Planning Appeal Ref: APP/Q1445/A/09/2102048/NWF
Planning Application Ref: BH2007/03454

BRIGHTON MARINA REGENERATION PROJECT

proof of evidence

David Frisby

COLIN BUCHANAN

Explore Living

Brighton Marina Regeneration Project

October 2009

Highways and Transportation

Proof of evidence of David Frisby

Application No. BH2007/03454

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TRANSPORT
TRAFFIC
DEVELOPMENT
PLANNING
URBAN DESIGN
ECONOMICS
MARKET RESEARCH

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Brighton Marina

Regeneration Project

Highways and Transportation
Proof of evidence Of David Frisby

Project No: 17010-01-1
October 2009

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1 Introduction

1.1 Personal statement

1.1.1 My name is David Frisby. I am an Associate Director of Colin Buchanan (CB) which is a leading transport planning consultancy founded by Sir Colin Buchanan in 1964. The consultancy employs over 200 professional staff including traffic engineers, traffic planners, urban designers, market researchers and economists.

1.1.2 I am a Bachelor of Engineering with Honours in Civil Engineering from Kingston University, having gained this degree in 2000. I am a member of the Institution of Civil Engineers and a member of the Institution of Highways and Transportation.

1.1.3 My professional experience has been gained entirely in the field of highways and transportation, the last 9 years having been spent entirely in the transport aspects of major development planning applications on projects such as the Paddington Basin Redevelopment, Hatfield Town Centre Redevelopment, Imberhorne Relief Road at East Grinstead, new development at land east of Kettering, Sackville Trading Estate regeneration Hove and the Rowner Regeneration redevelopment projects.

1.1.4 I appear at this Inquiry on behalf of Explore Living and present evidence on transportation matters. I have been involved in the project since April 2006 as the Project Manager (and Project Director since December 2008) responsible for the transportation element of the appeal site at Brighton Marina.

1.1.5 I have examined the site and its surroundings and am familiar with the plans and documents relevant to this inquiry. I have also attended numerous meetings with

Brighton and Hove City Council, local residents and a number of other interested parties.

2 Scope of evidence

2.1 Preamble

2.1.1 Colin Buchanan (CB) was instructed by Explore Living to provide traffic and transport advice in relation to proposals to redevelop the site under consideration. This involved the production of a Transport Assessment (TA) with supplementary Technical Appendices (including an outline Travel Plan and Car Parking Management Plan) examining the implications of the scheme.

2.2 History of engagement with the highways authorities

2.2.1 A number of pre-application meetings were held with Brighton and Hove City Council (BHCC) as highway authority and this dialogue continued throughout the application period. As a result of this ongoing dialogue all issues relating to the transport impact of the proposals were agreed and no objections to the proposals were made by the highway authority.

2.2.2 The Highways Agency was consulted throughout the application period and again no objections were raised.

2.2.3 The officers' report for the meeting of the Planning Committee on 12th December 2009, (CD3/1.1 page 3, paragraph 6) states "*The Transport Manager raises no objection to the scheme, which meets the council's transport objectives.*"

2.2.4 As a result of ongoing dialogue all issues relating to the transport impact of the proposals were agreed with the highway authority (and the Highways Agency) and no objections to the appeal site were made (see the Planning Committee report, 12th December 2009, CD3/1.1 page 3, paragraph 6 produced in Appendix

A). However, the planning committee decided to refuse the application on other grounds.

2.2.5 Third party objections have been made relating to access, increased levels of congestion, appropriate parking levels, the location of a new public transport interchange and the introduction of shared space principles. Rule 6 parties have raised the 3 primary traffic and transportation issues which are:

- Location of bus stands;
- Car parking levels; and
- Emergency access and egress.

2.2.6 Following the planning appeal being lodged, BHCC held a planning committee meeting 2nd September 2009 in order to agree the points of "clarification and amplification" in relation to the reasons for refusal of the planning application. At this meeting officers did not suggest any transport related objections be added to BHCC's case and the committee did not "amplify" the reasons in this respect. A comprehensive Transport Statement of Common Ground (TSOCG) relating to all transport and highways issues associated with the appeal proposal has been agreed with BHCC as highway authority. A copy of the TSOCG is included as Appendix B.

2.3 Scope and structure of my proof of evidence

2.3.1 My evidence begins by providing a summary of relevant policy (section 3), followed by a brief description of the transportation aspects of the site (section 4) and section 5 summarises the TA. As there are no outstanding issues with the highway authority, this proof of evidence focuses on third party submissions (section 6) made to the Planning Inspectorate about the scheme.

2.3.2 Sections 7 to 11 deal with each of the third party submissions under the following five headings:

- Congestion;
- Accessibility;
- Parking;
- Transport Interchange; and
- Shared Space.

3 Relevant policy

3.1 Preamble

3.1.1 I have reviewed the relevant national, regional and local transport policies and set these out below.

3.1.2 Against each of these policies, I set out how the proposed development and associated mitigation meets the policy requirement.

3.1.3 I refer to David Gavin's proof of evidence for an in-depth review of all of the relevant policies relating to the appeal site (complied as a matrix, David Gavin Proof of Evidence Appendix 7). As well as discussion relating to the weight to be given to the respective policies and non-statutory guidance that I cite (David Gavin Proof of Evidence paragraph 5.1 to 5.20).

3.2 National policy

PPG13

3.2.1 Planning Policy Guidance Note 13 (PPG13) outlines the Government's key objectives for transport. It notes that land use planning has a key role to play in delivering the integrated transport agenda and that local authorities should promote sustainable travel (CD4/10 PPG13 page 2, paragraph 3).

3.2.2 Key objectives of PPG13 which are relevant are (CD4/10 PPG13 page 2, paragraph 4):

- Promote more sustainable transport choices for moving people;
- Promote accessibility to jobs, services, shopping and leisure facilities by public transport, walking and cycling; and
- Reduce the need to travel, especially by car.

3.2.3 The appeal site is to be located at the terminus of a high quality bus route, which is served frequently by up to 14 buses per hour. Measures are proposed to improve the bus facilities further (CD2/13 TA page 77, paragraph 5.3.9 to 5.3.14 and CD2/7.1 D&A volume 1, page 191, paragraph 7.6.6), together with an increased investment to facilitate more cycling and walking, all promoted via a site wide Travel Plan (CD2/13 TA page 81, paragraph 5.6.1 to 5.6.5 and CD2/7.1 D&A volume 1, page 227, paragraph 10.1.2). Therefore, I consider the application complies with this policy.

PPS 1

3.2.4 Planning Policy Statement 1 (PPS1): Delivering Sustainable Development sets out the overarching planning policies on delivering sustainable development through the planning system. It plays a key role in supporting the Government's wider social, environmental and economic objectives for sustainable communities.

3.2.5 Key PPS1 principles include the following precepts (CD4/1.1 PPS1 page 6, paragraph 13):

- Development plans should promote outcomes in which environmental, economic and social objectives are achieved over time.
- Development plans should contribute to global sustainability by addressing the causes and potential impacts of climate change.
- Development plans should contain inclusive access policies (those that consider people's diverse needs and aim to break barriers down).

3.2.6 PPS1 states that plans should promote development that creates socially inclusive communities should (CD4/1.1 PPS1 page 7, paragraph 16), and suggests that development plans:

- *address accessibility (both in terms of location and physical access) for all members of the community; and*
- *take into account of the needs of the community including particular requirements relating to…disability.*

3.2.7 By proposing measures that promote the availability (and accessibility) of sustainable modes of transport such as the Rapid Transport System (RTS) (CD2/13 TA page 74, figure 5.1; page 78, paragraph 5.3.14 and CD2/7.1 D&A volume 1, page 211, paragraph 8.1.2), pedestrian improvements (CD2/13 TA page 72, paragraph 5.2.1 and CD2/7.1 D&A page 213, paragraph 8.2.1) and facilities for cyclists (CD2/13 TA page 76, paragraph 5.2.6 and CD2/7.1 D&A page 193, paragraph 7.6.7), a modal shift away from single occupancy car use will help reduce the potential impact of private car CO_2 emissions. The centrally located public transport interchange will give the whole (Marina) community access to public transport which in turn enhances social cohesion (CD2/13 TA page 77, paragraph 5.3.9 to 5.3.14 and page 119 paragraph 7.10; CD2/7.1 D&A volume 1 page 191, paragraph 7.6.6 and page 213, paragraph 8.2.1, and CD2/7.2 D&A volume 2 Appendix 1). The Squareabout has been designed with dropped kerbs and exclusion of common highway elements such as road markings and pedestrian guardrails to accommodate the needs of all, particularly cyclists, pedestrians and those with mobility impairments (CD2/13 TA page 55,

paragraph 4.4.1 to 4.4.3; CD2/7.1 D&A p181, paragraph 7.6.2 and page 211, paragraph 8.1.1).

3.2.8 The investment in sustainable travel alternatives demonstrates that the Application is compliant with the PPS1 policy.

Draft PPS 4

3.2.9 Draft Planning Policy Statement 4 (PPS4): Planning for Prosperous Economies sets out the Government's objectives for sustainable economic developments in both urban and rural areas. It acknowledges that due to the increasing demand on the land available for developments, local planning authorities should seek to make the most efficient and effective use of land and buildings (Draft PPS4 page 10, paragraph 5).

3.2.10 Measures that reduce air pollutants via a modal shift from private cars to more sustainable means of transport are part of the appeal site application (CD2/13 TA pages 72 to 82, particularly page 81, paragraph 5.5 to 5.6).

3.2.11 Draft PPS4 was published in May 2009 and is at present in its consultation stage. The consultation document sets out the comprehensive policy framework for planning for sustainable economic growth for urban and rural areas (CD4/16 Draft PPS4: Consultation, page 8, paragraph 1).

3.2.12 Objectives outlined in the new PPS4 consultation paper that are relevant to the appeal site are as follows (CD4/16 Draft PPS4: Consultation, page 15, bullets 1, 2 and 4):

- Build prosperous communities by improving the economic performance of cities, towns, regions, sub-regions, and local areas, both urban and rural

and reduce the gap in growth rates between regions, promoting regeneration and tackling deprivation;

- Deliver more sustainable patterns of development and respond to climate change; and
- Improve accessibility, ensuring that existing or new development is, or will be, accessible and well served by a choice of means of transport including reducing the need for travel and providing alternatives to car use.

3.2.13 Measures proposed as part of the appeal site application promote sustainable transport and improved accessibility for buses (CD2/13 TA page 76, paragraph 5.3.12 to 14), cyclists (CD2/13 TA page 76, paragraph 5.2.6) and pedestrians (CD2/13 TA page 73, paragraph 5.2.1 to 5.2.3 and page 82 5.7.2) which not only complies with old PPS4 and also with the proposed new PPS4 policy.

3.3 Regional policy

RPG9

3.3.1 RPG9 has now been superseded by the South East Plan and therefore it is no longer part of the development plan.

3.3.2 Policies in the RPG that were relevant to the appeal site when the proposals were being prepared included:

- Policy T1 whose aim was to minimise the distance which people need to travel whilst enhancing choice and ease of access to facilities through the encouragement of safe movement by foot, by cycle and enhancement of the viability of new and existing public transport services (CD7/3 page 56);

- Policy T2 which aimed at developing travel awareness strategies designed to encourage a change in travel habits through the development of travel plans for all major travel generating activities, both existing and proposed (CD7/3 page 58);
- Policy T3 which requested the adoption of maximum car parking standards in conjunction with local authority requirements (CD7/3 page 60);
- Policy T4 which required new developments to make adequate provision for pedestrians and cyclists including measures to link developments with existing footpaths and cycle networks (CD7/3 page 62); and
- Policy T5, which included proposals to develop the inter-urban, urban and rural public transport network, including the development of inter-modal interchange facilities, such that it supports the spatial strategy. Consideration should also be given to the potential for encouraging bus services through reallocation and priority use of road space (CD7/3 page 63).

3.3.3 The package of proposed measures associated with the appeal application is designed to enhance modal choice and ease of access for bus users, pedestrians and cyclists. A Travel Plan and a Car Parking Management Plan (CPMP) have been developed for the appeal site as well as significant financial contribution towards the BHCC RTS (CD2/13 TA page 77, paragraph 5.3.14; page 119, paragraph 7.10.1 and CD2/7.1 D&A volume 1 page 213, paragraph 8.2.1). Parking provision has been provided well within the local authority's parking standards (CD2/13 TA page 62, table 4.5).

3.3.4 The proposals for an inter-modal transport interchange and the introduction of a Travel Plan demonstrate the intention to integrate the transport system in to Brighton Marina. This integrated system will offer sustainable access across the Marina, its surroundings and the town centre.

South East Plan

3.3.5 The adopted South East Plan was published in May 2009 by the Government Office for the South East (after the refusal of the planning application in December 2008). It supersedes RPG9 (and the East Sussex and Brighton and Hove Structure Plan). Key relevant policy areas in this document cover housing, infrastructure and economic development, environment and climate change (CD7/1 SE Plan page 7, section 1.2).

3.3.6 The document's Regional Transport Strategy (CD7/1 SE Plan page 65, section 8.1 to 8.7) focuses on the core principles of:

- managing and investing;
- mobility management; and
- road pricing and charging.

3.3.7 Specifically, the Regional Transport Strategy policy includes the following policies that are relevant:

- Policy T1 (Manage and Invest) – seeks to ensure management and investment in transport systems which favour sustainable modes as a means of access to services and facilities (CD7/1 page 66).
- Policy T2 (Mobility Management) – seeks to rebalance the transport system in favour of sustainable modes incorporating: improvements in the extent

and quality of pedestrian and cycle routes; charging initiatives and incentives for car sharing and the encouragement of car clubs (CD7/1 page 67).

- Policy T4 (Parking) indicates that local development documents should adopt restraint-based maximum levels of parking provision for non-residential developments, linked to an integrated programme of public transport and accessibility improvements. T4 also states that documents should ensure the provision of sufficient cycle parking at new developments including secure cycle storage for new flats and houses which lack garages (CD7/1 page 69).
- Policy T5 (Travel Plans and Advice) states that local authorities should identify in their local development documents major developments for which Travel Plans should be developed (CD7/1 page 69).
- Policy T6 (Communications Technology) indicates that technology should be used to help reduce the need to travel and should be taken into consideration in identifying future transport needs (CD7/1 page 70).

3.3.8 The measures proposed by the application will enhance public transport and accessibility, facilitate new transport links, pedestrian accessibility (CD2/13 TA page 72, paragraph 5.2.1; page 81, paragraph 5.6.5 and CD2/7.1 D&A volume 1 page 211, paragraph 8.1.2) and cycle accessibility improvements (CD2/13 TA page 72, paragraph 5.2.1 to 5.2.3, and CD2/13 TA appendix 7 and CD2/7.1 D&A volume 1 page 181, paragraph 7.6.2) as well as delivering an improved public realm (CD2/13 TA page 55, paragraph 4.4.1 to 4.4.3 and CD2/7.1 D&A volume 1,

page 181, paragraph 7.6.2; page 211, paragraph 8.1.1; page 215, paragraph 8.3.1 to 8.3.2 and page 219, paragraph 9.1.2).

3.3.9 This is complemented by a restraint-based parking strategy that provides parking below the maximum standards that are set out in SPG4 (South East Plan policy advises that parking levels should be derived with reference to PPG13, PPS3 and PPS4 and that individual councils are requested to set/request maximum levels). (CD2/13 TA page 62, Table 4.5)

3.3.10 A Car Park Management Plan (CD2/13 TA page 63, paragraph 4.6.19 to 4.6.23 and CD2/7.1 D&A volume 1, page 213, paragraph 8.2.2 and page 227, paragraph 10.1.2) and the introduction of communications technology in the form of Variable Message Signs (CD2/13 TA page 64, paragraph 4.6.24 to 4.6.29 and page 119, paragraph 7.10.1) together with a well formulated Travel Plan (CD2/13 TA page 81, paragraph 5.6.1 to 5.6.5 and CD2/7.1 D&A volume 1 page 227, paragraph 10.1.2) are also within the appeal proposals. Overall, the transport system to the marina will be rebalanced to favour sustainable modes and public transport reliability.

3.3.11 Therefore, I conclude that the proposals are fully compliant with the adopted South East Plan.

3.4 Local policy

Local Plan

3.4.1 The Brighton and Hove Local Plan was adopted in 2005 and contains a number of relevant transport and parking policies (CD8/1 Local Plan section 1, pages 28-42):

- Policy TR1 (Development and the demand for travel) which refers to the aim of policies to promote sustainable modes of transport, and indicates that where development proposals are above government advisory thresholds a TA will be required (CD8/1 page 28).
- Policy TR2 (Public transport accessibility and parking), which aims to ensure that proposals are adequately provided for in terms of public accessibility and appropriate parking. Where a development is highly accessible by public transport, the Local Plan states that the "developers can maximise built development at the expense of parking spaces and reduce commuter parking, by promoting alternative ways of travelling to the site." (CD8/1 page 29).
- Policy TR4 (Travel Plans), which indicates that Travel Plans will be required where a proposal include major developments for employment, shopping, leisure and recreation (CD8/1 page 30).
- Policy TR5 (Sustainable transport corridors and bus priority route) - establishing sustainable transport corridors and bus priority routes. In particular, the Saltdean to Shoreham Harbour A259 coastal route is identified as a sustainable transport corridor (CD8/1 page 31).
- Policy TR7 (Safe development) which seeks to ensure that permission is only granted for developments that do not increase the danger to users of adjacent pavements, cycle routes and roads (CD8/1 page 34).
- Policy TR8 (Pedestrian Routes)which states that new development must take account of pedestrian links within and outside site boundaries and

improve links to and between pedestrian routes and public transport facilities (CD8/1 page 34).

- Policy TR13 (Pedestrian network), which states that measures which affect pedestrian routes should promote or enhance them. Developers should contribute towards implementation, improvement and maintenance of the network (CD8/1 page 38).
- Policy TR14 (Cycle access and parking), which states that cycle access and parking will be required for new developments and should be provided in accordance with parking guidelines (CD8/1 page 39).
- Policy TR15 (Cycle network), which seeks to protect alignments of proposed cycle routes and enhance them, particularly NCR 2 along the A529 (CD8/1 page 40).
- Policy TR18 (Parking for people with a mobility related disability), which states that developments must also provide a level of car parking for those with a mobility related disability (CD8/1 page 42).
- Policy TR19 (Parking standards), which indicates that planning permission will only be granted for new developments where they meet the parking standards set out in Supplementary Planning Guidance No. 4 'Parking Standards' (CD8/1 page 42).

3.4.2 The measures contained within the appeal proposals will improve and enhance accessibility and facilities for pedestrians (CD2/13 TA page 72, paragraph 5.2.1 to 5.2.4; page 74, figure 5.1 and CD2/7.1 D&A volume 1, page 210, figure 8.1.1), cyclists (CD2/13 TA page 76, paragraph 5.2.1 to 5.2.4 and 5.2.6 to 5.2.7 and CD2/7.1 D&A volume 1, page 193, paragraph 7.6.7) and public transport

(CD2/13 TA page 77, paragraph 5.3.9 to 5.3.14 and CD2/7.1 D&A volume 1, page 191, paragraph 7.6.6), and also remove barriers to pedestrian movement (D&A volume 1, page 211, paragraph 8.1.1).

3.4.3 Parking provision (CD2/13 TA page 62, table 4.5) is at a rate that encourages a mode shift in an area with good accessibility and is also within parking standards for cars and cycles as set out in SPG4.

3.4.4 A Travel Plan (CD2/13 TA page 81, paragraph 5.6.1 to 5.6.5 and CD2/7.1 D&A volume 1, page 227, paragraph 10.1.2) and a Car Park Management Plan (CD2/13 TA page 63, paragraph 4.6.19 to 4.6.23 and CD2/7.1 D&A volume 1, page 227, paragraph 10.1.2) have been developed to co-ordinate and promote a modal shift away from single occupancy car usage. Financial contributions have been committed to within the proposals to support bus priority and the RTS which creates a new sustainable transport corridor below the cliff. The improved pedestrian and cycle accessibility around the site will be designed with safety in mind, some aspects of which have already been subject to Safety Audits. I conclude that the proposals comply fully with the transport policy matrix in the Local Plan.

SPG4: Parking standards (2000)

3.4.5 Supplementary Planning Guidance 4: Parking Standards was adopted in 2000. It sets out the parking standards that are being applied by BHCC when considering development proposals (CD8/5 SPG 4 page 1, paragraph 1).

3.4.6 The key policy principles in SPG4 are:

- The aim to reduce excessive car parking provision that encourages the non essential use of the car, especially for peak time travel (CD8/5 SPG4 page 1); and
- The adoption of maximum (rather than minimum) levels in the provision of parking – 12 spaces per 100m^2 GFA (superstore), 1 space per dwelling and 1 space per 2 dwellings for visitors (residential) (CD8/5 SPG4, page 3 and page 8).

3.4.7 The proposed parking provision for residential units of 0.62 spaces per dwelling, and a retail parking provision of 1 space per 23m^2 is well within the maximum standard stated in SPG4. Likewise, cycle provision is in excess of the parking standard minimum. SPG4 calls for a restraint based approach to parking provision (page 1, paragraph 5) states that "…the city's aim to reduce excessive parking provision that encourages the non essential use of the car… The likely availability of a parking space is an important factor in determining whether or not a journey is made by car."

3.4.8 The proposals have promoted (reduced) parking provision (CD2/13 TA page 62, table 4.5) which I conclude complies fully with Supplementary Planning Guidance 4 on parking.

SPG15: Tall buildings

3.4.9 Supplementary Planning Guidance 15: Tall Buildings was adopted in January 2004. It provides a checklist of planning and design issues that the council will require applicants of all tall building proposals to address in their detailed planning submissions. (CD8/8 SPG15 page 1, section 1.3)

3.4.10 This SPG contains one transport-related policy:

- Policy QD3 – Higher development densities will be particularly appropriate where a site has good public transport accessibility, pedestrian and cycle networks (CD8/8 page 4, paragraph 3.5.3).

3.4.11 The SPG identifies the Marina as an area that is suited to tall building development (CD8/8 SPG15 page 15, paragraph 8.3.1). It also states that applicant will need to describe the existing transport services that are within walking distance of the development, and provide a TA and Travel Plan. Applicants should also describe measures that help achieve the overall reduction in private vehicle use (CD8/8 SPG15 page 8, section 7.2.4).

3.4.12 The appeal proposals will improve pedestrian and cycle networks and accessibility. Investment will be made in improving bus and public transport facilities (CD2/13 TA page 77, paragraph 5.3.9 to 5.3.14 and CD2/7.1 D&A volume 1, page 191, paragraph 7.6.6). The appeal site is a location that has good public transport, pedestrian and cycle accessibility. The proposed development will enhance that accessibility.

SPG20: Brighton Marina (2003)

3.4.13 Supplementary Planning Guidance 20: Brighton Marina Masterplan for enhancement was published in 2003 and sets out planning guidance for the Marina. This SPG is site specific policy relevant to the appeal site. The SPG identifies part of the Marina as a District Centre (CD8/9.1 SPG20 volume 1 page 8, paragraph 3). The core transport aspiration of SPG20 is to 'make the link' between land use and transport, reduce the need to travel and contribute towards an integrated transport system with more opportunities to walk, cycle or take public transport (CD8/9.1 SPG 20, volume 2, page 19, paragraph 5).

3.4.14 In addition, SPG 20 advises on development form and urban structure and has a number of objective themes, covering character, quality of public realm, ease of movement and legibility (CD8/9.2 SPG 20 volume 2, page 21). The two most relevant to transport are ease of movement and legibility.

3.4.15 Key objectives that set out to achieve ease of movement and legibility are (CD8/9.1 SPG20 volume 1, page 85, paragraphs 2 and 3):

- Enhancing public transport services, accessibility and interchange;
- Increasing cycle use, including routes and facilities;
- Reducing conflict between vehicles and pedestrians;
- Easing and increasing pedestrian movements and level of comfort;
- Maximising accessibility for the elderly and infirm;
- Redefining important junctions and points of interaction; and
- Enhancing significantly the entrance to the site to produce a distinctive gateway.

3.4.16 Specifically, the SPG suggests a Movement Framework with the following key aims (CD8/9.2 SPG20, volume 2, pages 35, 36 and 38):

- Investigate the potential for a bridge link to provide a direct pedestrian access into Merchant's Quay from the cliff top;
- To improve links between the site and the city centre;
- To improve pedestrian links within the site and to remove barriers to movement;
- To ensure that residents and visitors can move freely…and ensure that routes are direct, safe, pleasant and legible;
- To provide a transport interchange;

- To safeguard a route to facilitate a potential light rapid transit link;
- To…reduce the dominance of the entrance roundabout as a barrier to pedestrian movement; and
- To provide alternative vehicular circulation routes including…a reconfiguration of the multi-storey car park.

3.4.17 The SPG (CD8/9.2 SPG20 volume 2, page 34, paragraph 1) states that the relationship of the Marina and the rest of the City must be enhanced by:

- Creating easier and more attractive access for pedestrians and cyclists; and
- Reducing the impact of car-borne visits.

3.4.18 The measures proposed will enhance public transport and promote accessibility. A new inter-modal transport interchange (CD2/13 TA page 77, paragraphs 5.3.9 to 5.3.14 and CD2/7.1 D&A volume 1, page 191, paragraph 7.6.6), improved walking facilities and accessibility and cycling facilities have also been promoted (CD2/13 TA page 72, paragraph 5.2.1 to 5.2.3), delivered via a Travel Plan (CD2/13 TA page 81, paragraph 5.6.1 to 5.6.5 and CD2/7.1 D&A volume 1, page 227, paragraph 10.1.2). These measures consider the needs of the mobility impaired and barriers to pedestrian movement have been identified and removed to enhance pedestrian and cycle movement. The aims of the movement framework have been included, particularly the bridge link between the cliff top and the marina (CD2/13 TA page 78, paragraph 5.3.14; page 119, paragraph 7.11.1 and CD2/7.1 D&A volume 1, page 211, paragraph 8.1.2), the transport interchange, (CD2/13 TA page 77, paragraph 5.3.9 to 5.3.14; CD2/7.1 D&A volume 1, page 191, paragraph 7.6.6 and page 213, paragraph 8.2.1) the rapid

transit link (CD2/13 TA page 77, paragraph 5.3.14; page 80, figure 5.4 and CD2/7.1 D&A volume 1, page 213, paragraph 8.2.1) and the reconfigurations to the multi-storey car park (CD2/13 TA page 63, paragraph 4.6.18 and CD2/7.1 D&A volume 1, page 213, paragraph 8.2.2). Through these measures, the proposals comply fully with SPG20.

Local Transport Plan 2 (LTP2 – 2006/2011)

3.4.19 Local Transport Plan 2 (LTP2) is a statutory transport plan covering local government transport objectives for the period 2006-2011. The plan indicates how Brighton and Hove City Council intends to tackle Central Government's transport objectives (CD8/4 LTP2 Foreword).

3.4.20 Within the Brighton and Hove LTP2, there are several core transport aspirations (LTP2 pages 120, 128, 134 and 140). They are to:

- Increase walking trips year on year by 3%;
- Increase cycling trips year on year by 5%;
- Increase bus patronage year on year by 3%; and
- Reduce AM and PM peak traffic year on year by 1.5%.

3.4.21 The Travel Plan (CD2/13 TA page 81, paragraph 5.6.1 to 5.6.5 and CD7.1 D&A volume 1, page 227, paragraph 10.1.2), its associated measures and management philosophy will produce a modal shift towards increased cycling, walking and bus use, along with measures to increase car sharing. Together with the Car Parking Management Plan (CD2/13 TA page 63, paragraph 4.6.19 to 4.6.22) and section 106 contributions towards the RTS (CD2/13 TA page 119, section 7.10), walking, cycling and bus trips will be increased and car based trips

will be reduced, resulting in less overall traffic impact. Therefore, the proposals comply fully with LTP2 policy.

Brighton and Hove Planning Advise Note 04 (2008)

3.4.22 Planning Advise Note 04 was published in March 2008 and is intended to act as a supplement to SPG20, the Supplementary Planning Guidance Brighton Marina Masterplan and will inform the development control process (CD8/12 PAN04 page 3, section 2). The document is a material consideration which identifies transport related features in the Marina that present themselves as constraints to accessibility and good quality sustainable travel. They were identified as the existing roundabout, the entrance/exit ramps, and the emergency vehicle access (CD8/12 PAN04 page 10, section 8.3).

3.4.23 PAN04 objectives (CD8/12 PAN04 page 5, section 3.2) that are relevant in this case are:

- To ensure a significant enhancement of the transport infrastructure and general accessibility to, from and within the Marina. Priority to be given to the provision of transport interchange, facilitation of RTS, improved emergency vehicle access and substantially improved pedestrian and cycle access;
- To provide the necessary coordination for promoting smarter travel choices through the establishment of a Stakeholder Group, in partnership with the Brighton Marina Estate Company Limited, with representatives from the city council, all occupiers on-site, developers and planning applicants;
- To improve pedestrian, cycle and transport linkages between the Marina and City Centre;

- To secure visual and pedestrian connections to the sea and harbour areas of the Marina;
- To improve legibility, permeability and connectivity for pedestrians and cyclists within the marina and surrounding areas, in particular with the Black Rock development, east Brighton and Rottingdean; and
- To secure significant environmental improvements, in particular to the public realm and pedestrian/cyclist network within the site and between the Marina and other areas.

3.4.24 The measures proposed will enhance the transport and access infrastructure (CD2/13 TA page 56, paragraph 4.5.1 to 4.5.10), and an inter-modal transport interchange (CD2/13 TA page 77, paragraph 5.3.9 to 5.3.14 and CD2/7.1 D&A volume 1 page 191, paragraph 7.6.6) is a central part of these measures – as is a car club (CD2/13 TA page 80, paragraph 5.5). Financial investment (CD2/13 TA page 119, section 7.10) totalling £2.837m will help finance sustainable travel. Emergency vehicle access (CD2/13 TA page 68, paragraph 4.9.2 and CD2/7.1 D&A volume 1, page 213, paragraph 8.2.4) will be improved with the upgrading of the existing emergency access on the exit ramp and the provision of a new secondary access along the proposed RTS route (CD2/13 TA page 70, paragraph figure 4.6 and CD2/7.1 D&A volume 1, page 213, paragraph 8.2.1). Pedestrian and cycle access between Black Rock and the Marina will also be improved (CD2/13 TA page 77, paragraph 5.3.14 and CD2/7.1 D&A volume 1, page 211, paragraph 8.1.2).

3.4.25 The measures contained within the Travel Plan (CD2/13 TA page 81, paragraph 5.6.1 to 5.6.5 and CD2/7.1 D&A page 227, volume 1 paragraph 10.1.2) promote

Smarter Travel Choices through marketing and physical means and the appointment of a Sustainable Transport Manager (STM). The STM will manage the overarching sustainable travel strategy and will set up a steering group that allows key stakeholders to discuss the strategy and raise awareness for it.

3.4.26 As part of the measures that substantially improve pedestrian access (CD2/13 TA page 72, paragraph 5.2.1 to 5.2.4 and CD2/7.1 D&A volume 1 page 210, figure 8.1.1) and cycle access (CD2/13 TA page 76, paragraph 5.2.1 to 5.2.4 and CD2/7.1 D&A volume 1, page 210, paragraph 8.1.1), cyclists and pedestrians will have a connection both to the harbour area and the sea. Bus users, cyclists and pedestrians will have improved connections to the city centre with good permeability throughout the appeal site and linking into the facilities in the surrounding area.

3.4.27 Together, these measures will secure significant environmental improvements to the pedestrian/cyclist/bus user network, thereby encouraging sustainable transport use and a more vibrant public realm. I therefore conclude that the proposals comply fully with PAN04's policy and guidance for transport.

Draft Brighton and Hove Core Strategy proposed amendments

3.4.28 The Local Development Framework - Core Strategy proposed amendments paper was published in June 2009 and sets out proposed changes to some of the Local Development Framework policies. One of the policies that have been changed is DA2 (Brighton Marina, Gas Works and Black Rock Arena). This area has now been identified as a strategic location for an allocation of 1,650 new residential units (CD8/2.2 page 4, paragraph 1.7, bullet 2).

3.4.29 The Draft Core Strategy policies that are relevant to transport are as follows (CD8/2.2 Core Strategy Amendments Paper pages 11, 17, 31 and 34):

- Policy CP8 – Sustainable Transport. This proposed policy sets out to contribute to creating a sustainable transport system by: effective working with adjoining authorities; directing significant development into areas with good sustainable transport; mitigating the impact of existing travel and future development; improving opportunities and choice in public transport provision; ensuring that all new major development schemes submit a transport assessment (CD8/2.2 page 31).
- Policy CP9 – Infrastructure and Developer Contributions. This proposed policy outlines the range of infrastructure and service provision where contributions may be sought. These include sustainability measures; sustainable transport initiatives … that will include public transport, walking and cycling, and highways infrastructure and access provision (CD8/2.2 page 34).
- Policy CP11 – Housing development. This proposed policy identifies the marina as one of the seven areas which benefit from close proximity to public transport and existing or planned local services and facilities. These areas are '*capable of accommodating significant development*' (CD8/2.2 page 11).
- Policy DA2 – Brighton Marina policy area. This proposed policy supports proposals which improve connectivity between the Marina, the proposed new leisure and recreation facility at Black Rock and the former Gas Works site. It also supports proposals which enhance the transport infrastructure

at the Marina and promote more sustainable forms of transport. In addition, the priority includes: promoting smarter travel choices for people; improving pedestrian and cycle access; securing improved emergency vehicle access (CD8/2.2 page 17).

3.4.30 The appeal site has good existing accessibility to public transport and as such is capable of high density development. The measures contained within the appeal proposals will both enhance the existing transport infrastructure and promote sustainable transport modes through improved facilities and accessibility (CD2/13 TA page 72, paragraph 5.2; page 77, paragraph 5.3.9 to 5.3.14; CD2/7.1 D&A volume 1, page 191, paragraph 7.6.6 and page 210, paragraph 8.1.1). The proposals commit to investing in the capital transport scheme (the RTS (CD2/13 TA page 119, paragraph 7.10.1)) and also improved bus services (CD2/13 TA page 77, paragraph 5.3.11). They also commit to promoting smarter and more sustainable travel choices via the Travel Plan (CD2/13 TA page 81, paragraph 5.6.1 to 5.6.5 and CD2/7.1 D&A volume 1, page 227, paragraph 10.1.2) and infrastructure improvements. The traffic impacts of the proposed development will be also mitigated through the proposed measures. These sustainable transport initiative contributions total £2.837m (CD2/13 TA page 119, section 7.10) and the proposed development has been designed to accommodate these. In conclusion, the development proposals comply with this recent local policy.

4 Existing conditions

4.1 Preamble

4.1.1 I begin with a brief summary of the main characteristics of the site in terms of location, accessibility and existing transport facilities.

4.2 Location

4.2.1 Brighton Marina is located south of the A259 approximately 3½ miles east of Brighton City Centre and 2½ miles west of Saltdean. The location of the site is illustrated in DJF 1. DJF 2 shows the appeal site in relation to the immediate local highway network.

4.2.2 The appeal site is situated at the western end of Brighton Marina (refer to DJF 3) in a predominantly commercial area which includes the ASDA store, the multi-storey car park (MSCP), cinema, casino, David Lloyd health and fitness centre, Bowlplex bowling alley, Rendezvous Casino, Pizza Hut and the McDonald's drive-thru.

4.3 Access

4.3.1 The main point of vehicular access into the Marina is at its western end via a series of junctions known as the Black Rock Interchange which leads down to a 7.2metre wide concrete ramp (from the A259) into the marina.

4.3.2 Access to the Black Rock Interchange from the north is via Marina Way under the A259. Access from the east (A259) is via a west facing off-slip leading under the A259; whilst access from the west (A259) is obtained by driving past the site on the A259 and u-turning on to the A259 eastern approach. A plan of the highways arrangement is included as DJF 4.

4.3.3 Due to gradient and safety concerns the 7.2m main access ramp prohibits pedestrian and cycle usage. Access to the site can be seen on plan DJF 5.

4.3.4 The main point of arrival within the Marina is at a 5 arm roundabout at the base of the access ramp. From this point, routes lead either to the Asda car park to the northwest; Asda deliveries, other retail and residents' parking to the northeast; retail outlets, cafes, hotel and residential units via Palm Drive to the east; and access to the MSCP and leisure facilities to the south.

4.3.5 A secondary point of access into the Marina by car is via the MSCP, which can be accessed directly from the middle of the ramp onto the car park roof. However owing to poor legibility, this arrival point is under-utilised, and the majority of cars enter the car park, at ground level from the south side of the MSCP, after negotiating the roundabout.

4.4 Traffic

4.4.1 The traffic impact assessment was undertaken at 12 key junctions which was the same approach used for the approved Brunswick development. The Brunswick traffic data was supplemented by CB surveys undertaken in 2006 for both weekday and Saturday traffic. This approach was agreed with BHCC officers in TSOCG (page 6, paragraph 3.4.1). Through a scoping exercise, this coordination with the Brunswick scheme TA was considered to form a robust analysis of the key junctions (TSOCG page 6, paragraph 3.3.5).

4.4.2 At present most of the junctions on the local highway network are operating close to or at capacity in the AM and PM peak hours. This has been confirmed by officers at BHCC and has been agreed in the TSOCG (page 4, paragraph 2.3.5).

4.5 Pedestrians

4.5.1 At present, the pedestrian has limited routes through the western Marina. It is possible to enter the Marina on foot from Madeira Drive under the ramp close to the cliff base, from the beach to the west via a footpath which passes below the ramps (a narrow route that is shared with cyclists). There is an alternative route from the cliff-top (A259) via a zigzag ramp which leads the visitor into the Asda car park. DJF 6 shows the routes described.

4.5.2 Currently pedestrian legibility within the Marina is poor. Once in the Marina it is difficult to navigate the roundabout by foot due to convoluted routes and ill placed pedestrian guardrails particularly around the existing roundabout. These create barriers and restrict movement and permeability at the heart of the site. A series of photographs that I took in 2006 clearly shows the barriers in this location (refer to DJF 7) together with pedestrians in the middle of the highway.

4.5.3 Due to the roundabout being such a barrier to pedestrian (and cycle) movement, the routes between Asda and David Lloyd/Cinema (through passage under the MSCP) become important when traversing the site, however these routes are narrow confined spaces which are shared with cyclists (middle photograph on DJF 6). My conclusion is that the routes and quality of the existing pedestrian network within the west of the Marina are both bleak and unpleasant.

4.6 Cyclists

4.6.1 The existing SUSTRANS cycle route runs along the cliff top (A259), overlooking the Marina (DJF 8). It is currently prohibited to cycle along the Under Cliff walk along the base of the cliff, (which was reopened in the summer of 2006 for pedestrian use only). At present, cycles can approach the Marina from the west

via Madeira Drive, under the ramps, linking to the ASDA car park spine road that leads to Palm Drive via the roundabout (left photograph on DJF 6).

4.6.2 There are some disjointed cycle routes through the Marina and the cycle parking is minimal (primarily located outside Asda, McDonald's and the eastern side of the MSCP). The cycle routes are shared with pedestrians in narrow confined spaces through the MSCP between Asda and David Lloyd/Cinema. Cycling is prohibited along the boardwalk. The photograph on the right of DJF 6 shows the routes described and the location of cycle parking. I conclude that cycle facilities within the western part of the Marina are close to non-existent.

4.7 Public transport

4.7.1 The Marina is well served by public transport, as agreed in the TSOCG (page 3, paragraph 2.2.5). There is an extensive bus route network (refer to DJF 9) within Brighton and Hove, operated exclusively by Brighton and Hove Bus and Coach Company. Regular services to and from the Marina include those to Rottingdean, Saltdean, Newhaven, Ovingdean and Woodingdean. A summary of these bus routes is presented in Table 4.1.

Table 4.1: Bus Routes Servicing Brighton Marina

Number	Route	Buses per hour		
		Mon-Sat	Sun	Night
7/N7	Hove to Brighton Marina	9	6	2
14B	City centre to Newhaven	-	2	-
21/21B	Brighton Marina to Open Market	3	1	-
27/27A	Westdene to Saltdean	-	4	-
47	City centre to Saltdean	1	-	-
52	Brighton Station to East Saltdean	1	-	-
57	City centre to Woodingdean	-	1	-
N99	Whitehawk to Peacehaven	-	-	1
Total		**14**	**14**	**3**

From TA page 26 table 3.5

4.7.2 The number 7 route runs between Hove and Brighton Marina, running approximately 9 times an hour and takes 20 minutes from Brighton Railway Station, which serves a multitude of destinations with up to 18 trains per hour.

4.7.3 The current route for all buses within the Marina follows a circuitous route via the access ramp, along the south side of the MSCP, where they drop off in the southern side (known as Park Square), and then looping around the rear of the leisure sheds to the pickup point adjacent to McDonald's." DJF 10 shows the current location of the bus shelter and the bus route together with a 5 minute isochrone (400m).

4.7.4 Pavement space is limited in this location and there is a single shelter for passengers who wait at the pickup stop. The current location of the shelter is tucked away and not prominent. SPG20 (CD8/9.1 SPG20 volume 1 page 57,

paragraph 1, bullet 5) confirms this by stating that the Marina currently has "*a complete absence of on-site facilities for public transport users, including an arrival point, a waiting area, information sources and multi-modal options such as taxi and cycle transfers".*

4.8 Conclusion

4.8.1 The appeal site is located at the western end of Brighton Marina. The existing transport characteristics of the site are as follows:

- A single point of vehicular access from the A259 via a 7.2 metre wide ramp;
- The main arrival point is to a 5 arm roundabout at the base of the ramp;
- A further access point is available from the middle of the ramp directly onto the MSCP roof;
- The marina is very well served by public transport, with up to 14 buses per hour running during peak periods;
- The existing bus stop is not in a prominent location and consists of a single shelter; and
- Pedestrian and cycle facilities are at present limited and legibility and permeability throughout the site is currently poor.

4.8.2 The appeal site will benefit from improved pedestrian and cycle accessibility. Of primary importance, however, is that the combination and proximity to a range of facilities together with good levels of public transport provision will mean that the introduction of high density development to the site will be in line with national transport policies as set out in PPG13 (CD4/10 page 5, paragraph 16), the Core Strategy (CD8/2.2 Core Strategy Amendments Paper, page 11, subsection B) and SPG15 (CD8/8 SPG15 page 8, paragraph 7.2.4).

4.8.3 PPG13 and SPG15 recommend that high density residential developments should be placed in locations with good levels of accessibility for public and sustainable transport. The Core Strategy amendments paper (CD8/2.2 Core Strategy Amendments Paper page 13, paragraph 4.4) goes further "…*to direct a significant amount of new development to the seven identified 'Development Areas' which benefit from close proximity to public transport…*". This statement emphasizes that Brighton Marina is one of the few locations in the City which benefits from close proximity to good public transport provision and as such is capable of accommodating significant amounts of new development.

5 Transport impact

5.1 Preamble

5.1.1 The TA was prepared in accordance with the Department for Transport's "*Guidance on Transport Assessment*" (previously the IHT Guidelines for Traffic Impact Assessment).

5.2 Application

5.2.1 The appeal proposals are for a mixed-use development comprising a total of 1,301 new residential units and a range of community, retail and commercial uses. Six main sites are proposed for redevelopment:

- the Asda superstore;
- the Asda petrol station;
- the estates office;
- the McDonalds restaurant;
- the Sea Wall alongside the western breakwater and western edge of the multi-storey car park; and
- the eastern end of the multi-storey car park.

5.2.2 It is proposed that the existing ASDA would be redeveloped to create an enlarged store alongside other retail uses, with residential units above. The existing petrol station will be replaced with a part retail and part residential block. The estates office will be replaced with a residential block. The McDonald's restaurant will be replaced within a new McDonald's building with residential above. The western and eastern parts of the existing multi-storey car park would be demolished to accommodate a new petrol station at the eastern end and a residential block at the western. The development proposal also encompasses

the Octagon building where a change of use is anticipated for two existing retail units to be converted to a medical use. I refer to the proof of evidence of Bob Allies (paragraph 5.1.1 to 5.1.13) and David Gavin (paragraph 4.1-4.2) and also in the Statement of Common Ground (SOCG page 12, paragraph 4.1-11) that outline the development proposals in full detail.

5.2.3 The submission of the application (in September 2008) incorporated a number of the issues raised by BHCC officers and third parties with regards to the previous proposals (September 2007). The scheme amendments included:

- Increase in Asda's GFA by 2,532m²;
- Increase in retail space by 1,249m²;
- Inclusion of 26m² of office space;
- Addition of 17 residential units;

Specific transport related changes that have been made to the application are as follows:

- Redesign of the petrol filling station access arrangement;
- Introduction of traffic calming features on the inbound ramp;
- Alterations to the shared space design;
- Introduction of an emergency services access route;
- Reduction of 50 residential parking spaces;
- Reduction of 29 retail parking spaces; and
- Inclusion of additional Saturday traffic data.

5.3 Transport assessment

5.3.1 The content of the TA was based upon a scoping statement (Appendix C) that was submitted to BHCC, the City's highway authority on the 25th July 2006. The resulting response was issued by BHCC on 22nd August 2006 and it was agreed between CB and the highway authority that the TA should follow the same principles as the previous Outer Harbour Application made by Brunswick Development Group. At the time this had just been approved (July 2006).

5.3.2 The submitted TA (September 2008) is agreed as a very robust assessment of the transport impacts of the proposed development on the appeal site. The overall package of improvement measures and section 106 contributions is agreed as acceptably mitigating the transport impacts of the development. The measures focus on the provision of smarter travel choices by improving accessibility to the site by sustainable modes of transport.

5.3.3 A comprehensive TSOCG relating to the transport impact associated with the appeal proposals has been agreed with BHCC as highway authority.

6 Transportation benefits

6.1 Preamble

6.1.1 The proposals will build on the existing public transport facilities already serving the Marina (outlined in section 4) by incorporating proposals that will update and modernise the existing transport infrastructure and promote sustainable transport through a "*smarter choices*" package of measures.

6.2 Smarter Choices

6.2.1 "Making Smarter Choices Work" is the Department for Transport (DfT) best practice guidance on how best to influence travel behaviour trends and move towards more sustainable options. A smarter choice approach seeks to use improved communications and marketing strategies to promote public transport services, communicate information on car share schemes, support car clubs and encourage smarter working practices such as home working. There is not a hard and fast definition of what measures constitute 'smarter choices', but a range of measures would usually include:

- The enhancement of public transport services;
- The provision of new sustainable travel infrastructure;
- The provision of better information about travel options;
- The creation of Travel Plans (that are site and user specific); and
- Measures aimed at reducing the need to travel at all.

6.3 Transport proposals

6.3.1 The two key proposals of the transportation strategy are the provision of a new access dedicated to sustainable modes of transport (RTS, pedestrians and cyclists) together with the introduction of a Car Park Management Plan (CPMP).

The CPMP will introduce control, pricing and management methods which are aimed at encouraging the use of more sustainable modes of transport whilst at the same time ensuring that residents and visitors will have sufficient parking. The full range of measures aimed at promoting smarter choices of travel are outlined below.

6.3.2 A new transport interchange will be provided centrally to the Marina and will accommodate 6 buses at any one time. Taxis will also be accommodated in the interchange with 2 taxi spaces. The interchange includes real time information and new shelters (CD2/13 TA page 77, paragraph 5.3.9 to 5.3.14; CD2/7.1 D&A volume 1, page 191, paragraph 7.6.6; page 213, paragraph 8.2.1 and CD2/13 TA page 119, paragraph 7.11.1).

6.3.3 Off-site junction improvements at the Black Rock Interchange and Wilson Avenue will facilitate bus movement into the Marina (CD2/13 TA page 76, paragraph 5.3.3).

6.3.4 A new route into the Marina from Madeira Drive will provide access for a Rapid Transport System (RTS) (CD2/13 TA page 68, paragraph 4.9.1 to 4.9.4; CD2/7.1 D&A volume 1, page 213, paragraph 8.2.1).

6.3.5 Improvements to the existing vehicular access ramp incorporating 'Rippleprint' and textured surfacing will reduce speeds and improve safety (CD2/13 TA page 57, paragraph 4.5.4 to 4.5.10; CD2/7.1 D&A volume 1, page 179, paragraph 7.6.1).

6.3.6 The proposals will deliver a new access for Emergency Services vehicles following the same alignment as the proposed RTS route (CD2/13 TA page 68, paragraph 4.9.1; CD2/7.1 D&A volume 1, page 213, paragraph 8.2.4).

6.3.7 The reconfiguration of the existing roundabout to a shared space 'Squareabout' where user behaviour becomes influenced and controlled by natural human interaction rather than by artificial (traffic signals) regulation (CD2/13 TA page 55, paragraph 4.4.3; CD2/7.1 D&A volume 1, page 181, paragraph 7.6.2).

6.3.8 Dedicated car parking for businesses within the Marina will be provided and supported by the introduction of a CPMP to prioritise parking for people legitimately using and living in the Marina (CD2/13 TA page 60, paragraph 4.6.15 and 4.6.19 to 4.6.23);

6.3.9 Variable Messaging Signs will be installed on the A259 showing the number of available parking spaces in the Marina (CD2/13 TA page 65, paragraph 4.6.28 to 4.6.29 and page 119, paragraph 7.11.1);

6.3.10 A new pedestrian and cycle access will be provided via a bridge link from the cliff top into the heart of the Marina (CD2/13 TA page 78, paragraph 5.3.14; CD2/7.1 D&A volume 1, page 211, paragraph 8.1.2) from the surrounding residential areas such as Kemp Town and East Brighton Park;

6.3.11 The existing pelican crossing on the A259 will be upgraded to a new Toucan crossing to encourage cycling and pedestrian movement into the Marina (CD2/13 TA page 73, paragraph 5.2.3) from the surrounding residential areas such as Kemp Town and East Brighton Park;

6.3.12 Cycle facilities will be improved by enhancing cycle routes, providing secure cycle stands, a centre for cycle rental and a "doctor-bike" maintenance facility (available to all users of the Marina) (CD2/13 TA page 76, paragraph 5.2.1 to 5.2.4 and 5.2.6 to 5.2.7; CD2/7.1 D&A volume 1, page 193, paragraph 7.6.7 and page 210, figure 8.1.1).

6.3.13 Pedestrian and cyclist signage within the Marina will be enhanced in order to improve legibility through the site (CD2/13 TA page 76, paragraph 5.2.5 to 5.2.6; CD2/7.1 D&A volume 1, page 219, paragraph 9.1.2);

6.3.14 A Travel Plan (secured by condition) will be implemented that includes a car club, discount vouchers for bus and train travel and the purchase of bicycles (CD2/13 TA page 80, paragraph 5.5.1 to 5.5.4; page 81, paragraph 5.6.1 to 5.6.5 and page 119, paragraph 7.11.1; CD2/7.1 D&A volume 1, page 227, paragraph 10.1.2).

6.3.15 A commitment has been made, in response to residents' concerns, to monitor displaced parking in surrounding residential areas before and after implementation of the development (CD2/13 TA page 66, paragraph 4.6.31).

6.4 Transportation planning controls

6.4.1 The appellant will enter into a commitment through a section 106 planning obligation to fund transport infrastructure works with contributions amounting to £1,494,000 (plus a further £1,343,000 of financial investment towards items that are to be Conditioned as part of the application). A comprehensive list of planning obligations can be found in page 8 of the Statement of Common Ground prepared by NLP and are summarised below.

6.4.2 The figures have been discussed at length with the highway authority and it has been agreed that they will satisfactorily address the transport impacts of the proposed development on the appeal site and provide accessibility to the site by sustainable modes of transport. This has been agreed in the TSOGC (page 8, paragraphs 3.7.1 and 3.7.2). In summary:

- Offsite junction improvements (for buses):
  - Wilson Avenue/Roedean Road **£400,000**
  - Black Rock Interchange **£150,000**
- Financial contributions towards bus priority measures at:
  - Queens Road **£50,000**
  - North Street **£50,000**
  - Kings Road **£50,000**
  - Edwards Street **£50,000**
  - Eastern Road **£50,000**
- Upgrade of pedestrian crossing on A259 **£50,000**
- Installation of VMS along A259 **£100,000**
- Contribution towards RTS (support to increase bus services) **£544,000**

6.4.3 In addition to the above the following transport-related commitments (including indicative costing) will be undertaken:

- New RTS and Emergency access route **£700,000**
- New Transport Interchange **£168,000**
- Car Parking Management Plan **£115,000**
- Monitor displaced parking **£50,000**
- Car Club and Shop Mobility **£70,000**

▪ Travel Plan		**£240,000**
	Total	**£2,837,000**

6.4.1 The above section commitments, all of which have been agreed within the Statement of Common Ground and by way of a Unilateral Planning Obligation between the appellant and BHCC, are fully in compliance with government policy for planning obligations. They will be delivered and will be of significant benefit to all of the present and future users of the Marina.

7 Summary of third party objections

7.1 Preamble

7.1.1 In order to understand the concerns of third party objectors to the proposals I have reviewed the representations that were made to the local planning authority prior to the Planning Committee on 12th December 2008 (taken from the Officer's report for that meeting).

7.1.2 I may wish to make further comment on additional representations made by any third parties to the Inspectorate as part of the Inquiry.

7.2 Objections by the Marine Gate Action Group

7.2.1 The representations made by Robert Powell on behalf of the Marine Gate Action Group are attached as Appendix D to this proof of evidence. In summary they are:

- *Proposals for Palm Drive would effectively make it a bus terminus and is likely to affect existing businesses adjacent to Palm Drive.*
- *Bus turning circles look difficult in this shared space. Congestion and tailbacks likely in light of other new accesses being created.*
- *Single access into Marina inadequate, especially in the event of an emergency.*
- *Exit from petrol station appears to lead directly on to ramp, resulting in drivers wanting to access other areas of the Marina to drive out to A259 and re-enter.*
- *Exit from multi-storey onto ramp is unsafe with inadequate visibility splays.*
- *Positioning of bus terminus to Palm Drive means that walking distance from Brunswick's 40 storey tower is no longer acceptable.*

- *Parking for non-Asda customers has been reduced.*
- *Access to residential areas in the east of Marina would become more difficult as a result of proposed relocation of bus terminus.*
- *Sea Wall building shows two storey car parking could result in manoeuvring problems for larger cars.*

The following assertion was made by The Marine Gate Action Group in their Statement of Case:

- *The location of bus stands and inadequate parking provision will contribute to a vehicle dominated environment.*

7.3 Objections by the Kemp Town Society

7.3.1 The representations made by Paul Phillips of the Kemp Town Society are attached as Appendix E of my proof of evidence. The following transport objection was made:

- *Traffic in peak periods would cause traffic jams on Marine Parade and Wilson Road.*

The following assertion was made by the Kemp Town Society in their Statement of Case:

- *The proposed development will have a high impact on the surrounding area with respect to parking, due to the reduction in the number of public parking spaces and high restriction on new parking spaces for the expanded uses and occupancy of the development, based on the unsubstantiated theory that users will use other means of transport. KTS will add its analysis to the impact of poor traffic management and parking facilities.*

7.4 Objections by Brighton Marina Residents' Association

7.4.1 The representations made by Peter Martin of Brighton Marina Residents' Association are attached as Appendix F of my evidence. In summary they are:

- *Concerned that no improvements being proposed to emergency access at eastern end.*
- *Reduction in multi storey car parking is unacceptable*
- *Serious issues with the data used by the developer in that it is out of date, limited or inappropriate.*
- *Unacceptable levels of traffic congestion at Harbour Square due to proposed low speed restriction.*
- *Use of The Strand and roundabout by existing estates office by buses would cause disruption to residents as they access their properties, in addition to raising issues related to safety and environmental impacts.*
- *Inadequate number of taxi points.*
- *TA did not assess wider traffic implications outside the marina.*
- *Car park management plan – reduction on 1353 car parking spaces in the multi storey is unacceptable.*
- *Amount proposed for free parking spaces is insufficient to accommodate all users, especially berth holders.*
- *Both Explore's proposal and Brunswick scheme parking measures would increase pressure on surrounding areas.*

7.4.2 The following assertions were made by The Marina Residents Association in their Statement of Case:

- *The reduction in the provision of parking in the multi-storey car park proposed is unacceptable and the proposed development does not comply with car park standard policy.*
- *If the development were to proceed transport infrastructure is not adequate to allow further future development within the Marina which is required by BHCC Masterplan PAN04 to address the issue of the inadequate emergency access and egress at the Eastern End of the Marina*
- *There will be loss of amenity as a result of inadequate parking. The reduction in the car parking in the Multi-Storey Car Park is unacceptable. Under-provision of parking will result in a loss of amenity to existing Marina residents.*
- *Location of the Bus Station is inappropriate and will result in a loss of amenity for the residents of the Marina and cause nuisance.*

7.5 Objections by Save Brighton

7.5.1 The representations made by Brian Simpson of Save Brighton are attached as Appendix G of my evidence. In summary the comments made are:

- *The Marina would be overdeveloped and its infrastructure overloaded.*
- *The concrete ramps into and out of the Marina would be overloaded.*
- *It would generate excessive road traffic, leading to noise, congestion and disturbance affecting residents in both the Marina and elsewhere.*

No traffic and transportation issues were raised within Save Brighton's Statement of Case.

7.6 Other objections

7.6.1 In addition to these points further issues were raised in a number of other third party submissions that have been made to the Planning Inspectorate. In summary, the concerns raised that are not already covered in the above relate to the following matters:

- The level of parking provision;
- Traffic within the Marina;
- Traffic on the A259;
- The safety of the single access for emergency services
- Public transport provision;
- The safety and utility of the pedestrian bridge; and
- The safety of crossing the A259.

7.6.2 Sections 8 to 12 below deal with each of the objections under the following five headings:

- Congestion;
- Accessibility;
- Parking;
- Transport Interchange; and
- Shared Space.

8 Objection 1 – Congestion

8.1 Approach

8.1.1 Discussions with the relevant officers at BHCC regarding the capacity of the local highway network confirmed that most of the junctions are already operating close to or at capacity in the peak hours. This has been agreed in the TSOCG (page 4, paragraph 2.3.5).

8.1.2 One of the key objectives set out in the LTP2 is to reduce congestion. Page 49 Section 6.2 suggests that this should be approached by reducing "...*the demand for travel (especially by private car)…"* and providing *"…improved provision for sustainable transport modes…"*

8.1.3 In agreement with BHCC (letters in Appendix H) it was considered appropriate to make use of the 2004 traffic count data contained within the Brunswick Development Group TA (refer to agreement in TSOCG, page 4, paragraph 2.3.1 to 2.3.3).

8.1.4 Guidance on Transport Assessment (CD5/4 Guidance on Transport Assessment page 22, paragraph 4.18) recommends that "…*assessment should include recent counts (normally surveyed within the last three years) for peak periods…"* I carried out supplementary surveys during 2006 (see DJF 11 for locations) for the purpose of verifying and validating the Brunswick raw data. This was agreed in the TSOCG (page 6, paragraphs 3.4.1 and 3.4.2). As such I am content that the traffic data is appropriate and valid.

8.1.5 This approach ensured that both schemes had the same preliminary point of assessment and would allow BHCC to make a direct comparison of impacts on the local highway network.

8.2 Core Strategy

8.2.1 The Local Development Framework – Core Strategy proposed amendments paper now identifies Brighton Marina as a strategic allocation of 1,650 new residential units between 2010 and 2025 (CD8/2.2 Core Strategy Amendments Paper page 4, paragraph 7.1 bullet 2).

8.2.2 The planned allocation of residential redevelopment is also supported in SPG 20 (CD8/9.2 SPG20 volume 2, page 55, section 2, bullet 5) which states "*the space above retail… …should be utilised primarily for residential accommodation, in accordance with the need to make the most efficient and effective use of land and the need to develop high density.*"

8.2.3 Such an allocation of new development will generate a local increase in traffic volumes. As such the traffic impact of the proposed development must be considered in the context of this strategic housing allocation.

8.3 Mode shift

8.3.1 It is important to note that no mode shift has been incorporated into the assessment contained within the TA and the analysis is therefore a worst case scenario (because it does not take account of the large financial investment in sustainable modes of transport). This approach has been agreed in the TSOCG (page 7, paragraph 3.4.8).

8.3.2 Research published by the Department for Transport "*Making Smarter Choices Work*" (Appendix I) found that an intensive smarter choices programme would reduce car traffic significantly. It states that urban peak-hour traffic could be cut by 21 per cent (and off-peak by 13 per cent) and that non-urban peak hour traffic could be cut by 14 per cent (and off-peak by 7 per cent).

8.3.3 In order to establish what the modal split could be for the residents of the appeal development I have examined the existing modal splits for wards within Brighton and Rottingdean Costal ward (where the appeal site is located). These are shown in Table 8.1.

8.3.4 It can be seen from Table 8.1 that Brighton already has a relatively low car mode share compared to the rest of the South East of England. As part of the financial investment in sustainable travel initiatives it is anticipated that travel patterns for the future (and existing residents of the Marina) will align themselves with those already experienced across the city of Brighton.

Table 8.1: Existing % journey to work modal split (Census 2001)

Location	Car	Other[1]	M/Cyle	Taxi	Train	Bus	Cycle	Walk
SE England	59.0	16.0	1.0	0.5	6	4.5	3	10
Brighton	40.5	14.5	1.0	0.5	9	12.5	3	19
Rottingdean	53.0	19.0	1.0	1.0	6	11.0	1	8
Target shift	**-12.5**	**-4.5**	**0.0**	**-0.5**	**+3**	**+1.5**	**+2**	**+11**

From TA page 115 Table 7.7 (round up)

8.3.5 The commitment to smarter travel choices (which includes a Travel Plan) will exist throughout the lifetime of the development and it is anticipated that this initial shift will be improved further. The appellant will set interim targets, relating to a five year strategy for implementation (delivered through the Travel Plan). The

[1] Includes car passenger and work from home

strategy, targets and measures will be monitored throughout the 5 years to ensure they remain relevant, and will be agreed and discussed with the local authority (and key stakeholders) prior to implementation.

8.3.6 It is realistic and achievable to set the initial target modal shift of 12.5 percent away from single occupancy car use when compared to existing travel patterns within the Rottingdean coastal ward.

8.4 External traffic impact

8.4.1 I have analysed the percentage traffic impact that the proposed development will have on junctions external to the Marina (without a 12.5 percent modal shift). The results are presented in Table 8.2.

Table 8.2: Percentage increase in traffic volumes at each junction

Description	EL Proposed 2012		
	AM	PM	SAT
Palace Pier	4.8%	6.9%	3.7%
Preston Circus	0.5%	1.2%	0.5%
Rottingdean High Street	2.1%	2.7%	1.7%
Whitehawk Road	4.2%	4.5%	3.5%
Dukes Mound	6.9%	9.9%	5.3%
Wilson Avenue	6.9%	6.3%	6.3%
Edward Street	2.6%	3.7%	2.1%
Downs Hotel	2.6%	2.1%	1.9%
West Street	2.7%	3.3%	2.1%
Warren Road	3.2%	2.3%	-

From TA page 111 Table 7.3

8.4.2 The analysis shows that the traffic impact of the development proposals will be less than a 10 percent increase in the total number of vehicles flowing through each junction (without considering a 12.5 percent modal shift). This has been

agreed in the TSOCG (page 6, paragraph 3.4.6). The highest impact can be seen Palace Pier and Dukes Mound.

8.4.3 I have reviewed the maximum queue lengths generated by the proposed development and have compared them to the 2012 baseline (without development). The analysis shows the results of the weekday (08:00-09:00 & 17:00-18:00) and weekend (12:00-13:00) peak hours, which represent the absolute worst case traffic conditions due to daily fluctuations in traffic volumes. The increases in queue lengths have been calculated and shown below in Table 8.3.

Table 8.3: Queue lengths and queue increases (vehicles)

Junction	2012 Base Line			Appeal Site			Queue Increase		
	AM	PM	SAT	AM	PM	SAT	AM	PM	SAT
Palace Pier	12	4	91	49	6	127	37	2	36
Preston Circus	79	53	123	79	53	123	0	0	0
Rottingdean High St	42	21	98	45	21	103	3	0	5
Whitehawk Road	3	5	3	4	7	3	1	2	0
Dukes Mound	2	11	17	17	23	45	15	12	28
Wilson Avenue	12	13	10	12	15	11	0	2	1
Edward Street	14	13	25	15	13	30	1	0	5
Downs Hotel	24	23	37	28	28	44	4	5	7
West Street	19	29	22	20	33	22	1	4	0
Warren Road	10	12	-	11	12	-	1	0	-

From TA Appendix 12.

8.4.4 It can be seen from the above table that the majority of junctions that are assessed show an increase during the peak hours. The largest impact will be at

Palace Pier Roundabout (an increase of 37 vehicles that equates to an average delay per arriving vehicle of 2 minutes and 57 seconds during the peak hour). I have undertaken a sensitivity test to establish the cumulative impact of both the Brunswick and the present appeal developments, the results of which can be found in Appendix J.

8.4.5 The results in Table 8.3 will be less because I did not initially consider the investment in sustainable modes in the submitted TA (and the 12.5 percent modal shift away from single occupancy car use). This has been agreed in the TOSCG (page 7, paragraph 3.4.8). The results of considering a modal shift of 12.5 percent are shown in Table 8.4 below.

Table 8.4: Queue Lengths and Increases (vehicles) after mode shift

Junction	2012 Base Line			12.5% shift			Queue Increase		
	AM	PM	SAT	AM	PM	SAT	AM	PM	SAT
Palace Pier	12	4	91	33	5	108	21	1	17
Preston Circus	79	53	123	79	53	123	0	0	0
Rottingdean High St	42	21	98	43	21	98	1	0	0
Whitehawk Road	3	5	3	4	6	3	1	1	0
Dukes Mound	2	11	17	7	15	34	5	4	17
Wilson Avenue	12	13	10	12	14	11	0	1	1
Edward Street	14	13	25	15	13	25	1	0	0
Downs Hotel	24	23	37	27	28	38	3	5	1
West Street	19	29	22	20	31	22	1	2	0
Warren Road	10	12	-	10	12	-	0	0	-

Calculated for this report.

8.4.6 It can be seen from the above table that the majority of junctions will benefit from the investment in sustainable modes of travel proposed as part of the development. Queues are reduced by nearly half (average delay at Palace Pier roundabout will be reduced per arriving vehicle to 1 minute and 16 seconds during the peak hour). Over time as the appellant continues to invest and monitor travel into and out of the Marina (through the continued review of the Travel Plan), it is envisaged that this 12.5 percent figure will improve further.

8.4.7 The residual increase in traffic queues are modest and any increase in traffic should also be considered against the planned redevelopment of the Marina which has policy support through the Core Strategy (CD8/2.2 Core Strategy Amendments Paper page 19, paragraph C) and guidance set out in SPG20 (CD8/9.2 SPG 20 volume 2, page 14, paragraph 1). The delivery of any new development will inevitably increase vehicular movement into and out of the Marina.

8.4.8 The package of sustainable measures will create a modal shift away from current car usage patterns in this area. This will sustainably address the impact of the development on the surrounding highway network as reported in Table 8.3 and Table 8.4. This has also been agreed in the TSOCG (page 7, paragraph 3.4.12).

8.5 Junction capacity improvement

8.5.1 Through my ongoing discussions with Brighton and Hove officers it became very clear that investment in sustainable transport measures should take priority over general junction capacity improvements. The approach is to ensure that new development will seek a reduction in traffic volumes through the promotion of sustainable modes.

8.5.2 This was confirmed at the pre-application stage in a letter dated 2nd August 2006 and reconfirmed at a meeting on 15th January 2008 (Appendix H). This has also been agreed in the TOSCG (page 7, paragraph 3.4.7).

8.5.3 The approach is endorsed in the DfT "*Guidance on Transport Assessment 2007*" (CD5/4 Guidance on Transport Assessment page 17, section 4.3, bullet 4) "…*ensure as much as possible that the proposed mitigation measures avoid unnecessary physical improvements to highways and promote innovative and sustainable transport solutions*." Land is available for junction widening however in accordance with nearly all national, regional and local policy the proposed development will promote a package of sustainable measures instead of investment in junction capacity improvement. An approach underpinned by a large financial investment aimed at improvements to sustainable travel initiatives.

8.6 Allegation that the TA underestimates queues

8.6.1 The queue information within the selected model area is based on the output from industry standard software using observed traffic flow data. BHCC were satisfied with the validity of the (existing and proposed) results of this model, as is shown in the agreed TSOCG (page 6, paragraph 3.4.2) and no evidence has been submitted to demonstrate that the model queues are not representative.

8.7 Summary

8.7.1 No congestion related reasons for refusal of the planning permission were given. Furthermore, as a result of ongoing dialogue all issues relating to congestion were agreed and no objections to the appeal site were made by the highway authority.

8.7.2 It was agreed that the assessment of traffic should be similar to that of the approved Brunswick application. This would allow BHCC to make a direct comparison between the two developments. The local highway network is already considered to be close to at capacity during the peak hours.

8.7.3 The traffic impact of the development site must be considered against the policy requirement the emerging LDF Core Strategy and the guidance set out in SPG20 (along with PAN04) requirement for the strategic allocation of new/additional development at Brighton Marina. This allocation will inevitably increase vehicular movement into and out of the site.

8.7.4 BHCC do not wish to see financial investment made in additional junction capacity, but rather priority should be given to sustainable alternatives. However, the TA did not consider the significant financial investment that this development will make towards sustainable modes of travel. My analysis has concluded that it is realistic to achieve a modal shift of some 12.5 percent on existing travel patterns. The impact of this has been assessed and I conclude that the residual traffic impact will be minimal and entirely within the bounds of acceptability.

9 Objection 2 – Accessibility

9.1 Single point of access

9.1.1 Currently the main vehicular point of access to the Marina is from the A259, via the Black Rock Interchange. From this junction, a 30mph inbound and outbound concrete ramp brings traffic into the Marina (DJF 5). Each ramp is a minimum of 7.2 metres wide and can each accommodate two lanes of traffic. The ramps are approximately 300 metres in length (from cliff face to the give way line at the roundabout).

9.1.2 PAN04 (CD8/12 PAN04 page 14, paragraph 10.1.2) states that '*while the removal of the ramps remains an aspiration of the LPA for the longer term future of the Masterplan area, there is recognition that this may not happen in the short to medium term. This is because there are limited options for alternative provision of an access road*'.

9.1.3 The need to address the impact of the Marina access ramps was discussed in length at the Brighton Marina Masterplan – Transport Workshop on 22nd June 2007 (minutes of which are included in Appendix K). The purpose of the workshop was to help formalise the (then emerging) PAN04 document. At this workshop it was concluded that:

- the ramps are currently in the right location;
- BHCC would be adverse to the construction of new ramps;
- improving sustainable access to the Marian was essential; and
- full assessment must be undertaken by developers on ramp capacity.

Black Rock Interchange

9.1.4 In order to determine the traffic capacity analysis of the Black Rock Interchange I have extracted the various results from my TA.

9.1.5 The assessment of junction capacity compares a theoretical capacity against an observed (or calculated) traffic flow (known as Ratio of Flow to Capacity (RFC) for roundabouts and priority junctions, and Degree of Saturation (DS) for signalised junctions). It is generally accepted that 0.85 is the threshold for junctions to be operating satisfactorily. However the majority of UK towns and cities currently have junctions that operate over this 0.85 threshold. Where the RFC does exceed 0.85 the aim of any mitigation is to ensure that the network continues to operate satisfactorily. The results are shown in Table 9.1.

Table 9.1: Black Rock Interchange Capacity Results

Junction	2012 Base (no dev)						EL Proposed 2012					
	AM		PM		SAT		AM		PM		SAT	
	DS	Q	DS	Q	DS	Q	DS	Q	DS	Q	DS	Q
U-Turn	0.564	7	0.354	4	0.704	9	0.570	7	0.409	5	0.711	9
Marine Parade / Marina Way	0.389	1	0.868	5	0.795	4	0.512	1	1.097	23	0.911	7
Marina Way / Marina Slip Rd	0.118	0	0.443	1	0.885	6	0.241	1	0.566	1	1.002	15
Marina Way / Marina Village	0.360	1	0.594	1	0.741	3	0.598	2	0.917	8	1.017	16
Marina Drive / Marina Way	0.398	5	0.633	8	0.713	9	0.481	6	0.815	11	0.826	11

From TA page 112 table 7.4 and Appendix 12

9.1.6 It can be seen that the existing arrangements at the Black Rock Interchange are already operating at an RFC above 0.85. The traffic generated by the appeal site

will increase the maximum Ratio of Flow to Capacity (RFC) to 1.097, with a queue length of 23 vehicles during the evening peak hour. The increase in delay that drivers will experience in the pm peak is 61 seconds. However the assessment takes no account of 12.5 percent modal shift that will be a result from the investment in sustainable modes of transport.

9.1.7 Any increase in traffic should be considered against the planned redevelopment of the Marina which has policy support through emerging LDF Core Strategy (CD8/2.2 Proposed Amendments paper page 19, paragraph C) and guidance set out in SPG20 (CD8/9.2 SPG20 volume 2, page 14, paragraph 1). The delivery of any planned new development will increase vehicular movement into and out of the Marina. PAN04 (CD8/12 PAN04 page 14, paragraph 10.2) calls for parking restraint and the introduction of parking management across the site in order to address the issue of increased vehicular activity. The development addresses this issue through the introduction of a site wide CPMP.

9.1.8 In order to test the cumulative impact of both the Brunswick and Explore Living applications I have undertaken a further sensitivity test, the results of which can be found in Appendix L.

Harbour Square

9.1.9 It is proposed that the existing 5 arm roundabout at the bottom of the access ramp (to be known as Harbour Square) will be completely redesigned to form a square (referred to as the Squareabout), whilst maintaining the operational characteristics of a traditional roundabout (discussed in more detail in Section 12).

9.1.10 The junction design has been assessed for capacity using the industry recognised software package (VisSim). This approach has been agreed in the TSOCG (page 7, paragraph 3.5.3). This software presents a visual simulation of anticipated traffic conditions for both vehicular and pedestrian traffic. The results are shown in Table 9.2.

Table 9.2: Harbour Square

Arm	2012 Base (no dev) (existing roundabout)						EL Proposed 2012 (Squareabout)					
	AM		PM		SAT		AM		PM		SAT	
	RFC	Q	RFC	Q	RFC	Q	Avg Q	Max Q	Avg Q	Max Q	Avg Q	Max Q
Asda Access	0	0	0	0	-	-	-	-	-	-	-	-
Mariners Quay	0.279	1	0.581	1	-	-	0	9	6	34	17	45
Palm Drive	0.237	1	0.426	1	-	-	1	8	2	15	1	7
West Quay	0.092	1	0.236	1	-	-	0	7	1	9	0	7
Access Ramp	0.349	1	0.513	1	-	-	1	9	9	28	9	29

From TA Appendix 12 (+ technical note extract)

9.1.11 These results demonstrate that the junction could experience a maximum queue of 45 vehicles on the Mariner's Quay arm (exit from the ASDA store) in the Saturday peak, as this queue is from the exit of the proposed ASDA store and would not impact on the rest of the Marina it is not considered to be an issue.

9.1.12 The queue anticipated on the access ramp is expected to be 29 vehicles in length split over two lanes, which equates to 14/15 vehicles in each lane. Figure DJF 12 shows this represented in a graphical form. It has been agreed with BHCC and the Brighton Marina Estates Management Company (BMEMC) that the developer will monitor the traffic impact of installing the Squareabout. It has

been agreed that if the queues exceed 145m on the access ramp (which equals 48 vehicles) on more than 6 occasions per month then a "fallback" traditional signalisation scheme will be implemented.

9.1.13 The appellant has agreed to monitor the impact of this junction as part of the conditions of the Travel Plan. This has been agreed in the TSOCG (page 7, paragraph 3.5.5). My analysis concludes that this level of congestion will not occur.

9.1.14 In order to test the cumulative impact of both developments at the bottom of the ramp I have undertaken a further sensitivity test, the results of which can be found in Appendix M.

Ramp capacity

9.1.15 In order to establish the traffic capacity of the access ramps I have undertaken further link flow capacity assessment. The assessment of link capacity compares a theoretical capacity against an observed (or calculated) traffic flow as a percentage. An acceptable percentage is any value below 100 percent. The results are shown in Table 9.3.

Table 9.3: Ramp Capacity Analysis

Ramp	Capacity	2012 Base (no dev)						EL Proposed 2012					
		AM		PM		SAT		AM		PM		SAT	
		No	%	No	%	No	%	No	%	No	%	No	%
Inbound	2345	497	22	734	31	831	35	599	26	1039	44	1136	48
Outbound	2342	433	18	684	29	640	27	716	31	873	37	829	35

From Flow Diagrams presented in TA (Figures 7.3, 7.6 and 7.9).

9.1.16 As the highest capacity value is 48 percent the results clearly demonstrate that both of the ramps will be able to accommodate the future traffic generated by this Appeal Site.

9.1.17 In order to test the cumulative impact of both the Outer and Inner Harbour applications I have undertaken a further sensitivity test on the Marina ramps. The results of which can be found in Appendix N. These results demonstrate that both of the ramps will be able to accommodate the future traffic generated by both developments with a maximum capacity of 54 percent on the inbound ramp in the Saturday peak period.

9.2 Access for sustainable modes

9.2.1 The LDF Core Strategy Amendments Paper June 2009 (CD8/2.2 Proposed Amendments Paper page 18, point 4) specifies a requirement to "*enhance the transport infrastructure at the Marina by promoting more sustainable forms of transport including enhanced bus services or a capital transport scheme*".

9.2.2 A major part of the transport strategy will be the provision of a new RTS access route via Madeira Drive into the heart of the Marina (location shown in DJF 13). This route will provide a dedicated traffic free route for the RTS in addition to a new access route for pedestrians and cyclists (i.e. a new dedicated route for sustainable modes only).

9.2.3 The appellant has also committed a further contribution of £544,000 towards the delivery of the RTS scheme (or other bus priority measures as the council sees fit).

9.2.4 A section 106 contribution of a further £550,000 offered by the appellant towards offsite junction improvements at Black Rock (DJF 14) and Wilson Avenue (DJF 15) aimed at facilitating bus access to the Marina helping to improving bus journey times. In addition it will assist with the delivery of Stage 1 of the Council's aspiration for an RTS.

9.2.5 In addition, a section 106 contribution of £250,000 to assist with the introduction of bus priority facilities along;

- Queens Road;
- North Street;
- Kings Road;
- Edward Street; and
- Eastern Road;

which will improve bus journey times between the Marina and Brighton City Centre (including the rail station), (CD2/13 TA page 119, paragraph 7.10).

9.2.6 In accordance with PAN04 (CD8/12 PAN04 page 5, development objectives, bullet point 3), the proposed development will "…*improve legibility, permeability and connectivity for pedestrians and cyclists with the Marina and surrounding areas...*" the development will provide a new pedestrian footbridge and will improve access between the A259 (Marina Parade) and the Marina, via the cliff site building.

9.2.7 PAN04 (CD8/12 PAN04 page 16, section 10.5, paragraph 2), also sets out an aspiration to "...*introduce toucan cycle crossing in locations that would facilitate grater north-south pedestrian and cycle movement*..." The appellant will promote

a S106 contribution of £50,000 to implement the offsite works required on the A259 (across Marine Parade) to upgrade the existing pelican crossing facility to a Toucan crossing to accommodate cyclists and pedestrian (CD2/13 TA page 73 paragraph 5.2.3 and page 119 paragraph 7.10-7.11) movement into the residential areas north of the Marian such as Kemp Town and East Brighton Park.

9.3 Emergency service access

9.3.1 Emergency services currently access the Marina via the existing ramps from the A259. There is also a poor quality point of access onto the outbound ramp which facilitates access onto the western breakwater from Madeira Drive. DJF 13 shows the location of the emergency access routes. Currently if the ramps become blocked emergency access to the site becomes difficult.

9.3.2 It is proposed that the emergency services will continue to access the Marina via the existing ramps from the A259. However, the proposals will also deliver a new route into the Marina and it is envisaged that this will become the primary point of emergency access in the future. This will be on the same alignment as the proposed RTS route which is to be designed to normal carriageway/highway standards (CD2/13 TA page 68, paragraph 4.9 and page 70, figure 4.6). The existing poor quality access on the exit ramp will be improved (to carriageway/highway standards) and the existing route along the breakwater will be retained. In addition I have proposed the introduction of traffic signals at both the top and bottom of the access ramps, this will allow the ramps to be completely closed down should the need arise. A firm commitment to this proposal is located in the Unilateral Planning Obligation made between the

appellant and BHCC (page 3, entitled "Emergency Traffic Controls"). The package of emergency access measures have been agreed in the TSOCG (page 5, paragraph 3.1.10).

9.3.3 The emergency services have been consulted and support a second emergency access in to the Marina (letters in Appendix O). This will allow choice and ease of access should the existing access ramp become blocked.

9.3.4 I have also consulted the Royal National Lifeboat Institution (RNLI). They have given support (letters in Appendix P) to the proposals on the basis that the appellant will commit to retaining the existing spaces available for exclusive use by the life boat crew. DJF 16 in shows the location of the spaces.

9.4 Summary

9.4.1 The Marina is accessed via the Black Rock Interchange a complex arrangement of junctions that are located around the existing A259. The impact of the development (without considering a 12.5 percent modal shift) will increase the maximum delay through the junction by 61 seconds in the PM peak only. This is not considered to be a material impact on capacity, and comes nowhere near justifying a rejection of the regeneration proposed. Throughout the rest of the day the impact will be much less.

9.4.2 No access related reasons for refusal of the planning permission were given. Furthermore, as a result of ongoing dialogue all issues relating to access were agreed and no objections to the appeal proposals were made by the highway authority, or by the local planning authority.

9.4.3 I have analysed the impact of the development on the ramps and the proposed Harbour Square junction (at the base of the ramp) and conclude that a single point of access is acceptable for the quantum of development proposed.

9.4.4 BHCC do not wish to see financial investment made in additional junction capacity, but rather priority should be given to sustainable alternatives. The proposed development will significantly improve access for pedestrians, cyclist and buses; and these benefits will represent a step change for sustainable transport in the vicinity of the appeal site.

9.4.5 It is proposed that proposals will also deliver a new emergency access route into the western end of the Marina. In addition, the existing facilities will be improved (to carriageway/highway standards). The introduction of this route will allow choice and improved access.

10 Objection 3 – Parking

10.1 Levels of parking

10.1.1 The following numbers of new parking spaces are proposed as shown in Table 101.1 below.

Table 10.1: Proposed level of parking

Location	*SPG maximum*	Standard provision	Disabled provision	Total
Cliff	*2,633*	1,073	102	1,175
Sea Wall	*182*	24	8	32
Marina Point	*244*	42	3	45
Quayside	*424*	191	26	217
Inner Harbour	*57*	-	2	2
Total	***3,540***	**1,330**	**141**	**1,471**

From TA Page 62 Table 4.5

10.1.2 The appeal site will deliver 1,471 new parking spaces across the Marina compared to a possible maximum SPG4 standard of 3,540 (i.e. 41 percent of maximum allowable). The existing MSCP will be reduced by 193 spaces from 1,546 spaces to 1,353 spaces.

10.1.3 PPG13 (CD4/10 PPG13 page 19, paragraph 49) states "*that levels of parking can be more significant than the level of public transport provision in determining means of travel… …even for locations very well served by public transport.*" As such the development will adopt a restraint-based approach to car parking provision, which will bring about a behavioural change (modal shift) away from single occupancy car usage and is fully compliant with national, regional and local policy.

10.1.4 The residential element of the development will represent a ratio of 0.6 parking spaces per unit compared to 1.5 as a suggested maximum in SPG4 (CD8/5

SPG4 Page 8, Section C3 – Dwelling Houses) "*1 car space per dwelling plus 1 space per 2 dwellings per visitor*".

10.1.5 The retail element represents a ratio of 1 space per 23m^2 compared to 1 space per 8m^2 maximum (CD8/5 SPG4 page 3).

10.1.6 The PAN04 (CD8/12 PAN04 page 14, paragraph 10.2.3) states that "*Future private residential parking will be sought at less than the allowed maximum standard in line with council policy TR1.*"

10.1.7 The level of parking is appropriate, complies with policy and is agreed in the TSOCG (page 5, paragraph 3.1.4). It is underpinned by significant financial commitment to public transport improvements which has been agreed between the developer and the highway authority.

10.2 Car park management plan

10.2.1 A major part of the transport strategy will be the introduction of a site wide CPMP as the current parking arrangements are unenforced and open to misuse.

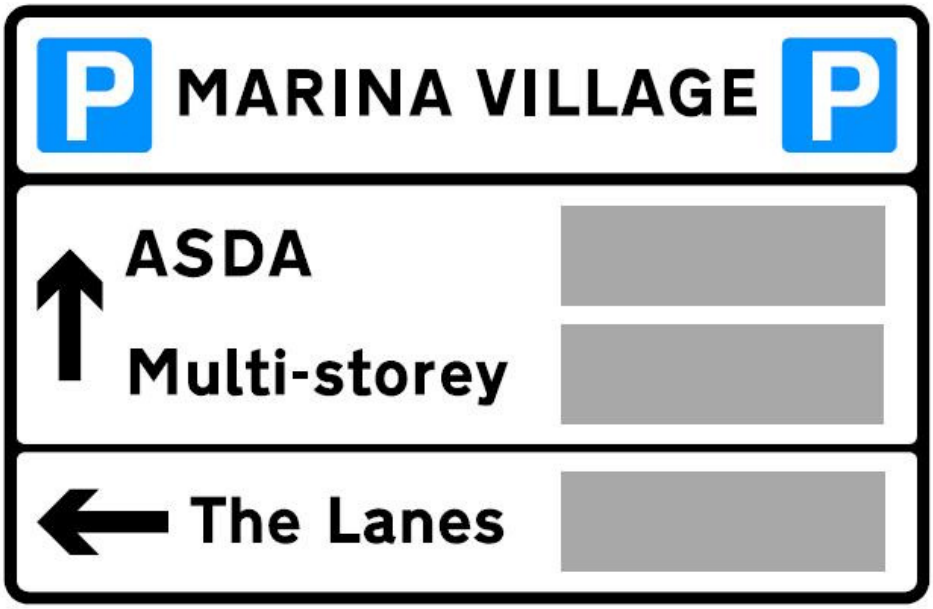
10.2.2 PAN04 (CD8/12 PAN04 page 14, paragraph 10.2.3) states that "...*the city council will seek a car park management system where parking within the Marina is both time limited and priced such that travelling to and from the Marina is less attractive financially than using sustainable transport modes*".

10.2.3 The CPMP will introduce parking control/enforcement through a pricing structure and management methods which will encourage the use of more sustainable modes of transport. This has been agreed in the TSOCG (page 5, paragraph 3.1.5).

10.2.4 Part of the CPMP will be the introduction of Variable Message Signs (VMS) on all approaches to the Marina on the A259. VMS displays real time information on available parking. The system will monitor the number of spaces available in the Marina and a corresponding message is displayed on the VMS. This will provide motorists with accurate up to date information, allowing an informed choice to be made about parking in the Marina (CD2/13 TA page 63, paragraph 4.6.21).

10.2.5 An example of the VMS sign is shown in Figure 10.1 below. The electronic numbers will be presented in digital form within the grey boxes. The system will also ensure that the 100 spaces for Berth Holders will always be reserved.

Figure 10.1: Example of Variable Message Sign



10.3 Capacity of multi-storey car park

10.3.1 In order to support the South East Plan's objective of "*restraint based levels of parking*" (CD7/1 page 69, Policy T4: parking), the multi storey car park will reduce

in size from 1,546 to 1,353 (a loss of 193 spaces) which will help to influence modal choice.

10.3.2 It is recognised that businesses in the Marina (including berth holders) rely on reasonable levels of parking to attract customers and minimum parking allocations are outlined in the terms of their leases. Table 10.2 shows the minimum number of spaces required to be available for use, in line with other users of the Marina as outlined in the various leases.

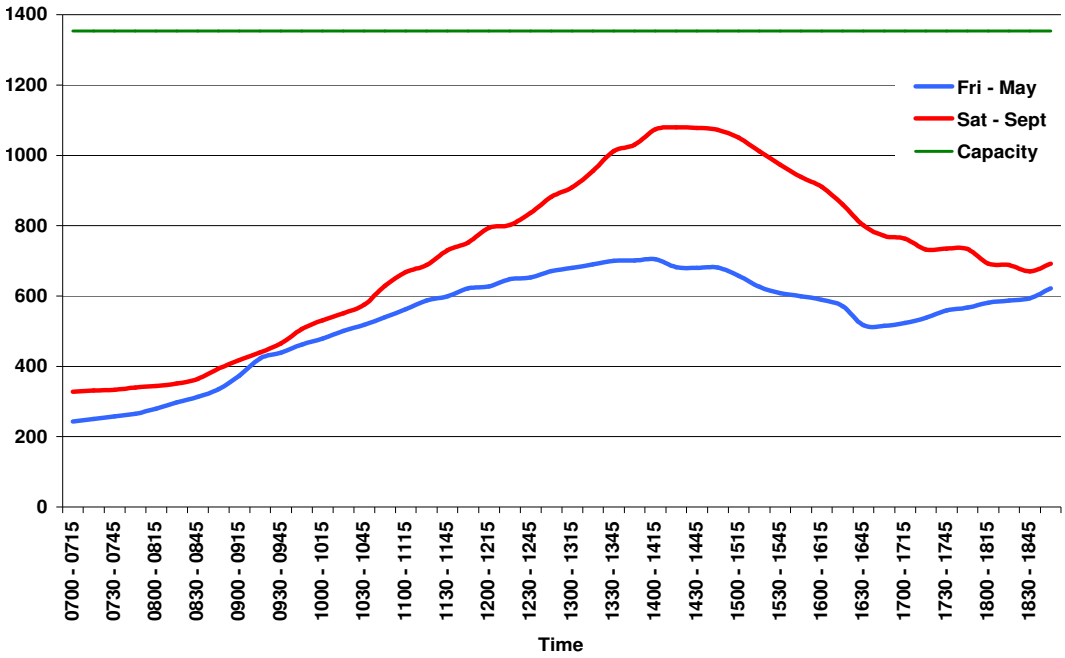
Table 10.2: Specific lease requirements for parking

Tenant	Spaces
Total spaces in MSCP	1,353
Berth holders (Specific Right to use 100 spaces)	100
David Lloyd / Bowlplex	400
General Users of the Marina (inc. the Estate, Factory Shop & Cinema)	750
Unallocated	103

From TA Appendix 4 Page 16 Table 3.3

10.3.3 The accumulation profile of parking in the multi-storey car park is shown in Figure 10.2 below. It shows surveyed results from data collected by CB during 2006.

Figure 10.2: Parking accumulation in the MSCP



10.3.4 It has been demonstrated through our surveys (see Appendix Q) that the car park will have spare capacity for 274 to 649 spaces (excluding event days).

10.3.5 Based on the above and the introduction of VMS, the level of parking proposed is sufficient for business (and berth holders) in the Marina not to be affected.

10.4 Exit from multi-storey car park

10.4.1 The existing car park arrangement includes an exit directly onto the outbound ramp, at the eastern end of the car park as shown in DJF 17.

10.4.2 The development proposes a new permanent exit will be located to the north side of the car park, allowing vehicles to turn directly onto the outbound Marina Way ramp as shown in DJF 18. As the new exit from the car park has a dedicated egress directly onto the exit ramp, standard junction visibility splays are not required.

10.4.3 The proposals will not affect the capacity of the exit ramp and the final design will be subject to an appropriate agreement between the appellant and the highway authority in collaboration with other key stakeholders in the Marina.

10.4.4 The final built form will be subject to normal design codes of practice. It will be designed in accordance with guidance set out in Design Manual for Roads and Bridges and will be subject to the usually safety audit procedures.

10.5 Summary

10.5.1 The development will provide a total of 1,471 new parking spaces and will reduce the existing MSCP by 193 space (1,353 spaces remaining). This is an approach supported by BHCC. This restraint-based approach to the provision of car parking is consistent with the principles of sustainable transport in national, regional and local policy and guidance.

10.5.2 There were no parking related reasons for refusal of the application. Furthermore, as a result of ongoing dialogue all issues relating to parking were agreed and no objections to the proposals were made by the highway authority.

10.5.3 The proposed development will introduce a site wide CPMP as the current parking arrangements are unenforced and open to misuse, this will help to rationalise and regulate parking across the Marina as a whole (CD2/13 TA page 63, paragraph 4.6.19).

10.5.4 Part of the CPMP will be the introduction of VMS which will display real time information on available parking and will allowing motorists to make an informed choice on current parking in the Marina whilst retaining the rights of Berth Holders to parking.

10.5.5 The level of parking proposed together with the introduction of the CPMP (including VMS), will accord with national (PPG13) and local (SPG4) policy. The levels of parking proposed will be underpinned by significant section 106 investment in sustainable alternatives to the use of the private car (CD2/13 TA page 119, paragraph 7.10-7.11), whilst retaining enough space to contribute towards a vibrant economy within the Marina.

11 Objection 4 – Transport interchange

11.1 Location

11.1.1 The bus stop and shelter is currently located adjacent to McDonalds, south of the MSCP. Figure DJF 10 shows the internal route that the bus currently takes, together with the location of the stop and facilities. I have included a 5 minute walk isochrone (400m) to the route. At present, space is limited; there is one shelter and its location is not in a prominent part of the Marina.

11.1.2 The PAN04 (CD8/12 PAN04 page 11, paragraph 9.1.2) refers to the location of the existing bus drop-off facility outside the McDonalds Drive-Thru as being "…*very poor*…and ….*not easy to find or access*".

11.1.3 The location of the proposed transport interchange (including new shelters and real time information) is central in relation to the entrance to the Asda site, the entrance to the Brunswick site and the 'heart' of the existing residential area. The interchange will be a 5 minute walk from the centre of each 'activity hub', it will modernise the existing underachieving facilities and become a focal point for public transport activity within the Marina. Figure DJF 19 illustrates the central location of the facility and includes a 5 minute (400m) walk isochrone.

11.1.4 DJF 20 shows a drawing (scale 1:500) showing the design and extent of the proposed bus interchange. It can be seen that at least 3m of pedestrian footway remains along Palm Drive. In additional the bus lay-bys are all located off the existing carriageway, as such residents wishing to gain access to the areas to the east of the marina will not be unnecessarily delayed or inconvenienced.

11.1.5 Extensive consultation was undertaken with businesses along Palm Drive and there was not a single objection to the location of the interchange. On the contrary, the consultation process suggested that local business welcomed the additional footfall (letter in Appendix R) and Appendix 5 of the Planning Committee report shows a number of business (facing onto Palm Drive) supporting the application.

11.1.6 The proposed location of the Public Transport Interchange is also supported through the PAN04 (CD8/12 PAN04 Page 15, paragraph 10.4.6) under 'Transport Interchange' states: *"The LPA favours a more accessible location for a new transport interchange for both transport services and passengers. One preferred option would be situated on Palm Drive close to Merchants Quay, at the heart of the Marina. This location is at the intersection of three catchment areas for the superstore, the approved Brunswick scheme and the existing residential quarter (to the east…).* This has also been agreed in the TSOCG (page 5, paragraph 3.2.3).

11.2 Quality

11.2.1 The quality of the infrastructure to be provided is very important. The bus shelters proposed will provide a clean modern environment where passengers can sit and wait. The shelters will protect users from the elements. The proposal for the quality of the shelters and the Interchange can be seen in DJF 21.

11.2.2 Real Time Information displays will also be provided alongside bus shelters (and could be provided/placed around the Marina) as part of the proposals, to enable users to know exactly when the bus will arrive and leave.

11.2.3 The interchange facility and infrastructure has been designed through extensive consultation with Brighton and Hove Bus and Coach Company (BHBCC) who have provided written support for the facility (Appendix S).

11.3 Interchange capacity

11.3.1 The new interchange has been designed to accommodate six buses at any one time as well as two taxis (CD2/13 TA page 77, paragraph 5.3.12) which will include a minimum of 3 new shelters.

11.3.2 I have analysed the published timetables of existing bus services operated by BHBCC, and based upon the timetables and reasonable dwell times (for pick up and set down) I have concluded that a maximum of 3 buses are scheduled to be waiting at the transport interchange at any one time during the Monday to Saturday AM, Midday and PM peak hours. A maximum of 4 buses are scheduled to use the interchange at any one time on a Sunday (midday peak). I have included my analysis in Appendix T. It is proposed that the RTS will utilise the remaining two available spaces.

11.3.3 The capacity of the interchange facility has been discussed and agreed with BHBCC (letters in Appendix S).

11.4 Summary

11.4.1 The proposed location of the new transport interchange (including new shelters and real time information) is considered to be a central location within the Marina. The proposed facilities will be a significant improvement on the existing underachieving facilities and will become a focal point for public transport activity within the Marina.

11.4.2 No transport interchange related reasons for refusal of the planning permission were given. Furthermore, as a result of ongoing dialogue all issues relating to the transport interchange were agreed and no further objections were made by the highway authority. Extensive consultation was undertaken with businesses along Palm Drive and there was not a single objection to the location was made.

11.4.3 The location, quality and capacity of the proposed bus interchange has written support from BHBCC (letters in Appendix S).

11.4.4 In view of the timetables and assuming reasonable dwell times I have concluded that the interchange is sufficient for the needs of the anticipated level of service and has additional capacity to accommodate the RTS.

12 Objection 5 – Shared space

12.1 Design

12.1.1 The existing roundabout at the base of the access ramps is of poor design for pedestrians and cyclists. It creates a barrier to movement at the heart of the Marina. I have witnessed people walking across the junction as well as individuals jumping over the safety barrier to shorten walking distances (refer to DJF 7).

12.1.2 Through an iterative design approach which has involved architects, highway engineers, urban designers and in consultation with key stakeholders; we have explored the potential for a fresh approach to traffic design that is successfully resolving similar conflicts (of cars, buses, cycles and pedestrians) elsewhere in UK (and Europe). The result of this is that the junction is to be completely redesigned to form a square (known as the Squareabout), whilst maintaining the directional and operational principles of a traditional roundabout.

12.1.3 Drawing from and adapting shared space principles has provided the opportunity to shift emphasis away from fast moving traffic and conventional highway design infrastructure towards an environment that facilitates and encourages pedestrian activity and challenges the car dominated hierarchy of standard street design.

12.1.4 The proposals for the Shared Space (Harbour Square) combine design elements to maximise quality of space for pedestrians, whilst achieving appropriate levels of safety and minimising delays and congestion. In order to achieve this balance, speeds of 20mph will be introduced throughout the streetscape. This is supported in PAN04 (CD8/12 PAN04 page 16, paragraph 10.5.3) "*...a 20mph speed limit*

should be introduced to the Masterplan area…" and agreed in the TSOCG (page 7, paragraph 3.5.2). This will be implemented by:

- Maximising the contrast between highway and public footpath by not using elements such as signs, road markings and barriers;
- Emphasising the quality of the public realm through materials, lighting, paving and public art to ensure that the spaces form an integral part of surrounding physical context of the buildings and spaces and activities that take place within and around them;
- Minimising the visual and psychological divide between different elements of the space, particularly between pedestrian and trafficked areas, whilst retaining sufficient tactile paving guidance and definition to provide legibility and orientation;
- The use of a simple, robust palette of materials to unify the space, using simple low kerbs and consistent detailing. Such detailing has been informed by discussion with the appellant's disabled access consultant (David Bonnett Associates) and other access groups; and
- The use of tight radius geometry and minimal dimensions to permit safe movement of buses and large vehicles at low speeds. Wide sweeping curves will be avoided.

12.1.5 The final design can be viewed in DJF 22, which includes formal pedestrian crossing points external to the square, providing level crossing locations for mobility impaired users. The final design (and approach) is contained within the TSOCG has having been agreed with BHCC as highway authority.

12.2 Capacity

12.2.1 Harbour Square could experience the highest level of traffic flow (without considering the impacts of the sustainable investment and the associated 12.5 percent modal shift) as the junction serves as the single gateway and entry point to the site. It will need to accommodate cars, buses, cycles and pedestrians. This has been agreed in the TSOCG (page 7, paragraph 3.5.1).

12.2.2 The proposed junction design has been assessed using the industry recognised software package (VisSim). This has been agreed in the TSOCG (page 7, paragraph 3.5.3). This software presents a visual simulation of anticipated worst case traffic conditions for both vehicles and pedestrians. (The results do not consider the 12.5 percent modal shift). The maximum queue lengths for this piece of analysis are presented below in Table 12.1.

Table 12.1: VisSim Queue Observations (PCU)

Arm	AM		PM		Saturday	
	Average	Max	Average	Max	Average	Max
Mariner's Quay	0	9	6	34	17	45
Palm Drive	1	8	2	15	1	7
West Quay	0	7	1	9	0	7
Access Ramp	1	9	9	28	9	29

Extracted from the VisSim results spreadsheet (a technical note not formally submitted as part of application)

12.2.3 The introduction of shared space presents new principles and a different approach to traffic engineering. As such, it has been agreed with BHCC and BMEMC that the developer will monitor the traffic impact of installing the Squareabout. It has been agreed that if queues exceed 145m or 48 vehicles (on the inbound ramp) on more than 6 occasions per month then a fallback signal scheme will be implemented. The appellant has agreed to monitor the impact of

this junction as part of the Travel Plan. This has been agreed in the TSOCG (page 7, paragraph 3.5.5).

12.2.4 Therefore it can be seen that the maximum queues are not considered to present any particular operational issues 9even before considering the 12.5 percent modal shift). Figure DJF 12 shows this represented in a graphical form and my analysis concludes that this level of congestion will not occur.

12.3 Safety

12.3.1 Shared Space is not covered by formal safety guidance on street design. Whilst Manual for Streets (CD5/5 page 11, paragraph 1.1.3) suggests new possibilities for the treatment of residential streets (and quiet rural roads) but it does not cover mixed use busier spaces. At the other end of the spectrum Design Manual for Roads and Bridges (page 1/1, paragraph 1.5) is only appropriate for motorways and major trunk roads.

12.3.2 There is a gap between these two extremes, where designers and local authorities are required to exercise professional judgement based upon the best information available.

12.3.3 To support the introduction of shared space I commissioned a Road Safety Audit (RSA) Stage 1 and Stage 2 by independent professionals (Appendix U). The RSA Stage 2 did not identify any significant safety issues that could not be addressed through an appropriate planning condition (section 278).

12.3.4 I therefore conclude that the complementary RSA2 accompanied by the capacity results presented in Table 12.1 confirms that this junction has the ability to safely accommodate the anticipated levels of traffic, pedestrians and cyclists.

12.4 Summary

12.4.1 It is proposed that the existing five arm roundabout will be completely redesigned to form a square (known as the Squareabout), whilst maintaining the directional and operational principles of a traditional roundabout.

12.4.2 The proposals include the design elements of Shared Space to maximise quality of space for pedestrians and cyclists. In order to achieve this balance, speeds of 20mph will be introduced throughout the development.

12.4.3 No shared space related reasons for refusal of the planning permission were given. Furthermore, as a result of ongoing dialogue all issues relating to the introduction of shared space were agreed and no further objections were made by the highway authority.

12.4.4 I have analysed the impact of the development on the Harbour Square design and conclude that the design is acceptable for the quantum of development proposed.

12.4.5 Independent Road Safety Audits were carried out on the submitted design and I can confirm that this junction has the ability to safely accommodate the anticipated levels of traffic, pedestrians and cyclists.

13 Summary and conclusions

13.1 Summary

13.1.1 The evidence which I have prepared and provided for this appeal is true and has been prepared and is given in accordance with the guidance of my professional institution.

13.1.2 This evidence has provided commentary to the Transport related issues relating to the appeal proposals as well as third party objectors.

13.1.3 The evidence has confirmed the dialogue between Colin Buchanan, BHCC and the HA which has resulted in agreement on all highways and transportation matters. This is further confirmed at the determination of the application at Committee. No transport objections have been raised by the Highway Agency.

13.1.4 Various third party objections have been raised; these raise accessibility issues, congestion, levels of parking; the location of the transport interchange and the introduction of shared space. Responses to these objections have been provided in this proof of evidence.

13.2 Transport benefits of development

13.2.1 The proposals will build on the existing public transport facilities already serving the Marina by incorporating proposals that will update and modernise the existing transport infrastructure and promote sustainable transport. The full range of measures aimed at promoting smarter travel choices to the proposed development include:

- A new transport interchange to accommodate 6 buses and 2 taxis (including real time information and new shelters)

- Off-site junction improvements to facilitate bus movement into the Marina;
- Introduction of a new route into the Marina for a Rapid Transport System (RTS);
- Improvements to the existing vehicular access ramp incorporating speed reducing features;
- New access for Emergency Services vehicles;
- Reconfiguration of the existing roundabout to a shared space 'Squareabout'
- The introduction of a site wide car parking management plan;
- Introduction of Variable Messaging Signs on the A259 highlighting current parking levels in the Marina;
- A new pedestrian and cycle access via a bridge link from the cliff top into the heart of the Marina;
- The introduction of a new Toucan crossing on the A259 to encourage cycling and pedestrian movement into the Marina;
- Cycle facilities will be improved by enhancing cycle routes, providing a centre for cycle rental and a "doctor-bike" maintenance facility (available to all users of the Marina);
- Enhancement of pedestrian and cyclist signage within the Marina;
- A Travel Plan (secured by condition) that includes a car club, discount vouchers for bus and train travel and the purchase of bicycles ; *and*
- Commitment to monitoring displaced parking in surrounding residential areas.

13.3 Conclusions

13.3.1 My evidence establishes five main conclusions:

1. The site is accessible by all relevant modes of transport; and meets relevant Government policies and is capable of promoting increased sustainable travel patterns.
2. The proposals will enhance bus, pedestrian and cycle movement.
3. The traffic congestion issues have been satisfactorily addressed – as evidenced by the committee report and the resolutions of BHCC in respect of the proposed development, which raised no highway or transport objections, and a comprehensive TSOCG.
4. The levels of parking (and the CPMP) are in accordance with both national and local Government policies, and will accommodate anticipated demand through the pragmatic application of a restraint-based approach.
5. Finally, the transportation proposals promoted by the development are all designed in accordance with current DfT guidance, will be subject to the usual safety audit procedures and will ensure the safe and efficient operation of the local highway network.

13.3.2 In overall conclusion I respectfully submit that there are no transport related grounds for not allowing this appeal, and compelling transport-related reasons for approving these highly sustainable proposals.