

Project:	Proposed Residential Development, Field 1219. la Grande Route du Mont à l'Abbé, St. Helier, Jersey	Job No:	601 43012
Subject:	Transport Appraisal		
Prepared by:	Derek Griffiths	Date:	January 2010
Checked by:	Nick Anderson	Date:	January 2010
Approved by:	Nick Anderson	Date:	January 2010

1. Introduction

AECOM has been commissioned by MS Planning to provide transportation planning advice in support of a proposed residential development of up to 50 dwellings at Field 1219, la Grande Route du Mont à l'Abbé, St Helier, Jersey. This transport appraisal considers access by sustainable modes, vehicle trip generation, parking provision and site access arrangements, including an initial assessment of options and a preliminary junction design for the preferred access.

A meeting was held with a representative from the States of Jersey Transport & Technical Services (TTS) on 13th November 2009 with regard to the site and the associated transport issues, and a summary of this discussion is provided later in this note.

The site is included in the Draft Jersey Island Plan, September 2009 (which is currently in its consultation phase until the 18th December 2009), as one of a handful of sites proposed to be zoned for Category A housing (Policy H1). As set out in paragraph 6.79, the theoretical yield of homes from all of these sites is estimated to be in a range of a minimum of 197 (10 dwellings per acre) to a maximum of 298 (15 dwellings per acre). Appendix B 'Draft Housing Development Briefs' of the plan, an extract of which is included in **Table 1.1**, considers that one third of the Field 1219 site could be developed with an estimated maximum yield of 30 dwellings.

Table 1.1: Potential Housing Yield at Field 1219

Site	Part Field 1219, La Grande Route du Mont a l'Abbé, St Helier
Existing Use	Agricultural Land
Suitable Use	Category A housing on part of field. Remainder of field to be developed for school playing fields, allotment gardens and public footpath.
Approximate Site Area	The total area of the land is 6.3 acres (14 vergées). Area available for housing: <ul style="list-style-type: none"> ▪ Total land area = 6.3 acres (14 vergées) ▪ Developable area = 1.0 acres (4.5 vergées) to include village green (10% of site approx) = 0.2 acre (0.45 vergee) ▪ Remainder of land for school playing fields, allotment gardens and public footpath = 4.3 acres (9.5 vergées)
Estimated Housing Yield	Based on the developable site area of 2.0 acres, the site is capable of being developed for between 20 no dwellings (10 dwellings per acre) to 30 no dwellings (15 dwellings per acre)

Direct Tel: 020 3170 2758
 T +44 (0)20 7645 2000
 F +44 (0)20 7645 2099
 E derek.griffiths@aecom.com
 www.aecom.com

The Johnson Building
 77 Hatton Garden
 London
 EC1N 8JS
 United Kingdom

This transport appraisal considers the case for utilising up to 50% of the site for residential development, enabling the development of up to 50 dwellings. It is considered that the new Draft Jersey Island Plan could then be revised on this basis.

Direct Tel: 020 3170 2758
T +44 (0)20 7645 2000
F +44 (0)20 7645 2099
E derek.griffiths@aecom.com

The Johnson Building
77 Hatton Garden
London
EC1N 8JS
United Kingdom

2. Development Proposals

The proposed development site is located on the northern outskirts of St Helier. The site is bound by la Grande Route du Mont à l'Abbé and New St John's Road to the east, a hotel and existing residential developments to the south and west, and the Haute Vallée School to the north. The proposed site location is shown in **Drawing 60143156_001**.

The allocation within the Draft Jersey Island Plan estimates a yield of between 20 dwellings (assuming 10 dwellings per acre) and 30 dwellings (assuming 15 dwellings per acre), which would occupy approximately one third of the field. However, it is believed that this allocation could be increased so that up to half of the site is recommended for development in the final Jersey Island Plan, with a development quantum of up to 50 dwellings (assuming 15 dwellings per acre). It is envisaged that the eastern half of the site would be utilised for housing development, whilst the western half would provide sports areas including a football pitch and a five a side pitch.

The access strategy for the site is an issue considered in detail in **Section 4**, however it is considered that there is potential for access to be gained into the development from two access points, the first an existing access at the north eastern corner of the field onto Clarke Avenue, highlighted as 'Potential Access Point A' in **Drawing 60143156_001**, and the second being a potential new access via the south eastern corner of the field onto New Saint John's Road, highlighted as 'Potential Access Point B' in **Drawing 60143156_001**.





Direct Tel: 020 3170 2758
T +44 (0)20 7645 2000
F +44 (0)20 7645 2099
E derek.griffiths@aecom.com
www.aecom.com

The Johnson Building
77 Hatton Garden
London
EC1N 8JS
United Kingdom

*This document has been prepared by AECOM Ltd ("AL") for the sole use of our Client (the "Client") and in accordance with generally accepted consultancy principles, the budget for fees and the terms of reference agreed between AL and the Client. Any information provided by third parties and referred to herein has not been checked or verified by AL, unless otherwise expressly stated in the document. No third party may rely upon this document without the prior and express written agreement of AL.



KEY

-  Potential Access Point A
-  Potential Access Point B
-  School
-  Convenience Store



AECOM House
63-77 Victoria Street
St Albans, Herts AL1 3ER

Tel: +44 (0)1727 535000
Fax: +44 (0)1727 535099
www.aecom.com

Client: **MS Planning**

Project: **Residential Development
Field 1219 Le Mont à l'Abbé**

Title: **Site Location Plan**

Design: DHG
Chk'd: PT
Date: Nov 2009

CAD: DHG
App'd: NA
Scale: NTS

No.6013156_001

Rev: -

3. Existing Transport Conditions

Highway Conditions

The area surrounding the proposed development site is predominantly residential in nature. The site is bound by la Grande Route du Mont à l'Abbé along the majority of its eastern border, and from which the Haute Vallée School gains access.



Picture 1: View north along la Grande Route du Mont à l'Abbé toward Clarke Avenue



Picture 2: View north from New St. John's du Road along la Grande Route du Mont à l'Abbé

Picture 1 shows the view north along la Grande Route du Mont à l'Abbé looking north towards Clarke Avenue, whilst **Picture 2** shows the view from New St John's Road, and it can be seen that the route is a no-through road between these points. This route forms a major pedestrian and cycle route between the school and the residential areas to the south, and on site observations have shown heavy pedestrian flows, particularly during the school peak hours.

Traffic using la Grande Route du Mont à l'Abbé south of Clarke Avenue, which currently relates to a number of dwellings and the Haute Vallée School, use Clarke Avenue to gain access onto the wider local highway network.

Currently, access into the proposed development site is via a small track which takes access from la Grande Route du Mont à l'Abbé, and is shown in **Picture 1**, located on the left side between the planter and the blue bin. **Picture 3** shows the access location from the north, whilst **Picture 4** shows the view along the track into Field 1219.

Direct Tel: 020 3170 2758
 T +44 (0)20 7645 2000
 F +44 (0)20 7645 2099
 E derek.griffiths@aecom.com
 www.aecom.com

The Johnson Building
 77 Hatton Garden
 London
 EC1N 8JS
 United Kingdom



Picture 3: View southwest showing Field 1219 access track and school pedestrian access

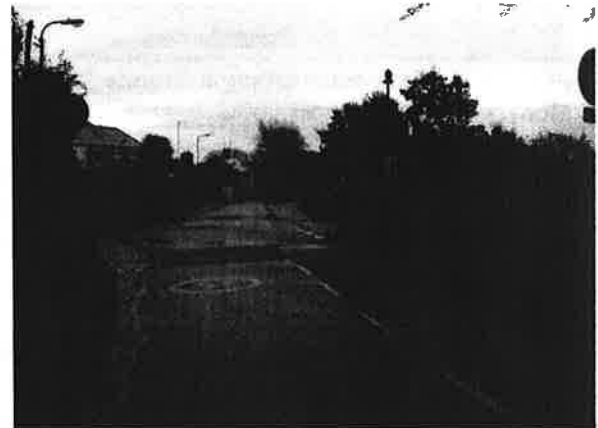


Picture 4: View along track into Field 1219 from la Grande Route du Mont à l'Abbé

Pictures 5 and 6 show the junction between la Grande Route du Mont à l'Abbé and Clarke Avenue. The various accesses into Haute Vallée School can be seen in **Picture 6**.



Picture 5: View north from la Grande Route du Mont à l'Abbé to Clarke Avenue



Picture 6: View south from la Grande Route du Mont à l'Abbé to Clarke Avenue

During the morning peak hour, particularly between 08:30 and 09:00, queues form back from the junction between Clarke Avenue and Queen's Road, shown in **Picture 7**, as a result of residential and school drop off trips, and heavy flows along Queen's Road with traffic travelling towards St Helier.



Picture 7: View of Queen's Road / Clarke Avenue Junction



Picture 8: View of Queen's Road / New St. John's Road Junction

Picture 8 shows the junction between Queen's Road and New St John's Road. Some queuing did occur at this junction due to the flows along the Queen's Road.



Picture 9: View north along New St. John's Road from la Grande Route du Mont à l'Abbé



Picture 10: View south along New St. John's Road

It can be seen from **Pictures 9** and **10** that New St John's Road is reasonably wide, and on site observations did not indicate any significant issues in terms of congestion along this route.

Pedestrian Conditions

In the location of the proposed development site there is a significant level of pedestrian activity, particularly during school pick up and drop off times as a result of Haute Vallée School. There is good provision for pedestrians immediately outside of the site, with wide (approx 2-3m) footways on either side of Clarke Avenue leading up to Queen's Road. Along Clarke Avenue there are also traffic calming measures in the form of raised pedestrian crossings, as shown in **Pictures 11** and **12**.

Direct Tel: 020 3170 2758
 T +44 (0)20 7645 2000
 F +44 (0)20 7645 2099
 E derek.griffiths@aecom.com
 www.aecom.com

The Johnson Building
 77 Hatton Garden
 London
 EC1N 8JS
 United Kingdom



Picture 11: Clarke Avenue Footways



Picture 12: Clarke Avenue Raised Crossing

Adjacent to the proposed development site, la Grande Route du Mont à l'Abbé is a no through road, and forms a pedestrian link between Clarke Avenue and New St Johns Road, shown in **Pictures 1 and 2**. It was observed that this route was well used by pupils and staff at the school at the beginning and end of the school day.

St Helier, which is likely to provide the key employment opportunities for the residents, is approximately 2km from the proposed development site, and therefore walking is considered to provide a real sustainable alternative to car use at the proposed development. New St John's Road provides a key pedestrian link to St Helier, and has footways on both sides approximately 1.5m in width, as shown in **Picture 13**. This route also provides access to bus stop 2539 (discussed further in the following section).

The route heading from the site toward Queen's Road has footways of approximately 1m in width on alternating sides of the carriageway, as shown in **Picture 14**, and provides access to bus stops 2495 and 2794 (discussed further in the following section).



Picture 13: New St John's Road view to the South



Picture 14: New St John's Road view toward Queen's Road

There is a signalised pedestrian crossing on Queen's Road just south of the junction with New St John's Road as shown in **Picture 15**. This crossing enables safe pedestrian access to areas to the east of the proposed development, including to the d'Auvergne Primary School, which is approximately 500m walk from the site access, and to bus stop 2794 (discussed further in the following section).

Direct Tel: 020 3170 2758
 T +44 (0)20 7645 2000
 F +44 (0)20 7645 2099
 E derek.griffiths@aecom.com
 www.aecom.com

The Johnson Building
 77 Hatton Garden
 London
 EC1N 8JS
 United Kingdom

It can also be seen in **Picture 15** that there are a number of shops just south of the New St John's Road junction, including a local convenience store, which can be easily accessed from the proposed development site using a pedestrian only route, located adjacent to the pedestrian crossing between Queen's Road and New St John's Road, and shown in **Picture 16**.



Picture 15: Pedestrian Crossing on Queen's Road looking south



Picture 16: Pedestrian cut through between New St John's Road and Queen's Road

Cycle Conditions

La Grande Route du Mont à l'Abbé is a dedicated green route on which cyclists, horse riders and pedestrians have priority over vehicles, which must slow to 15mph. Although there are no dedicated cycle lanes running close by the development site, speed limits are generally low and cycling conditions are adequate.

It is considered that St Helier is approximately 2km from the development site and is therefore well within recommended cycling distances. In addition, there are good connections to lightly trafficked lanes which provide access to the cycle network to the north of the proposed development allowing access to both St Helier, as well as wider destinations across the island.

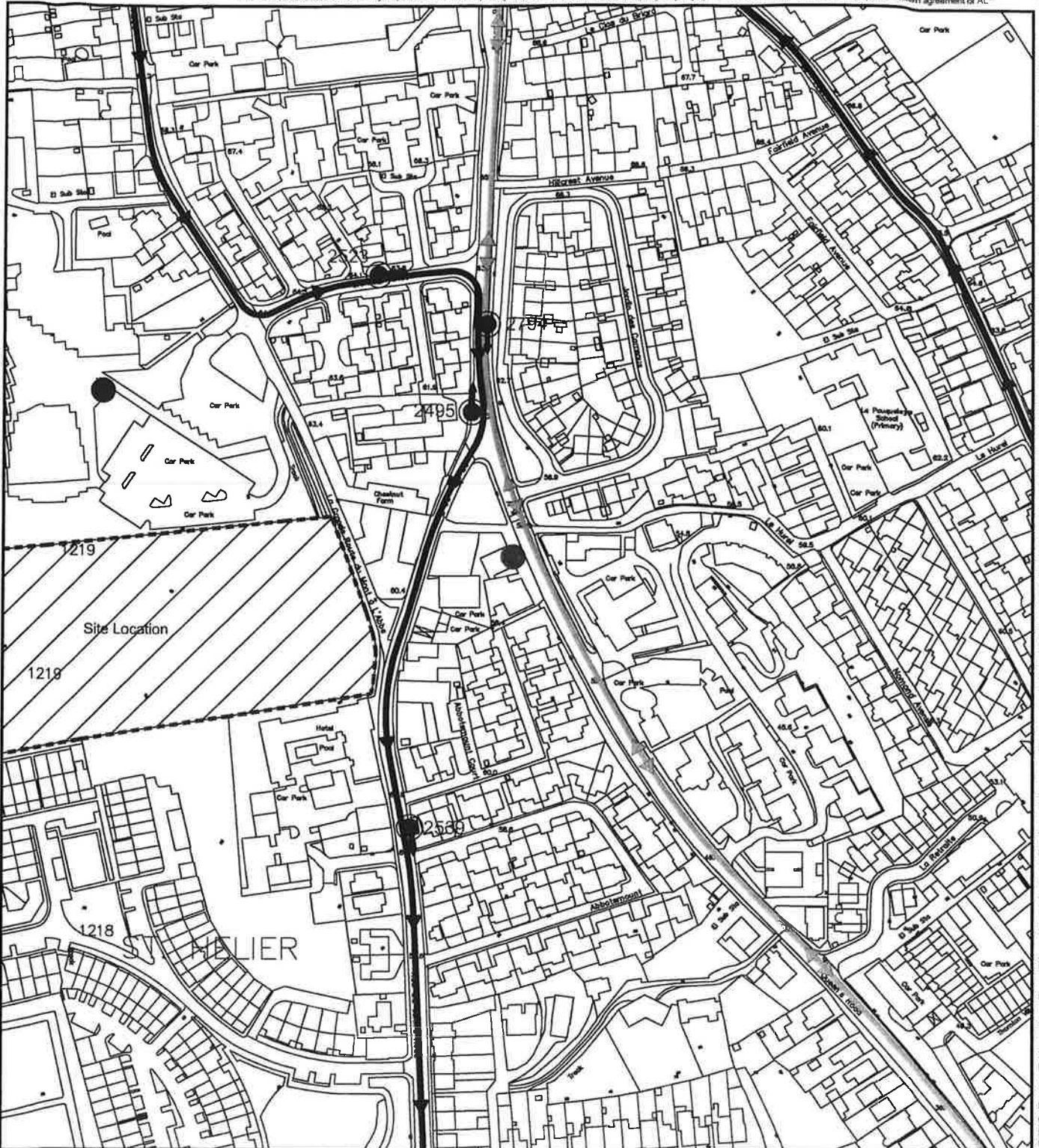
As such, cycling should be considered to provide a viable sustainable alternative to the private car with respect to the proposed development site.

Bus Provision

There are four bus stops close to the development site which are served by two bus services, as shown in **Drawing 60143156_002**.

Direct Tel: 020 3170 2758
 T +44 (0)20 7645 2000
 F +44 (0)20 7645 2099
 E derek.griffiths@aecom.com
 www.aecom.com

The Johnson Building
 77 Hatton Garden
 London
 EC1N 8JS
 United Kingdom



KEY	
	Bus Stop (including stop number and direction of travel)
	Bus Service 5 (and direction of service)
	Bus Service 19 (and direction of service)

<h1>AECOM</h1>	
AECOM House 63-77 Victoria Street St Albans, Herts AL1 3ER Tel: +44 (0)1727 535000 Fax: +44 (0)1727 535099 www.aecom.com	
Design: DHG	CAD: DHG
Chk'd: PT	App'd: NA
Date: Nov 2009	Scale: NTS
<h2>No.6013156_002</h2>	
Rev: -	

Client: MS Planning	Title: Bus Services Plan
Project: Residential Development Field 1219 Le Mont à l'Abbé	

Details of the bus services shown in **Drawing 60143156_002** are provided in **Table 3.1**.

Table 3.1: Bus Routes

Bus Service	Route	Monday – Friday			Saturday			Sunday
		Freq (mins)	First Bus	Last Bus	Freq (mins)	First Bus	Last Bus	
5	Liberation Station to St John's Church/St Mary's Church	60	07:35 (from Liberation Station)	18:25 (from Liberation Station)	60	07:35 (from Liberation Station)	18:25 (from Liberation Station)	-
19	Liberation Station to Elizabeth Harbour, La Pouquelaye & Chestnut Lea	60	07:30 (from Liberation Station)	17:45 (from Liberation Station)	60	08:15 (from Liberation Station)	17:45 (from Liberation Station)	-

There are two existing services which could be of benefit to future residents of the proposed development site; services 5 and 19. Service 5 runs between St John's Church in the north of the island and Liberation Station in the centre of St Helier, along Queen's Road in the vicinity of the proposed development. Residents wishing to travel to the north would need to use bus stop 2495, approximately 150m from the proposed site access, whilst those travelling south into St Helier would need to use bus stop 2794, approximately 170m (220m if the pedestrian crossing on Queen's Road is used) from the proposed site access. It can be seen that this service operates on an hourly frequency, covering the peak hour periods, and therefore ensuring that residents could use the bus for commuter trips.

Service 19 provides a loop service between St Helier and residential areas to the north, and runs along New St John's Road adjacent to the development as it travels south toward the town. Residents travelling toward, and returning from, St Helier would be likely to use bus stop 2539 which is located approximately 80m from the proposed development access. It can be seen that this service operates on an hourly frequency, covering the peak hour periods, and therefore ensuring that residents could use the bus for commuter trips.

The pedestrian routes to these bus stops have been discussed in the previous section, but it is considered that the routes accord with the standards set out in 'Roads Serving Small Developments' (States of Jersey), which refers to Policy TT15 of the Jersey Island Plan (States of Jersey, 2002), which require that new residential developments of more than 20 dwellings will be expected to provide a safe pedestrian route to a convenient bus stop.

The bus stops themselves are painted bays with no stands or timetables present at the stops, an example of which is shown in **Picture 17**. Information is available using a mobile text based system in which the bus stop number, which is painted on each bay, can be texted to receive the time of the next bus.



Picture 17: Bus Stop Layout

It should be noted that the standards set out in 'Roads Serving Small Developments' (States of Jersey), which refers to Policy TT15 of the Jersey Island Plan (States of Jersey, 2002), requires that new residential developments of more than 20 dwellings will be expected to provide bus shelters at nearby bus stops. Therefore, consideration may be required with respect to providing additional facilities at the bus stops if the existing facilities are not considered to be adequate.

Summary

It is considered that there are reasonable pedestrian links in the vicinity of the proposed development site. This includes good links to all nearby bus stops, as well as being located adjacent to Haute Vallée Secondary School, approximately 400m from the nearest primary school and close to a convenience store. St Helier is approximately 2km from the proposed development, and therefore walking is likely to provide a realistic sustainable transport option from the proposed development into the town.

There are two bus services which could be used by residents of the proposed development, both of which run on an hourly frequency to St Helier, and one of which also runs to the north of the island. These services operate across both morning and evening peak hours, which would allow residents to use bus services for commuting into the town. The potential to improve the existing bus services could be considered as part of the planning process for the proposed development site.

St Helier is located approximately 2km from the proposed development site, and therefore cycling could form a major sustainable transport mode for trips between these locations. Although there are no dedicated cycle routes in the vicinity of the proposed development, la Grande Route du Mont à l'Abbé is a dedicated green route on which cyclists, horse riders and pedestrians have priority over vehicles, and local road speeds are low. There are also a large number of lanes with low traffic levels which could be used by cyclists avoiding busier routes.

4. Design and Access Issues

The potential to access the site will be a key consideration for the proposed development. This section investigates the issues with respect to the proposed access locations.

La Grande Route du Mont à l'Abbé Access

The first potential access point into the proposed development site, marked as 'Potential Access Point A' in **Drawing 60143156_001**, would utilise the existing track into the field off la Grande Route du Mont à l'Abbé, shown in **Pictures 3 and 4**.

There are a number of issues relating to providing an access in this location. Firstly, it is likely that an access would need to be at least 5.0m wide with 1.3m wide footways in accordance with the standards set out in 'Roads Serving Small Developments' (States of Jersey) for developments of up to 25 dwellings. The track is approximately 2.5m in width, and is constrained by the existing school access to the west and la Grande Route du Mont à l'Abbé to the east, and therefore there is insufficient width to provide a suitable access in this location.

Secondly, the existing traffic issues along Clarke Avenue could be further exacerbated by the development, which is unlikely to be acceptable to the local highway authority.

On the basis of these two issues alone, it is not considered that access in this location would be feasible. As such, at this stage no further investigation of this access has been undertaken.

New St. John's Road Access

There is also potential to gain access into the proposed development at the point where la Grande Route du Mont à l'Abbé pedestrian route meets New St John's Road, marked as 'Potential Access Point B' in **Drawing 60143156_001**. This location is shown in **Pictures 11 and 12**.



Picture 11: Approximate location for Proposed New St. John's Road access



Picture 12: Approximate location for Proposed New St. John's Road access

It is apparent from **Pictures 11 and 12** that there is a significant level difference between the road and the proposed development site. In addition, potential highway impact and visibility also need to be considered to demonstrate a suitable access can be provided.

Speed surveys undertaken using an automatic traffic count (ATC) between 26th June and 2nd July 2008 have been used to determine the 85th percentile design speed along New St John's Road in the vicinity

Direct Tel: 020 3170 2758
 T +44 (0)20 7645 2000
 F +44 (0)20 7645 2099
 E derek.griffiths@aecom.com
 www.aecom.com

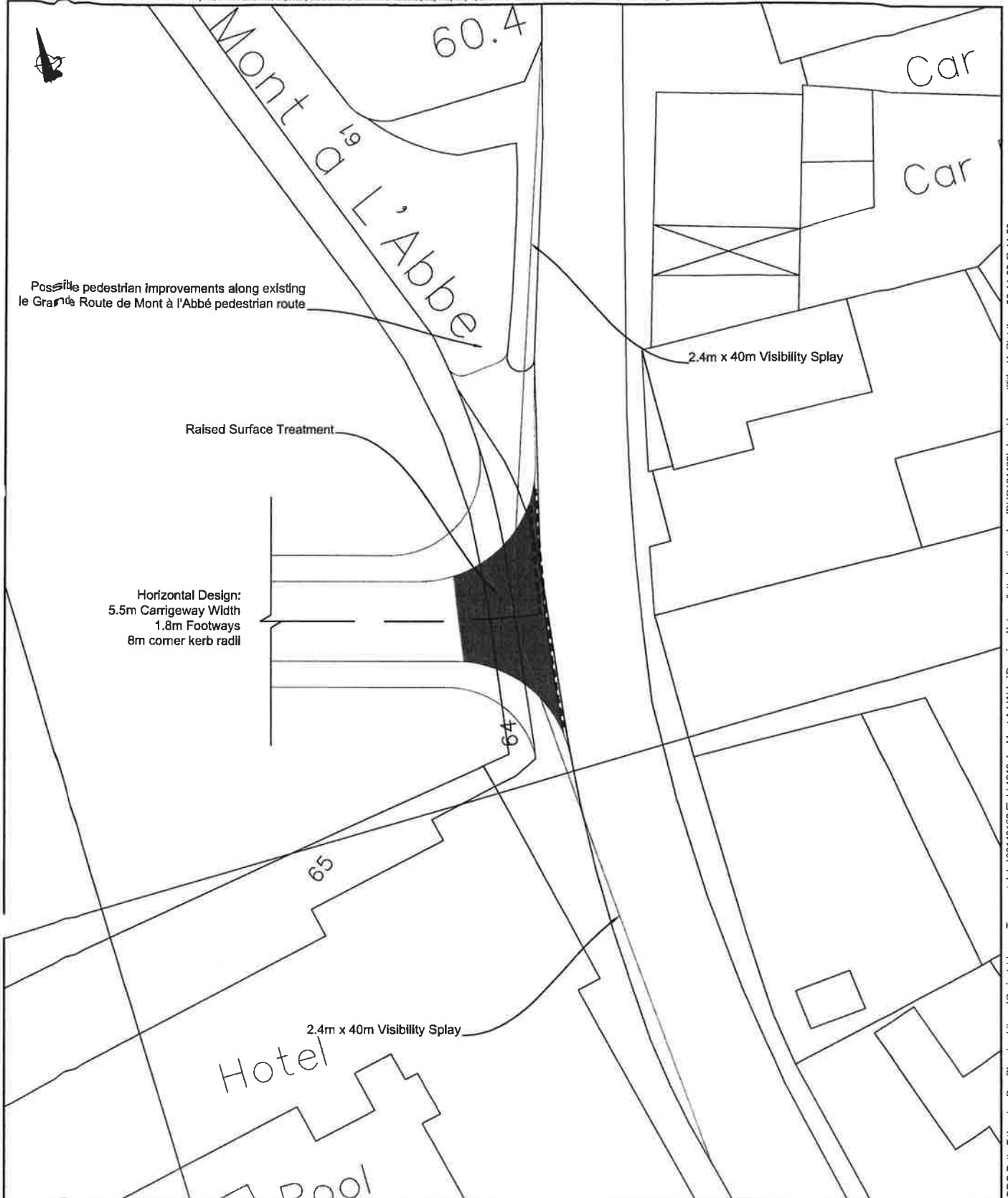
The Johnson Building
 77 Hatton Garden
 London
 EC1N 8JS
 United Kingdom

of the proposed development access as 30.47mph and 30.92mph southbound and northbound respectively. On this basis, Graph 1 of 'Roads Serving Small Developments' (States of Jersey) has been used, and shows that visibility from the junction along the main road of up to 40m is required in this location.

Using visibility as the key basis for design, a proposed horizontal access design has been developed and is included in **Drawing 60143156_003**. The design has been developed on the following basis:

- A carriageway width of 5.5m has been used. This is considered to provide a robust carriageway width, on the basis that 'Roads Serving Small Developments' (States of Jersey) requires accesses for developments of up to 25 dwellings to have a carriageway width of 5.0m.
- Corner radii of 8m have been provided at the proposed access junction. This is in excess of the 4m radii required in 'Roads Serving Small Developments' (States of Jersey), and would ensure that service vehicles could access the site easily.
- Footways of 1.8m on both sides of the carriageway have been provided in accordance with the requirements outlined for developments of more than 2 units in 'Roads Serving Small Developments' (States of Jersey).
- Footways would be tied into the existing footways on la Grande Route du Mont à l'Abbé and New St John's Road. This could additionally include a review of the existing layout at the end of the pedestrian route off la Grande Route du Mont à l'Abbé to more clearly demark the route.
- Given the high number of pedestrian movements across the proposed access road and the fact that the approach to New St John's Road along the new access will be on a downhill gradient, it is recommended that a raised surface treatment is implemented to ensure vehicle speeds are minimised, and provide priority to pedestrians.

This document has been prepared by AECOM Ltd ("AL") for the sole use of our Client (the "Client") and in accordance with generally accepted consultancy principles, the budget for fees and the terms of reference agreed between AL and the Client. Any information provided by third parties and referred to herein has not been checked or verified by AL, unless otherwise expressly stated in the document. No third party may rely upon this document without the prior and express written agreement of AL.



NOTES

1. This drawing is a preliminary sketch layout only.
2. This design has not been subjected to a Stage 1 Road Safety Audit.
3. Do not dimension from this drawing.



AECOM House
63-77 Victoria Street
St Albans, Herts AL1 3ER

Tel: +44 (0)1727 535000
Fax: +44 (0)1727 535099
www.aecom.com

Client: **MS Planning**

Project: **Residential Development
Field 1219 Le Mont à l'Abbé**

Title: **Preliminary Site Access Design
Horizontal Alignment**

Design: DHG	CAD: DHG
Chk'd: NA	App'd: NA
Date: Nov 2009	Scale: 1:250
No. 60143156_003	
Rev: -	

DRG Path: F:\London Dev Planning Library\Projects\Jersey Transport\Jobs\60143156 Field 1219, Le Mont à l'Abbé\Drawings\Internalsite location plan (DHG\B1109).dwg User: griffithsd1 Plot time: 30-11-09 @ 11:58am

As noted previously, there is a significant level difference between New St John's Road and the proposed development site, and this has not been considered in the horizontal design shown in **Drawing 60143156_003**. A review of the available mapping suggests that this level difference is approximately 4m, which is supported by a stone retaining wall, which is heavily planted. In addition, the field continues to rise beyond the retaining wall, increasing further the level difference.

Therefore, the layout proposed above has also been considered in terms of vertical alignment to determine whether a suitable access can be provided, as shown in **Drawing 60143156_004**. The design has been developed on the following basis:

- 'Roads Serving Small Developments' (States of Jersey) requires that the first 4.8m of access road behind the public highway must not exceed 5%, and therefore the vertical alignment has assumed a 5% gradient for the first 5m.
- There are no detailed standards for maximum longitudinal gradients in Jersey. At this stage AECOM has reviewed alternative design guides as a basis for design. 'Roads in Hertfordshire – A Guide for New Developments' (Hertfordshire County Council) recommends a minimum vertical curve of no less than 300m for major and minor access roads serving up to 50 dwellings. As such, two 300m radii curves (one sag and one hog curve) have been used to form the transition between New St John's Road and the existing field level.
- The longitudinal gradient has been limited in the design to 10%, or 1 in 10. Taking into account the lack of large vehicles requiring access along this route, this gradient is considered to be appropriate.
- The design has assumed that the access road follows a straight trajectory into the site – this would need to be reviewed as the site was brought forward to detailed design.

It can be noted from **Drawing 60143156_004** that, on the basis of the above design criteria, the access road would require approximately 70m to tie into the existing ground levels from the junction with New St John's Road.

If it were determined that a longitudinal gradient of greater than 10% were acceptable, the tie in length could be reduced to approximately 64m from the junction with New St John's Road (assuming the 300m limit on transition curves were retained).

Further reviewing the drawing, it can be seen that the existing level contours run diagonally across the site, and therefore if the road were curved northward into the site, the tie in length could be reduced further, however at this stage it is considered that this could be addressed by the architect during site design.

Pedestrian accessibility must also be considered with respect to the proposed access. 'Roads Serving Small Developments' (States of Jersey) states that the maximum longitudinal gradient on footways must not exceed 5% (or 8% over short distances). As such, footways following the same gradient as the carriageway would not accord with standards. **Drawing 60143156_004** includes a line, in blue, showing an 8% gradient from the New St John's Road level to the existing field level, and it can be seen that to retain such a gradient, the footway would need to be segregated from the carriageway. This would result in a footway tie in 1m further back from the stop line compared with the carriageway tie in, or a total distance of 71m. The guidance does not determine in detail what constitutes a 'short distance' with respect to using an 8% longitudinal gradient, but the provision of landings and benches may need to be considered to cater for disabled or elderly people using the route.

It should also be noted that retaining structures would be required to allow the road to be cut into the existing ground level. It is considered that there are two engineering options available:

Direct Tel: 020 3170 2758
 T +44 (0)20 7645 2000
 F +44 (0)20 7645 2099
 E derek.griffiths@aecom.com
 www.aecom.com

The Johnson Building
 77 Hatton Garden
 London
 EC1N 8JS
 United Kingdom

- Option A: Embankments. Shown in green in **Drawing 60143156_004**, an embankment could be provided to provide a bank up from the access road to the existing ground level. This option would have lower construction costs than the alternative options however will require a significant amount of land take (the drawing assumes a 1 in 3 embankment), which will reduce land available for construction, and hence land values. It should also be noted that an embankment alone would not be sufficient in the corner of the site adjacent to the existing hotel, as there is insufficient space for the required embankment, and therefore a retaining wall to support the land within the site boundary would be required.
- Option B: Retaining Walls. Shown in pink in **Drawing 60143156_004**, retaining walls would support the cutting, without requiring a gradient and significant land take, as is required using embankments. This option is likely to be more expensive to construct, however would reduce the land take required, potentially increasing developable land and hence land values.

The preliminary layout sketches show that an access into the proposed development could be provided, and that therefore there is means to develop the site. It should be noted however that this design is based on high level base mapping, and therefore provides only an approximate indication of possible design issues.

Parking Arrangements

The proposed development will provide parking in accordance with the standards published and adopted by the Minister for Planning and Environment.

'*Planning Policy Note 3, States of Jersey Department of Planning and Building Control*' (1988), sets out the current parking guidelines for new developments on the island, which are a minimum of one space per person (excluding visitor parking requirements).

These parking guidelines are 'minimum' parking standards that encourage car use, increased congestion and are likely to discourage the use of sustainable transport modes. Such standards also serve to ensure that the needs to the car dominate people's ability to gain optimal use of the land and buildings that they live and work and which, on an island with a limited land mass with sensitive areas of coast and countryside, is not considered a viable or sustainable approach.

It is understood that as part of the Draft Jersey Island Plan there will also be supplementary planning guidance that establishes maximum levels of parking for broad classes of development, including residential land uses. There will be no minimum standards for development, other than parking for people with disabilities. Maximum standards along with other measures implemented through the planning process / planning conditions (such as Section 106 contributions for sustainable transport improvements / production of a Travel Plan (TP)) will help to promote sustainable transport choices, reduce the land-take of development, promote linked-trips and access to development for those without use of a car and tackle congestion.

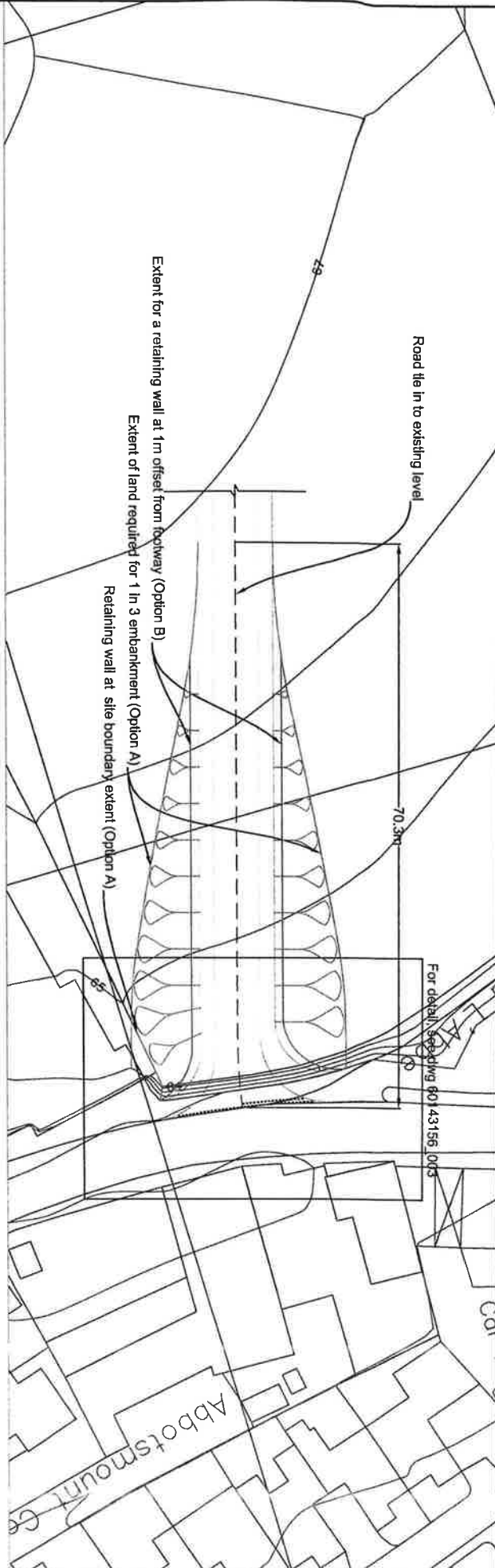
If the proposed new parking guidelines are adopted by the Minister of Planning and Environment in the Island Plan, then it is likely that these standards will be used to assess parking requirements for the Category A housing sites that are included in the Island Plan. This would need to be discussed and agreed with States of Jersey TTS as part of the transport scoping process prior to the submission of a TS / TA in support of a future planning application.

In terms of development layout, at this stage it is considered that car parking would generally be provided internally within the site on private driveways and in courtyard areas. To encourage cycle use, cycle parking provision would also be required in accordance with the relevant standards published and adopted by the Minister for Planning and Environment.

Direct Tel: 020 3170 2758
 T +44 (0)20 7645 2000
 F +44 (0)20 7645 2099
 E derek.griffiths@aecom.com
 www.aecom.com

The Johnson Building
 77 Hatton Garden
 London
 EC1N 8JS
 United Kingdom

This drawing has been prepared by AECOM Ltd ("A.L.") for the safe use of our Client (the "Client") and it is not to be used for any other purpose. AECOM Ltd and the Client agree that the Client is responsible for the design and construction of the works shown in this drawing. AECOM Ltd does not accept any liability for the design and construction of the works shown in this drawing. The Client agrees to indemnify and hold AECOM Ltd harmless from and against all claims, damages, losses and expenses, including reasonable legal costs, which may be incurred by AECOM Ltd in connection with the design and construction of the works shown in this drawing. The Client agrees to release AECOM Ltd from and against all claims, damages, losses and expenses, including reasonable legal costs, which may be incurred by the Client in connection with the design and construction of the works shown in this drawing. The Client agrees to release AECOM Ltd from and against all claims, damages, losses and expenses, including reasonable legal costs, which may be incurred by the Client in connection with the design and construction of the works shown in this drawing.



Chalnage	Vertical Carriageway Design	Existing Level	Proposed Carriageway Level	Proposed Footway Level
71.3	G=2.97% R=300m	66.70	66.67	66.67
70.3		66.67	66.67	66.67
59.9	G=10.0% R=300m	66.18	66.36	66.18
49.4		66.05	66.05	65.32
19.9	G=5.0% R=300m	64.93	64.51	64.93
12.4		64.51	64.51	61.71
5.0	G=0%	64.08	64.08	61.25
0.0		61.00	61.00	61.00

Datum 60.00

- NOTES
1. This drawing is a preliminary sketch layout only.
 2. This design has not been subjected to a Stage 1 Road Safety Audit.
 3. Do not dimension from this drawing.

Client:	MS Planning	Title:	Preliminary Site Access Design Vertical Alignment
Project:	Residential Development Field 1219 Le Mont à l'Abbé	<p>AECOM House 63-77 Victoria Street St Albans, Herts AL1 3ER</p> <p>AECOM</p> <p>Tel: +44 (0)1727 535000 Fax: +44 (0)1727 535099 www.aecom.com</p>	
Design:	DHG	CAD:	DHG
CHK'd:	NA	App'd:	NA
Date:	Nov 2009	Scale:	1:500
NO. 60143156_004		Rev:	-

© Copyright States of Jersey. Licence Number 64

5. Proposed Residential Development Trip Generation and Distribution

Background Traffic Flows

To understand the potential impact of the proposed development on the local highway network, traffic data on the local highway network has been extracted from the Assigned Flows in the Strategic Jersey VISUM Traffic Model. In accordance with an email dated 20th November 2009 from States of Jersey TTS, no growth factors have been applied to these traffic flows to derive future year development scenarios, and therefore these flows can be considered to provide the base scenario against which the proposed development traffic should be assessed. In addition, as the site is currently undeveloped, it does not currently generate any trips, and hence there is no requirement to remove any trips off the local highway network. On this basis, **Figure 5.1** shows the Base Traffic Flow Scenario.

Development Traffic Generation

The potential housing yield for the site, as set out earlier in this TN, suggests the proposed development site could developed for up to 50 dwellings.

In an email dated 17th November 2009, States of Jersey TTS have provided residential trip rates for a comparable site on the Island. **Table 5.1** shows these adopted residential trip generation rates and corresponding predicted trip generation for the proposed 50 dwellings.

Table 5.1: Trip Rates and Trip Generation for the Proposed Residential Development

	Morning Peak (0800-0900)		Evening Peak (1700-1800)	
	In	Out	In	Out
Residential (trip rate per dwelling)	0.19	0.64	0.77	0.19
Residential (trips per 50 dwellings)	10	32	39	10
Two-Way	42		49	

It can be seen from **Table 5.1** that the proposed residential development of 50 dwellings would be expected to increase two-way trips on the local highway network during both the morning and evening peak hours by 42 and 49 trips respectively.

Development Traffic Distribution

It is considered that the majority of trips from the proposed development site would be travelling toward St Helier, as the major employment destination in the vicinity of the site. Traffic could be expected to use either New St John's Road southbound, or travel along New St. John's Road northbound to the junction with Queen's Road, and then south along Queen's Road. Given the level of traffic on Queen's Road, and a visual interrogation of the local highway network, it is considered that the majority of trips to St Helier would be made along New St John's Road. At this stage it is assumed that 75% of development trips would use this route. This distribution is similarly applied to trips to the proposed development.

Further distribution of trips onto the local highway network has been undertaken based on existing traffic distributions.

On this basis **Figure 5.2** shows the development traffic distributed onto the local highway network.

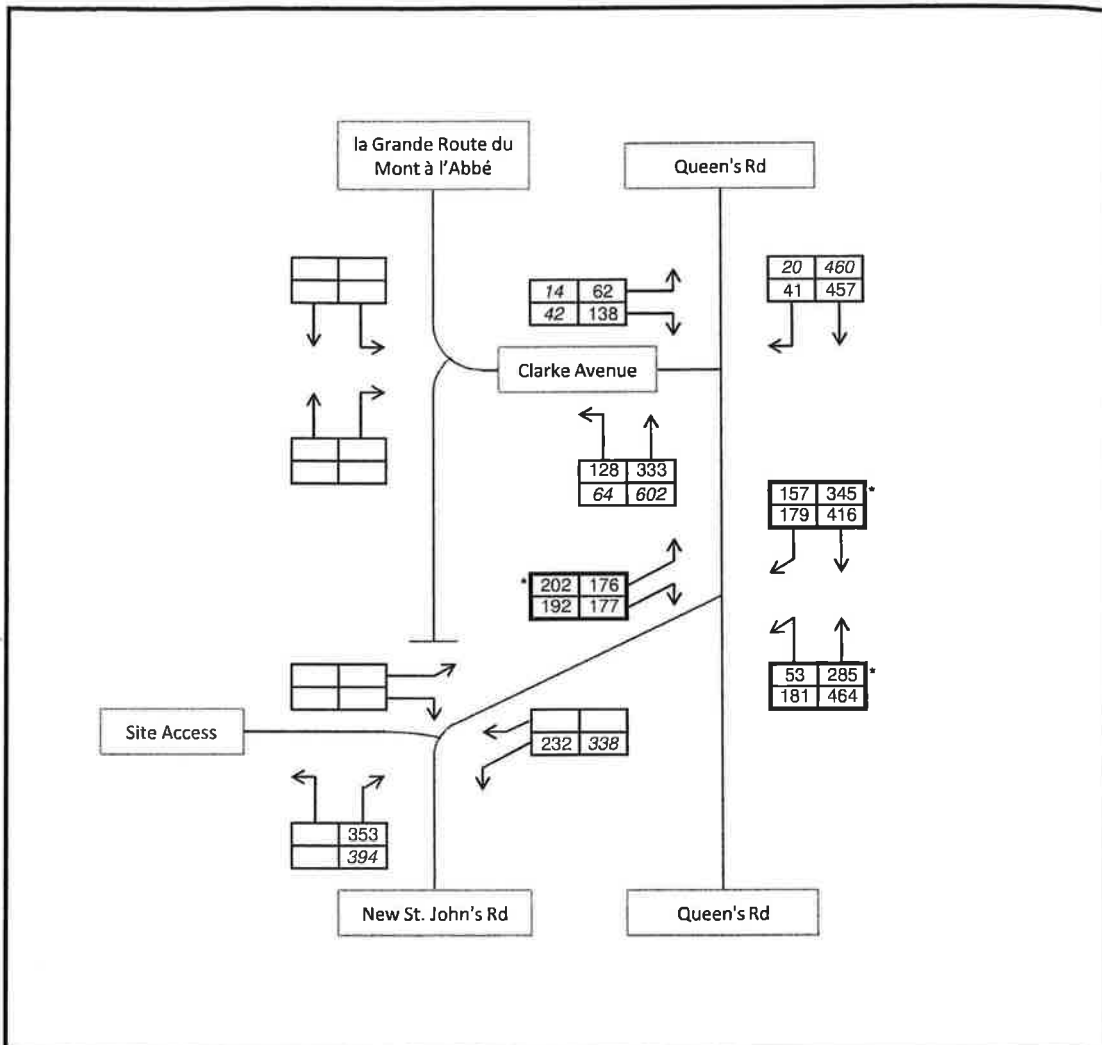
The distribution of trips would need to be considered further as part of any planning applications brought forward for the proposed site.

Direct Tel: 020 3170 2758
 T +44 (0)20 7645 2000
 F +44 (0)20 7645 2099
 E derek.griffiths@aecom.com
 www.aecom.com

The Johnson Building
 77 Hatton Garden
 London
 EC1N 8JS
 United Kingdom

Traffic Impact

The expected development traffic, outlined in **Figure 5.2**, has been added to background traffic flows, outlined in **Figure 5.1**, as shown in **Figure 5.3**. This had allowed a percentage impact across the local highway network to be calculated, as shown in **Figure 5.4**.



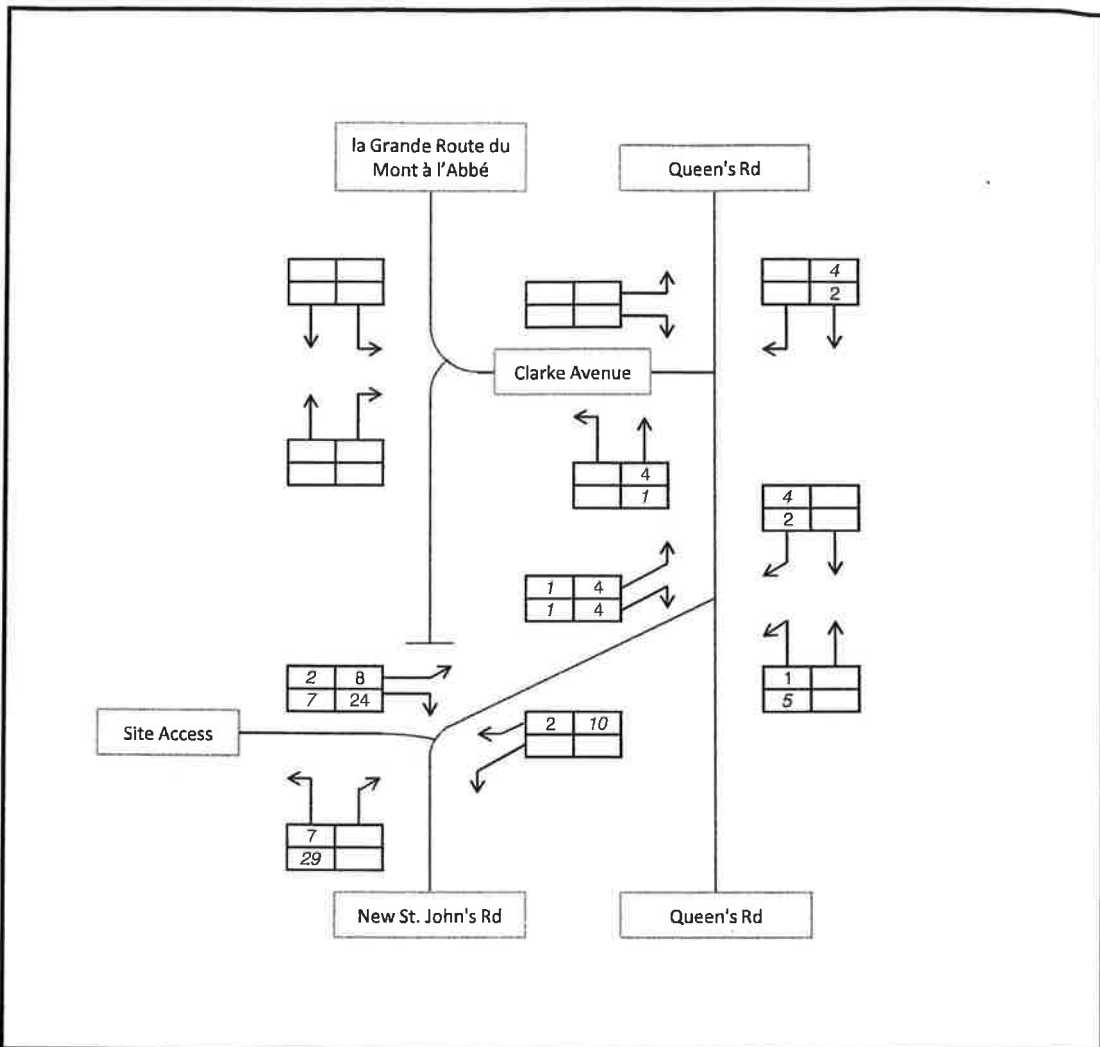
Notes

123	Morning Peak
123	Evening Peak

*	Denotes data provided from Jersey Traffic Model Assigned Flows, validated to 2007 Base Turning proportions at Queens Road/Clarke Avenue derived from on site traffic count data
---	---

Base Traffic Flows

MS Planning		FIGURE 5.1			
Site Access Assessment Field 1219, St Helier, Jersey		The Johnson Building 77 Hatton Garden London, EC1N 8JS	Tel: +44 (0)207 645 2000 Fax: +44 (0)207 645 2099 www.aecom.com	Date Nov-09	Drawn DHG



Notes

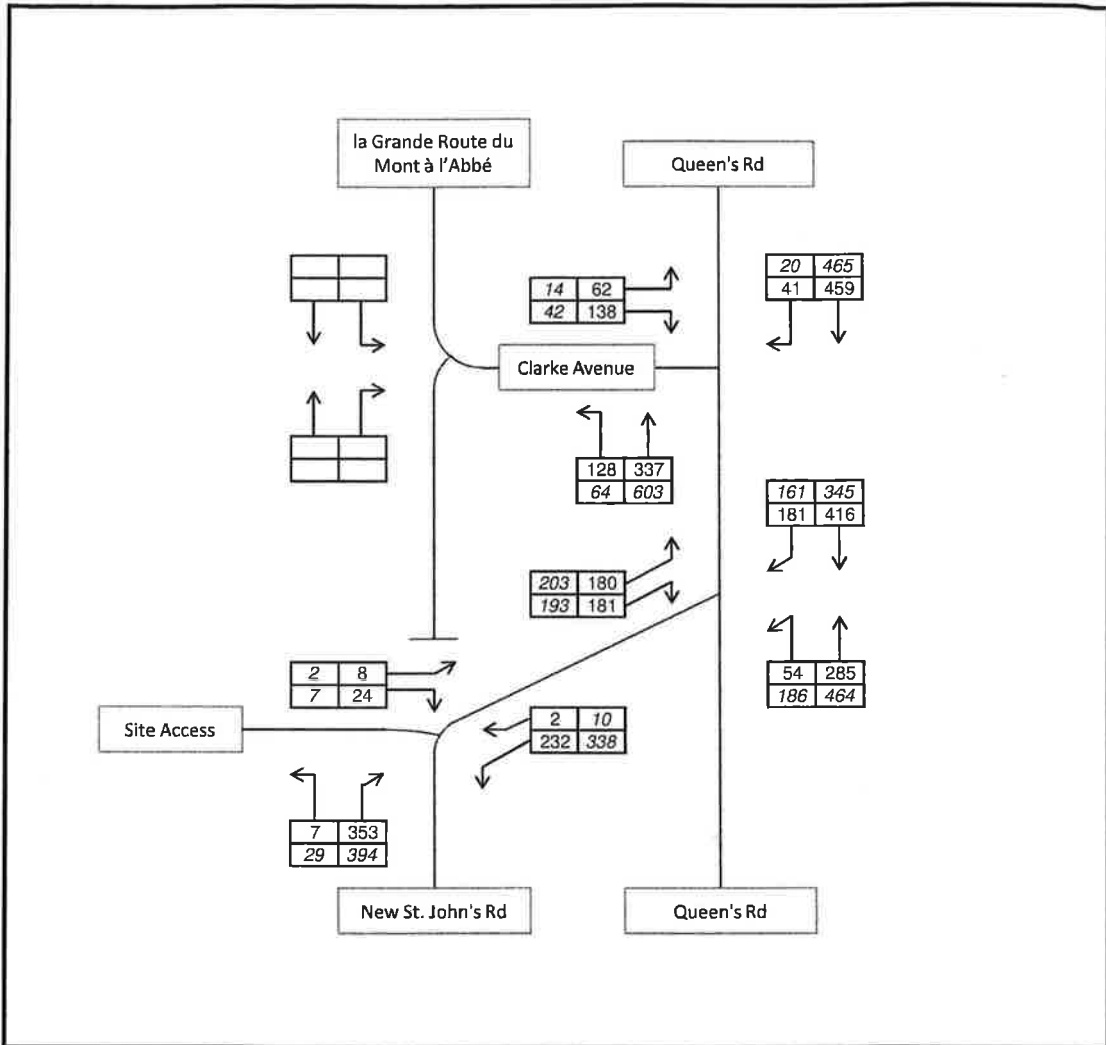
123 Morning Peak
 123 Evening Peak

	Morning		Evening	
	In	Out	In	Out
Vehicle Trip Rate	0.19	0.64	0.77	0.19
50 Dwellings	10	32	39	10

Route	Distribution
New St John's Road South	75%
New St John's Road North	25%

Base Traffic Flows

MS Planning		FIGURE 5.2		
Site Access Assessment Field 1219, St Helier, Jersey		The Johnson Building 77 Hatton Garden London, EC1N 8JS	Tel: +44 (0)207 645 2000 Fax: +44 (0)207 645 2099 www.aecom.com	Date Nov-09

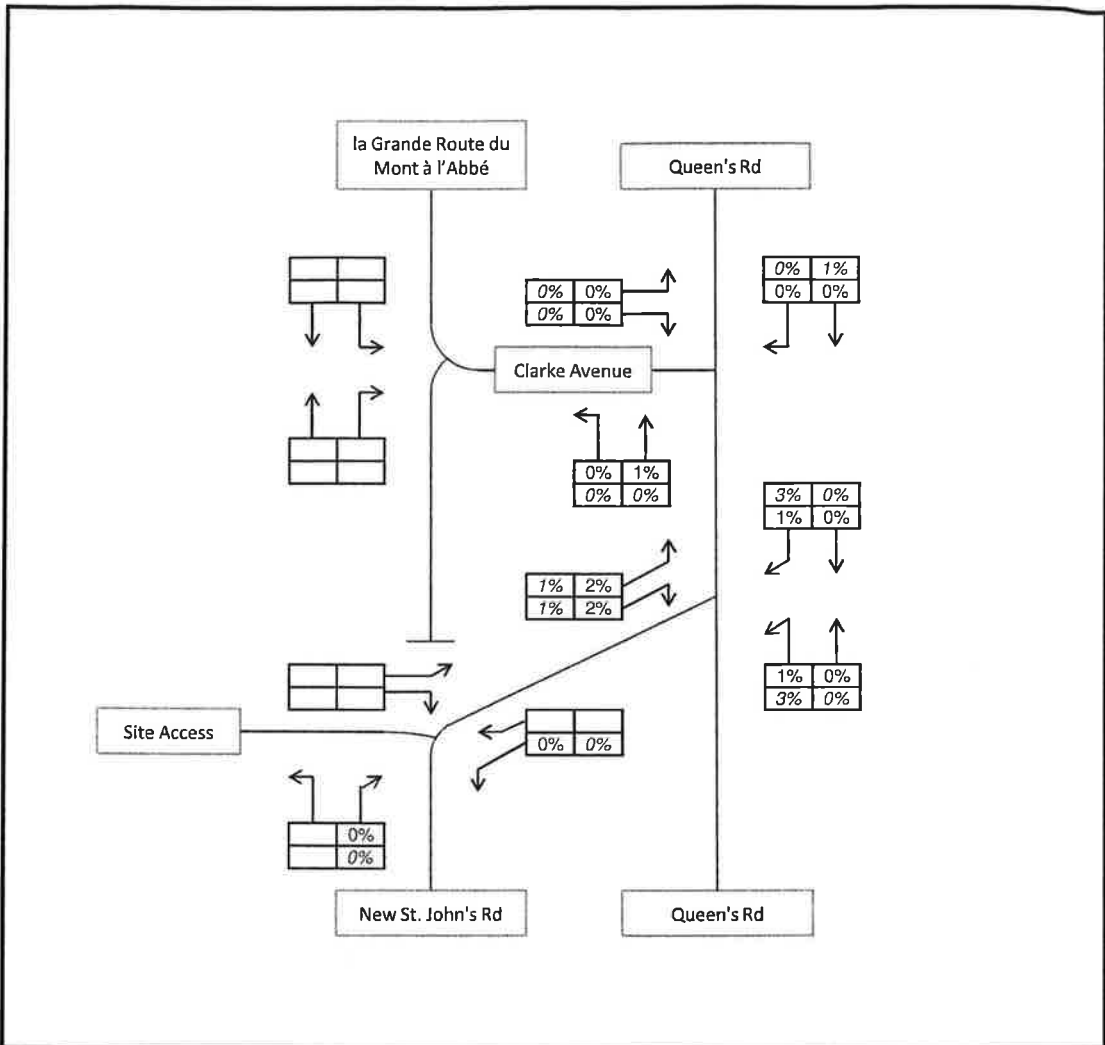


Notes

123	Morning Peak
123	Evening Peak

Base + Development Traffic Flows

MS Planning		FIGURE 5.3			
Site Access Assessment Field 1219, St Helier, Jersey		The Johnson Building 77 Hatton Garden London, EC1N 8JS	Tel: +44 (0)207 645 2000 Fax: +44 (0)207 645 2099 www.aecom.com	Date Nov-09	Drawn DHG



Notes

123	Morning Peak
123	Evening Peak

Percentage Traffic Impact

MS Planning		FIGURE 5.4			
Site Access Assessment Field 1219, St Helier, Jersey		The Johnson Building 77 Hatton Garden London, EC1N 8JS	Tel: +44 (0)207 645 2000 Fax: +44 (0)207 645 2099 www.aecom.com	Date Nov-09	Drawn DHG

The flows and percentage traffic impacts shown in **Figures 5.1 to 5.4** have been summarised below in **Table 5.2**.

Table 5.2: Traffic Flow and Impact Summary

Junction Arm	Morning Peak (0800-0900)				Evening Peak (1700-1800)			
	Base	Base + Dev	Change	Impact	Base	Base + Dev	Change	Impact
Links (Two-way flows)								
New St John's Road (N)	585	595	+10	2%	732	744	+12	2%
New St John's Road (S)	585	616	+31	5%	732	768	+36	5%
Queen's Road (N)	1056	1062	+6	1%	1168	1173	+5	0%
Queen's Road (S)	931	936	+5	1%	1182	1188	+6	1%
New St John's Road / Queen's Road Junction								
New St John's Rd (Left)	176	180	+4	2%	202	203	+1	0%
New St John's Rd (Right)	177	181	+4	2%	192	193	+1	1%
Queen's Rd (Ahead s/b)	416	416	0	0%	345	345	0	0%
Queen's Rd (Ahead n/b)	285	285	0	0%	464	464	0	0%
Queen's Rd (Left)	53	54	+1	2%	181	186	+5	3%
Queen's Rd (Right)	179	181	+2	1%	157	161	+4	3%
Total	1286	1297	+11	1%	1541	1552	+11	1%

*Errors may exist due to rounding

It can be seen in **Table 5.2** that the worst case traffic impact would occur along New St John's Road, with a potential increase in existing two-way flows of up to 5% during the morning and evening peak hours. This traffic would be likely to distribute across the wider network using Parade Road, Cheapside and St Aubin's Road, and therefore the impact would be spread across a number of junctions, and would be unlikely to cause a detrimental impact on any highway junctions.

In the worst case, it could be expected that there would be a 3% increase in traffic on some turning movements at the New St John's Road / Queen's Road junction. It is unlikely that this increase in traffic would have a significant detrimental impact on the operation of these arms. Further, across the junction as a whole, the traffic impact is approximately 1%, which is not considered to be significant.

Summary

It is considered that the development is unlikely to have a significant impact on the local highway network. However, as part of any planning application for the proposed development, the distribution of development trips would need to be considered in further detail, and the potential for further junction assessment would need to be reviewed.

6. Summary and Next Steps

Introduction

AECOM has been commissioned by MS Planning to provide transportation planning advice in support of a proposed residential development at Field 1219, la Grande Route du Mont à l'Abbé, St Helier, Jersey. This transport appraisal has considered access by sustainable modes, vehicle trip generation, parking provision and site access arrangements for the proposed development of up to 50 dwellings at the site.

As mentioned in the introduction and highlighted in relevant sections of the note, pre-application discussions have been held with States of Jersey TTS on 13th November 2009 with regard to the site and the associated transport issues.

Sustainable Transport Access

It is considered that there are reasonable pedestrian links in the vicinity of the proposed development site. This includes good links to all nearby bus stops, as well as being located adjacent to Haute Vallée Secondary School, approximately 400m from the nearest primary school and close to a convenience store. St Helier is approximately 2km from the proposed development, and therefore walking is likely to provide a realistic sustainable transport option from the proposed development into the town.

There are two bus services which could be used by residents of the proposed development, both of which run on an hourly frequency to St Helier, and one of which also runs to the north of the island. These services operate across both morning and evening peak hours, which would allow residents to use bus services for commuting into the town. The potential to improve the existing bus services could be considered as part of the planning process for the proposed development site.

St Helier is located approximately 2km from the proposed development site, and therefore cycling could form a major sustainable transport mode for trips between these locations. Although there are no dedicated cycle routes in the vicinity of the proposed development, la Grande Route du Mont à l'Abbé is a dedicated green route on which cyclists, horse riders and pedestrians have priority over vehicles, and local road speeds are low. There are also a large number of lanes with low traffic levels which could be used by cyclists avoiding busier routes.

Proposed Access Issues

Two potential locations for site access have been considered. The first, in the location of the existing track into the site off la Grande Route du Mont à l'Abbé, would not be acceptable due to insufficient land available to provide an appropriate standard of access, and also due to existing high traffic flows in this location.

The second access, located off New St John's Road, could be used to serve the development. Investigation of the potential issues of gaining access at this point has been considered in this report, and it is likely that a suitable access could be provided. However, any planning application would need to address the engineering issues in relation to levels.

Traffic Impact

It is considered that the development is unlikely to have a significant impact on the local highway network. However, as part of any planning application for the proposed development, the distribution of development trips would need to be considered in further detail, and the potential for further junction assessment would need to be reviewed.

Next Steps

In addition to further investigation of the issues outlined in the sections above, the following points would also need to be further considered in relation to transportation and highways matters:

- Proposed parking provision;
- Planning conditions / Section 106 contributions for sustainable transport improvements; and
- Preparation of a Residential Travel Plan (RTP).


Further to any additional investigations, any proposals would need to be discussed and agreed with States of Jersey TTS as part of the transport scoping process prior to the submission of a Transport Statement / Transport Assessment in support of a future planning application.


The lines of communication with the relevant contacts in the States of Jersey TTS Planning and Building Control Departments and have already been established as part of this transport appraisal, and therefore it is anticipated that any further work associated with a future planning application could be progressed immediately further to your instruction.

Conclusion

In conclusion, further to the assessment set out in this TN, there are no transport reasons why a proposed residential development of up to 50 dwellings at the Field 1219 site should not be included in the adopted Island Plan.

Prepared by: 
Derek Griffiths
Consultant

Checked by: 
Nick Anderson
Regional Director

Approved by: 
Nick Anderson
Regional Director

Rev No	Comments	Checked by	Approved by	Date
1	FINAL Transport Appraisal	NA	NA	25/01/10
-	DRAFT v.1 Transport Appraisal	NA	NA	30/11/09

The Johnson Building, 77 Hatton Garden, London, EC1N 8JS
Telephone: 020 7645 2000 Fax: 020 7645 2099 Website: <http://www.aecom.com>

Job No 60143156 Reference Field 1219 Date Created November 2009

This document has been prepared by AECOM Limited ("AECOM") for the sole use of our client (the "Client") and in accordance with generally accepted consultancy principles, the budget for fees and the terms of reference agreed between AECOM and the Client. Any information provided by third parties and referred to herein has not been checked or verified by AECOM, unless otherwise expressly stated in the document.

No third party may rely upon this document without the prior and express written agreement of AECOM.