

Pedestrian provision

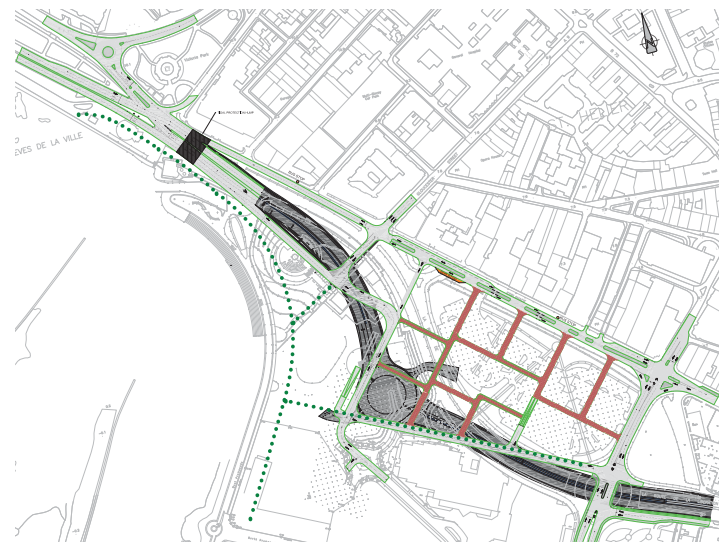
St Helier currently supports a high volume of pedestrian activity, with existing activity through the Waterfront area focused mainly along the Esplanade, Castle Street and La Route de Port Elizabeth.

The development of Esplanade Quarter will introduce a new focal point of activity into this part of St Helier. La Route de la Liberation forms a significant barrier to movement between the Esplanade and the waterfront. The proposed scheme will remove that barrier and will also include the following:

- Provision of a new east-west southern link road developed as a boulevard/pedestrian friendly corridor. This road will connect The Esplanade at Gloucester Street with Castle Street. It will be traffic calmed through the use of attractive features to minimise vehicle speeds and assist the use of the area by pedestrians.;
- A reconfiguration of Castle Street roundabout to operate as a traditional 4-arm signalised junction. The new junction will incorporate full pedestrian facilities and allow easy access for pedestrians through the area;
- Provision of pedestrian crossing facilities on The Esplanade at the junctions with Gloucester Street and Castle Street as part of the reconfiguration of those junctions;
- The provision of a significant network of pedestrian only streets through the development. These streets will ensure a good network of walking routes at street level, and open the full development site up on all sides by facilitating easy pedestrian access through a number of points;

- The provision of a number of smaller squares and parks within the development site and improve the general streetscape along those routes;
- The removal of significant traffic volumes from street level as a result of the proposals to lower La Route de la Liberation;
- Provision of several central reserve crossing points on the Esplanade between Gloucester Street and Castle Street

The development proposals are expected to generate a significant change in the routes pedestrians take, leading to a notable crossing demand between St Helier town centre and the Waterfront through the network of pedestrian corridors in the proposed development.



Provision for cyclists

The Esplanade is a significant corridor in providing for cyclist movement to/from the west, connecting into a pedestrian/cycle route which continues westwards along the seafront.

In developing the current proposals, there exists an opportunity to improve access to/from the Victoria Avenue cycle route, which continues along St Aubin's Bay, but is currently somewhat segregated from St Helier town centre as a result of the current layout of La Route de la Liberation, and the requirement for cyclists to cross the existing road. It is proposed that a direct connection is made from Esplanade Quarter into the waterfront cycle route through Les Jardins de la Mer. This would allow a high quality pedestrian/cycle corridor to be carried along St Aubin's Bay, through Esplanade Quarter via the east-west link road, and connecting up to the Esplanade along the proposed surface level street network for onward access to St Helier town centre.

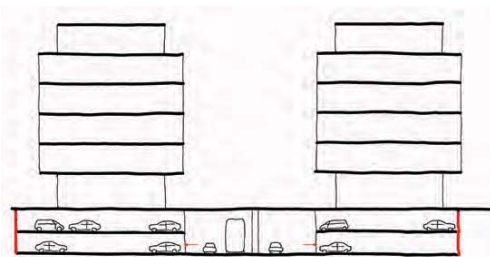
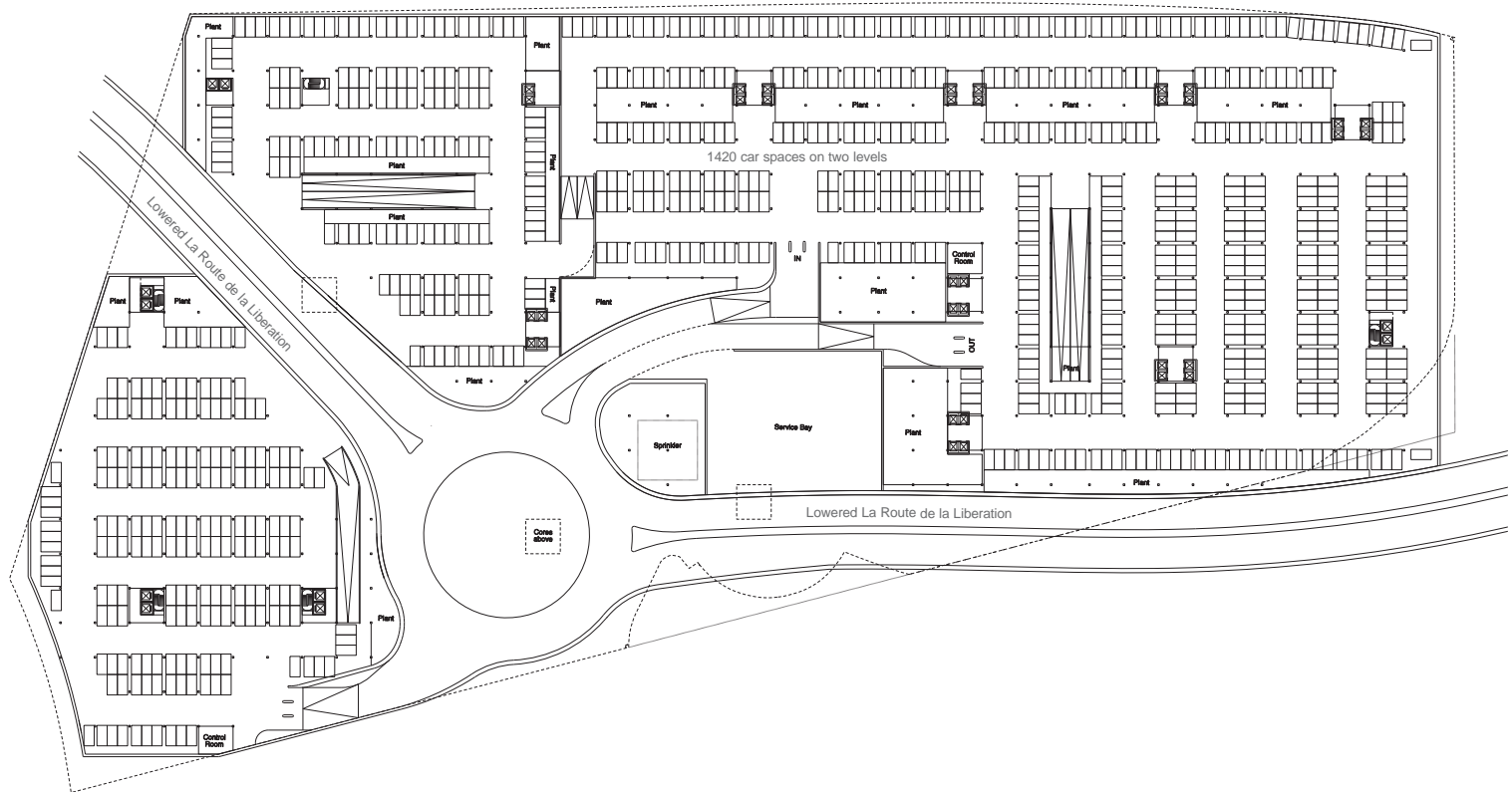
A graphical representation of this connection is shown above. It is expected that this proposal would be incorporated into the re-landscaping of Les Jardins de la Mer which is proposed as part of a general review of space in this area.

In addition to the above proposal, it is intended to provide frequent cycle parking throughout the development close to the access cores, and with easy access from the network of internal streets.

Car park design and operation

The proposed car parking will be provided in a two-level basement car park located on either side of the La Route de la Liberation. Access will be from a roundabout on La Route de la Liberation, and from additional surface level access points on the southern link road.

The car park layout will be user friendly with a logical layout, generous aisle widths and logically arranged parking spaces. The design has also considered the requirement for entry/exit barriers and car park management offices. The car park has been designed in accordance with the 'Design recommendations for multi-storey and underground car parks published by the Institution of Structural Engineers.



Generic section showing La Route de la Liberation below ground with two levels of parking

Lower basement plan illustrating the area that can be allocated to parking

Allocation of car parking

The level of parking provision has been selected following discussions with TTS and reflects the States strategic aim to minimise the impact of private car traffic. The level of parking, particularly for office users, is considerably lower than Planning Department guidelines currently would recommend. This is based on the assumption that 85% of office workers will be relocating from existing offices in St Helier and provision need only be made for the 45% of those workers (value taken from Jersey Annual Social Survey 2006) who park in private car parks, the remainder continuing to park in public car parks. On that basis the number of commuter spaces required was established to be about 800.

The TA identified that over 300 spaces were available on a typical weekday at Pier Road and 50 spaces at Patriotic Street. More recent surveys have identified that Pier Road multi storey car park has spare capacity of 200-250 spaces and Patriotic Street is usually full. However a private multi storey car park for 240 cars approved for construction in Kensington Place will increase the level of private parking available in the area and reduce the demand for spaces in the adjacent Patriotic Street multi storey public car park. As such, TTS supports the conclusion of the TA, that the proposed 550 spaces for office employees is adequate.

Since completion of the TA, the Minister for Planning has recommended that the area of retail is halved and the number of residential units is increased from 315 to 388. The above numbers will therefore likely require some adjustment, either through a decrease in commuter parking, or an increase in total number of spaces. However, the overall total numbers allocated will not change. In terms of traffic impact, the generation of traffic from residential premises in the town area is very low and should the number of commuter parking spaces be lowered the net effect would be to reduce the level of congestion in the immediate road network.

As the parking provision for retail was already very low on the assumption that shoppers would be able to use the spare capacity at Sand Street car park there is little scope for further reduction of the 35 spaces proposed for retail. TTS would support the reduction in office spaces from 550 to 500, to enable the number of residential spaces to increase to 270 in order to maintain the previous residential unit parking ratio.

Public transport proposals

The proposals mean that growth in commuter numbers will be in area less than 150m from Liberation Station. In addition, there will be an opportunity for buses travelling to and from the west to use the Esplanade, a route which was not previously possible as a result of there being no connection westbound at the Esplanade Gloucester Street junction. Under the proposed road layout, westbound buses will be able to use The Esplanade, the Gloucester Street Extension and the westbound slip onto Rue de la Liberation to access St Aubin's Road or Victoria Avenue. The redesign of The Esplanade will allow the provision of new high quality bus shelters in both directions on The Esplanade, with a further stop proposed on the Esplanade between West Park and Gloucester Street to serve eastbound buses. These new bus stops will facilitate access to/from the development site and other surrounding locations.

The likely increase in bus usage will require financial support. The developer should be required to provide funding for additional bus capacity, in addition to the provision of high quality bus shelters in the area.

Temporary parking provision

The current Esplanade Square has 520 public parking spaces and these will be replaced within the underground parking provision as part of the permanent scheme. As soon as construction starts there will be a requirement to relocate these spaces off site. There are typically over 200 spare spaces available at Pier Road car park (long stay). The developer will be required to provide a further 320 temporary spaces during the construction period to ensure the existing 520 spaces are provided. In order to achieve this the developer is proposing to erect a temporary steel framed multi storey car park for 320 car spaces at Elizabeth Terminal. When the 520 public spaces are available in the new development the public car parking will be relocated in to the new development and the temporary car park removed.

Temporary traffic management

The new Esplanade Quarter scheme will require considerable changes to the existing road system and will include the construction of new roads and a tunnel to allow the free flow of traffic in, through and around the new development.

Alterations of this scale to the existing road system will inevitably result in an element of disruption to road users. However, whilst this disruption is inevitable, it is recognised that it is absolutely essential to design a system of temporary traffic management which minimises the disruption and that the temporary traffic management scheme which is implemented should be in place for the shortest possible period. High level proposals have been developed as part of the TA which, in principle, meets these requirements.

Phasing of temporary traffic management

It will take three years to construct the new roads and tunnel which form the new road network. During this period there will be a staged transfer of traffic on to the new road network as the roads and tunnel are completed.

There will be two phases of temporary traffic management which will be implemented during the course of this three year period. Phase one will cause little or no disruption to the flow of existing traffic and will be in place for approximately two and a quarter years. Phase two will be more disruptive but will only be in place for the remaining nine months of construction. Whilst Phase two will disrupt road users, the actual delay to journey times should only be a matter of minutes.

Phase one

During Phase One, all traffic will remain on the existing road network and will continue to use the existing underpass whilst the developer commences construction on two discreet sites either side of the existing underpass. These sites will be the current Esplanade car park site to the north of the underpass and Les Jardins de la Mer site to the south. These sites will be served off the existing road network and the impact of these works will be no worse than any other large building site.

During this phase of the works there will be improvements made to the areas of the existing network in preparation for Phase two and also to aid traffic flow in and around the two sites. These works will be carried out at varying stages during Phase one in the following areas:

- West Park/Victoria Avenue junction improvements
- Gloucester Street/Esplanade junction improvements
- Castle Street/Esplanade junction improvements
- Widening of Castle Street between the Esplanade and the underpass roundabout
- Widening of the Esplanade between Gloucester Street and Castle Street

Works will be programmed such that disruption is kept to an absolute minimum for the duration of these works.

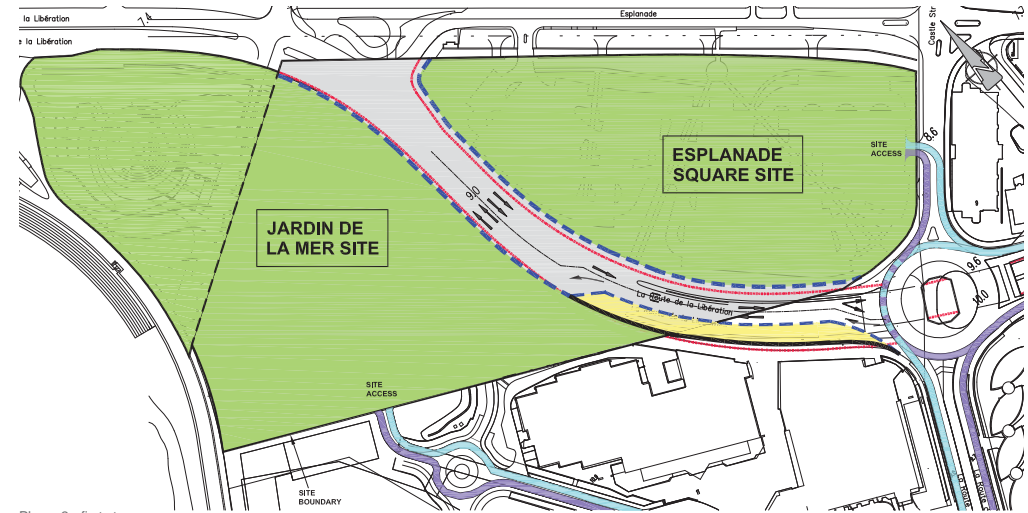
Phase two

In the last nine months of the road construction there will be a requirement to tie in the works completed on the Esplanade and Les Jardins de la Mer site into the existing underpass. At this time there will be a requirement to install temporary traffic management in the base of the existing underpass. This temporary traffic management will take the form of a contra-flow system which will allow the remaining tunnel construction to take place.

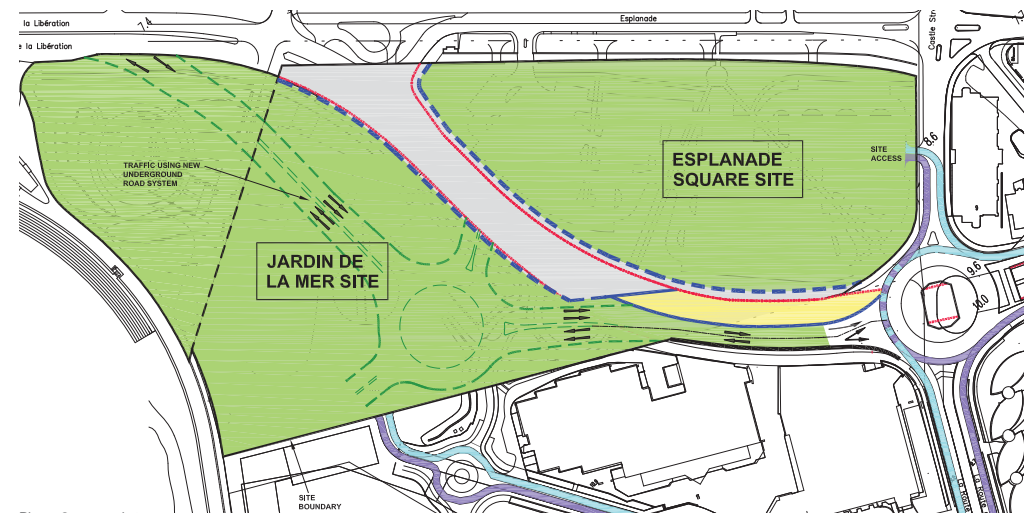
Prior to the contra flow works being installed, a large number of the new above ground roads will be completed which will provide alternative traffic routes for vehicles using the network and reduce the numbers of vehicles using the contra flow system in the underpass

In simple terms this will mean that the two west bound lanes will be closed and the two eastbound lanes will be converted to one lane east and one lane west. This will allow one half of the new tunnel to be constructed on the closed section of the west bound lanes running between Les Jardins de la Mer site and the existing underpass whilst the traffic remains running in contra flow on the east bound lanes.

On completion of this first half of the tunnel the traffic will be switched into this completed section of the tunnel and the second half of the tunnel will be constructed on the now clear east bound lanes. These works have been modelled as part of the TA and have been found to cause delays in the order of minutes for the travelling public.



Phase 2 - first stage



Phase 2 - second stage

Tunnel design

The slope down into the new tunnel will begin to the east of Kensington Place going underground fully at the extension to Gloucester Street. From this point the tunnel will continue to slope downwards to join a below ground roundabout. The two underground car parks either side of the tunnel will be accessed via this roundabout. The tunnel will continue through to meet the existing underpass structure. Vehicles exiting the underpass eastbound will rise back up to ground level on the existing roads which remain unchanged.

The overall length of the tunnel is 360m which can be compared to the existing tunnel below Fort Regent which is approximately 250m long. In free flowing traffic conditions it will be possible to pass through the tunnel and below ground roundabout in less than a minute. The maximum speed limit for the tunnel will be the same as the current underpass which is 30mph.

In order that operational and safety issues can be considered and included in the design of the new Tunnel, an officer group has been set up to provide stakeholder information to the developers design team. The group is called the Tunnel Safety Group and is made up of officers from Transport and Technical Services, Planning and Environment and Health Protection assisted by specialist technical advisors. The aim of the group is to ensure that all affected parties are fully acquainted with the tunnel proposals and that the proposed facilities meet their requirements.

This group has concluded that the tunnel will be rectangular in cross section with a central partition wall between the two, two lane carriageways. Carriageway widths have been sized such that vehicles can easily pull to the side to allow emergency service vehicles through unhindered, and two lanes of traffic can be maintained if a vehicle breaks down in the tunnel. There will be no restrictions on the types of vehicles that can use the tunnel except for wagons carrying excessively large loads which cannot physically get through the tunnel, usually due to excess height.

A sprinkler system will be installed in the tunnel to contain and restrict the growth of a vehicle fire and will be linked to a similar system which will be installed through out the basement car parks. Fire fighting equipment will be installed in the tunnel in the form of hydrants and fire extinguishers and escape doors will be installed in the central wall to allow escape between the two sides of the tunnel in the event of an emergency.

A ventilation system will be installed in the tunnel to assist with smoke control in the event of a fire. There will also be separate ventilation systems throughout the basement car parks.

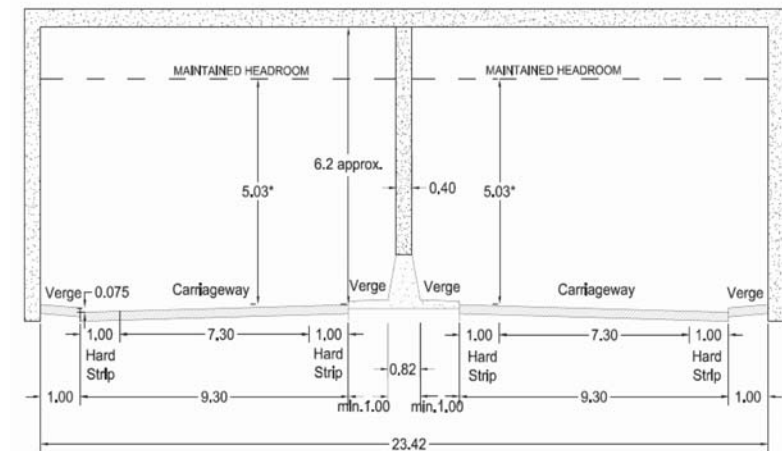
The overall ventilation system will be designed to ensure that air quality standards meets the full requirements of the Health Protection Department

A drainage sump will be located in the lowest section of the tunnel and all rain water, spillages, tunnel washing and fire fighting water will drain into this sump. This sump will be fire protected and will pump from the sump into the foul drainage system. If treatment of the fluids in the sump is required, this will be done before it enters the foul system.

The tunnel will have a security and control system installed which will include CCTV, electronic signage and the facility to provide advance notification of incidents in the tunnel. This information will be sent to a control room which will be situated to the Esplanade Quarter's central security control office.

It is intended that a high quality finish will be installed to the surface of the tunnel walls which will enhance the visual impact of the tunnel and also assist in maintenance.

The tunnel will have the ability to implement a contra flow system in either the east or west bound bore such that the other bore can be completely taken out of service at any time to assist with emergencies, maintenance or repair.



PROPOSED CROSS SECTION THROUGH TUNNEL

Risk of underground flooding

The Esplanade, from West Park to Gloucester Street, has been subject to flooding in the past caused by overtopping of the sea wall at West Park coupled with high rainfall and high tides. This flooding has caused particular problems at the Gloucester Street junction.

The current position is that in the event of this flooding occurring, water is prevented from entering the existing underpass by a high spot in the road alignment which prevents any flood water getting past it and into the underpass. Any rain water or spillages which enters the underpass is dealt with by a below ground sump incorporated at the lowest point of the road.

Similar principles will be adopted for preventing this same flood water from entering the new tunnel and underground car parks. A tidal high spot will be incorporated in the alignment of the road and a sump will be provided at the low point of the tunnel.

Recent flooding events have demonstrated the success of this type of design whereby extreme flooding at Gloucester Street was prevented from entering the existing underpass by the provision of the high spot in the road.

Waste management

The developer's technical consultants have provided a high level summary of the principles that will be adopted for waste management on the site and for excavation rates.

The Esplanade Quarter will stand on the original West of Albert I and II land reclamation sites, filled between 1986 and 1995. Most of the Island's inert waste material was disposed of here at that time, together with the ash from the Bellozanne incinerator plant.

Initial calculations indicate that about 335,000 m³ of material will be excavated from the site. Some of this material will be recycled for re use on the site or alternatively sold for reuse off site. Any remaining material will be sent to La Collette landfill site. The developer will not be permitted to transport material to another site for either recycling or filling. The material must be either recycled and used on the site or sold on or transported to La Collette Reclamation site.

Based on current information, it is estimated that between 20% and 40% of the excavated material could be recycled. If none of the excavated material can be recycled, the volume of material equates to about 3.15 years of space in the current La Collette II reclamation site. If 20% recycling were achieved, this volume equates to about 2.5 years. If 40% recycling were achieved, this volume equates to about 1.9 years. Until the developer has conducted further site investigations it is difficult to determine the quantity which could be recycled and it is therefore not possible to accurately judge the impact on the expected lifespan of La Collette II.

Traffic movements between the development site and La Collette will be significant during peak excavation with about 300 lorry movements a day over a 12 month period. This heavy vehicular movement will have a major impact on the area of Commercial Buildings and will require a full traffic impact assessment to optimise the transfer of this large quantity of material. In addition, the developer will be required to make a contribution to the cost of repair/resurfacing the Commercial Buildings road at the end of the works.

In the early years of landfill on the West of Albert site, ash was mixed with inert waste. Later, the ash was disposed of in pits throughout the site. The developer will be required to provide sustainable waste management plans demonstrating best practice for the removal and ultimate disposal of the materials. The ash must be excavated in accordance with agreed protocols for excavation and will be delivered to La Collette II site for disposal into lined and sealed pits. The cost of any specialist excavation techniques, transport and disposal methods will be an expense for the developer.

If loose asbestos cement sheeting is found during excavation, the developer will be required to safely remove it using accepted protocols for disposal at the TTS asbestos site at La Collette. The cost of specialist removal and disposal will be an expense for the developer.

Air quality

The developer will carry out an air quality monitoring programme for six months prior to the construction commencing, during the full construction period and for eighteen months post construction.

This monitoring programme has been agreed with the Health Protection Department and will assess the impact of the development on the surrounding air quality and will ensure that air quality standards are maintained within European Union health limits.