

Brighton i360 Business Review - Redacted



D & J
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Consulting



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1 EXECUTIVE SUMMARY

Introduction

- 1.1 D & J International Consulting has been working alongside the Marks Barfield Associates planning team to evaluate the potential attendance and financial performance of the planned i360 in Brighton. This report presents an updated review of the business potential for the attraction.

The i360 Concept

- 1.2 The i360 is a 140m high observation tower planned for a site at The West Pier in Brighton. The site is currently vacant and detailed plans have been prepared and approved by Brighton Council for the development of the attraction.
- 1.3 Having previously designed the London Eye, Marks Barfield Architects have designed the i360 as an evolution of this iconic attraction. The tower will contain a single capsule that will rise up around a narrow shaft offering visitors a 20-30 minute ride.
- 1.4 The site affords views along the coast and inland to the Sussex downs, providing a unique viewing experience for residents and tourists to the city.

Available Markets

- 1.5 The Brighton catchment market is significant with a two hour travel time reaching into London and bringing some 15.5 million people within two hours of the site.
- 1.6 In addition, the south coast tourist market is a strong one with 5.3 million domestic tourists and 1.6 million international tourists staying in locations within one hour of Brighton each year.

Regional Attractions

- 1.7 Brighton has a number of attractions for visitors including Brighton Pier, Brighton Pavilion and the Sea Life Centre. Other attractions along the coast and inland make the area an important focus for visitors in the region.

Attendance Projections

- 1.8 In evaluating the potential visitor volumes to the i360 we have taken account of the regional resident and tourist markets, visitation to other attractions in the area and the performance of comparable observation attractions around the world. These have been assessed quantitatively and qualitatively in the determination of the attendance projections.
- 1.9 We estimate that in the target opening year of 2016, the Brighton i360 should be able to attract some 822,600 visits, 48 percent of which will be tourists.
- 1.10 Over time, as seen at similar attractions around the globe, the mix will become more tourist-orientated, and we anticipate that visitation will reduce to around 697,500 by 2019, of which 74 percent will be comprised of tourists. Attendance will increase gradually after this as the markets grow.

Financial Projections

- 1.11 The Brighton i360 team has undertaken price testing research to evaluate an appropriate admission price, which has been set at £15.00 for adults in 2016 values. Allowing for VAT



and discounts for children and groups, this would provide a per capita admission income of around £9.13. In 2016, with an annual attendance of 822,500, this would generate £7.5 million in ticket income for the i360.

- 1.12 Merchandise, events, sponsorship and F&B operations would provide additional income and lead to a total anticipated income at the i360 of £12.0 million in the first full year. This includes a catering concession with a guaranteed minimum rental level.
- 1.13 A detailed staffing plan has been developed. This draws on operational experience of the London Eye and other attractions and on the anticipated visitor dynamics of the i360. A ride maintenance and operating contract has been agreed with Poma and this has been built in to the plan along with budgets for marketing, utilities, maintenance and administrative costs. These have been developed by the operations team, and D & J International Consulting has reviewed these costs in light of regional and internationally comparable attractions.
- 1.14 The attraction is forecast to deliver strong levels of operating profit in current values with a projected EBITDA of £6.2 million in 2016 rising to £8.2 million in 2026.



2 INTRODUCTION

Introduction

- 2.1 In 2011, the economics team at AECOM, under the guidance of David Camp, undertook a review of the management's business model for the planned i360 attraction in Brighton. The review involved liaison and discussion with the i360 team, independent research and analysis, and the development of a revised business model.
- 2.2 Since that review the business plan has evolved, market dynamics have changed and the report requires updating. This report provides this updated review of the i360 Brighton business model utilising latest available data.

The D & J International Consulting Team

- 2.3 In January 2013, David Camp left AECOM to set up D & J International Consulting. This review has been undertaken by the D & J international Consulting team and David has been assisted in the review by Julie Vile, Partner and Tim Shepstone, Affiliate.



3 THE i360 CONCEPT

Introduction

- 3.1 The i360 will provide a state-of-the-art iconic viewing tower with supporting retail and F&B offerings on Brighton seafront.

i360

- 3.2 The concept for i360 is at an advanced stage. The i360 is a viewing tower and will offer a similar experience to the London Eye. On embarkation, passengers will be taken up vertically in a double-glazed pod to a height of around 140 metres, all the while experiencing views of Brighton and Hove, the English Channel and the North Downs. After a period held at the top the pod will then return to ground level where the passengers will disembark.
- 3.3 In total, each ride should take up to between 20 and 30 minutes and the pod is designed to hold up to 200 passengers. Ancillary developments at ground level will include a high quality F&B outlet and a small retail outlet through which guests will exit.
- 3.4 The attraction is likely to be open all year round; however it will be closed for approximately two weeks each January for maintenance in addition to Christmas Day. Opening hours will be longer during the summer months from May through to August, with optimum opening hours in the shoulder season and shorter opening hours during the winter period.
- 3.5 During the evenings, from 6pm onwards, the i360 will be able to operate as a sky-bar. Passengers will be able to purchase drinks inside the pod as well as prior to the ride in the boarding area, and the length of each ride will be increased to 30 minutes, including a five minute turnaround time.
- 3.6 The current plan is that the attraction will open in 2016.

Site Location

- 3.7 The site for the proposed attraction is located on the sea front in Brighton, at the foot of the base of the old West Pier. The West Pier is some 400 yards west of Brighton Pier and, whilst Brighton Pier has flourished over recent years, the West Pier currently lies in a state of disrepair as a result of the pier's collapse in 2002 and subsequent fire in 2003. Plans to restore or rebuild the pier have yet to be realised.
- 3.8 The site at the foot of the West Pier is currently vacant and the site area is sufficient to accommodate the i360.

Site Attributes

- 3.9 The site meets a number of key success criteria for an attraction development. These include a location close to the town centre, beach and major hotels hence population and tourists, as well as being located close to the main Brighton attractions such as Brighton Pier, Sea Life Centre and the Royal Pavilion.
- 3.10 An estimated five million people visit the sea front in Brighton each year. The seafront is also used by local residents for walking and jogging year round and is a very popular promenade for walking in the summer by tourists.



Access

- 3.11 Public transport to Brighton is good with strong road and rail links to London and the wider South East region.
- 3.12 At a more local level, there is a 15 minute walk between the site and the main Brighton train station and buses from the station stop near to the site. While road access to Brighton is good, congestion can be a problem in Brighton. However, there is ample parking close to the site, with some 507 spaces in the underground car park in Regency Square.

Site Surrounds

- 3.13 As already indicated, the site is in a strong tourist location and it should benefit from the large number of overnight and day visitors staying in the area. The adjacency to the seafront also gives the site an extra advantage and views along the beach would be attractive to visitors.
- 3.14 The site is close to the Hilton Metropole, the largest residential conference centre in the South East, the Brighton Centre and the Grand Hotel Brighton. All these properties are important to Brighton's sizeable conference market and this will offer a large potential market for the i360 in terms of ticket sales and corporate packages.

Summary & Implications

- 3.15 The site for the i360 attraction is located along the sea front in Brighton at the base of the old West Pier, which is vacant. It is a strong location in terms of being adjacent to the town centre and accessible to resident and tourist markets. Public transport links are also good and there is ample parking nearby.
- 3.16 The concept is similar to the London Eye in that the underlying principle is for a high quality observation attraction and a ride. Passengers are taken up vertically in a pod to a height of around 140 metres and after a 20-30 minute experience are then returned to ground level where the passengers will disembark via retail and F&B outlets.



4 AVAILABLE MARKETS

Introduction

- 4.1 In order to assess the future potential of the i360 attraction there is a requirement to understand the markets that drive visitation, namely the resident and the tourist markets. In this section we set out our estimates of the current and future size of these markets.

Methodology

- 4.2 We have measured the available markets based upon drive-time isochrones. In general, attractions draw residents living up to two hours away. Those people visiting the proposed attraction who live beyond the two-hour drive time catchment area, are likely to stay in the area overnight and are therefore considered either domestic or international tourists, as appropriate.
- 4.3 We have defined the resident market as those people living within two hours travel time of the proposed site, and we have considered two isochrones: 0-60 minutes' drive time from the site (primary market) and 60-120 minutes' drive from the site (secondary market).
- 4.4 Tourists generally travel for up to one hour from their holiday base when visiting attractions. Therefore we have defined the tourist market as comprising people staying away from home in locations within one hour's drive of the site. Tourists are split into two distinct markets: overseas visitors (international tourists) and UK residents (domestic tourists).
- 4.5 Some domestic tourists will also be residents of the two hour catchment market. We have evaluated the size of this sub segment and removed these people from the resident market total as the i360 will appeal most strongly to tourists visiting the area.
- 4.6 Such market definitions allow comparisons of market size and potential at the proposed project to existing attractions both in the UK and abroad.

Resident Markets

- 4.7 As mentioned, we have defined the resident market for the i360 attraction as those people living within a two-hour travel time of the site, and we have considered two isochrones: 0-60 minutes and 60-120 minutes' drive-time from the site. The catchment market drive-time isochrones are shown in Figure 4.1. They have been created by using Microsoft Map Point software.
- 4.8 We have evaluated the population within the two hour travel time isochrones using Census data and drawn on official ONS regional population projections to extrapolate future market sizes.
- 4.9 As noted earlier, to avoid double counting, it is important to remove residents living in the two-hour catchment market who are also counted within the one-hour domestic tourist market. From detailed ONS (Office of National Statistics) and Visit England statistics, based on survey data, we have been able to ascertain the place of origin of domestic tourists to the South East region. This indicates that just under 44 percent of domestic tourist visitors to the tourist catchment market also reside within the two-hour resident drive time market. This is equivalent to a total of approximately 2.3 million people. We have therefore removed these people from the available resident market, as they are counted in the domestic tourist market. This effectively reduces the primary market from 3.7 million to 1.4 million in 2012.



FIGURE 4.1: I360 DRIVETIME CATCHMENT MARKET



Source: Microsoft Map Point

- 4.10 Figure 4.2 reveals the size of the primary and secondary resident end market from the target opening year, 2016, through to 2026.
- 4.11 There are almost 16.2 million residents in the catchment area in 2016. Nine percent of the market population reside within the one hour catchment market and 14.8 million residents (the remaining 91 percent) are within the 60-120 minute catchment area, which includes Greater London.
- 4.12 This is an important day trip market for Brighton. The most recent survey data from 2009 indicates that 80 percent of day trippers visit Brighton more than once each year.

FIGURE 4.2: I360 RESIDENT MARKET PROJECTIONS (2012 – 2026)

	2012	2016	2021	2026
Primary (0 - 60 minutes)	1,374,733	1,415,731	1,466,600	1,518,121
Secondary (60 - 120 minutes)	14,120,731	14,763,905	15,486,166	16,130,740
Total	15,495,464	16,179,636	16,952,766	17,648,861

Source: ONS & D & J International Consulting

Tourist Markets

- 4.13 The tourist market will provide an important source of visitors to the i360. Tourists generally travel for up to one hour from their holiday base when visiting attractions. Therefore we have defined the tourist market as comprising people staying away from home in locations

within one hour's drive of the site. The tourists are split into two distinct markets; domestic and international tourists.

- 4.14 Visit England collates data on all forms of overnight trips by British residents via a national survey. The data is collected annually and data on regional tourism visitation is prepared as a rolling three-year average to avoid anomalies caused by small samples.
- 4.15 The data reveals that while Brighton has seen increased domestic tourism volumes, visits to the wider South East region have not been as strong. Domestic tourism in the South East region declined to 2010 since when it has stabilised. However, volumes remain well below the peak domestic tourism numbers seen in the region at the turn of the century.
- 4.16 In 2012, there were 5.34 million domestic tourists staying in areas within one hour of Brighton. We have allowed for a gradual annual growth rate of 0.5 percent per annum to project future tourism numbers.
- 4.17 The most recent survey on domestic tourism behaviour in Brighton was conducted in 2009. This indicated that only a third of domestic tourists to the town had visited Brighton previously that year.
- 4.18 By contrast International tourism has been growing from a low point in 2001. It reached a peak in 2007 and while the global economic crisis impacted it negatively in following years since 2010 volumes have been increasing and we have incorporated continued growth in our projections of international tourist arrivals.
- 4.19 In 2012 there were 1.58 million international visitors staying in locations within one hour of Brighton. The future projections incorporate ongoing international tourist volume growth of 1.0 percent annually.
- 4.20 Incorporating the growth rates we anticipate that the domestic tourist market is expected to grow to 5.73 million by 2026, as shown in Figure 4.3. By the same year, the international tourist market is expected to be 1.81 million, giving a total of 7.54 million tourists by 2026.

FIGURE 4.3: I360 TOURIST MARKET PROJECTIONS (2012 – 2026)

	2012	2016	2021	2026
Domestic Tourists	5,340,900	5,448,522	5,586,104	5,727,160
International Tourists	1,575,500	1,639,472	1,723,101	1,810,997
Total Tourists	6,916,400	7,087,994	7,309,205	7,538,157

Source: Visit England, ONS & D & J International Consulting

Summary & Implications

- 4.21 The projected primary resident market is relatively modest in size at almost 1.4 million residents. In comparison, the secondary market is far larger at 14.1 million, as it includes Greater London. The total current resident market totals 15.5 million people, which represents a strong opportunity for the i360.
- 4.22 Future population growth within the South East will lead to over 1.5 million people living within one hour of Brighton by 2026 and a further 16.1 million living between one-and two-hours away.
- 4.23 The domestic tourist market is considerably larger than the international tourist market at 5.3 million compared with 1.6 million in 2012.



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- 4.24 Tourism growth will lead to 5.7 million domestic and 1.8 million international tourists staying in locations within an hour of Brighton by 2026.



5 ATTENDANCE PROJECTIONS

Introduction

- 5.1 In this section we have outlined the attendance analysis, derived market penetration rates and attendance projections for the proposed i360 Brighton. The proposed opening date for the attraction is 2016; we have therefore provided attendance projections for the first ten full years of operations up to and including 2026. We have projected the attendance for the i360 in three scenarios (low, medium and high) derived through a market penetration rate analysis and our experience with worldwide attractions.
- 5.2 With the i360 pod having a fixed capacity, we have considered the unconstrained market potential to derive theoretical attendance levels and then evaluated the impact of any capacity constraints on the attraction and how this may affect the annual admission levels.

Assumptions

- 5.3 The market and financial projections for the proposed attraction are based upon the following key assumptions:
- The selected site will be of a suitable size and configuration to develop the i360 attraction.
 - The site will be located on Brighton & Hove seafront, with good access to main roads and public transport.
 - It will operate all year round with shorter opening hours during the shoulder and off-seasons.
 - There will be experienced operations teams.
 - A strong pre-opening marketing campaign will be implemented, with continued strong marketing in subsequent years.
 - The attraction will open in 2016.

Unconstrained Attendance Estimates

Attendance Potential & Estimated Market Penetration Rates

- 5.4 Market factors define the basis from which attendance potential is derived, while the scope of the attraction determines its drawing power or market penetration. The scope and drawing power of an attraction is a function of numerous endogenous factors such as level of initial investment, capital reinvestment, marketing strategy, image and brand identity, as well as exogenous variables such as the competitive environment and climatic conditions.
- 5.5 Estimates for attendance for the i360 are derived through a market penetration rate analysis based upon the market factors, conditions experienced at comparable projects and other local attractions. Market penetration measures the propensity of available market segments to visit an attraction and is defined as the ratio of attendees from a potential market segment to total market segment size.
- 5.6 In order to derive potential market penetration rates for the proposed i360 we have used derived data from market penetration rates among a range of comparable attractions including the London Eye, Spinnaker Tower and international operations.
- 5.7 To do this we undertake an analysis of the catchment markets for the various comparable attractions. We also undertake interviews with the management at the attractions to obtain as accurate a picture as possible of the source of their visitors. By applying this data to the



throughput levels we are able to determine the likely visitor mix profile and thus the market penetration rates.

Factors Affecting Attendance Potential

- 5.8 Evaluation of attendance cannot be strictly quantitative and must account for key qualitative factors specific to the regional market, the site, and the quality of the proposed project design. Thus, the following key factors were taken into consideration throughout our analysis.

Strengths and Opportunities

Site and Concept

- 5.9 Located along the seafront promenade in Brighton, the attraction will benefit from the high footfall generated by the Brighton seafront. Both residents and tourists pass the site as part of the natural pedestrian flows in Brighton.
- 5.10 There is parking close to the site as well as bus links servicing the immediate area from the train station and surrounding areas. Within the wider region, transport links are strong, with good rail links to London and good road access to London and the South East.
- 5.11 The viewing tower concept is popular throughout the world. In the UK, the success of the London Eye indicates that the viewing tower concept is popular with resident and tourist markets. With a novel design and original experience such as that offered by the i360, we feel the proposed concept should be considered as a positive.

Resident Market

- 5.12 The primary catchment market is modest in size. However, the secondary market is significantly larger as the two hour catchment encompasses the entirety of London.
- 5.13 In addition to there being a large resident market, the population in London and the South East is generally more affluent than the rest of the UK.

Tourist Market

- 5.14 There are substantial numbers of domestic tourists visiting the area. Visiting friends & family, and holiday & leisure form key reasons for visits by both domestic and international tourists. At the majority of viewing towers worldwide, the tourist market tends to be the key source of visitors.
- 5.15 Whilst the international tourist market is relatively modest in size there is a significant foreign language student market that studies in the city each year and provides an important visitor segment for Brighton attractions.

Regional and Comparable Attractions

- 5.16 There are currently no directly competitive attractions in the immediate area. The Sea Life Centre and The Royal Pavilion are the main gated attractions in Brighton & Hove.
- 5.17 The presence of Brighton Pier and its rich history is a useful driver of footfall along the seafront.



Weaknesses and Threats

Resident Market

- 5.18 The propensity of residents to visit increases the nearer to the attraction they live. Therefore, given that the primary resident market is modest in size, the attraction will not benefit from having a strong primary resident market base.

Tourist Market

- 5.19 Viewing towers are typically popular with international visitors as the experience give tourists a chance to get a bird's eye view of the area they are visiting. However, the international tourist market is modest in size in comparison to the domestic tourist market.

Regional and Comparable Attractions

- 5.20 Although there are a limited number of competitive attractions in the immediate area, there is an overlap with the London Eye resident catchment market. The London Eye offers a similar concept and has now established itself as a London icon.

Derivation of Market Penetration Rates

- 5.21 We provide our rationale for the projected penetration rates that we consider the i360 could achieve. We have estimated market penetration rates based on comparable attractions, modified by the qualitative factors discussed above.

Primary Resident Market

- 5.22 Primary market penetration rates at viewing towers are generally higher than those achieved in the secondary resident market as propensity to visit decreases the further away from the attraction a person lives.
- 5.23 The primary catchment market for the i360 is of a modest size and is generally smaller than those seen at the majority of comparables we have reviewed; therefore we might expect a penetration rate at the higher end of the range of competitive set. However, since the previous study the dynamics of the market have changed somewhat with domestic tourism declining in volume but day trips increasing. Day trippers make more frequent visits to the Brighton area than holidaymakers and are unlikely to make multiple visits to the i360.
- 5.24 Taking these factors into account, we estimate that i360 could achieve a market penetration of 2.0 percent under the medium scenario in a stable year, at the mid-range for viewing towers but at the low end of the range for selected leading UK attractions.
- 5.25 Interest in the i360 from local residents would be higher than this in the opening years as the development of the i360 would receive significant regional media coverage. As seen at other observation attractions we would expect strong penetration rates from local residents in the early years, settling back to more modest levels over time.

Secondary Resident Market

- 5.26 At the majority of visitor attractions, penetration rates within the secondary resident market are considerably lower than those of the primary market. This reflects the decreasing propensity to visit an attraction as drive time increases.
- 5.27 In general, at viewing towers, penetration rates in the secondary market are around half that of the primary market, and we feel that given the strong seaside location the i360 should be able to achieve a medium penetration rate of 1.0 percent in this market in a stable

year. As with the primary resident market we would expect stronger penetration rates in early years.

Domestic Tourist Market

- 5.28 The domestic tourist market for i360 should offer a promising opportunity given its nature, with a high number of leisure and VFR (visiting friends and relatives) visitors. However, given the other available leisure activities in the area, appeal of the beach and level of repeat visitation to the area, we have taken a somewhat cautious view on the domestic tourist market penetration rate.
- 5.29 We estimate that the i360 could be able to achieve a medium penetration rate of 6.0 percent in this domestic tourist market in a stable year. This is at the low end of the range for viewing towers but at the high end of UK attractions' penetration rates for this market segment.

International Tourist Market

- 5.30 Viewing towers typically perform strongly in the international tourist market. Although there are relatively few international tourists visiting the area, we feel that there is an opportunity for a strong performance in this market. In a stable year, we estimate a penetration rate of 12.0 percent under the base-case scenario, which is at the higher range of performance of comparable viewing towers but equivalent to some leading UK attractions.

Total Projected Theoretical Attendance

- 5.31 The attraction attendance potential takes into account the size of the resident and tourist markets and characteristics, quality and scale of the attraction, proximity and level of competition, pricing, market spending power, market acceptance/behavioural characteristics, level of investment, and numerous other factors.
- 5.32 Market penetration rates were applied to the total population of each of the defined market segments to estimate attendance potential at the proposed attraction. To provide some context to the market penetration rates applied to the i360, Figure 5.1 shows the ranges at a selection of attractions.

FIGURE 5.1: MARKET PENETRATION RATES

Attraction	Resident			Tourist		
	Primary (%)	Secondary (%)	Total (%)	Domestic (%)	International (%)	Total (%)
Observation Attractions						
Max	11.5	10.7	5.4	30.3	71.9	35.9
Ave. Weighted	2.8	1.4	2.1	6.7	15.1	8.8
Median	2.1	1.0	1.2	9.8	22.7	11.6
Min	0.2	0.1	0.1	1.8	2.1	2.2
City Attractions						
Max	6.1	4.8	5.4	12.4	12.5	12.5
Ave. Weighted	4.3	1.9	2.9	2.4	6.6	4.4
Median	3.9	1.5	2.4	1.9	1.9	1.4
Min	1.3	0.6	1.7	0.6	1.2	0.7

Source: D & J International Consulting

- 5.33 Observation attractions included in the benchmark analysis include the London Eye, Spinnaker Tower, Blackpool Tower, Empire State Building, Berlin TV Tower, Willis Tower and the Auckland Sky Tower. City attractions include Brighton Pavilion, Brighton Museum, Sea Life Centre, London Transport Museum and the London Aquarium.
- 5.34 Based on our analysis of the local attractions market and performance of selected attractions, key-market specific and site-specific factors, as well as qualitative considerations, the market penetration rates and attendance potential in Figure 5.2 were developed for the i360 in a stable year of operation.

FIGURE 5.2: MARKET PENETRATION RATES

	Market Size	Market Penetration Rates			Projected Attendance		
	2021 (000s)	Low (%)	Mid (%)	High (%)	Low	Mid	High
Resident Market							
Primary Resident Market	1,467	1.0%	2.0%	3.0%	14,561	29,332	43,998
Secondary Resident Market	15,486	0.5%	1.0%	1.5%	76,734	154,862	232,292
Subtotal Resident Market	16,953				91,295	184,194	276,290
Tourist Market							
Domestic	5,586	4.0%	6.0%	8.0%	222,332	334,887	446,888
International	1,723	10.0%	12.0%	14.0%	172,310	206,772	241,234
Subtotal Tourist Market	7,309				395,754	541,938	688,122
Total	24,262				487,851	726,132	964,413

Source: D & J International Consulting

Ten Year Theoretical Attendance Projections

- 5.35 Modern attractions with strong marketing campaigns and high visibility achieve opening year attendance levels at or close to their maximum potential. During the first few years of operation locals tend to have a strong interest in visits to new attractions. Thus viewing tower penetration rates in the resident market are typically significantly higher than in a stable year as the attraction is a novel experience. Tourists, on the other hand, tend to build up their interest levels and so the penetration rate in the tourist market is not as high in the early years as the stable year as the attraction is still to establish itself within this market.
- 5.36 We have therefore incorporated a higher penetration rate in the resident markets in 2016 falling to a stable year penetration rates by 2019. Conversely, we have incorporated lower penetration rates in the tourist markets in the earlier years of operation, rising to a stable year by 2018.
- 5.37 In locations with growing markets, this pattern results in a gradual increase in visitation beyond year five once stable penetration rates have been achieved. We have allowed for these patterns in our ten-year attendance projections. The resulting attendance projections from 2016 to 2026 are shown in Figure 5.3.

FIGURE 5.3: MARKET PENETRATION RATES AND THEORETICAL ATTENDANCE TO I360 BRIGHTON

	Market Size			Market Penetration Rates			Projected Attendance		
	2016 <i>(000s)</i>	2021 <i>(000s)</i>	2026 <i>(000s)</i>	2016 <i>(%)</i>	2021 <i>(%)</i>	2026 <i>(%)</i>	2016	2021	2026
<u>Resident Market</u>									
Primary Resident Market	1,416	1,467	1,518	5.0%	2.0%	2.0%	70,787	29,332	30,362
Secondary Resident Market	14,764	15,486	16,131	2.5%	1.0%	1.0%	369,098	154,862	161,307
Subtotal Resident Market	16,180	16,953	17,649	2.7%	1.1%	1.1%	439,884	184,194	191,670
<u>Tourist Market</u>									
Domestic	5,449	5,558	5,727	5.0%	6.0%	6.0%	272,426	334,887	343,343
International	1,639	1,723	1,811	8.0%	12.0%	12.0%	131,158	206,772	217,320
Subtotal Tourist Market	7,088	7,309	7,538	5.7%	7.4%	7.4%	403,584	541,659	560,663
Total	23,268	24,262	25,187	3.6%	3.0%	3.0%	843,468	725,853	752,333

Source: D & J International Consulting



Ride Capacity and Operating Implications

Pod Capacity

- 5.38 Based on the detailed design and information received from the client team the i360 pod will have a capacity of 200 people.

Ride Length

- 5.39 During daytime opening hours, prior to 6pm, the ride length will be twenty minutes including a two minute turnaround period. During evening opening hours, post-6pm, the attraction will operate as a sky-bar and the ride length will be increased to 30 minutes including a five minute turnaround time.
- 5.40 The hourly capacity of the i360 will therefore be equivalent to 600 people per hour during daytime operating hours reducing to 400 people per hour during sky-bar operating hours in the evenings.

Operating Hours

- 5.41 In Figure 5.4 we outline the proposed seasonal opening hours for the i360. We note that the attraction is anticipated to close for seven days during January for maintenance and also on Christmas Day.

FIGURE 5.4: I360 ANTICIPATED OPENING HOURS		
	Winter (Oct to Mar)	Summer (April to Sept)
<u>Opening Hours</u>		
Monday to Thursday	10am - 6pm	10am - 6pm
Fri, Sat, Sun & Bank Hols	10am-10pm	10am-11pm
<u>Operational Hours</u>		
Monday to Thursday	8	8
Fri, Sat, Sun & Bank Hols	12	13

Source: i360

Seasonality

- 5.42 Factors which may impact the seasonal distribution of attendance at the proposed attraction include public holidays and school holidays, passing footfall, weather and current operating patterns at local attractions.
- 5.43 In order to assess the potential seasonality of attendance we have reviewed data from local competitive attractions including the Brighton Sealife Centre, the Royal Pavilion and Brighton Museum. In addition, this data has been compared against historic tourism seasonality arrival data for Brighton. We have used the average monthly seasonality data from all these sources to provide a benchmark level of monthly visitation for the proposed attraction
- 5.44 As shown in Figure 5.5 and Figure 5.6, the benchmark seasonality data suggests a peak month of July during 2013, accounting for 14.4 percent of total annual visitation. As shown in the table, we have accounted for closures during January, for maintenance, in addition to

Christmas Day. Projected lost visitation during these days is anticipated to be recouped throughout the remainder of the year.

FIGURE 5.5: ESTIMATED MONTHLY UNCONSTRAINED ATTENDANCE FOR I360 BRIGHTON (2016)

	Operating Days			Monthly Distribution (%)	Monthly Attendance
	Weekend Days ¹	Weekdays	Total Days		
January	8	9	17 ²	2.5%	21,193
February	12	16	28	6.5%	54,429
March	16	15	31	7.5%	63,017
April	13	17	30	10.8%	90,874
May	15	16	31	9.5%	79,900
June	14	16	30	11.8%	99,799
July	12	19	31	14.5%	122,289
August	15	16	31	13.4%	112,740
September	13	17	30	8.6%	72,959
October	12	19	31	7.3%	61,786
November	14	16	30	4.3%	36,518
December	14	16	30 ³	3.3%	27,964
Total	158	192	350		843,468

Note:

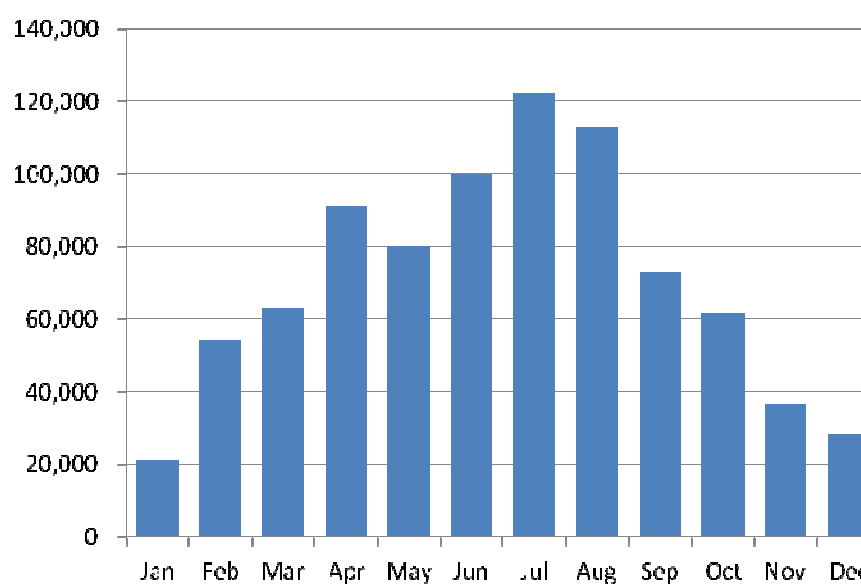
¹ Weekends includes Bank Holidays

² Closed for a two weeks for maintenance

³ Closed for Christmas Day

Source: i360

FIGURE 5.6: ANTICIPATED MONTHLY ATTENDANCE TO I360 BRIGHTON



Source: D & J International Consulting



Peak Operating Hours and Capacity Constraints

- 5.45 For our assessment we have based likely daily demand patterns on experience of the operation of the London Eye operation. In general, peak daily attendances at this type of attraction are between 12.00 and 14.00 hours.
- 5.46 During some peak periods the visitor demand will outstrip the maximum hourly capacity of the pod, and therefore there will be a ceiling on the number of people that can physically ride the attraction on busy days. The visitors that do not manage to get on the ride due to capacity constraints are considered to be frustrated demand and while some may be persuaded to ride at a different time, day trippers and tourists may not be able to do so and these potential visits will be lost.
- 5.47 The proposed long opening hours and large pod capacity will allow the attraction to satisfy the majority of demand, though there will become a point when with fewer visitors at the attraction during early and late parts of the day, the marginal revenues per visitor will not cover the marginal operating costs and consequently the operation will not be breaking even at that time. As a commercial operation, tight monitoring of operating efficiencies will be essential. Management will need to monitor visitor numbers for the first year of operation to determine the optimum opening hours.
- 5.48 Based on our demand assessment under the medium attendance scenario, we anticipate there will be capacity constraints between 12:00 and 14:00 during weekends and Bank Holidays in June and August. However, the peak under-capacity during these periods is at a level that is manageable through effective ticketing systems. We therefore believe any capacity concerns can be addressed through efficient operating processes which will allow visitation to be spread out throughout the day resulting in minimal lost visitor demand through overcrowding.

Wind Closures

- 5.49 Based on data received from the client team we have incorporated within our analysis the potential impact of high winds which could lead to the closure of the attraction for safety reasons. We have outlined the projections for wind closure days in Figure 5.7. The data presented in the table represents the potential worst case impact on visitation demand during the opening year, 2016, under the medium demand scenario. This is standard practice, for example at the London Eye or theme park rides.
- 5.50 We have anticipated that high winds could potentially close the attraction for extended periods, but in reality the impact may be lower than projected as the ride may be able to operate safely for short periods of the day depending on conditions. As shown in the table, the projected periods of closure will result in a 2.4 percent drop in potential annual visitation due to unmet demand from potential visitors.



FIGURE 5.7: IMPACT OF WIND CLOSURES ON VISITATION DEMAND

	Unconstrained Visitor Demand (2016)	Days Closed Due to High Wind (%)	Constrained Visitor Demand (2016)
January	21,193	5.5%	20,019
February	54,429	4.4%	52,030
March	63,017	2.5%	61,422
April	90,874	2.1%	88,928
May	79,900	2.5%	77,914
June	99,799	1.5%	98,337
July	122,289	1.4%	119,607
August	112,740	0.6%	112,049
September	72,959	1.7%	71,719
October	61,786	5.4%	58,479
November	36,518	3.5%	35,225
December	27,964	4.0%	26,853
Total	843,468		822,584

Source: i360, D & J International Consulting

Constrained Annual Attendance Estimate

- 5.51 Based on the analysis presented in this section, we feel that there is sufficient potential demand in the market to drive an attendance of around 843,000 visits in 2016 under the medium attendance scenario. However due to the uneven demand patterns throughout the year, closures due to maintenance and wind there will potentially be capacity constraints at the i360.
- 5.52 These factors have been accounted for within our analysis and we present the actual projected attendance estimates for Brighton i360 under the base case medium demand scenario in Figure 5.8. As shown, we anticipate an opening year attendance of 822,600 during 2016 gradually reducing to 697,500 by 2019. This decline of 18 percent is a typical pattern seen at other comparable visitor attractions. Due to the anticipated subsequent growth in the available markets, we have projected that attendance will then increase gradually up to 733,700 by 2026.

Attendance Scenarios

- 5.53 In addition to the medium base case attendance scenario presented in Figure 5.8 We have also provided two additional attendance scenarios based on our low and high market penetration rates as set out previously. We provide ten year attendance forecasts under the high and low scenarios in Figure 5.9 and Figure 5.10 respectively.

FIGURE 5.8: CONSTRAINED PROJECTED ATTENDANCE DEMAND FOR I360 BRIGHTON, MEDIUM SCENARIO (2016 – 2026)

	Market Size			Market Penetration Rates			Projected Attendance		
	2016 <i>(000s)</i>	2021 <i>(000s)</i>	2026 <i>(000s)</i>	2016 <i>(%)</i>	2021 <i>(%)</i>	2026 <i>(%)</i>	2016	2021	2026
<u>Resident Market</u>									
Primary Resident Market	1,416	1,467	1,518	4.9%	2.0%	2.0%	69,034	28,606	29,611
Secondary Resident Market	14,764	15,486	16,131	2.4%	1.0%	1.0%	359,959	151,027	157,313
Subtotal Resident Market	16,180	16,953	17,649	2.7%	1.1%	1.1%	428,993	179,633	186,924
<u>Tourist Market</u>									
Domestic	5,449	5,586	5,727	4.9%	5.8%	5.8%	265,681	326,595	334,842
International	1,639	1,723	1,811	7.8%	11.7%	11.7%	127,910	201,652	211,939
Subtotal Tourist Market	7,088	7,309	7,538	5.6%	7.2%	7.3%	393,591	528,248	546,781
Total	23,268	24,262	25,187	3.5%	2.9%	2.9%	822,584	707,881	733,705

Source: D & J International Consulting

FIGURE 5.9: CONSTRAINED PROJECTED ATTENDANCE DEMAND FOR I360 BRIGHTON, HIGH SCENARIO (2016 – 2026)

	Market Size			Market Penetration Rates			Projected Attendance		
	2016 <i>(000s)</i>	2021 <i>(000s)</i>	2026 <i>(000s)</i>	2016 <i>(%)</i>	2021 <i>(%)</i>	2026 <i>(%)</i>	2016	2021	2026
<u>Resident Market</u>									
Primary Resident Market	1,416	1,467	1,518	5.8%	2.9%	2.9%	81,959	42,452	43,943
Secondary Resident Market	14,764	15,486	16,131	2.9%	1.4%	1.4%	427,353	224,130	233,459
Subtotal Resident Market	16,180	16,953	17,649	3.1%	1.6%	1.6%	509,312	266,582	277,402
<u>Tourist Market</u>									
Domestic	5,449	5,586	5,727	5.8%	7.7%	7.7%	315,424	431,185	442,073
International	1,639	1,723	1,811	9.6%	13.5%	13.5%	158,186	232,757	244,630
Subtotal Tourist Market	7,088	7,309	7,538	6.7%	9.1%	9.1%	473,610	663,942	686,703
Total	23,268	24,262	25,187	4.2%	3.8%	3.8%	982,922	930,523	964,105

Source: D & J International Consulting

FIGURE 5.10: CONSTRAINED PROJECTED ATTENDANCE DEMAND FOR I360 BRIGHTON, LOW SCENARIO (2016 – 2026)

	Market Size			Market Penetration Rates			Projected Attendance		
	2016	2021	2026	2016	2021	2026	2016	2021	2026
	(000s)	(000s)	(000s)	(%)	(%)	(%)			
<u>Resident Market</u>									
Primary Resident Market	1,416	1,467	1,518	3.9%	1.0%	1.0%	55,292	14,320	14,823
Secondary Resident Market	14,764	15,486	16,131	2.0%	0.5%	0.5%	288,307	75,603	78,750
Subtotal Resident Market	16,180	16,953	17,649	2.1%	0.5%	0.5%	343,599	89,923	93,572
<u>Tourist Market</u>									
Domestic	5,449	5,586	5,727	2.9%	3.9%	3.9%	159,597	218,169	223,678
International	1,639	1,723	1,811	5.9%	9.8%	9.8%	96,046	168,242	176,824
Subtotal Tourist Market	7,088	7,309	7,538	3.6%	5.3%	5.3%	255,643	386,411	400,502
Total	23,268	24,262	25,187	2.6%	2.0%	2.0%	599,242	476,334	494,074

Source: D & J International Consulting







5.54