE	NO	NO	NO
CLIMATE	NO	NO	NO
SOIL	NO	NO	NO
WATER	NO	NO	NO
AIR	NO	NO	NO
VEGETATION	NO	NO	NO
LANDSCAPE	NO	NO	NO
ARCHITECTURE	NO	NO	NO
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INDUSTRY	NO	NO	NO
RESEARCH	NO	NO	NO

A.2. Proposed scheme roundabout on the B2150

A.3. First Draft Masterplan



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KEY

- | | | | |
|--|--------------------------------------|--|--|
| | APPLICATION BOUNDARY | | EXISTING VEGETATION |
| | PHASE 1 DEVELOPMENT PLOTS | | EXISTING GRASSLAND |
| | PHASE 2 DEVELOPMENT PLOTS | | PROPOSED LANDSCAPE STRUCTURE |
| | PROPOSED LINK ROAD AND SITE ACCESS | | EXISTING WATERCOURSES |
| | SUGGESTED ACCESS ROUTE THROUGH PLOTS | | EXISTING OVERHEAD CABLES WITH EASEMENTS TO BE CONSIDERED |
| | BUS GATE | | EXISTING HP GAS MAIN (APPROXIMATE LOCATION) WITH EASEMENT OF 12m OVERALL |
| | EXISTING BRIDLEWAY | | 150m LANDSCAPE BUFFER OFFSET FROM A3(M) |
| | EXISTING FOOTPATHS | | |



LOCAL VIEWS OF THE SITE

LONG DISTANCE VIEWS OF THE SITE

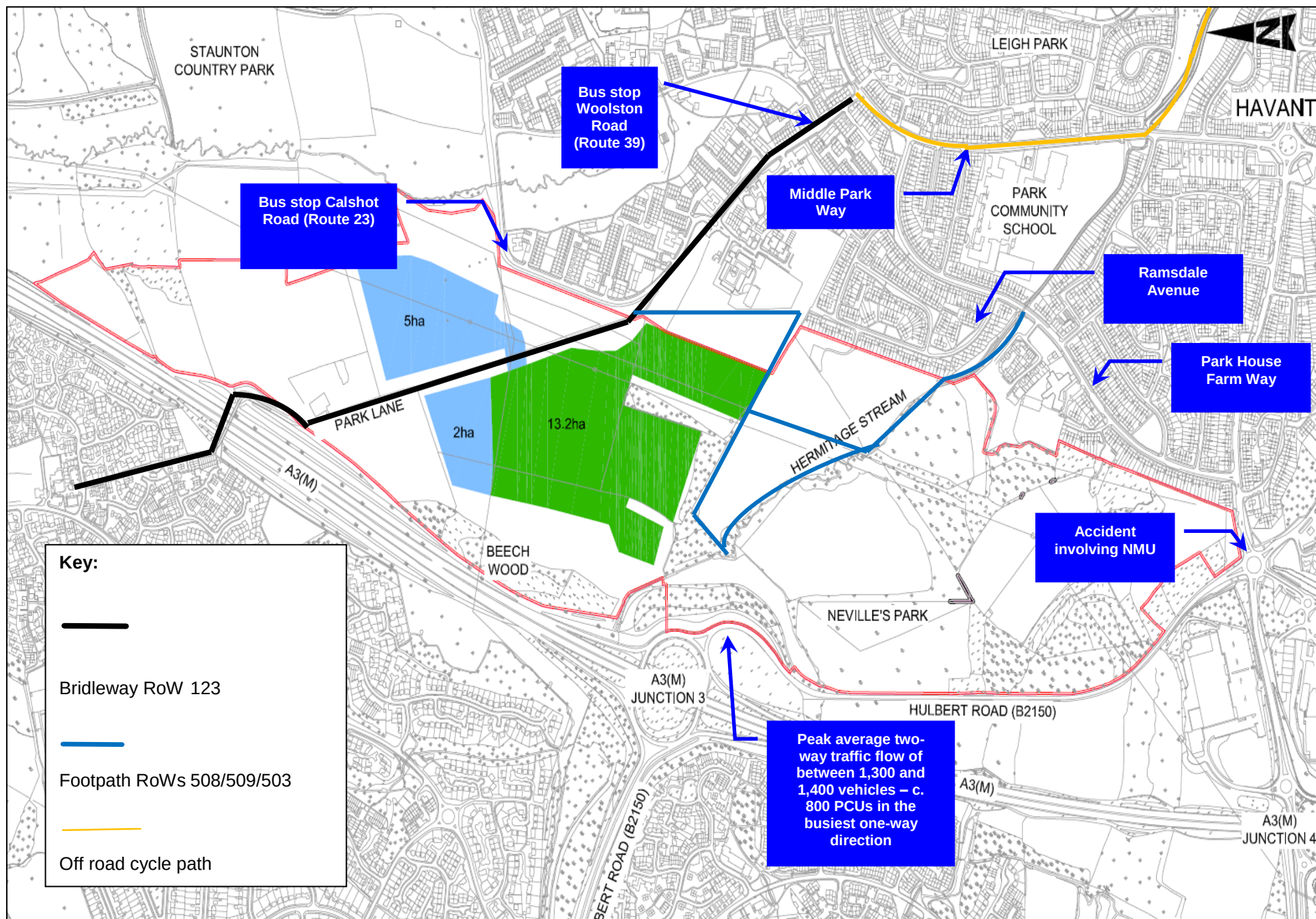
Dunsbury Hill Farm
First Draft Masterplan

Scale 1:5,000 at A3
April 2011



ATKINS

A.4. Existing NMU routes and other contextual information



A.5. Locations of accidents within designated boundary from January 2008 to December 2010



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Dunsbury Hill Farm MAP

SCALE	1 : 23620
DATE	23/03/2011
DRAWING NO.	
DRAWN BY	

A.6. Interpreted Listing extract for the NMU accident that occurred within the designated boundary from January 2008 to December 2011

Accidents between dates 01/01/2008 and 31/12/2010 (36) months

Selection:

Selected using Build Query : ; Refined using Accidents
within selected Polygons -RPU Statistics Request ("NS
DUNSBURY HILL FARM, WATERLOOVILLE")

Notes:

090555402 30/12/2009 Time 1615 Vehicles 1 Casualties 1 Slight
E: 469785 N: 107779 First Road: U Road Type Single carriageway
Speed limit: 30 Junction Detail: Roundabout Give way or controlled Unclassified
Crossing: Control Other authorise Facilities: Pelican, puffin, toucan etc. Road surface Wet/Damp
Darkness: street lights present and lit Raining without high winds
Special Conditions a None Carriagewa None
Place accident reported: At scene DfT Special Projects:

Causation		Participant:	Confidence:
Factor:			
1st: Failed to look properly		Vehicle 1	Very Likely
2nd:			
3rd:			
4th:			
5th:			
6th:			

VEH 1 (CAR) TRAVELLING EAST ALONG PURBROOK AFTER JUNCTION WITH HULBERT ROAD. VEH 1
DOES NOT REACT TO RED LIGHT AT PELICAN CROSSING AND CONTINUES ONTO CROSSING, COLLIDING
WITH CAS 1 (PEDESTRIAN) CROSSING NORTH ALONG PURBROOK WAY CAUSING MINOR INJURY.
Occurred on PURBROOK WAY, AT JUNCTION WITH HULBERY ROAD, HAVANT, HAMPSHIRE

Vehicle Reference 1 Car Going ahead other
Vehicle movement from W to E No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Cleared junction o First impact Offside Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 32 Male
Not hit and run Breath test Negative

Casualty Reference: 1 Vehicle: 1 Age: 20 Female Pedestrian Severity: Slight
Not a pupil
On Ped Crossing N bound
Driver's offside

