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**Jersey Police Headquarters**  
Transport Assessment

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# 1 Introduction

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Arup has been commissioned to prepare a Transport Assessment in support of a planning application for a new Police Headquarters in St. Helier, Jersey. The site location is indicated in Figure 1.1.

# 2 Existing Situation

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The proposed police station site is located adjacent to La Route du Fort (A17) on the south-eastern side of St. Helier. The site is located around 80m from the Green Street Roundabout (which connects to the Fort Regent Tunnel and thereafter the Esplanade and Harbour/Marina area). Green Street Roundabout is a 4-arm junction, as follows (clockwise):

- B79 Green Street – north, towards the town centre,
- A17 La Route du Fort, to the eastern areas of the island,
- B79 Green Street – south, to the south coast and the A4 Havre des Pas,
- A17 La Route de la Liberation, to the Tunnel and the esplanade area.

The proposed police headquarters site is currently part of a public car park (Green Street Car Park), which comprises of a multi-storey car park structure at its northern end, and around 91 surface car park spaces at ground level on the southern end of the site. The development site will replace the surface car parking area, which will thus result in a loss of some 91 parking spaces.

The key transport characteristics of the Green Street site are as follows:

**Bus:** Year-round bus services are operated by a private contractor on behalf of the States of Jersey. Service 1 passes alongside the site on La Route du Fort (at 15-20 minute frequency in the peak periods) – connecting to Gorey on the eastern coast to St Helier. There are bus stops on La Route du Fort in both directions directly adjacent to the site. The westbound bus stop bay is within an off-side layby, while the eastbound bus stop bay is on-street.

Service 2, connecting to St Catherine to the east and Service 3 (to Rozel in the north-east) pass along La Route du Fort and Colomberie / Don Road (within 300m of the site) respectively. Also, Service 18 (to the Le Marais Estate) passes close to the site, along Green Street (south), every 15 minutes in the peak hour.

The site is thus very well served by public transport from / to the east of the island. In addition, the site is also accessible on foot to Liberation Station on the Esplanade, to which all Jersey bus services connect. The Station is around 800m on foot from the proposed site (via the Tunnel); around a 10 minute walk.

**Walking / Cycling:** The site is located within the urban area of St. Helier, and thus the site is accessible on foot from all parts of the town via the road/footway network. For example, the junction of Market Place / King Street / Queen Street is around 700m from the site – less than a 10 minute walk.

There is an existing footpath through the Green Street Car Park (which runs alongside the cemetery directly east of the proposed Police Headquarters site),

which connects Green Street with La Route du Fort. There are steps at the southern end of the footway up to La Route du Fort. It is understood that this footpath does not have a formal 'right-of-way' status.

In respect of cycling, there are no segregated cycle facilities in the vicinity of the site. However, traffic count data for Green Street roundabout indicates that around 4% of movements at the roundabout are made by bicycles, which is similar to the typical mode share for St Helier (ref. Jersey's Sustainable Transport Policy White Paper, July 2010). Thus the location on La Route du Fort is clearly accessible in respect of cycling.

**Road Network:** The site is located adjacent to La Route du Fort. Currently, vehicular access to the site is via a T-junction on Green Street (north) i.e. the car park access. It is proposed that future access to the site (for vehicles) will be via a new T-junction on La Route du Fort.

Currently, La Route du Fort carries around 1750-1900 vehicles/hour (two-way) in the peak hours – with a peak directional flow of around 1100 vehicles / hour (westbound in the AM peak and eastbound in the PM peak). The junction at Green Street is busy during the peak hours – with queues present on La Route du Fort and Tunnel Road in particular. Observation indicates however that some of the congestion at the roundabout can be ascribed to the presence (and frequent activation of) the signalised pedestrian crossing on Tunnel Road just west of the roundabout – which tends to result in vehicles stopping on the roundabout gyratory, which blocks entering traffic (especially from La Route du Fort). However, in general, the traffic delay at the roundabout appears relatively 'stable' such that journey times during peak hours are reasonably consistent for drivers using the route every day.

**Parking:** St Helier has approximately 4,000 public car parking spaces, plus an estimated 7,000 private non-residential parking spaces. The 2011 Island Plan (policy TT10) sets a limit of 4000 town public parking spaces. The States sustainable transport policy anticipates that demand for commuter parking in the town area will however reduce as sustainable transport habits are encouraged and a shift away from private car use occurs. A small reduction of around 91 spaces (due to the new Police Headquarters taking over the at-grade portion of the Green Street Car Park) represents around a 2% reduction in public parking availability, or less than a 1% decrease in overall non-residential parking supply, which is considered not to be significant on a town-wide basis.



Figure 1.1 Proposed St Helier Police Headquarters Site

### 3 Development Proposal

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The police headquarters will consist of a 4-storey building, together with a basement car park for 44 'police' vehicles. The vehicle access arrangements and parking proposals are shown in Architect Plans and Arup Sketch 218821 SK01. The transport operation of the facility is described in the following sections.

**Police Vehicle Access:** There will be two vehicle access points as follows:

- The main in/out vehicle entrance will be a new T-junction off La Route du Fort, at south-western side of the site. It is proposed that Keep Clear road markings are provided directly adjacent to the access point (on La Route du Fort).
- A secondary out-only access will also be provided for a secure personnel carrier 'transit van' (see below), at south-eastern side of the site.

In respect of visibility for vehicles exiting the main entrance, a visibility splay of approximately 2.4m x 50m is available in both directions (i.e. 2.4m back from the stop line, and 50m to the left and right on the La Route du Fort). To achieve this visibility, some widening of the footway (on the north side of La Route du Fort) is required. This footway widening is able to be achieved without reducing the width of the main eastbound and westbound traffic lanes below 3.5m. Use of the vehicular entrances will be by police vehicles only – except for occasional maintenance / service vehicles.

In respect of emergency police access, the police have indicated that there is no requirement for any 'signal control' intervention on La Route du Fort. Police vehicle call-outs are predominantly served from vehicles already out in service on the road network.

**Secure Personnel Carrier:** Police operations will involve transport of arrestees/prisoners using a secure personnel carrier 'transit van'. This vehicle will access the site via the main in/out access junction on La Route du Fort. A gated, secure, 'Van Dock' will be located within the police building (at ground floor level), with an exit gate which will allow vans to drive forward to the separate 'exit junction' at La Route du Fort. At this junction, visibility to the left is restricted by the adjacent fenceline (at the cemetery), and the available visibility is approximately 2.4m x 40m. It is considered that this junction visibility is sufficient to allow safe operation for occasional use by 'professional' police drivers only.

**Servicing arrangements:** A short servicing layby is proposed adjacent to the police building, parallel to La Route du Fort. The layby will be located 'behind' the footway such that pedestrians will continue to walk along the line of the existing footway, and will not divert around the back of the layby. Service vehicles will park at this location for short periods only, and the area will be managed carefully by police staff. The layby facility is will also be available (on a pre-arranged basis) for visitors who have a particular need to park close to the police building e.g. disabled visitors.

**Police Operational Vehicle and Bicycle Parking:** Space for 44 police vehicles will be provided in the basement of the headquarters building. Police operational vehicles using the basement will predominantly be cars / vans, and motorcycles.

Police bicycles will also be stabled in the basement car park. There will also be a small number of 'transit van' type vehicles, of around 6m in length.

Access to the parking area will be via a two-way access lane and ramp. The ramp will operate as a one-way shuttle, with signal control at the both ends of the ramp. Vehicles driving down the ramp (into the basement parking area) will have priority over exiting vehicles, such that any potential for queuing back of inbound vehicles onto the road network is minimised.

**Staff and Visitor car parking:** Provision for staff parking of vehicles will not be made at the headquarters site. Staff will be expected to park in public car parks and then walk to work.

Whilst there is no visitor parking on site, three short-stay car parking spaces at Snow Hill will be allocated for visitors to the new Police headquarters, and general public parking is also available close-by at the Green Street multi-storey car park just to the north of the headquarters site.

**Disabled Car Parking:** Disabled parking bays are available in Green Street Car Park close by, from where visitors can access the police site via the footways along Green Street / La Route du Fort. Also, as stated above, the new layby facility directly adjacent to the building will also be available (on a pre-arranged basis) for disabled visitors who have a particular need to park close to the police building.

**Staff and Visitor motorcycle parking:** Motorcycle travel represents a significant proportion of current police home-work commuting pattern. It is proposed that a dedicated area for 38 Police staff motorcycles will be provided at a new parking facility at the location of the layby and grass verge on the south side of La Route du Fort (see Arup Sketch 218821 SK01). This parking facility will be located 'behind' the footway and will consist of 'side-by-side' parking.

It is also proposed that 18 motorcycle parking spaces will be provided at the Snow Hill car park access lane, within an area currently occupied by a raised bed bounded by a low stone wall (adjacent to the footway on the eastern side of the access lane). Ground investigations previously carried out by Jersey Transport and Technical Services department indicate that construction of the parking area is feasible in respect of clearance to rock material. An echelon parking arrangement is likely to offer the most suitable layout of spaces.

Overall therefore, the 'new' provision of 56 motorcycle spaces will provide parking capacity sufficient to address the parking demand by police staff and occasional visitors, and will offset the loss of two car parking spaces at Snow Hill Car Park (Note: Parking demand is discussed in Section 4). The location of parking spaces for motorcycles is indicated in Figure 3.1.

**Staff and Visitor Bicycle Parking:** 52 new bicycle parking spaces (with Sheffield stands) will be provided on the south side of La Route du Fort (adjacent to the motorcycle parking area), which will cater for existing demand for police staff. Cycle parking stands will also be installed at the bellmouth entrance to the cemetery (10 spaces) at the junction of Green Street and Grenville Street - to ensure that any occasional peaks in demand is fully catered for. The locations of the proposed 62 cycle parking spaces are shown in Figure 3.1.



**Access on Foot:** The footway network along Green Street and La Route du Fort links well with the local residential neighbourhood and with St Helier town centre. Access to the building will be via the main entrance on La Route du Fort. The pedestrian footpath along the eastern edge of the headquarters site will remain as a through route alongside the police building – and will provide a direct route to the police headquarters for Green Street Car Park users.

Jersey Transport and Technical Services department has indicated that for the scale of development of the police headquarters, it is expected that a financial contribution will be required towards development of the eastern cycle route.

**Workplace Travel Plan:** The police will develop an appropriate Travel Plan for the new headquarters, with the aim of maintaining (and improving upon) the current high proportion of use of non-car travel for commuting to and from work. The Travel Plan will include a set of mechanisms and initiatives to encourage travel behaviour such as walking, cycling, use of public transport and car sharing. The Police building will include showers and changing facilities – which are essential to encourage cycling in particular.

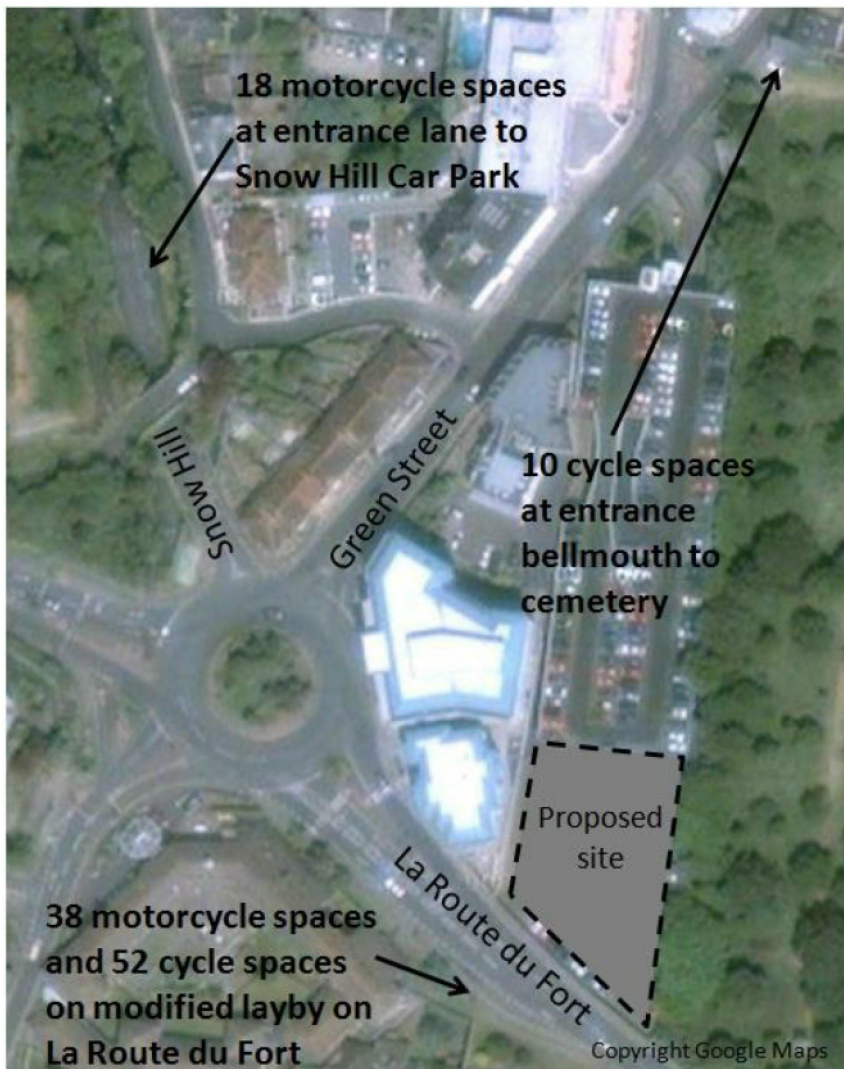


Figure 3.1: Location of Proposed Motorcycle (56) and Cycle Parking (62)

## 4 Trip Generation Characteristics

**Police Staff Trip Generation:** The overall net traffic impact of the new Headquarters will be minimal in respect of generated traffic, since a number of police staff are already commuting each day to police facilities in St Helier. However, in order to quantify traffic generation, staff at the existing police facilities in St Helier, who will transfer to the new headquarters, were surveyed in respect to their typical mode of travel. Overall, there will be some 330 staff based at the headquarters, as set out in Table 4.1. However, a shift system is employed within police operations, such that a maximum of  $\frac{2}{3}$  rds of staff would be present at any one time i.e. around 220 staff members.

Table 4.1: Staff Numbers

Staff	Based at HQ
Police	240
Civilian	90
<i>Total</i>	<i>330</i>

In respect of current trip generation, surveys of staff indicate that generated trips per mode are as set out in Table 4.2, with peak of around 190 trips/hour on a weekday morning (which matches well with information from the Police that a normal staff presence of 220 is expected) – although the impact of this movement will not be significant since it will occur earlier than the general 8am-9am peak period due to the police shift pattern (with early morning starts and a mid-afternoon shift change).

Also, Table 4.2 emphasises that the mode-share for policed staff is significantly more ‘sustainable’ than typical mode share for travel in St Helier, which has a car mode share of nearly 80%. It is also relevant that the police have conducted internal questionnaire surveys, in which police staff have indicated that when working at the proposed Headquarters, an increased number of staff are likely to use modes such as walking and cycling car trips.

Table 4.2: Staff Trip Generation and Mode-share in Peak Hour

Mode	Police staff		St. Helier (overall)
	One-way trip	Mode-share	
Car	75	39%	78%
Motor Cycle	40	21%	3%
Cycle	41	21%	3%
Walk	26	14%	10%
Bus	9	5%	6%
<i>Total</i>	<i>191</i>	<i>100%</i>	<i>100%</i>

**Source:** States of Jersey Police

**Visitor Trip Generation:** Visits to the police station will generally be distributed throughout the day – with most visits outside the peak periods. It is considered that peak period visits by car in the peak hours will be insignificant – at less than

10 per hour. Visitors by car would generally be expected to park at the existing Green Street car park.

**Parking Demand:** Information from the Police indicates that a normal staff presence of 220 is expected. An absolute maximum parking demand is expected to be as follows (using the mode-share splits in Table 4.2):

- 86 vehicles
- 46 motorcycles
- 46 bicycles

However, information supplied by the police indicates that although much of the present parking demand is catered for in off-street locations adjacent to Police buildings, around 20 police staff presently park their vehicles in public parking areas, such that the effective increase in parking demand for public car parking space created by the new police HQ will be around 65 vehicles.

For staff travelling by motorcycle and bicycle, which are more sustainable modes of transport, it is proposed to provide 56 motorcycle parking spaces, and 62 bicycle spaces. This is in excess of current staff parking demand, and thus caters for future growth and use by visitors.

**Police Vehicle Trip Generation:** There will be 44 police vehicles based at the headquarters site. During any single hour it is estimated from discussion with the police service that police vehicle movements will not be more than around 20 vehicles (per hour) – and thus will have very little impact on the road network.

## 5 Transport Impact and Mitigation

**Road Network Traffic Impact:** Currently around 9,000 cars enter St Helier during the peak AM hour. As set out in ‘Trip Generation Characteristics’ (Section 4), it is estimated that traffic generation due to police staff will continue to peak at around 75 cars/hour (or less, depending on mode-shift to walk/cycle modes) which will occur during periods earlier than the typical town-wide peak periods due to the Police’s shift system. Thus, on a town-wide basis, car commuting by police staff has an insignificant impact on general traffic conditions, equivalent to less than 1% of total traffic movement in St. Helier in peak periods.

Locally, at Green Street / La Route du Fort, the impact on junction capacity of police staff commuting is considered to be not significant. Assuming that there is an increase of say 60 police staff commuter trips (by car) through the Green Street / La Route du Fort roundabout (en-route to local parking spaces such as the Green Street Car Park), then this would contribute a maximum additional flow of around 2% at the junction – which would have a negligible impact on congestion.

Operational police cars will generally arrive and leave the site outside the peak hours, and thus their movement will have minimal impact on local road conditions.

**Police Vehicle Access Junction Capacity:** The traffic capacity of the proposed main In/Out access junction for the police headquarters has been tested using PICADY (an industry-standard and DfT approved capacity analysis software). The junction has been tested for notional vehicle flows of 25 in and 25 out during the AM and PM peak hours (based on States of Jersey data which recorded two-way flows of up to 1900 vehicles / hour on La Route du Fort). The results show that the Flow/Capacity ratio is forecast to be low, with no expectation of queuing on La Route du Fort (see Table 5.1).

Table 5.1: Access Junction Capacity Analysis

Movement	Flow/Capacity (Max.)	Maximum Queue
Access Exit Lane	0.20	< 1 vehicle
Right-turn from A17 (1)	0.07	< 1 vehicle

**Note:** Assumes that right-turn traffic blocks straight-ahead traffic

**Parking Impact:** In respect of parking of police vehicles, there will be no impact on public parking provision, as all police cars and vans will be parked in off-street locations (as at present).

In respect of staff parking, around 65 additional cars (see Section 4) are expected to be parked at any one time during the daytime. The total parking provision in St Helier is around 4000 spaces, and thus the additional demand generated by police staff is not significant (at around 1.5%).

Visitor parking demand will generally be very low at any one time, at a maximum of say 5 cars – and thus will have virtually no impact on parking availability.

Provision of 56 and 60 spaces for motorcycle and bicycle users respectively will cater for expected maximum demand by staff and visitors, with an allowance for future growth.

**Other non-car Travel Impacts:** Non-car travel by Police staff commuters, and by visitors, will be in the region of 100-150 trips per peak hour, predominantly by motorbike and by bicycle, with a smaller number travelling by bus or walking. These journeys can be accommodated on the road and bus networks.

## 6 Conclusion

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A Transport Assessment of the proposed new police headquarters at St. Helier has been undertaken. The assessment identifies that the development will not have a significant impact on the local transport network.

The main conclusions are:

- The primary vehicle access will be a new T-junction off La Route du Fort. The junction will operate well within capacity with no impact or queuing on La Route du Fort. The vehicle access junction has an appropriate layout and visibility to accommodate expected traffic.
- Vehicular traffic accessing the headquarters site will consist of police vehicles only, with a fleet of around 44 vehicles. The hourly flow of police cars will be very low – and likely to be at most 20 vehicles per hour.
- Staff travel to the site will be split amongst modes – without a dominant emphasis on car travel – at around 40% car, 20% Motor bike, 20% bicycle, 14% walk and 5% bus.
- It is estimated that a maximum of around 75 cars/hour will travel on the road network due to commuting by Police staff. This level of traffic will be similar to existing travel demand to the present police buildings, and will thus have no significant impact on the local road network. Movement by operational police cars in the peak hours will be minimal.
- Staff car parking will take place in public parking facilities in St Helier, and will result in an additional 65 cars parked at any one time. This parking activity will have a negligible impact on overall parking availability in St. Helier (which has around 4,000 public parking spaces). Staff parking for motorcycles and bicycles will be provided on new facilities on the south side of La Route du Fort (consisting of 38 and 52 spaces respectively). Parking for 18 motorcycles will also be available at Snow Hill car park, and a further provision of 10 cycle parking spaces will be put in place at the bellmouth to the cemetery (at the junction of Grenville Street and Green Street). This provision of spaces will be sufficient to cater for staff and visitor demand for motorcycle and bicycle parking, with an allowance for future growth.
- A Workplace Travel Plan will be put in place for the Police headquarters, which will ensure that car travel continues to have a relatively low proportion of car use (40%) compared to the typical car mode-share in Jersey (nearly 80%).