





- Key Plan:
- Transport Scotland Visitor Centre
  - Network Rail Visitor Centre Experience
  - Network Rail Guided Bridge Walk Experience
  - ATC Survey Locations

Notes:

Rev	By	Chkd	Apprd	Date	Description

Client:

TRANSPORT SCOTLAND

CH2M HILL  
City Park, 368 Alexandra Parade, Glasgow, G31 3AU  
Tel +44 (0)141 552 2000 Fax +44 (0)141 552 2525  
www.ch2m.com

CH2MHILL.

Project:

FORTH BRIDGES  
TRAFFIC IMPACT ASSESSMENT

Drawing

Survey Locations

Drawn by: -	Date: -
Checked by: -	Date: -
Approved by: -	Date: -

Drawing No.	Revision
9004	-

Drawing Scale: NTS

Drawing file path & name : C:\Users\Kerem\appdata\local\temp\KCP\Prints\_6381\_Queensferry - Location Plan - Rev.dwg  
Accessed file path : C:\Users\Kerem\appdata\local\temp\KCP\Prints\_6381\_Queensferry - Location Plan - Rev.dwg  
User and Date : Kerem, 31/12/2015 10:15 am

## Visitor Centres/Attractions

---

### 4.1 Site Locations and Premises

#### 4.1.1 Site Location

##### 4.1.1.1 Contact & Education Centre

A prospective Visitor Centre could be located at the current site of the Contact & Education Centre at South Queensferry. The site is bounded: to the north by a residential area (Stewart Terrace); to the east by derelict land (allocated for residential use); to the south by a residential area (Inchcolm Terrace); and to the west by the A90 and Forth Road Bridge.

##### 4.1.1.2 Network Rail Developments

The North Queensferry element of the Network Rail proposals is to be developed on Network Rail land beneath the Fife cantilever of the Forth Bridge. The South Queensferry element of the Network Rail proposals is to be located on the south side of the Forth Bridge, located on land owned by Network Rail beneath the south approach viaduct.

#### 4.1.2 Prospective and Proposed Developments

##### 4.1.2.1 Contact & Education Centre

A prospective Visitor Centre and associated attractions has been considered for the purposes of this study. At this stage no building footprint/size or defined development content has been established. It is anticipated however that this would include a visitor centre with ancillary activities in relation to the Bridges e.g. walking; cycling; action sports etc.

##### 4.1.2.2 Network Rail Developments

The Network Rail proposals consist of:

- A visitor centre experience located on the north side of the bridge in North Queensferry, comprising: hoists and a viewing platform on the top of the bridge; and an exhibition, café and public realm area surrounding the Visitor Centre.
- A guided bridge walk experience with associated welfare facilities on the south side of the bridge in South Queensferry.

### 4.2 Sustainable Travel

As concluded in Chapter 2, it is imperative that all developments incorporate the means to allow the use of sustainable transport modes such as walking, cycling and public transport. The provision of sustainable routes will help minimise the demand for car based travel and to manage the travel demands arising in a sustainable manner. This section of the report focusses on the potential sustainable transport options relevant to the prospective Visitor Centre at the existing Contact & Education Centre. The sustainable travel options relevant to the Network Rail proposals are being considered separately by their own consultants, but the substance of the following section is also likely to apply i.e. it will be imperative to incorporate and encourage the use of sustainable transport modes for the benefit of users and the local community and to support national, regional and local transport objectives.

#### 4.2.1 Pedestrian and Cycle Access

As detailed in Chapter 3, the provision of accessible routes to the Contact & Education Centre has been considered in developing the site for its current use, with links to the Forth Road Bridge to the west and north; to the B800 and A904 to the south via Ferrymuir Gait; and to the residential areas and town centre to the east of the site. Currently, pedestrian and cycle access within the site boundary is formed by red painted zones that are, generally, segregated by bollards as opposed to kerbs/level differences. Currently, pedestrians and cyclists from the south and east have to cross the internal roads in a slightly circuitous fashion.

Beyond the site boundary, generators and attractors for people walking and cycling are deemed to be:

- The Forth Road Bridge;
- Neighbouring residential areas;
- South Queensferry town centre; and
- Those walking and cycling along strategic routes.

It is imperative that all existing and predicted future demand should be accommodated to allow for the safe and convenient movement of all cycle, pedestrian and disabled users. There are prevailing barriers to cycling, walking and movements by mobility impaired users in the area and include:

- Physical barriers between the trip origins and destinations presented by, and the inherent delays in having to cross, the surrounding road network.
- A lack of off-carriageway cycling options;
- A lack of cycle links between the Contact & Education Centre and South Queensferry town centre;
- Some poor quality and steep routes not amenable to mobility impaired users and, perhaps, to some cyclists; and
- A lack of suitable infrastructure not designed to current 'Roads for All' standards.

Bearing the above in mind, the following are provided as potential considerations of any future detailed design of the site and surroundings:

1. Provide suitable transition opportunities, exceeding minimum design standards, between the carriageway and existing/proposed off-carriageway facilities;
2. Provide infrastructure that permits cyclists, pedestrians and disabled users of all abilities to safely travel between trip generators and attractors that exceeds the minimum design standards (e.g. widths, surfaces, gradients) providing facilities that are safe, attractive, comfortable, continuous and direct, for use by all non-motorised users;
3. Ensure that the design improves linkages between the existing off-carriageway facilities and local destinations;
4. Avoid features which may pose a hazard to visually impaired users (e.g. bollards, barriers) or restrict access by infirm, disabled or other users (e.g. stiles, gradients);
5. To maximise the attractiveness, and subsequent use (including suppressed demand), of off-carriageway facilities, give due consideration to: path widths; the routes directness i.e. alignment; the surface quality to suit the types of user anticipated e.g. people in wheelchairs or on mobility scooters and leisure cyclists will often desire a surface which is machine rolled, has low rolling resistance and easy gradients; and provision of suitable signage. Note, if the opportunities to avoid cycling on-carriageway are made more attractive for all cyclists it will encourage the use of alternative off-carriageway routes; and
6. Minimise delay and optimise safety for all non-motorised users. The level of provision of crossing facilities will have to be assessed taking anticipated traffic volumes into account, and will have to recognise existing good practice e.g. dropped kerbs flush with road surface; double transition kerbs; tactile surfaces etc.

Opportunities for consideration could consist of:

- Constructing kerbs/level differences within the site boundary;
- A rearrangement of the car park to eliminate some of the crossings required to reach the building;
- Preserving crossing opportunities within the site boundary as zebra crossings with complementary tactile paving (perhaps relocated);
- Reconsideration of cycle parking spaces; and
- Off-site works to help eliminate some of the barriers to sustainable access to the site e.g. improved surface quality; improved vertical alignment of routes i.e. easier gradients; and improved route widths.

Any provision of on-site and any off-site works should meet or exceed current standards, taking cognisance of: local design standards; Cycling by Design 2010 (Revision 1, June 2011); and Roads for All Good Practice Guide for Roads (July 2013).

## 4.2.2 Public Transport Access

It is likely that a Visitor Centre will generate a demand for public transport. Considering the location of existing bus stops, their proximity to the site and the quality of the facilities, there may be an aspiration demanding the penetration of the site by one or more bus services. As highlighted previously, existing bus stops are within what might be deemed an acceptable walking distance i.e. 400m. Those located on the Forth Road Bridge approach provide strategic services to Edinburgh and Fife (although the northbound stop does require the use of an underpass with stepped access) and those provided on Hopetoun Road/Bo'ness Road to the north and adjacent to Kirkliston Road, near Viewforth Place provide services that penetrate South Queensferry that link with Fife, Edinburgh, Kirkliston and Livingston. However, the bus stops on Kirkliston Road are on the edge of the 400m threshold and those on Hopetoun Road/Bo'ness Road do require users to contend with the gradients on the route between the stops and the site. The bus stops adjacent to the Tesco store within Ferrymuir Retail Park are beyond the 400m threshold.

Nevertheless, the provision of additional bus services or the re-routing of existing services will essentially be a commercial decision.

Alternatively, users of the site could travel principally by train although this would require a transfer to a local bus service or combining the rail journey with a 1.5km walk or cycle ride.

## 4.3 Parking

### 4.3.1 Introduction

The availability of car parking and its management can also play a role in managing demand and encouraging more sustainable modes of transport. However, this tends only to be applicable in larger towns and cities that have, say, high public transport penetration.

### 4.3.2 Contact & Education Centre

The City of Edinburgh Council's 'Parking Standards for Development Management' specifies that South Queensferry is located in parking zone 4. Cross referencing a 'leisure' development type with the relevant parking zone from the parking standards<sup>9</sup>, it is specified that 'Assessed individually Up to a maximum consistent with above, where of a similar type'<sup>10</sup>.

<sup>9</sup> Table 8A – Car Parking Standards for “Leisure” Type Developments

<sup>10</sup> 'Assessed individually' criteria: where the standards state that car parking provision will be 'Assessed Individually', developments must justify proposed parking levels, taking account of the accessibility of sustainable modes of travel, especially public transport, and the likely levels of trip generation associated with the particular type of development. For those developments that do not meet the Council's criteria for a Transport Assessment, a Parking Statement is required instead. The starting point for parking provision shall be the maxima for similar types of leisure developments for which standards are given, or as otherwise agreed with the Council.

Table 6: City of Edinburgh Council Parking Standards Summary

Type	Car	Cycle			Motorcycle	
		Outside main entrance	Secure and undercover Parking		Customers <sup>11</sup>	Staff <sup>12</sup>
		Customers	Staff	Customers		
Public Houses and Restaurants	1 per 10 to 12m <sup>2</sup> PFA <sup>13</sup>	Assessed individually, minimum of 1 space	1 per 150m <sup>2</sup> PFA	None	Assessed individually, minimum of 1 space	Assessed individually, with guide of 1 per 25 staff
Function Rooms	1 per 10 to 20m <sup>2</sup> PFA	Assessed individually, minimum of 1 space	1 per 200m <sup>2</sup> PFA	None	Assessed individually, minimum of 1 space	Assessed individually
Other Leisure	Assessed individually, up to a maximum consistent with above, where of a similar type	Assessed individually	Assessed individually, generally 1 per 7 staff	Assessed individually	Assessed individually	Assessed individually, generally 1 per 25 staff, with minimum of 1 space

The standards also state that at least 5% of all spaces should be provided for disabled persons. Also, for some developments, 'parent and child' spaces should also be provided. The standards also specify the parking layouts required for disabled persons' parking bays, and this should be referenced in the any redesign of the existing car park.

As stated in Section 4.1.2, a Visitor Centre at this location is conceptual with no building footprint/size or defined development content. Therefore, the parking standards can only be provided for information at this stage and have not been applied to estimate the actual parking required. However, it should be noted that, as summarised in 3.2.2.2, the existing car park at the Contact & Education Centre consists of 150 car parking spaces (including 6 disabled spaces and 2 spaces for charging electric vehicles) and approximately 5 coach parking spaces. In addition, there is an existing 5-stand secure and covered cycle storage provided adjacent to the Contact & Education Centre. However, consideration to increasing the number of disabled spaces and cycle spaces, as well as introducing space for motorcyclists, should be promoted. Further consideration of car parking numbers is provided in Chapter 8.

### 4.3.3 Network Rail Developments

The provision of car parking on the proposed site in North Queensferry is still under consideration, although car parking is likely to be provided within the curtilage of the South Queensferry development site. Further information on the proposed number of car parking spaces is provided in Chapter 8.

<sup>11</sup> Where possible to be secure and, preferably, covered.

<sup>12</sup> To be secure and covered, unless agreed otherwise.

<sup>13</sup> Public Floor Area.

## 4.4 Forth Bridges as a Visitor Destination

The Glamis Consultancy prepared a Market Appraisal and Development report, published in March 2014, investigating if there is a market case for developing a single Forth Bridges visitor attraction. As part of that study, a concept was developed considering the various attractions in North and South Queensferry as a single destination, as well as considering what modes of transport could be used as a means of conveying people between the various visitor sites/destinations.

The Glamis Consultancy study presented a range of transport options in order to enable the movement of visitors between the various activities/attractions around the Bridges, with a Visitor Centre at the existing Contact & Education Centre functioning as a 'hub'. Market research undertaken as part of the study suggested the following types of transport may be appropriate:

- Bus/Heritage Bus
- Road Train
- Glass Viewing Train
- Steam Train
- Ferry

The benefit of a South Queensferry Visitor Centre functioning as a 'hub' is that there would be direct access to the trunk road network (although slightly less so when the Queensferry Crossing opens), which would minimise the traffic impacts on the adjacent towns (North Queensferry and South Queensferry), assuming that the connecting transport options are commercially viable and attractive to the consumer. While the Glass Viewing Train, Steam Train and Ferry options could act as a means of conveying visitors between North Queensferry and South Queensferry, they are essentially attractions/destinations in their own right, and it will be necessary for one or a combination of the other options to provide a seamless transition between the railway stations/ferry terminal and the connecting destinations.

It will also be important that any of the transport options conveying passengers between the attractions, also integrate with other sustainable transport modes e.g. the existing bus services, and perhaps with other existing tourist themed services such as the 'Bus & Boat Tour'. The 'Bus & Boat Tour' operates between Edinburgh and South Queensferry from April to October and includes a boat cruise from Hawes Pier (with the option of stopping at Inchcolm Island). On some dates the boat tour operates from the North Queensferry harbour instead.

Also, as highlighted in 4.2.1, the consideration of accessibility by sustainable modes between the sites needs to be considered. Walking and cycling between attractions may be an option open to many visitors and, therefore, suitable routes have to be available, especially if a Visitor Centre intends to incorporate options such as cycle hire etc.

### 4.4.1 Waterborne Transport

Ongoing work is assessing the possibility of introducing waterborne travel between South Queensferry and North Queensferry. The work is being led by Fife Council and their vision is that as a result of potential WHS inscription and the proposed Network Rail Forth Bridge proposals, there is the potential to attract large numbers of visitors. Subsequently, this could be a major economic driver for the South Queensferry/North Queensferry and wider Bridgehead areas. Fife Council have identified transport as the key issue in facilitating greater visitor numbers and consider the reopening of the North Queensferry Town Pier as a key strategy in a future sustainable transport plan for the village. Nevertheless, to facilitate this the North Queensferry Town Pier does need repaired and upgraded to improve the setting for the WHS and to act as a viable ferry pier.

A study was commissioned on behalf of Fife Council<sup>14</sup> to undertake a demand and impact assessment for the potential upgrading of facilities and create a new landing platform at the North Queensferry Town Pier, to support the Council's Stage 2 bid for Coastal Communities Fund (CCF). The aim of the pier project is to attract more visitors into North Queensferry by water (both cruise boat passengers and day visitors

<sup>14</sup> EKOS Limited report "North Queensferry Harbour: Economic Impact Analysis", September 2014

arriving by ferry) and to extend their length of stay in Fife by providing up-to-date information on visitor attractions/facilities across Fife. It was announced in late January 2015 that North Queensferry is to benefit from funding of £754,439, as a result of a successful Coastal Communities Fund bid. This will allow Fife Council to install a floating pontoon landing berth at North Queensferry harbour, providing a sustainable transport option for visitors and a welcome tourism boost to Fife. The funding is also to support a number of other environmental improvements, including the installation of a new digital visitor information kiosk in the town.

# Trip Generation

---

## 5.1 Introduction

The recognised and accepted industry standard method for determining trip rates for developments is to use the Trip Rate Information Computer System (TRICS®), which is a database that contains thousands of transport surveys for various types of development. However, a brief analysis of the TRICS® database indicates it does not have a significant amount of similar development information that can be used in this instance. Therefore, the determination of trip rates has been based on information available from other sources and is outlined in the following section.

## 5.2 Desktop Assessment of Available Data

### 5.2.1 Scenario 1: World Heritage Status

As noted in the Forth Bridge World Heritage Nomination Document, the Forth Bridge already attracts significant numbers of visitors to both South Queensferry and North Queensferry, and has the potential to attract more if the nomination is successful. As a result of this potential increase in visitor numbers, a study of the potential economic impact and benefits of inscription was commissioned from the James Rebanks Consultancy in December 2012, followed by meetings with local stakeholders and a public consultation in May 2013<sup>15</sup>.

Also recognised in the Nomination Document is that, although many visitors are already drawn by the bridges, there is limited formal marketing of the Forth Bridge as a tourist attraction and, at present, no means of counting individual visitors, and the prospective WHS status, on its own, would not change this situation.

However, the Forth Bridge and its neighbouring bridges are recognised as a destination worth visiting. A dedicated website<sup>16</sup> promotes the bridges as “Iconic, historic and dynamic” and a “wonder of the modern world” being “free and accessible for everyone to enjoy”. The website has a dedicated ‘Visiting’ section providing information on visiting the bridges e.g. where to view the bridges and how to get there.

The following is an extract from a PricewaterhouseCoopers LLP report, commissioned in 2007 by the Department for Culture Media and Sport, Cadw and Historic Scotland, which investigated the costs and benefits of WHS status in the UK.

---

*Tourism – WHS status is suggested to provide a promotional advantage and a ‘branding effect’ which can encourage additional visitors. However, the evidence indicates that this is likely to have a very marginal effect (c.0-3%) and this will be stronger for less ‘famous’ sites. Furthermore if sites do not have adequate infrastructure already, are not marketed effectively and are not currently well linked with the common UK tourism routes then they are unlikely to gain many additional visitors. On its own it is unreasonable to expect WHS status to generate additional visitors.<sup>17</sup>*

---



---

<sup>15</sup> Detailed Information on the feedback generated by the consultation and from Rebanks’ study can be found at <http://www.forthbridgeworldheritage.com/>

<sup>16</sup> <http://www.forth-bridges.co.uk/>

<sup>17</sup> The Costs and Benefits of World Heritage Site Status in the UK, PricewaterhouseCoopers LLP, December 2007

The report also cites other studies including one undertaken by ERS in 2006, 'World Heritage Inscription: Consultation on Potential Social and Economic Benefits for Cumbria', which states:

"Many reports have pointed to specific evidence that WHS status increases the popularity of a location or destination with visitors...However, the causal relationship between inscription and tourism is often difficult to establish".

Also, a 2005 research study conducted by Van de Baart<sup>18</sup> looked at the changes in tourism numbers since inscription by sampling 86 World Heritage sites. 51 of these sites suggested that there had been no increase and of the remainder, 22 said there had been a large increase and 13 a small increase in visitor numbers. The research pointed to the fact that those tourist sites that were already well established destinations in their own right did not register any increase in visitor numbers as a result of WHS status.

With regard to marketing, the report also stresses that it is unclear whether the level of marketing undertaken has any significant effect on tourism numbers. Overall, across all of the 27 UK world heritage sites, the study concludes that the impact WHS status appears to have made on visitors is minimal and it is unclear whether this on its own is ever likely to be a significant enough factor in attracting higher numbers of visitors.

However newspaper articles<sup>19</sup> would suggest that visitor numbers at the Pontcysyllte Aqueduct and Canals World Heritage Site in North Wales have doubled to around 500,000 since the site was inscribed in June 2009. It should also be noted that a Tourism Development Plan<sup>20</sup> for the site was published in 2011 with the objective of ensuring that potential economic regeneration benefits from World Heritage Status were realised while protecting the value, integrity and authenticity of the site. This development plan has presumably been a catalyst for the growth in visitor numbers but it is not clear how much of this growth is due to the implementation of the plan.

A related report for Denbighshire Council<sup>21</sup> also reviewed a number of UK World Heritage Site case studies including Hadrian's Wall. The report highlighted that 15 to 18 years after inscription in 1987 visitor numbers to Hadrian's Wall were declining which in turn demonstrated that World Heritage Status inscription alone achieves little.

The research outlined above shows that the impact of WHS status on visitor motivations is usually marginal and there is little evidence that just becoming an official WHS automatically generates additional visitors.

If higher visitor numbers is an aim then a complimentary investment in marketing/publicity or, more significantly, a Visitor Centre and/or improving access and parking might be more likely to achieve this.

## 5.2.2 Scenario 2: World Heritage Status plus South Queensferry Visitor Centre

In the event that the Forth Bridge is accorded WHS status, there is an opportunity to provide associated infrastructure and attractions e.g. a Visitor Centre; walks; climbs etc. In the absence of any explicit plans but with the aspiration to provide a promotable attraction associated with all three bridges (the Forth Bridge; the Forth Rail Bridge; and the Queensferry Crossing), assumptions on the likely number of visitors have had to be made, using professional judgement.

It is likely that the location of a Visitor Centre, although not developed in terms of size or content, would be formed at the site of the existing Contact & Education Centre building (Traffic Scotland HQ and FRC Visitor Centre), which is sited adjacent to the FETA offices at the south end of the Forth Road Bridge.

The existing Contact & Education Centre is a purpose-built facility serving as a focal point for community engagement and education during the building of the Queensferry Crossing. Visitors can currently enjoy

<sup>18</sup> Buckley, R, 2004, 'World Heritage Icon Value: Contribution of World Heritage Branding to Nature Tourism'

<sup>19</sup> Daily Post 26<sup>th</sup> June 2014

<sup>20</sup> Pontcysyllte Aqueduct and Canal World Heritage Site Tourism Development Plan May 2011

<sup>21</sup> Pontcysyllte Aqueduct and Canal World Heritage Site: A strategy for Llangollen February 2011

exhibition panels, detailed bridge models, audio-visual materials and spectacular views of the Forth Road Bridge, Forth Bridge and the ongoing construction of the Queensferry Crossing. The Centre holds frequent free open days, when members of the public can explore the education and exhibition facilities, listen to presentations by the Queensferry Crossing project team, and ask questions of representatives from Transport Scotland and the Forth Crossing Bridge Constructors.

Important in determining the potential number of visitors is the consideration of existing information available from various sources.

#### 5.2.2.1 Queensferry Museum

Queensferry Museum, located on High Street, lets visitors explore the past and traditions of historic South Queensferry and neighbouring Dalmeny, with displays on local customs, the ferry passage and trades and businesses. Visitors can also learn about the construction of the Forth Rail and Road Bridges and view these from the windows of the museum that overlooks the shoreline.

Information from The Moffat Centre website<sup>22</sup> (who have worked on behalf of VisitScotland to compile the national statistical performance indicators of the country's cultural tourism attractions since 1999), published 2008 and 2009 data for Queensferry Museum showing 7,653 and 9,048 visitors, respectively.

#### 5.2.2.2 Forth Bridges Visitor Centre Trust

A desktop study on visitor numbers revealed that a now redundant Forth Bridges Visitor Centre Trust charity existed for more than 20 years, informing the public about the achievements of constructing the iconic Forth Rail and Road Bridges, which once had a permanent home in the Queensferry Lodge Hotel until it was redeveloped. The Trust was established leading up to the 1990 Forth Rail Bridge centenary celebrations and online research suggests that “over 40,000 people visited the exhibition when it was first established in South Queensferry”<sup>23</sup>. The visitor Centre was then moved to the Queensferry Lodge Hotel a few years after.

#### 5.2.2.3 Forth Bridges Festival

The vision of the Forth Bridges Festival was “an international inclusive festival celebrating the unique and distinct lasting impression of the Forth Road and Rail Bridges on the fabric of Scotland and the legacy it has left communities living either side of the bridges”. The event was estimated to attract “over 100,000 local, national and international visitors over a 10-day period”.

Advice from the Forth Road Bridge Communications Manager suggests that the 100,000 visitor estimate, that the Festival was anticipated to attract, was based on the official police estimate of visitor numbers to the 1990 Forth Bridge Centenary Celebrations, which is the closest precedent they had to work with. Since the figure was published the plans were somewhat scaled down, however a significant number of visitors were still expected. Estimated visitor numbers for the various events that took place are summarised in Table 7.

*Table 7: Summary of Estimated Visitor Numbers during Forth Bridges Festival*

Event	Estimated Visitor Numbers
Tower Top Trips	2,014
Hopetoun House Exhibition	1,000
Scotland Welcomes the World to Lunch	5,000
Boat Flotilla (including participants)	4,000 – 5,000
Art Trail	1,000

<sup>22</sup> <http://www.moffatcentre.com/ourpublications/visitorattractionreports/>

<sup>23</sup> <http://www.nce.co.uk/ice/curtain-falls-on-forth-bridges-visitor-centre-after-20-years/8628068.article>

Event	Estimated Visitor Numbers
Guardian of the Bridges	1,500
Scrapbooks Project and Events	1,000
Torchlight Procession and Fireworks (with tickets)	4,500
<b>Total</b>	<b>20,014 – 21,014</b>

In addition to these numbers, there was anticipated to be a significant number who came to see the fireworks without a ticket. The Communications Manager stated that this was very hard to estimate, but had the potential to be in the tens of thousands.

Data available following the events was limited but the Forth Road Bridge Communications Manager did confirm that all 2,104 trips to the top of the main towers of the Forth Road Bridge were completed (two categories of trip were offered: a two-hour trip to the top of one of the main towers; and an extended “Ultimate Bridge Experience”, which also included a visit to an anchorage chamber, lunch in a local restaurant and a boat trip under the Forth Bridges). It was confirmed that the concept for the weekend trips had been proven a year earlier, when over 150 delegates to the 2013 International Cable Supported Bridge Operators Conference were given tours using the same system. By running seven overlapping two-hour trips up each tower, it was possible to get 168 people to the tower tops between 09.00 and 17.00 each day.

#### 5.2.2.4 Visitors to the Contact and Education Centre and Viewing Platform

As noted above there is presently no means of counting visitor numbers to the Forth Bridges. However, in evidence to the Scottish parliament's Infrastructure and Capital Investments Committee on 18 February 2015, Lawrence Shackman of Transport Scotland stated<sup>24</sup> that around 23,000 people had visited the Contact and Education Centre as part of school education visits, presentations or family open days.

Additionally, the traffic data collected in August/September 2014 as outlined in section 3.4 included traffic counts on Ferrymuir Gait i.e. the access to the Contact and Education Centre and adjacent viewing platform. From the vehicle movements recorded during the survey period the number of trips on Ferrymuir Gait was estimated to be approximately 300 per day. A number of these trips will relate to staff accessing the CEC and the FETA offices and also relate to the use of the car park for purposes other than visiting the CEC or viewing platform. However a proportion of these trips will be generated by visitors to the CEC or viewing platform. Based on a broad assessment, making some assumptions based on the likely business/staff movements to/from the car park, results in an estimate of approximately 50,000 visitors per annum currently accessing the CEC or viewing platform. This number obviously does not include those accessing other sites to view the Forth Bridge. It is also notable that a large number of people currently view the Forth Bridge: while crossing the Forth Road Bridge; while crossing the Forth Bridge itself by train; or by taking one of the pleasure cruises.

#### 5.2.2.5 The Glamis Consultancy Market Appraisal and Development Report

As introduced earlier, The Glamis Consultancy prepared a Market Appraisal and Development report, published in March 2014, investigating the market case for developing a single Forth Bridges visitor attraction. This included a section on the estimated visitor numbers. The report noted that:

- “precise visitor numbers are difficult to estimate at this time given that the nature of the centre remains unsure”;
- “it is possible that annual visitor throughput could be well into six figures”; and

<sup>24</sup> <http://www.scottish.parliament.uk/parliamentarybusiness/28862.aspx?r=9789>

- If visitor facilities were provided to extend the stay of visitors that already come to the viewing point adjacent to the Contact & Education Centre, and to attract additional visitors, then it is likely that “significant throughput could be achieved”.

Nevertheless, numbers were generated that estimated the potential demand for accessing a viewing platform at the top of the Forth Road Bridge, expanding the approach used during the Forth Bridges Festival. Access to the viewing platform would be via lift from the road level up the side of both south towers. The potential demand is informed by the likely capacity of the lift access. In estimating the annual capacity of the Forth Road Bridge Tower Viewing Point, the following assumptions have been made:

- There will be a maximum of six departures per hour i.e. one departure every ten minutes;
- The maximum visitor group size is seven plus a guide (limited by the lift capacity);
- Opening hours are seasonal ranging from six hours in the winter months to ten hours in the height of summer;
- The Viewing Platform is open all year except for two bank holidays in each of December and January i.e. 361 days a year; and
- Downtime required for maintenance activity and in the event of lift breakdowns.

Working at full capacity all year round, there is potential to handle up to 113,000 visitors per annum. Considering the range of opening hours, this translates to a maximum of 420 people per day during peak times.

An additional assessment of capacity was also made based on full use of the two lifts and allowing for downtime. Based on capacity of 68 visitors per hour, the estimate of annual capacity is 183,320. Considering the range of opening hours, this translates to a maximum of 680 people per day during peak times.

#### 5.2.2.6 Other Visitor Centres

Information published on The Moffat Centre website provides 2008 and 2009 data for various Visitor Centres in Scotland and a selection of these are summarised in Table 8.

*Table 8: Summary of Visitor Numbers to a selection of Visitor Centres in Scotland*

Visitor Centre/Location	Visitor Numbers	
	2008	2009
New Lanark Village and Visitor Centre, Lanark	334,185	341,340
Eilean Donan Castle and Visitor Centre, by Kyle of Lochalsh	314,636	270,822
Johnston's Cashmere Visitor Centre, Elgin	202,200	194,052
Queens' View Visitor Centre, Pitlochry	150,000	140,000
Culloden Visitor Centre, Inverness	112,178	129,327
Glen Nevis Visitor Centre (Ionad Nibheis), nr Fort William	110,000	110,000
Glenmore Forest Park Visitor Centre, by Aviemore	57,744	68,752
Kirroughtree Visitor Centre, Newton Stewart	56,455	-
Logie Steading Visitor Centre, Forres	55,000	51,227

Visitor Centre/Location	Visitor Numbers	
	2008	2009
Talisker Distillery Visitor Centre, Carbost	52,000	40,818
<b>85<sup>th</sup> Percentile<sup>25</sup></b>	<b>56,778</b>	<b>66,124</b>

### 5.2.2.7 Summary

From the data available, it could be assumed that up to 350,000 visitors could be anticipated annually, assuming that the prospective South Queensferry Visitor Centre would be as popular as the New Lanark attraction. Based on the information available it is considered reasonable to assume that the prospective attraction at the existing Contact & Education Centre could attract visitor numbers in the region of up to 200,000 – 250,000 annually. This would be additional to those already visiting the site as outlined in section 5.2.2.4.

### 5.2.3 Scenario 3: World Heritage Status plus South Queensferry Visitor Centre plus Network Rail Visitor Attractions

The third scenario is the potential impact of:

- The Forth Bridge being accorded WHS status;
- The development of a Visitor Centre (including associated attractions) at the site of the existing Contact & Education Centre; and
- The development of Network Rail proposals at the Rail Bridge.

The Network Rail proposals, known as The Forth Bridge Visitor Experience, consist of the provision of a Visitor Centre in North Queensferry, with accompanying viewpoint attraction at the top of the Fife cantilever to be accessed via a lift, and the provision of a visitor access via the bridge walk accessed from the South Queensferry side of the bridge.

The Forth Bridge Experience Feasibility Study estimates that the Visitor Centre would be developed on Network Rail land beneath the Fife cantilever incorporating two public access lifts and would include: retail; catering; exhibition areas; education room; and a lift tour departure point. The study also estimates that the Visitor Centre and lift could attract between 136,910 and 230,162 visitors per year with 78,895 to 133,472 visitors paying an admission fee to use the lift to visit the viewing platform and tour. The study also stresses the commitment to encourage and incentivise the use of sustainable transport, particularly rail, to reach the bridge, although car parking provision will be required.

Regarding the bridge walk from South Queensferry, the Feasibility Study proposed that there would be a minimum requirement for a 750m<sup>2</sup> visitor reception Centre on Network Rail owned land beneath the south approach viaduct. It estimates that the bridge walk could attract between 75,810 and 126,350 visitors per year, while also stressing a commitment to encourage and incentivise the use of sustainable transport.

### 5.2.4 Summary of Estimated Additional Visitor Numbers

Considering the estimated visitor numbers from the preceding sections it has been determined to use the numbers from The Forth Bridge Experience Feasibility Study and also apply these to the prospective Visitor Centre at the existing Contact & Education Centre (CEC Visitor Centre). Therefore, the estimated additional visitor numbers for the various proposals is summarised in Table 9. It should be noted that there is the potential that these sites will have some competition aspect and therefore the numbers used in any subsequent assessment can be deemed to be an 'upper bound' scenario.

<sup>25</sup> The 85<sup>th</sup> percentile value is based on all Visitor Centres from the Moffat Centre website 2008 and 2009 data

Table 9: Summary of Estimated Additional Visitor Numbers

	Minimum Estimated Annual Visitor Numbers	Maximum Estimated Annual Visitor Numbers
WHS Status	0 - negligible	0 - negligible
CEC Visitor Centre	136,910	230,162
North Queensferry Visitor Centre	136,910	230,162
South Queensferry Bridge Walk	75,810	126,350
<b>Total</b>	<b>349,630</b>	<b>586,674</b>

To consider the potential traffic impacts of the estimated visitor numbers it is necessary to assess the likely mode share and vehicle occupancy, which can be determined by considering data from national transport surveys and from other visitor attractions.

## 5.2.5 Mode Share and Vehicle Occupancy

### 5.2.5.1 Mode Share

The Scottish Household Survey (SHS) data shows the main mode of travel by trip purpose, as summarised in Table 10 and Chart 1.

Table 10: Main mode of travel by purpose, 2009/2010

	Driver Car/Van	Passenger Car/Van	Walking	Bicycle	Bus	Rail	Taxi/Minicab	Other <sup>26</sup>
Just go for a walk	5	2	93	0	0	0	0	1
Education	25	12	34	2	22	3	1	2
Eating/drinking	26	27	29	1	8	3	6	1
Visit hospital or other health	44	22	13	0	14	1	4	2
Sport/Entertainment	45	20	20	2	9	1	2	1
Go home	45	23	12	1	8	3	2	6
Shopping	48	13	27	1	10	0	1	0
Holiday/day trip	49	25	10	1	7	4	0	4
Visiting friends or relatives	51	19	21	0	7	1	1	0
Other personal business	54	17	17	0	8	1	1	1

<sup>26</sup> Includes motorcycle, underground, ferry etc.