ROAD TO
SCHVENENGEN
HAVEN

AMY IKHAYANTI
Master Urbanism Graduation Report
Delta Intervention Studio
Urbanism Department
Architecture Faculty
Delft University of Technology
September 2011 - October 2012
Road to Scheveningen Haven

towards a safe, accessible, attractive and lively tourism destination

Master Urbanism Graduation Report

September 2011 - October 2012

August 2012

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taken from www.flickr.com
The background of this project is my personal fascination of beaches, seas and the areas surrounding them. Since I was a child, I have always been fascinated with trips to the beach areas, their salty air and the carefree atmospheres I feel when I am there. That is why I participate in the Delta Intervention studio and choose Scheveningen Haven as the location of my graduation project.

For me, Scheveningen Haven is an interesting urban case. It is a part of the historical areas and urban developments of Scheveningen district. It also accommodates diverse types of programs, from a yacht marina, an industrial harbour, water sports facilities, to residential and commercial functions. It possesses many attractive qualities for a tourism destination development. But, it is not yet developed into one. That is why, I want to design Scheveningen Haven into an attractive tourism destination.

Nonetheless, I have to admit that this project is not an easy one. Because of the complex nature of Scheveningen Haven, a sensibility towards historical and social aspects should also be conducted, apart from the focus on the main issues of tourism development, water defence, accessibility and spatial quality. Henceforth, thorough research and design strategy have a prominent role in this project.

Finally, I hope that you enjoy reading this report. It contains the complete overview of the progress and final products of my graduation work. In addition, I also hope that this project can also inspire you to design sensitive and comprehensive urban projects in the future.

Happy reading!

Delft, 30 May 2012
This project is a combination of urban design, strategic urban planning and water protection in the coastal urban area of Scheveningen Haven. It focuses on tourism development, water defence, accessibility and spatial quality. Hence, the main goal of this project is to design Scheveningen Haven as a safe, accessible, attractive and lively tourism destination.

The final products of this project are design and strategies on city, neighbourhood and block scales, along with previously conducted analyses, studies and design explorations. These preliminary studies are done to provide scientific and engineering supports for the final design and strategies so that all arguments can be accounted.

Lastly, this project attempts to contribute to the knowledge of water defence related urban design and to the discussions of possible future urban developments in Scheveningen Haven.
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ONE

Introduction
Scheveningen Haven is located on neighbourhood of Visserhaven, Scheveningen district, Den Haag, Zuid-Holland province, The Netherlands (Fig. 1).
Positioning

The Netherlands

Scheveningen Haven is the fourth biggest fishing port in The Netherlands in 2010 (Fig. 2). It is the only fishing port that is located inside a big city in The Netherlands (Fig. 3).
Fig. 3. Fishing ports in The Netherlands (Author 2012)
Fig. 4. Safety standard per dike ring area (Meyer, Bobbink et al. 2010)
Zuid-Holland Province

Scheveningen Haven is a part of dike ring 14, which includes the whole area of Randstad, the Dutch economic centre.

Den Haag

Scheveningen Haven is directly connected to Hollands Spoor train station and Scheveningen Dorp, the historical fishing village, by tram 11. This tramline also connects Scheveningen Haven to the International Zone, where many foreign ambassadors reside; the Museum Quarter, which consists of Fotomuseum, Museon and Gemeente Museum; World Forum, an international convention centre for business, entertainment, political and cultural meetings; as well as Den Haag's inner city (Dutch: centrum), which is a popular shopping and tourism destination (Fig. 5).
Fig. 5. Scheveningen's position in Den Haag (Author 2012)
Scheveningen District

Apart from Scheveningen Haven, there are also Scheveningen Bad and Dorp in Scheveningen district. Three of them are located next to one another, with the boulevard as a connector (Fig. 7). Nonetheless, they share different attitudes towards their surroundings. Scheveningen Bad orients itself towards the hinterland, Scheveningen Dorp towards itself and Scheveningen Haven towards the sea (Fig. 6).

Scheveningen Bad

Scheveningen Bad is the most popular seaside resort in The Netherlands in 2007 (BRO 2008). It is filled with commercial and leisure programs. Apart from shops and horecas, there are also: a boulevard, a pier, the Kurhaus (a hotel that is built in 1884), Pathé cinema, Palace Promenade (an all year round shopping passage), Sea Life, and Museum Beelden aan Zee.

Scheveningen Boulevard accommodates the highest density of commercial and leisure functions in Scheveningen (Fig. x). It also connects Scheveningen Bad with Dorp and Haven.

Scheveningen Dorp

Scheveningen Dorp is a historical fishing village. This village is probably developed in the 13th century with the influence of Dutch aristocrats. Fishermen settled in this village probably due to the increasing demand of fish from the nearby new and rich settlement.

Scheveningen Dorp is unique because it has traditional clothings, songs, dialect and architectural type that are different from Den Haag’s. Scheveningen Dorp also has a high historical value because most of its urban pattern comes from early 1800s, with most of

Fig. 6. Scheveningen Haven, Dorp and Bad’s orientation (Author 2012, based on Gemeente Den Haag 2001)
Fig. 6. Important buildings and functions in Scheveningen (Author 2012, based on www.edugis.nl and Google Maps)
its buildings from early 1900s (Fig. 7 and xx). The most important historical urban features in this area are the Old Church (Oude Kerk), which was built in the 15th century, and Keizerstraat, which is now the main shopping street in Scheveningen Dorp. Keizerstraat, which connects to the Scheveningseweg, was designed by Constantijn Huygens in 1653. It was meant to give a direct connection from Den Haag, Scheveningen and the sea.

Duindorp

Duindorp is a neighbourhood that was built between 1915 to 1930 on Westduinen. The first inhabitants came from Scheveningen Dorp. Therefore, they share the same social and cultural backgrounds. Nonetheless, Scheveningen and Duindorp are perceived as different areas now. This area has the lowest income level compared to other neighbourhoods in Scheveningen. Moreover, it is notorious as a residential place for less-educated people.

Westduinpark

Westduinpark is a dune area on the south side of Scheveningen Haven. Because it contains a high variety of flora and fauna, Westduinpark is included in Natura 2000, an environmentally protected area. It has cycling and hiking trails, as well as a windturbine. The beach part behind the dunes is often visited by Den Haag residents, who are looking for quieter beach atmosphere then the boulevard or pier’s area.

Scheveningen Haven

History

Fishing Village

The history of Scheveningen Haven is inseparable from the history of Scheveningen as a whole. The first settlement in Scheveningen is a fishing village, which is now the location of Scheveningen Dorp (Fig. 7). Although Scheveningers used to focus on catching flat and round fishes, from the mid-19th century, they focuses more on herring fishery.

Seaside Resort

In 1818, Jacob Pronk Nz. opened the first bathhouset. In 1828, this building was bought by the Municipality of Den Haag, and converted into Municipal Bathhouse (Stadelijk Badhuis). Later on, it was converted into a hotel, the Kurhaus.

Atlantik Wall

During World War II, Scheveningen was declared as Sperrgebiet by the Germans. Hence, the residents have to evacuate to the hinterland so that a defence line, known as Atlantik Wall can be built. Many historical buildings were also destroyed. Nonetheless, Kurhaus is one of the fews that survived the demolitions. At the same time, military bunkers were also constructed in the dunes. Some of them survive and can still be seen.

Harbour

In the beginning, there was no harbour in Scheveningen. Thus, the fishing boats took off and landed on the beach. A sea storm in 1894 urged the need for a harbour in Scheveningen.
Therefore, the First Port was opened in 1904, followed shortly by the Second Port in 1931. Lastly, the Third Port is opened in 1971.

Drainage Canal

In 1888, a drainage canal (Dutch: afvoerkanaal) was built. It serves as a channel to remove polluted water in Den Haag via Scheveningen to the North Sea. Later on, the canal’s direct connection to the North Sea was closed due to water defence consideration, and the water was discharged to the Second Port.

Norfolk Line Area

The Third Port Area was used by Norfolk Line, which provides ferry services to United Kingdom. In 2001, this company leaved Scheveningen Haven, and the previously used area is still vacant until now.
Fig. 7. Scheveningen’s historical urban development (Author 2011, based on various historical maps provided by Kaartenkamer, TU Delft)
Current Situation

Harbour

Scheveningen Haven serves as a home-port for seven fishing vessels (L = 100 m) and seven government’s vessels (L = 40-80 m). Ships come 24 hours a day, seven days a week to Scheveningen Haven. Before they are granted permission to berth on Scheveningen, ships have to give a 24-hour notice to the harbour.

In the mean time, the largest ship in Scheveningen Haven has a length of 120 m. Nonetheless, it can also accommodate 160 m long ships (Hektrawlers/Large Fishing Ships). The larger stern trawlers are between 80 and 130 m in length. While the freezer vessels that pick-up and further transport the fish are between 60 and 100 m long. Cutters are 20 to 50 m, and small fishing boats are 5 to 15 m long.

Most cutters come on Thursday or Friday night to unload their fish to the Fish Auction House (Dutch: Visafslag). Then, trucks load the fish from Visafslag in the morning. On the other hand, the large stern trawlers come only when the ships are full of fish. Their quay is located on Vissershavenweg, along with the stores of shipping companies, and the trucks load the fish during the day. Because of that, their berthing frequency is unpredictable.

The First Port is an industrial fishing port, while the Second Port is used as a yacht marina and a berthing place for a museum (Museum Ship Mercuru A856, an inactive ocean minesweeper ship). Lastly, the Third Port as a berth for KNRM (Koninklijke Nederlandse Redding Maatschappij, the Royal Dutch Rescue Organization). They provide helps for ships that encounter difficulties on sea.

Because of high oil prices and fishery quotation, the number of gillnet fisheries, small professional shipping and sailing school boats is increasing. In 2009, there are 15 berths for gillnet fisheries' boats, which will be expanded into 32 berths. Moreover, in 2009, the berthing place for the sailing school was expanded from four to ten berths that is more than twice its original number.

The gillnet fishermen and the sailing school need a proper storage for their equipments. Furthermore, the sailing school needs affordable dwellings and sanitary facilities for its students. All of these facilities are currently not available (Van Dijk 2009).

Yacht Club and Marina

There are several yacht clubs that reside in Scheveningen Haven. Their buildings are located alongside the Second Port. The clubs also serve as restaurants and bars, which are filled with visitors on sunny day.

Scheveningen Haven serves as a vast-eilichtplaats (permanent berthing place) for club members and passantenhaven (transit harbour for travelling yachts). Currently, there are 125 berths for passantenhaven. This number is expanded by 40 to 45 places in 2009, due to increasing demand for passantenhaven in Scheveningen.

F.A.S.T.

Free Architecture Surf Terrain (F.A.S.T.) is a surf village, which consists of a beach hostel, a camping ground, a bar, a restaurant, a surf shop and school, board storages and lockers, as well as meeting spaces (Fig. 8). Surfers use this place as a meeting point and lockers when they are surfing. Other people, including tourists, can also use
this place according to their needs. For example, for a yoga class for Couch-surfing members.

The beach part where F.A.S.T. is located, is popular for water sports activities because of high and strong waves. Therefore, F.A.S.T. location is strategic and favorable for surfers since it is closely located to the surfing spot.

Because surfing board is heavy and big, surfers prefer to put their belongings or cars as close as possible to the sea. Thus, the street parking area along Scheveningen Haven’s outer dike is often used by surfers.

Harbour Mouth’s Breakwater

Because of sedimentation process, there are small beaches formed around the harbour mouth’s breakwater. They offer unique views of ships entering and quitting the harbour. Moreover, they are also actively used by visitors.

Simonis

Simonis is an old and popular seafood chain restaurant. Since Scheveningen Haven is popular as a place to eat fish (seafood), its image is closely attached to Simonis as well.

Fig. 8. Functions and Important places in Scheveningen Haven (Author 2012)
1. Restaurants on the North Side of the Second Port

2. Harbour Bay

3. Beach Pavilions
4. Sport Stadium

5. Harbour Mouth’s Breakwater (Zoetewij 2006)

6. Harbour Golf
Harbour Golf

The vacant area that was used by Norfolk Line is now used by Harbour Golf. It accommodates golf courses and various golf-related events.

Gamma

Gamma is a home deo that also provides underground parking garages.

Jumbo

Jumbo is a supermarket that is regularly visited by nearby residents. It has an open parking area next to the store.
Identity

The identity of Scheveningen Haven is fish (Concire, 2009; United Fish Auction, 2012). This area was developed from a fishing village, and one of the main activities in this area is fisheries (Fig. 9).

Place Identity

Understanding of an area’s history and origin is important to find out its place identity. Therefore, comparisons made in this chapter will focus on the oldest buildings in Scheveningen Haven with other buildings in Duindorp and Den Haag from the same period (1900 - 1944) (Fig. 10).

There are two types of building styles in Scheveningen Haven and Duindorp. First, brown bricks facade with white linings on window and door panes. Second, white-washed cladded brick facade with white linings on window and door panes. The difference between Scheveningen Haven and Duindorp’s second style is arch openings in Duindorp’s, which are not found in Scheveningen Haven’s.

Scheveningen Dorp and Centrum also share the same first style. But, they don’t have any buildings with the second style. This style similarity is probably caused by the more integrated urban development between Scheveningen, Duindorp and Den Haag.

Nevertheless, there is a small difference between the buildings near the coastal area (Scheveningen and Duindorp) and hinterland (Centrum). Buildings at Centrum have inner black linings on their windows, which are not found in buildings at any other places (Fig. 11).

Fig. 9. Photographs and Report Cover of Scheveningen Haven that show that the identity of Scheveningen Haven is fish (Various Sources 2011)
Fig. 10. Building age in Den Haag (www.edugis.nl 2011)
1. Koppelstokstraat, Scheveningen Haven

2. Korboutstraat, Scheveningen Haven

3. Pluvierstraat, Duindorp
Fig. 11. Comparison among Scheveningen, Duindorp, Scheveningen Dorp and Den Haag Centrum’s Building Styles (Google Map 2008)
Vlaggetjesdag

Vlaggetjesdag is a yearly festival that celebrates the arrival of the first herring. In Scheveningen, it is celebrated with an open market by the local residents and music performances from singers and marching bands on the areas surrounding the First and Second Port. On this day, all the ships and boats are decorated with colorful flags (Fig. 12).

The open market fills in Vissershavenweg, some parts of Visafslagweg and Doctor Lelykade. Apart from ordinary toys that is commonly seen on retail stores, the market also sells typical Scheveningen’s products. For example, silver jewelries and handicrafts, as well as fishes. It also sells other types of products that are not typical of Scheveningen, but are made by the Scheveningers, such as cheese and cross-stitches handicrafts. Lastly, there are also promotional stands for traditional Dutch games and herring consumptions.

Some parts of Visafslag is opened as temporary retail areas. They are used to sell a car, discounted clothes, seaweed food products, handicrafts made by Scheveningers (drawings, boat miniatures, paintings), DVDs and fishes. Inside the main hall, in addition to the retail stands, there are performances by Scheveningen male choir.

On Vlaggetjesdag, the industrial area on the First Port is opened for public. Thus, visitors can walk around to look to the ships closely, accompanied by open-air music performances.

This event is one of the major tourist attractors in Scheveningen Haven. On Vlaggetjesdag, the harbour area is full with people, which creates a lively and vibrant atmosphere. This atmosphere is very different compared to the daily situation in Scheveningen Haven. On normal days, visitors come to eat at Simonis. Or, on sunny days, they also use the sun deck of the yacht clubs and restaurants on Vissershavenweg.

Vlaggetjesdag also shows the vibrant and active life of Scheveningers that is not daily visible. Many of the retail stands are local people’s initiatives to start new businesses, such as seaweed products. Their presences on Vlaggetjesdag may indicate a need for strategic and affordable retail areas for their businesses, or a weekly/monthly open market to promote their products.
Fig. 12. Scheveningen’s Vlaggetjesdag (Author 2012)
Tourism in Scheveningen Haven

Tourism in Scheveningen Haven is on the developing stage, where it possesses touristic attractions, but does not have supporting facilities yet (Fig. 14). Hence, tourism in Scheveningen Haven may be one of the major urban developments in the future.

Most of the visitors come to walk around the area, enjoying the beach, harbours and the atmosphere (Fig. 13). Therefore, its visual and spatial presentations are important in order to further develop Scheveningen Haven’s tourism.

On the other hand, the visitors find horeca as an attractive aspect, and they often visit the fish shops. Compared to the amount of money spent for shopping, the visitors spend twice as much. In other words, horeca is a strong tourist attractors and potential to be further developed in Scheveningen Haven.

The beach is the most popular destination in Scheveningen Haven. Hence, good connectivity and accessibility to this area from other parts of the harbour are needed. Furthermore, many tourists combine the visit to Scheveningen Haven with Scheveningen Bad and Den Haag’s Centrum. For that reason, good public transport, car and bike accessibility are also required, so that the visitors can reach Scheveningen Haven easily.

Fishermen and Tourism

Fishermen rejects the existence of yuppies and yachts in Scheveningen, as shown in promotional posters that they post in Scheveningen (Fig. 15). They want Scheveningen Haven solely for fisheries only, without any other types of activities.

Scheveningen Residents and Tourism

Scheveningen residents like to live in Scheveningen because of its close location to the nature, sea, forest and dunes. Nevertheless, they dislike the overcrowded beach during peak days (sunny days during summer, when the number of visitors are very high), and feel that the best part of the beach is where there are not too many beach pavilions. They also feel disturbed by noise and litters that are caused by tourists.

Horeca also contributes to noise and odour disturbance in Scheveningen. Kitchen waste sometimes are not properly handled, which causes stench coming out of the pipes. Moreover, residents feel that they play music too loudly, as if competing with one another.

The residents also feel disturbed by tourists that come by car because they try to find free parking spots in the neighbourhood. Because the street is full with cars, even emergency service cars cannot pass through.

Furthermore, the residents think that oversize billboards and excessive lighting has a negative impact on the atmosphere and hinders the beautiful sea views. Nonetheless, they enjoy looking at people strolling on the boulevard and having a picnic on the beach. By looking at tourists from different countries, they are also experiencing different cultures. It creates a lively atmosphere and needs to be encouraged.

Finally, the residents prefer the tourists come by public transport to Scheveningen, instead of using P+R facilities outside Scheveningen (Stichting Boog 2008).
### Tabel 3.3: Belangrijkste bezoekreden naar jaar (twee antwoorden mogelijk)

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<tr>
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<td>Strand/rondwandelen</td>
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<td>31%</td>
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<td>Horeca</td>
<td>22%</td>
<td>41%</td>
<td>32%</td>
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<td>12%</td>
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<td>7%</td>
<td>9%</td>
<td>4%</td>
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<td>8%</td>
<td>12%</td>
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<tr>
<td>Dagje uit</td>
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<td>11%</td>
<td>23%</td>
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<tr>
<td>Watersport</td>
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<td>2%</td>
</tr>
<tr>
<td>Familie/vrienden/kennis</td>
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<td>6%</td>
<td>5%</td>
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<tr>
<td>Uitgaan algemeen</td>
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<td>Overige(^2)</td>
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\(^2\) tot deze categorie behoren onder andere: doorgaand/geen doel en bezoek aan dienstverlening

### Tabel 3.15: Aantrekkelijke aspecten Scheveningen Haven naar jaar

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<td>Haven en boten</td>
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<td>22%</td>
<td>40%</td>
</tr>
<tr>
<td>Sfeer en gezelligheid</td>
<td>18%</td>
<td>15%</td>
<td>31%</td>
</tr>
<tr>
<td>Horeca</td>
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<td>25%</td>
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<tr>
<td>Vis</td>
<td>7%</td>
<td>9%</td>
<td>13%</td>
</tr>
<tr>
<td>Parkeren</td>
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### Tabel 3.6: Bezochte elementen naar onderzoeksperiode, 2007

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<tr>
<th>Element</th>
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<th>Winter</th>
<th>Totaal</th>
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<td>46%</td>
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<td>Viswinkels</td>
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<td>15%</td>
<td>16%</td>
<td>27%</td>
<td>18%</td>
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<tr>
<td>Watersport</td>
<td>9%</td>
<td>5%</td>
<td>1%</td>
<td>1%</td>
<td>4%</td>
</tr>
<tr>
<td>Watersportwinkels</td>
<td>3%</td>
<td>1%</td>
<td>4%</td>
<td>3%</td>
<td>2%</td>
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**Fig. 13.** Scheveningen Haven’s visitors research (BRO 2008)

**Fig. 14.** Scheveningen Dorp, Haven and Bad in Butler’s tourism area life cycle (ZKA 2006)
Fig. 15. Scheveningen for the Scheveningers! (Papenborg 2011)
Ongoing & Future Development

Den Haag

In 2020, Den Haag thrives to be a World City by the Sea. It will be a global city, leader of South Wing of Randstad and an extraordinary city with extraordinary ambitions. In order to achieve this ambition, there are five focus development areas, including tram 11 zone and International Coastal Zone (Scheveningen and Kijkduin).

Tram 11 is considered to have a unique characteristics because it passes diverse kinds of destinations. For example, Hollands Spoor train station, Centrum, the Haagse Markt (the biggest open market in Den Haag), multi-cultural neighbourhoods, Scheveningen Dorp and Haven. In the future, it will be connected to Rotterdam Airport by RandstadRail; thus, creating a fast and continuous connection from a transport hub to Den Haag’s Centrum and the sea.

Scheveningen will be developed into a second city centre, with more amenities, recreation and living programs, especially on the sea front. Besides, Den Haag also envisions a coherent, high-quality recreational landscape. Hence, the regional network of recreational routes along the coast (from Hoek van Holland to Noordwijk) and from the coast to the hinterland (Scheveningen to Haaglanden region) will be strengthened.

The relation between Scheveningen inside Den Haag is unique because many European cities are located by the sea and dune with seaside resorts, but they are located miles away, unlike Scheveningen and Den Haag. That is why Den Haag wants to strengthen this point by improving the connection between the city and the sea.

Scheveningen Boulevard

Scheveningen Boulevard will be extended into Scheveningen Haven, with different height levels and separate routes for pedestrians, cyclists and cars. Aside from fulfilling the water safety requirement against sea storms, this boulevard also connects Scheveningen Bad, Dorp and Haven, while providing attractive beach front public spaces (Fig. 17).

The boulevard is built on top of the existing dike, with descending steps towards the beach. Hence, they provide gradual and attractive transitions from the hinterland to the sea (Fig. 16).

The highest level of the new boulevard is +9.90 m NAP. Because of that, any water defence development along Scheveningen’s coast has to follow the same height in order to avoid overflow during sea storms (Fig. 18).

Scheveningen Haven

The ambition of this plan is to create an attractive and diverse urban centre, with a mix of fishing, hospitality, leisure and living functions. The fisheries is kept at the same place, while tourism attractions in the form of a Fisheries Centre, a watchtower and a museum will be developed. In addition, high-quality housings will also be constructed, so that the place vibrancy will not be too dependent on visitors flow. Lastly, the yacht marina and water sports centre will be further developed.

This plan mainly focuses on two places, the Third Port and the Visafslag area. The Third Port area will be developed into a mixed function area with
De dijk-in-boulevard

1. Zandprofiel
2. Hoogovenslakken
3. Geotextiel
4. Hoogovenslakken
5. Basaltblokken
6. Strandmuur
7. Strand
8. Boulevard
9. Fietspad
10. Rijbaan
11. Duin
12. Dijk
13. Beeldentuin
14. Laad- & losplaats bussen

Fig. 16. Three-dimensional section of the new Scheveningen Boulevard (Den Haag Municipality 2007)
Fig. 17. Ground plan of the new Scheveningen Boulevard (Den Haag Municipality 2007)
Fig. 18. Scheveningen Boulevard’s section on Harteveldstraat (Den Haag Municipality 2007)
harbour, horeca, museum and residential programs, while the Harbour Golf location will become a residential area. On the other hand, Visafslag will be converted into a Fisheries Centre, with horeca developments in the surroundings (Fig. 20).

The connections in the harbour will be improved as well, with a bridge construction near the Second Port and a cable car across the harbour mouth.

Conclusion

SWOT Analysis

This analysis provides an overview of Scheveningen Haven’s general situation and design opportunities for this project (Fig. 19).

Positioning

Located inside a big city.

Connected to Hollands Spoor train station, International Zone, Museum Quarter, the Haagse Markt by tram 11.

Located next to dunes, beach and sea, which are popular recreational destinations.

Because it is located by the sea, it becomes an end point and less integrated compared to other places in Den Haag (Fig. x).

It can be developed into an attractive and strong end point of the city, with mixed types of programs.

Because of its close proximity to International Zone, it can also be developed for international-scale activities and purposes.

Its seaside location makes Scheveningen Haven prone to sea storms and consequent flooding as well as casualties.

Fig. 19. Scheveningen Haven’s SWOT Analysis (Author 2012)
<table>
<thead>
<tr>
<th><strong>Identity</strong></th>
<th><strong>Fisheries</strong></th>
<th><strong>Tourism</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Strong historical values.</td>
<td>Gives special identity and spatial characters with the harbour activities and the fisheries ships. It is also attracts visitors and tourists.</td>
<td>Scheveningen Haven has diverse kinds of attractions or destinations that are appealing for tourists. For example, F.A.S.T., Simonis, yacht club and waterfront restaurants.</td>
</tr>
<tr>
<td>Strong fish identity that attracts visitors and tourists.</td>
<td>Fishing industries is declining (Taal, Bartelings et al. 2010). Hence, another economic motor needs to be assigned.</td>
<td>Many of the potential tourism destinations are not well facilitated or developed. For example, poor pedestrian connectivity and unattractive built environments.</td>
</tr>
<tr>
<td>It is a popular surfing spot.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Historical urban patterns with diverse types of programs and activities.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>It doesn't have special or typical building styles. Hence, making its spatial dimension less unique.</td>
<td>Fishing industries is declining and tourism is developing. Hence, the development focus should be shifted towards tourism. Since fisheries has a touristic attraction, the harbour can be developed more into a fish-related tourism.</td>
<td>Visafslag area touristic development as a continuation of the new boulevard.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Touristic development at Harbour Golf area with its own identity.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Harbour Bay area development into the new tourism centre in the harbour area.</td>
</tr>
<tr>
<td></td>
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</tr>
<tr>
<td>It is potential to be further developed for fish-related tourism, into a centre of water sports and activities, or a creative activities venue.</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Because it already has a strong identity, any interventions that differ from the current identity may not work successfully.</td>
<td>Fishing industries produce noise and bad smell, which may disturb other programs, such as horeca and residential functions.</td>
<td>Fishermen's rejection towards non-fisheries development may cause social segregation in the area.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Over-touristic development may cause resentment from the residents towards tourism in their area.</td>
</tr>
</tbody>
</table>
Figuur 20. Scheveningen Haven plan (Den Haag Municipality 2007)
Project Standpoint

Tourism and Harbour

The first standpoint of this project is tourism urban development in Scheveningen Haven. This decision is made based on the assumption that Dutch fishing industries will be stagnant or even declining in the future, while tourism will grow. This assumption is based on the fact that fish auctions' turn-overs are decreasing although the number of fish is increasing (Taal, Bartelings et al. 2010). However, it is also possible that the number of big companies is decreasing, while the number of gillnet fisheries with small boats is increasing (Van Dijk 2009). Nevertheless, a further expansion of industrial harbour may not be needed in the future.

On the contrary, there is an increasing demand for yacht marina, especially as a passantenhaven, and berthing places for the sea sailing school’s boats (Van Dijk 2009). Their growth in the future is unpredictable. Hence, their future needs of berthing places or even a new harbour is unknown as well. Nonetheless, the Second Port can still accommodate their growing needs of berths, at least in the coming five years. Thus, a new harbour for yacht marina or the sea sailing school is not needed in the near future.

Spirit of the Place

The continuous line of Afvoerkanaal towards the sea was a part of Den Haag’s historical urban pattern. It does not only cross Scheveningen Haven, but it is also a part of the bigger canal system in Den Haag. Henceforth, it needs to be revived due to its high historical urban value.

Additionally, the canal provides a sequential and directive spatial experience from the hinterland towards Scheveningen Haven and the sea. In other words, its presence ushers the visitors towards the entrance of the harbour and the sea.

Priorities

Scheveningen Haven can be divided into four areas according to their importance to this project (Fig. 21).

1. Scheveningen Boulevard’s route with the Visafslag area. This area has the highest importance level because of its close location to the beach, the most popular touristic spot and the boulevard that connects Scheveningen Haven with Dorp and Bad. Hence, it is potential to be developed into an important tourism spot. At the same time, good visual and pedestrian connectivity of Visafslag area to the beach and the boulevard are also important.

2. The Harbour Golf and Bay area are the second most important part because they are potential to be developed into tourism spots. Moreover, the Harbour Bay area is potential as the new tourism centre in Scheveningen Haven. Its broad sea and harbour view and waterfront have high economic value for horeca or luxurious apartments.

The Harbour Golf area is important because it serves as an entrance to important places in Scheveningen Haven, such as the beach, dunes, the Third Port and Harbour Bay area. Moreover, it also has the largest vacant lot in Scheveningen Haven. Thus, it becomes the major development site in this project.

3. Eastern part of the Second Port, where yacht clubs and other commercial functions are located. In the mean
time, only the southern part of the waterfront with the yacht clubs attracts visitors, while the other parts are still empty. This area is potential for other commercial developments along the waterfront because it serves as the harbour entrance to the hinterland and it is closely located to the hinterland. Furthermore, developing commercial functions nearby similar programs will also increase its economic value and success rate.

4. Industrial area is the last priority because it has limited opportunity for tourism developments. Nonetheless, small commercial development that are combined with the existing industrial compound is still possible. For example, small cafes or bars on the first level of the industrial buildings.

Ongoing and Future Development

This project shares the same vision as Den Haag municipality. They both aspires Scheveningen Haven to be the part of the second city centre in Den Haag by developing mixed-used functions, such as horeca, commercial, recreational and living programs. Mixed-used functions are preferable because they attract diverse kinds of users at different times for different purposes, which encourage a vibrant urban life.

This project is also in unison with Den Haag’s vision of creating a coherent recreational landscape by creating recreational routes along the coast from Hoek van Holland to Noordwijk, as well as from Scheveningen to Haaglanden region. Good accessibility and con-

Fig. 21. Project site priorities in Scheveningen Haven (Author 2012)
nectivity increases a place’s economic value, encourages more visitors and movements in and around the area, which then encourages in a vibrant urban life.

The new Scheveningen Boulevard connects Scheveningen Bad, Dorp and Haven. Because Scheveningen Bad is the most popular place to visit in combination with Scheveningen Haven, a good and attractive connection between them is important to maintain. Moreover, a continuous spatial sequence from one end of the boulevard to another is also crucial to create a coherent impression of tourism destinations in Scheveningen.

This project is in unison with Den Haag’s municipality plan of developing commercial functions on the Visafslag area, but not on the Third Port area. The Visafslag area is a strategic project site because it is the ending point of Scheveningen Boulevard, a beach sport stadium and F.A.S.T. location. It is also adjacent to the beach and the harbour mouth, as well as the breakwater, which is frequently walked by visitors.

Nevertheless, developing dense commercial programs on the Third Port area and southern part of the beach may ruin the present tranquil and private atmosphere of the area. This beach part is famous as Den Haag’s beach. It is often visited by Den Haag residents, who want to have a quieter atmosphere, in contrast with Scheveningen Bad’s area that is overcrowded with tourists. Considering that Scheveningen Bad is the tourism centre in the whole Scheveningen district and commercial development on Visafslag area, the Third Port area should have different characteristics. The serene identity that have been established there will work better and more successfully with Den Haag residents, compared to the commercial and touristic atmosphere that Den Haag’s municipality aspires.

Project Focus

There are three aspects that are important to be considered in designing Scheveningen Haven. They are water defence, accessibility and spatial quality.

Water defence is a fundamental aspect in this project because water safety is the most basic requirement for all developments in Scheveningen Haven. For that reason, the type of water defence chosen will also influence this project’s design.

Good accessibility and connectivity to and inside Scheveningen Haven needs to be realized. The more connected a place is, the higher the economical value it has. An accessible and well-connected place to its surroundings also tends to have a vibrant urban atmosphere compared to a place who aren’t accessible and well-connected. Since commercial developments favors as much exposure as possible to wider audiences, they needs to be accessible and well connected.

Nevertheless, not every place in Scheveningen Haven needs to be excessively connected to their surrounding areas. A hierarchy of connectivity gives an identity to a place and serves as a part of its tourism attractions.

Spatial quality is an important aspect to be considered in Scheveningen Haven’s design. As mentioned earlier, Scheveningen Haven visitors mainly come to walk around the area. Hence, an attractive spatial dimension needs to be achieved in this project. Furthermore, it will define the new spatial identity of
designed area in Scheveningen Haven. It especially applies to the Visafslag and Harbour Golf area, which will be designed extensively in this project.
TWO

Research
Problem Statement

Water Defence

Scheveningen Haven is located outside of primary water defence line (Fig. 22). Thus, Scheveningen Haven’s current water safety level is less than one to 10,000 years flood risk. In other words, its safety standard is lower than the standard set by Rijkswaterstaat, the governmental body that manage waterways and roads constructions and managements.
Accessibility

Low Public Transport Coverage

The optimal walking distance between a place and a public transport is 400 m (Maryland Mass Transit Administration, Kansas City Mid-America Regional Council, New Jersey’s NJTransit, Ontario Ministry of Transportation, New York, Connecticut, New Jersey Tri-Metro Area’s Regional Plan Association and Snohomish County - Washington’s Transport Authority). This number is considered optimal because passengers feel comfortable to walk between this distance.

In the present, the only public transport that reaches Scheveningen Haven is tram 11. But, all of its transit stops don’t cover Scheveningen Haven between 400 m radius. This situation is considered disadvantageous to this project because tourism developments requires a good public transport accessibility.
Low Pedestrian Connectivity

The harbours (water body) separates one place from another, resulting in many dead ends in Scheveningen Haven. This situation results in discontinuity of pedestrian paths in Scheveningen Haven, as well as low pedestrian connectivity and accessibility.

Low pedestrian connectivity is unfavorable in this project because the higher the connectivity of a place is, the higher the economical value it has, which is crucial for a tourism destination. Moreover, high level of connectivity and accessibility are also fundamental for a vibrant urban life.
1. Doctor Lelykade

2. Hellingweg

3. Visafslagweg
4. Visafslagweg

5. Korbootstraat
Spatial Quality

Strong Car Presence

All of streets in Scheveningen Haven are car-oriented; and, many of them are used for street parking (Fig. 25). It results not only in unattractive spatial dimension, but also to discouragement of vibrant public space creation. Furthermore, according to Gehl (2001), parking lots create urban void, where no people stay and meaningful activities take place.

Fig. 25. Street parking and parking lots in Scheveningen Haven (Author 2011)
1. Doctor Lelykade

2. Doctor Lelykade

3. Visafslagweg
4. Strandweg

5. Houtrustweg

6. Hellingweg
**Project Aims**

The aim of this project is to design Scheveningen Haven as a safe, accessible, attractive and lively tourism destination. In relation to the aspect of water defence, accessibility and spatial quality, this project aims are as follows.

**Water Defence**

The ideal water safety level for Scheveningen Haven is once in 10,000 years flood risk. However, not all of the places in Scheveningen Haven has to share the same safety level. If its development sacrifices other important aspects, such as good pedestrian accessibility and attractive spatial dimension, a safety level hierarchy can be applied in accordance to a place or a building’s importance.

**Accessibility**

**High Public Transport Coverage**

As mentioned earlier, the optimal walking distance between a place and a public transport is 400 m (Maryland Mass Transit Administration, Kansas City Mid-America Regional Council, New Jersey’s NJTransit, Ontario Ministry of Transportation, New York, Connecticut, New Jersey Tri-Metro Area’s Regional Plan Association and Snohomish County - Washington’s Transport Authority). Nonetheless, it is not the only important point. Providing public transport stops at important spots are more important than keeping an optimal walking distance.

Providing public transport stops at important, public, or popular destinations are essential so that public transport users can easily reach them. By locating the public transport stops as near as possible to the destinations, visitors can reach them easily and fast. In other words, it results in high public transport accessibility.

**High Pedestrian Connectivity**

A continuous and highly integrated pedestrian path encourages movement, which stimulates a vibrant public life. When people can walk easily from one place to another, they are encouraged to move and visit a destination more often. Therefore, this situation is advantageous for public, commercial, or tourism functions.

Walking is one of the basic activities that are crucial in establishing a vibrant public life (Gehl 2001). Thus, a comfortable and attractive pedestrian path is needed to encourage this activity. Furthermore, pedestrians always choose for the shortest walking route. For that reason, provision of the shortest distance possible between one destination to another is also important.

**Spatial Quality**

**Pedestrian Oriented area**

Pedestrian oriented area is highly encouraging for a vibrant urban life creation. When car is eliminated from the streets, the streets are available for outdoor, recreational and social activities without the threat of danger, noise and air pollution from cars. Even so, this project doesn’t suggest that Scheveningen Haven has to be a totally car-free area, where any kinds of car presence should be eliminated. But, it explores possibilities to reduce the currently strong car presence and replace it with stimulating spatial condition for a vibrant public life.

Another alternative for encouraging a
vibrant public life is by creating a woonerf. Woonerf is a Dutch principle that gives pedestrians and cyclists legal priority over vehicle users in certain areas. It regulates that pedestrians may use the entire width of the street to walk and play, vehicles have to drive at 15 \( \text{km/h} \) and they can only park at the designated locations. Therefore, (potential) public activities are not disturbed by car presence.

**Research Questions**

**Main Research Question**

How to design Scheveningen Haven as a safe, accessible, attractive and lively tourism destination?

**Sub-research Question**

**Water Defence**

1. Which water defence system that supports high accessibility and encourages an attractive and vibrant urban life can be applied in Scheveningen Haven?

2. Does all of the places in Scheveningen Haven need to be protected with once to 10,000 years flood risk?

3. If no, which places need to be prioritised?

**Accessibility**

1. Public Transport
   a. Which places need to have direct access to public transport stops?
   b. Is it necessary to introduce new public transport line in order to provide optimal walking distance from public transport stops to destinations in Scheveningen Haven?
   - If yes, which places outside of Scheveningen Haven should this new line connect?
   - If no, which public transport line needs to be altered?

2. Pedestrian
   a. Which places need to be connected to one another?
   b. How to connect those places?

**Spatial Quality**

1. Pedestrian Oriented Area
   a. Which streets and places need to be accessible by car?
   b. Which places need to be converted into a pedestrian oriented area or a woonerf?
   c. How many parking places do Scheveningen Haven need?
   d. Where should they be located?
   e. How to design the parking places in order to prevent creating urban voids in Scheveningen Haven?

2. New Place Identity
   a. Since the Visafslag, Harbour Bay and Golf area are extensively designed in this project, what are their new place identity?
   b. What physical and visual distinctions should these places have in order to increase their ‘place potential’?
   c. What diversity and mixture of uses should these places have?

**Methodology**

**Project Timeline**

This project is divided into five main parts as follows (Fig. 26).
Fig. 26. Project Timeline (Author 2012)
Preliminary Research and Analysis

Initial studies are conducted to formulate the project framework. On this part, the problem statement, project aims, research questions and methodologies are determined.

Literature Review

Literature review serves as a basis for further understanding of Scheveningen Haven and formulation of design guidelines, which are used as a starting point of designing Scheveningen Haven. The topics studied in this project are as follows.

Place Identity

This study is conducted to understand what spatial elements influence a place identity. Then, it is used to understand the current Scheveningen Haven’s place identity and help designing visual and spatial interpretation of the Visafslag, Harbour Bay as well as Harbour Golf’s new place identity. The literature list includes ‘Character of the Place’ (Papenborg 2011) and ‘New Perspectives for Seaside Towns’ (Warmerdam 2011).

Vibrant Public Space

This study is conducted to know what spatial elements or conditions contribute to the creation of a vibrant public space. This study is crucial in formulating design principles and designing a successful proposal for Scheveningen Haven. The literature list includes ‘Life between Buildings’ (Gehl 2001), ‘The Death and Life of Great American Cities’ (Jacobs 1961), ‘Public Places Urban Spaces’ (Carmona et al. 2003) and ‘The Image of the City’ (Lynch 1960), which are summarized in a review paper ‘Role of Public Space in Urban Context’ (Ikhayanti 2011) (Appendix F).

Tourism Harbour Development

This study is conducted to address the factors that contribute to the successful tourism development in harbour areas. The result of this study is a review paper, ‘Tourism-Oriented Harbour regeneration’ (Ikhayanti 2011) (Appendix E), which is used to formulate design principles and design a successful proposal for Scheveningen Haven.

Case Studies

Multi-Functional Water Defence

The Visafslag area is one of the most important design sites in Scheveningen Haven. Because it is located near the sea, it needs to be well protected from sea storm and flooding. Additionally, it has to be well connected to its surroundings as well since it connects Scheveningen Haven to the most popular tourism sites in Scheveningen, the beach and the boulevard. Lastly, it should be able to accommodate commercial and touristic programs because it is the ending point of Scheveningen Boulevard. For those reasons, a multi-functional water defence is required.

The case studies examine the multi-functional water defence in Katwijk, The Netherlands and Hamburg, Germany. They focus on the water defence construction type, programs placements on the water defence construction and how to create a spatial transition between hinterland and the sea through the water defence construction. Then, the conclusion is used as a reference for the Visafslag area’s design.

In-Depth Analysis

Different types of in-depth analyses are conducted to answer the research questions.
Water Defence

‘Stormvloedkering Scheveningen Haven’ by Gosse de Boer (2011) and ‘Kademuren, Haven Scheveningen’ by Wessel van der Zee (2011) are used as the primary reference for choosing the water defense system in Scheveningen Haven.

Apart from that, safety level priority is decided based on further analyses of program allocation in Scheveningen Haven and its surroundings.

Accessibility

The questions are answered by analyses on the current public transport connections to Scheveningen Haven and its surroundings, as well as explorations of a possible new public transport connection to Scheveningen Haven. Moreover, analyses on the current and future program allocation are also employed to determine the priorities of important and highly accessible places in Scheveningen Haven. Finally, because some of the spatial barriers in Scheveningen Haven are water body, study of movable bridges that are suitable for pedestrian and/or motor vehicle connections on, as well as water traffic under the bridge are also conducted.

Spatial Quality

Analyses on the current parking locations and types in Scheveningen Haven provide the arguments of the new parking locations, types and designs. Furthermore, analyses on Scheveningen’s present identity as well as the current program allocation are also used to determine the future identity of the Visafslag, Harbour Bay and Golf area.

Design Exploration

Various design scenarios with the emphasis on water defence and program allocation, especially industries are tested. Additionally, the explored scenarios are assessed to choose for the final design that fulfill this project aims.

Final Design

The final products of this project consist of a master plan of Scheveningen Haven, detailed plans of the Visafslag, Harbour Bay and Golf area as the main design sites, as well as sections and perspectives to further explain the design.

Theoretical Framework

There are three main topics in this project. They are tourism harbour development, place identity and vibrant public space. Their existences are dependent to one another to create a successful tourism harbour development (Fig. 27).

A successful tourism harbour development can only be realized when a strong place identity and vibrant public spaces are provided. At the same time, the creation of a strong place identity and vibrant public spaces are interrelated to each other. Hence, a strong endorsement of one factor may lead to another factor’s amplification, while a negligence of one aspect can result in poor conditions of others.

Tourism Harbour Development

According to Ikhayanti (2011), factors that produce positive impacts in a tourism harbour development are a distinctive type of development, preservation of place distinction with consideration of the historical context, addressing
Tourism Harbour Development

Distinctive Development Type
Place Distinction Preservation
Addressing Social and Economic Problems
Increasing Traffic Load Capacity
Creation of Vibrant Urban Atmosphere
New Programs Accommodation

Place Identity

Image
Activity
Physical Setting

Vibrant Public Space

Integrated and Inviting Places
Places to Stay

Fig. 27. Relations among Topics (Author 2012)

social and economic problems on a wider scale than the project area, the awareness of development’s effect on traffic load and infrastructure, the creation of vibrant urban atmosphere, as well as the consciousness of city’s capacity to accommodate all the new programs (Appendix E).

Place Identity

Three essential elements that form a place identity are image, activity and physical setting.

Image is influenced by imageability (a physical quality that evokes a strong image in an observer’s mind), legibility (easily distinguishable urban form and pattern), meaning and accessibility.

Activity is formed by diversity of primary programs and urban forms, vitality, street life, fine-grained urban forms and economy, as well as active front-ages of building blocks.

Lastly, physical setting is produced by intensity (sufficient density to generate vibrant urban public space), adaptability (of various urban forms of diverse kinds of programs) and permeability of urban blocks, which should rarely exceed 90 metres (Warmerdam 2011).

Vibrant Public Space

In order to create a vibrant public space, integrated and inviting places as well as creation of places to stay are crucial.

Integration is critical because it provides the needed density to create a vibrant public space. Moreover, integration of not only functions and activities, but also traffic enables different activities to support and stimulate
one another. Additionally, close allocations of entrance areas, provision of squares, attractive street frontage, intimate street and urban scale, narrow deep lots are also important in assembling people and activity in an urban area (Gehl 2001).

Inviting places have a smooth transition between public and private areas. Thus, a transitional zone that is not completely public nor private can function as a connecting link that makes movements from one area to another easier. At the same time, visual connectivity, short and manageable routes between private and public environments, as well as provisions of destinations and activities are also needed to create an inviting atmosphere.

Places to stay are the places where basic activities such as walking, standing and sitting are accommodated well. The repetition of these small activities results in the acts of staying and forms the base of bigger and more complex activities. Therefore, different spatial requirements of these activities should be fulfilled in the design.

Walking needs spaces that are sufficiently narrow and rich in experience. It also requires smooth and non-disruptive pavement materials, ramps for wheeled traffic, as well as provision of the shortest route possible from one place to another.

The popular spot for standing is on the edge, where people can observe their surroundings easily and freely. Because of that, inviting edges are necessary to encourage the act of standing and staying. In order to do so, edges require attractive details and niches on the building edges, as well as the presence of elements, such as benches and trees. As a result, people feel psychologically comfortable to stay on a spot.

Lastly, an attractive sitting place requirements are similar to a standing place’s. It necessitates a location on the edge, interesting sceneries, protection from the wind and enough exposure from the sun.

Project Implementation

In conclusion, in order to design a successful tourism harbour development in Scheveningen Haven, the following requirements have to be fulfilled.

1. Distinctive development types that are different from other places in Scheveningen district and other seaside resorts in The Netherlands.

2. Preservation of the current Scheveningen Haven’s place identity, fisheries, as well as other historical buildings and urban forms.

3. Moderate allocations of commercial and tourism programs so that the area and city limits to accommodate them are not exceeded.

4. Clarity in design of urban forms and patterns, as well as traffic and pedestrian routes.

5. Diversity and integration of various functions, activities, urban forms and traffic.

6. Intimate and small streets, blocks and buildings scales.

7. Provision of transitional zones between public and private areas.

8. Provision of rich walking experiences, with smooth pavement materials, ramps and the shortest route possible from one place to another.

10. Provision of interesting sceneries, protection from the wind and enough exposure from the sun on sitting places.

**Project Relevance**

**Scientific Relevance**

Most of the time, water defence related urban developments consider only design and engineering. Other aspects, such as spatial strategy, accessibility, historical context and place identity are often pushed aside, if not neglected. In contrary to this circumstance, this project brings together all of these aspects and incorporate them into one comprehensive solution. In other words, this projects attempts to provide a precedent of a coherent water defence urban development in The Netherlands.

**Societal Relevance**

In the present, the future development scenarios of Scheveningen Haven are constantly explored and discussed. Nonetheless, none of the materials provide an emphasis on tourism development, spatial strategy, water defence, accessibility and spatial dimension at the same time. Because of that, this project tries to contribute to the existing discussion by providing new perspectives and materials of possible future urban development in Scheveningen Haven.
THREE

Analyses
Antecedent

Design Concept

As mentioned earlier, the main design locations in this project are Scheveningen Boulevard’s route with the Visafslag area, as well as the Harbour Golf and Bay area (Fig. 21). Because two of them have different characteristics and priorities, they share different design concepts as well.

The Visafslag Area

This area is the ending point of northern Scheveningen Boulevard and a possible entrance point towards the dunes on the southern part (Fig. 21). Moreover, it also serves as the entrance area towards the harbour, the beach, the sea and their surroundings. At the same time, it accommodates the sea dike as a part of water defence system in Scheveningen and various programs surrounding it. Henceforth, the design concept of the Visafslag area is a multi-functional water defence system, which maintains the visual and spatial connectivity from different sides and levels.

This design concept is closely related to the demand of spatial requirements of this area. Because of its strategic location to popular tourism destinations (the beach and the boulevard), a creative activities and water sports centre (F.A.S.T.), as well as an important and historical building (the Visafslag), the design of this area should be able to provide maximum spatial, or at least, visual connections to those places.

The Harbour Golf and Bay Area

The design concept of the Harbour Bay area is the new tourism centre of Scheveningen Haven. This area is located in the centre of Scheveningen Haven, with its own beach, pier and a front view towards the harbour mouth. For that reason, this area possesses attractive qualities for a tourism destination.

On the other hand, the Harbour Golf area is also located in the centre of Scheveningen Haven, next to the Harbour Bay area. With the revival of the Afvoerkanal and its continuation to the Third Port, the Harbour Golf area becomes a peninsula with a distinctive spatial character. Thus, its design concept is a neighbourhood centre with a waterfront residential area. In contrast with the Harbour Bay, the Harbour Golf area is envisioned to be a quiet residential area with limited commercial functions.

Design Hierarchy

Although high water safety level and accessibility, concentrations of commercial programs, as well as attractive spatial dimensions are desirable in this project, not all of the places can and should possess all of the aforementioned qualities at the same time. For that reason, a design hierarchy that differentiate the level of those aspects should be determined.

The differentiation of these qualities is based on the current and future functions, as well as the importance of the areas. The design hierarchy in this project is described as follows (Fig. 28).
Fig. 21. Project site priorities in Scheveningen Haven (Author 2012)
<table>
<thead>
<tr>
<th>WATER SAFETY LEVEL</th>
<th>Visafslag Area</th>
<th>Harbour Bay</th>
</tr>
</thead>
<tbody>
<tr>
<td>High water safety level, with a priority of the Visafslag, F.A.S.T. and the residential areas. Because high visual and spatial connectivity are the most important factors in this area, the water safety issue should be considered after these demands.</td>
<td>The highest safety level (once in 10,000 years flood risk) because this area accommodates the highest density of commercial and tourism programs in Scheveningen Haven.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ACCESSIBILITY</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>High visual and spatial connectivity for pedestrians to the beach, boulevard, harbour, dunes and other places in Scheveningen Haven. High accessibility by cars and public transports are also preferable although not necessary.</td>
<td>The highest accessibility by public transports, cars and pedestrians. A direct connection with a public transport stop and a high pedestrian connectivity to other places in Scheveningen Haven are strongly preferable.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CONCENTRATION OF COMMERCIAL PROGRAMS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>The second highest concentration of commercial programs in Scheveningen Haven, with an emphasis on water sports activities.</td>
<td>The highest and most diversified concentration of commercial programs in Scheveningen Haven.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SPATIAL CHARACTER</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>An ending point of the northern part of Scheveningen Boulevard. This area is also designed to continue the spatial sequences from other parts of the boulevard.</td>
<td>The centrefold of urban development in Scheveningen Haven, with the highest densities of programs and activities, especially for commercial and tourism functions.</td>
</tr>
<tr>
<td>Harbour Golf</td>
<td>Second Port Area</td>
</tr>
<tr>
<td>--------------</td>
<td>------------------</td>
</tr>
<tr>
<td>High water safety level, especially on the residential areas.</td>
<td>High water safety level. Nevertheless, it is not strongly demanded considering the lesser importance this area has.</td>
</tr>
<tr>
<td>High public transport and pedestrian accessibilities. Even though high car accessibility is also preferable, it is not strongly demanded.</td>
<td>High public transport and pedestrian accessibility, especially to the waterfront areas, where almost all of the commercial programs are located.</td>
</tr>
<tr>
<td>Low level of commercial programs’ concentration. The commercial programs in this area are intended for small scale economy for the surrounding residents, such as neighbourhood shops and cafes.</td>
<td>Medium concentration of commercial programs, especially on the waterfront areas.</td>
</tr>
<tr>
<td>A quiet waterfront residential area.</td>
<td>A commercial waterfront area with diverse functions of yacht clubs, restaurants, bars, cafes and shops for local entrepreneurs.</td>
</tr>
</tbody>
</table>
Fig. 29. Scheveningen Haven’s height map (www.edugis.nl 2011)
**Water Defence**

**Current Situation**

Different places in Scheveningen Haven have different ground heights. The Harbour Golf area is the highest part with + 5 m NAP, while the Second Port area is the lowest part with + 2.5 m NAP (Fig. 29).

Besides, the average sea water level is + 0.20 m NAP. From time to time, it fluctuates between - 1.00 and + 1.50 m NAP due to tidal effects.

**Aspired Situation**

The desired water safety level in Scheveningen Haven is once in 10,000 years flood risk. According to Ministry of Infrastructure and the Environment (2007), the required ground level is + 5.2 m NAP. In contrast with the current situation, all of Scheveningen Haven’s area is located below + 5.2 m NAP. Hence, all of Scheveningen Haven areas do not fulfill the aspired water safety standard.

Furthermore, in response of the development of Scheveningen Boulevard, the Visafslag area should match the height of the boulevard, which is + 9.90 m NAP.

On the other hand, the sea level is predicted to rise 1.3 m in 100 years (Delta Committee 2008). Additionally, an extra ‘decimeringshoogte’ (decimating height) of 0.50 m is also needed to deal with the increase of the safety standard with a factor ten. In conclusion, the required height of inner harbour area will be 5.20 + 1.30 + 0.50 = + 7.00 m NAP.

In order to protect Scheveningen Haven from flooding, there are two possible solutions that suit this project. First, heightening the quay walls or the ground levels. Second, applying a storm surge barrier at the harbour mouth so that no quay walls or ground levels need to be heightened. These options are attractive for this project because they strongly influence the spatial developments in Scheveningen Haven.
Fig. 30. Public transport routes to Scheveningen Haven and its surroundings
(Author 2011, based on www.htm.net)
Accessibility

Public Transport

Current Situation

As mentioned earlier, Scheveningen Haven is connected to Hollands Spoor train station, Haagse Markt (the biggest open market in Den Haag), Inner City, Museum Quarter and Scheveningen Dorp by tram 11 (Fig. 30). Tram 11 is a historical line, which has existed in 1895, even before Scheveningen Haven was constructed (Appendix A). Because of that reason, any alteration on this line is not preferable because it disturbs the ‘spirit of the place’.

Additionally, bus 23 connects Scheveningen Haven with Duindorp, Laan van NOI train station, Rijswijk train station and Kijkduin (another seaside resort in Den Haag). Although it doesn’t connect many important or tourism destinations, it connects many neighbourhoods in and around Den Haag.

Aspired Situation

All public transport stops in Scheveningen Haven are located on eastern part of the Second Port. Unlike tram lines that require specific tracks and space demands, bus line doesn’t need any particular necessities. Thus, alterations on bus 23’s line to cross the western part of Scheveningen Haven is easier and cheaper to be done.

Alterations on bus 23 line can be made to pass the Harbour Bay area, which is the new tourism centre in Scheveningen Haven. Hence, bus 23 will connect some of the major tourism destinations in Scheveningen district, which are the Harbour Bay (Scheveningen Haven), Keizerstraat (Scheveningen Dorp) and Kurhaus (Scheveningen Bad).

Furthermore, since bus 23 is not connected to major train stations in Den Haag (Centraal Station and Hollands Spoor), easily recognized and shortest pedestrian routes from the existing tram stops to the western part of the harbour should also be constructed to improve the accessibility of the entire harbour.

There is also a need to improve public transport accessibilities of the southern part of Scheveningen Haven. The southern part of the beach and Westduinpark (the dunes) are popular recreational destinations for Den Haag residents. Moreover, the new residential developments in the Harbour Golf area will also increase the demand of public transport connectivity to this area. For that reason, alterations on the existing or proposal of a new public transport line should be considered.

Alterations on tram 10 or 17 to pass the southern part of the harbour are preferable to do because of their tracks are closely located to the southern part of the harbour. Besides, alterations on the existing lines are also cheaper and easier to do.

Nonetheless, alterations on tram 17 are more desirable because of its direct connection to the inner city because it will give this area a strategic position in Den Haag and increase its economic and tourism value.
Fig. 31. Public transport routes to Scheveningen Haven and its surroundings (Author 2011, based on www.htm.net)
Fig. 32. Parking spots, their capacities and walking time to the pier in Scheveningen (Author 2011)
Car

Current Situation

Scheveningen district is accessible by car from other cities through highways, Den Haag’s ring roads and Scheveningen’s district roads (Fig. 31). Accessibility by car is a major issue in Scheveningen because on peak days (sunny days during summer season), there is a high number of tourists coming to Scheveningen Bad by car. After they enter the ring roads, they usually reach Scheveningen Bad through Zwolsestraat or Scheveningseweg. This situation causes not only traffic jam, but also nuisances for local residents (Stichting Boog 2008).

Because of the high demand of parking spots, tourists park their cars not only in Scheveningen Bad, but also in Scheveningen Haven. Parking in the harbour area is also attractive because many of them are for free. However, in the future, Den Haag municipality will charge almost all of the parking places in Scheveningen in order to discourage car presences in the area.

Scheveningen Haven is accessible from the ring roads through Houtrustweg. Although Houtrustweg is sometimes used to reach Scheveningen Bad, this street is the main entrance of the harbour area (Gemeente Den Haag 2008).

Most of the parking places in Scheveningen Haven are street parkings, with only one parking garage (Fig. 32). The high amounts of street parkings signify and encourage the strong presence of cars in the harbour area, which is not conducive to the creation of attractive urban settings.

Moreover, with the new development in the Visafslag, Harbour Bay and Golf area, the demand for parking places will increase. For that reason, centralized parking garages that serves the northern and southern part of the harbour are needed. Thus, the new parking demands can be fulfilled while additions of street parkings can be avoided.

Aspired Situation

The strategic locations for the parking garages are on Houtrustweg and the Visafslag area. If the southern parking garage is located on Houtrustweg, which is the entrance area of the harbour, high numbers of cars inside Scheveningen Haven can be avoided. On the other hand, the northern parking garage can be incorporated to the new multi-functional water defence system in the Visafslag area. Hence, the parking garage construction doesn’t need to consume more space in the area.

The new parking garages may be a parking alternative for Scheveningen Bad’s visitors as well. Tourists can park their can on Houtrustweg or the Visafslag area then continue their journey to Scheveningen Bad with bus 23’s new line or on foot along the boulevard.

Pedestrian

Current Situation

The presence of harbour in Scheveningen Haven creates many dead ends for pedestrian routes (Fig. 24). Because pedestrian connectivities are crucial in this area, bridges that connect different piers are needed. The connections needed are on the harbour mouth, between the First and Second Port, the northern and southern part of the Second Port, as well as the eastern and western part of the Second Port (Fig. 33).
The bridges will not only be connectors, but also a part of the visual and spatial dimensions of Scheveningen Haven. Because of that, visual and spatial continuities are needed in their designs.

1. The Harbour Mouth Bridge

This bridge needs to accommodate the water traffic for yachts, industrial ships and other uses, as well as for pedestrians. Because the bridge needs to provide free vertical spaces for big ships (approximately 15 m high) and yachts’ masts (20 to 30 m high), a movable bridge is needed. A bascule bridge is preferable because it allows unlimited vertical free spaces for the yachts and ships to pass through. Thus, the pedestrian path doesn’t need to be raised to fulfill the bridge’s ground height requirement.

The current harbour mouth width (75 m) is considered excessive for the biggest ships in Scheveningen Haven’s two way traffic. Hence, the sufficient harbour mouth’s width of 50 m allows for a double leaf bascule bridge with a retaining structure between the harbour mouth.

Because this bridge will contribute to the visual and spatial characters of the harbour mouth, an iconic design is needed to signify the importance of this area. That is why a design proposal for Te Wero bridge by RTA Studio is used as a design reference for this bridge (Fig. 34).

2. The First and Second Port Bridge

This bridge has the same requirements as the harbour mouth bridge. Thus, it also needs a movable bridge, with a preference of a bascule bridge. In order to continuity the design sequence of the harbour mouth bridge, a bridge
Fig. 34. Te Wero bridge design proposal by RTA Studio (www.youtube.com 2009)
Fig. 35. Cleveland bridge by Miguel Rosales (www.archpaper.com 2010)
proposal in Cleveland by Miguel Ro-
sales is used as a design reference for
this bridge (Fig. 35).

3. The Northern and Southern Part of
the Second Port

This bridge is used for motor vehicles
and pedestrians, as well as yachts to
pass through. That is why a bascule
bridge is preferable.

This bridge will form the third part
of the bridge sequences. Therefore,
a Pegasus bridge, which is another
variation of a bascule bridge is chosen
(Fig. 36).

4. The Eastern and Western Part of the
Second Port

This is the fourth and final bridge to
be passed to go to the yacht marina
(the Second Port). Hence, another vari-
ant of a movable bridge is chosen to
provide an ending for the spatial se-
quences.

This bridge's span is only 9 m for two
way yacht traffic. Henceforth, a curling
bridge can be chosen as a design ref-
erence for this bridge (Fig. 37).
Fig. 36. Pegasus bridge in Benouville, France (www.cromwell-intl.com 2010 and www.wikipe-dia.com 2012)
Fig. 37. Curling Bridge, Sungai Stutong, Kuching, Malaysia (www.heatherwick.com 2012)
Terrace cafes and restaurants are mostly located on the sides that get the most exposure of sunlight on sunny days. Because of that, sunny parts of Scheveningen Haven are favorable places for terrace cafes and restaurants (Fig. 38).

Apart from that, the sunny sides of the area is also suitable for squares or parks, where people stay for extended time. For example, for sitting, picnic, or sunbathing.
Preserved Buildings

Many of the existing buildings in Scheveningen Haven are historical, in good conditions, or relatively new. For that reason, many existing buildings will be preserved in the new development plan (Fig. 39).

There are also some buildings that are in good conditions but chosen not to be preserved. This decision is taken considering their different functions compared to the future vision of Scheveningen Haven in this project, or their building shapes are not conducive to the creation of a permeable urban fabric and a vibrant urban life.

Nonetheless, apart from the historical buildings, other types of preserved buildings may be heavily altered or relocated to suit the project’s aims or needs. Hence, the same function remains on the same location, but with a different urban form, or the function is relocated to other locations with a different urban form.
1. Beach sport stadium

2. F.A.S.T. terrain

3. The Visafslag
4. Industrial buildings

5. Waterfront shops

6. Waterfront restaurants
7. The Yacht Club

8. Apartment building

9. Apartment building
10. Apartment building

11. Ship Repair Workshop

12. Apartment building
13. Unique old building

14. Wind turbine
The Boulevard Character of the Visafslag Area

Because the Visafslag area is a part of Scheveningen Boulevard, it needs to continue the spatial sequences of the previous parts of the boulevard.

Current Situation

The present visual character of the Visafslag area as seen from the boulevard is natural, with no visual connections to buildings or activities inside the harbour area. This situation is due to the 15 m dike that lines the Visafslag area alongside the boulevard. There is also a few of beach tents on the other side of the boulevard. Apart from that, there is a strong visual connection from the boulevard to the beach (Fig. 40).

On the previous part of the boulevard, there is always a constant presence of buildings on top of the dikes. This sequence is abruptly cut off on the Visafslag area, where there is only a strong presence of a dike facing the boulevard and the beach (Appendix A).

Aspired Situation

With the development of multi-functional water defence system on the Visafslag area, there is also an opportunity to continue the building sequence on top of the dike. Nonetheless, the addition of buildings should not overcrowd the place and completely alter the natural character of the Visafslag area. On the other hand, the buildings should act as a visual sign that the Visafslag area is indeed a part of Scheveningen Boulevard, with its own natural character.

Fig. 40. The natural boulevard character of the Visafslag area with a few of beach tents on the other side (Author 2011)
Waterfronts Characters

The waterfronts in Scheveningen Haven can be classified into six categories as follows (Fig. 41).

1. Intimate pedestrian area (4 m wide) alongside active frontage buildings, which is found alongside the yacht club’s terrace restaurants.

2. Intimate pedestrian area (4 m wide) alongside passive frontage buildings that is found alongside the Visafslag and the Second Port’s southern waterfront area.

3. Wide pedestrian area (7 m) alongside active frontage buildings and street parkings. This type of waterfront is found in front of the restaurant and shop rows on the Second Port.

4. Wide pedestrian area (7 m) without any building frontages. It is located next to street parkings or green spaces.

5. Waterfronts of active harbour area, whether its for industrial or other uses.

6. Small sandy beach as a result of sedimentation process.

The diversity of waterfront characters should be preserved because they contribute to the unique spatial quality of Scheveningen Haven. The most special waterfront area lies on the Harbour Bay, where the only sandy beach inside Scheveningen Haven is located. Therefore, this area has a high economical value, which is suitable for high density commercial developments.

The Harbour Golf area also has a special type of waterfront because it is located next to a working harbour. For that reason, this waterfront area also has a high economical value, where
1. Intimate scale and active building frontage waterfront

2. Intimate scale and passive building frontage waterfront

3. Wide pedestrian area and active building frontage waterfront
4. Wide pedestrian area without any building frontage waterfront

5. Active harbour waterfront

6. Small sandy beach
expensive type of developments can take place. Furthermore, the presence of big ships along the waterfront should be considered as a positive quality as well. Hence, the Third Port should not be relocated to another place.

Apart from the working harbour areas that use concrete pavements, almost all of the waterfront areas use the same paving material (brown bricks) and the same urban furniture (wooden benches). This situation creates an opportunity to give distinguishable character for the new developments, especially for the Harbour Bay and Golf areas. New types of waterfront areas with different building functions, materials and urban furnitures will enrich the spatial character of Scheveningen Haven. Moreover, they will also increase the economical value of the area and attract more visitors, users and stakeholders.
Development Opportunities

Netherlands Board of Tourism and Conventions classifies Dutch seaside resorts according to their product, market and partner combinations into seven categories (Fig. 42). First, Holland Classics, where cultural heritages and Dutch iconic items (cheese, tulips and windmills) are offered. Second, Holland City Style, which provides cultural and trendy Dutch city life, such as shopping and dining. Third, Holland Beach Life that revolves around the sea, beach and dunes, with entertainments, wellness centres, bars and other attractions on the hinterland. Fourth, Holland Country Fun consists of cycling, hiking and family attractions such as zoos and theme parks. Fifth, Holland the Good Life, which focuses on doing relaxing activities and visiting health centre. Sixth, Holland Let’s Meet that serves as a conference market, which accommodates corporate meetings, product launches and trainings. Lastly, Holland Be Inspired, which aims at sharing and transferring knowledge and information.

Scheveningen is categorized in five of the categories, except for Holland Classics and Holland the Good Life. This situation creates a chance for future Scheveningen Haven’s plans to complement the present developments in Scheveningen. Because of that, the future Scheveningen Haven’s plans should include old canal revival and preservations of historical buildings as a part of Holland Classics. On the other hand, four and five star hotels, luxurious bungalows, high-class bed and breakfasts, as well as health centres are also constructed as a part of Holland the Good Life.
Fig. 42. Dutch seaside resort's product, market and partner combinations (Netherlands Board of Tourism and Conventions 2008)
<table>
<thead>
<tr>
<th>ontspanning/recreatie en stadsleven</th>
<th>Amsterdammers</th>
</tr>
</thead>
<tbody>
<tr>
<td>ontspanning/recreatie jongeren</td>
<td></td>
</tr>
<tr>
<td>ontspanning/recreatie macho familie/jongeren</td>
<td></td>
</tr>
<tr>
<td>internationale congressen zakelijk bedrijfsleven</td>
<td></td>
</tr>
<tr>
<td>veelzijdig entertainment met achterland familie</td>
<td></td>
</tr>
<tr>
<td>Location</td>
<td>Classics</td>
</tr>
<tr>
<td>--------------</td>
<td>----------</td>
</tr>
<tr>
<td>Wassenaar</td>
<td></td>
</tr>
<tr>
<td>Scheveningen</td>
<td></td>
</tr>
<tr>
<td>Kijkduin</td>
<td></td>
</tr>
<tr>
<td>Ter Heijde</td>
<td></td>
</tr>
<tr>
<td>Hoek van Holland</td>
<td></td>
</tr>
</tbody>
</table>

Fig. 42. Dutch seaside resort's product, market and partner combinations (Netherlands Board of Tourism and Conventions 2008)
<table>
<thead>
<tr>
<th>Activity</th>
<th>Area</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Good Life</td>
<td>Rust</td>
<td>Relaxation in nature reserve for seniors</td>
</tr>
<tr>
<td>Let’s meet</td>
<td>Stadslife</td>
<td>Leisure/recreation and urban life for families/juniors</td>
</tr>
<tr>
<td>Be Inspired</td>
<td>Ontspanning/recreation</td>
<td>Leisure/recreation for families/juniors</td>
</tr>
<tr>
<td></td>
<td>Wonen in duingebied</td>
<td>Relaxation for seniors in dunes</td>
</tr>
<tr>
<td></td>
<td>Family</td>
<td>Leisure/recreation for families/juniors</td>
</tr>
</tbody>
</table>

**Locations:**
- Wassenaar
- Scheveningen
- Kijkduin
- Ter Heijde
- Hoek van Holland
**Case Study**

Multi-functional water defence systems in Katwijk, The Netherlands and Hafencity, Hamburg, Germany serve as a design reference for the Visafslag area development. These case studies provide an overview of possible programs types and allocations of the multi-functional water defence.

**Katwijk, The Netherlands**

The multi-functional water defence system in Katwijk tries to offer alternatives of the spatially consuming conventional water defence systems by embedding various functions on its sides (Fig. 43).

The spatial design of this system refers to Katwijk’s identities, which are peace, space and religion. It will also serve as a focus development area and a centre of various activities for residents and visitors.

The underground parking spaces may reduce the amounts of cars and motor bikes along the boulevard. Furthermore, the connection between the sea and land is also strengthened with the spaces for beach tents and bungalows on top and in front of the water defence (Fig. 44).

Other possible functions include wellness centre, church, library, education centre, cinema, theatre, congress hall, aquarium, artist residence, children daycar, fitness centre, aquatic museum, bicycle rental shops, winter terrace, boutiques, water sports shops, rescue team headquarter and small supermarket.

Fig. 43. Katwijk's multi-functional water defence design concept (DP6 2011)
Fig. 44. Katwijk’s multi-functional water defence’s impression (DP6 2011)
Fig. 45. Multi-functional water defence systems in Hamburg with residential functions above parking garages (top) and commercial functions on ground floors (down) (www.wikipedia.org and www.mimoa.eu 2012)
Hafencity, Hamburg, Germany

Hafencity is a waterfront mixed use area, which is located in the centre of Hamburg, Germany. It accommodates five harbours with different uses, as well as residential areas, commercial functions, squares, promenades, parks, hotels, kindergartens and schools. Furthermore, it is also closely located to the City Hall and the main train station. Hence, Hafencity has many qualities, which sets it apart from other similar urban redevelopment projects.

Along the Sandtorkai waterfront area, there are multi-functional water defence systems. The main function of the buildings is residential, with parking garages on the ground floor beside the flood wall (Fig. 45). In other words, these buildings use the same concept as in Katwijk, but with different combinations of functions.

Apart from that, there is also a building that uses its ground floor as a terrace cafe and restaurant (Fig. 45). It uses water proof glass walls on its ground floor. Hence, in times of flooding, the terrace cafe is closed, but the building’s ground floor is still safe and functional.
Architectural Study

Sunlight Exposure

This study explores the impacts of different building block and inner court’s sizes on sunlight exposures in the inner courts. It aims on determining which building block size gets the most sunlight exposure all year long.

The observed sizes of buildings range from 50 x 50 m to 80 x 80 m. The smallest building block’s dimension is referred to the smallest building blocks in Scheveningen. Apart from that, the observed buildings have the same length and width, which enables easier observations on the relations of building block sizes and inner courts’ sunlight exposure. All of the building blocks have a 10 m thickness on each side and 15 m (four storeys) height on all sides. Furthermore, sunlight exposure differences throughout the year are also observed to enable a more careful examination.

As seen from the figure above (Fig. 46), the bigger the building sizes are, the more sunlight exposure the inner courts gets. Building sizes from 70 x 70 m or bigger are desirable because they receive adequate amount of sunlight throughout the year. On the other hand, smaller building sizes often get no sunlight on certain times of the year.

Fig. 46. Sunlight exposure studies on various dimensions of building blocks and inner courts (Author 2011)
<table>
<thead>
<tr>
<th>Month</th>
<th>Dimension</th>
<th>Inner court</th>
<th>Building</th>
<th>Inner court</th>
<th>Building</th>
<th>Inner court</th>
</tr>
</thead>
<tbody>
<tr>
<td>July</td>
<td>50 x 50 m</td>
<td></td>
<td>60 x 60 m</td>
<td></td>
<td>70 x 70 m</td>
<td></td>
</tr>
<tr>
<td>August</td>
<td>20 x 20 m</td>
<td></td>
<td>30 x 30 m</td>
<td></td>
<td>40 x 40 m</td>
<td></td>
</tr>
<tr>
<td>September</td>
<td>40 x 40 m</td>
<td></td>
<td>80 x 80 m</td>
<td></td>
<td>50 x 50 m</td>
<td></td>
</tr>
<tr>
<td>October</td>
<td>30 x 30 m</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>November</td>
<td>50 x 50 m</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>December</td>
<td>60 x 60 m</td>
<td></td>
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</tbody>
</table>
Impacts on Streets Dimensions

The bigger the sizes of the building blocks are, the longer the streets surrounding them are. Shorter streets are preferable for pedestrians because they are less exhausting to walk from one corner to another. Additionally, shorter streets have more intersections with other streets, which result in more encounters of people and traffic, as well as assemblages of activities on the crossings.

This preference is in contrast with the preference of building blocks dimensions in relation to inner courts’ sunlight exposure. The bigger the building blocks are, the higher the sunlight exposure is but the lesser attractive the streets surrounding them are for pedestrians (Fig. 47). However, a middle solution can be taken by choosing measurements that are acceptable for both building occupants and pedestrians. They are building blocks no smaller than 60 x 60 m and bigger than 80 x 80 m, with streets no shorter than 66 m and longer than 86 m. Hence, both benefits for inner courts’ sunlight exposure and encouragement of vibrant street lives can be gained.

Fig. 47. The relations among preferable building blocks, sunlight exposures and street dimensions (Author 2011)
Conclusion

Water Defence

In order to protect Scheveningen Haven from flooding, there are two possible scenarios that can be explored. They are heightening the quay walls or the ground levels and application of a storm surge barrier.

Accessibility

1. Alteration of bus 23 route to connect Scheveningen Haven with Dorp and Bad.

2. Alteration of tram 17 route to connect the southern part of the harbour (the Harbour Golf, dunes and the Third Port area) to Den Haag’s inner city.

3. New development of parking garages on Houtrustweg and the Visafslag area to lessen the number of street parkings and car presences in Scheveningen Haven.

4. New bridges with sequential visual and spatial designs that provide pedestrian and car connectivities inside the harbour area.

Spatial Quality

1. Allocations of terrace cafes and restaurants on the sunny sides of the harbour.

2. Preservation of buildings that are historical, relatively new and in good conditions.

3. Preservation of waterfront diversities and employment of their spatial distinctions for commercial uses, especially on the Harbour Bay area.

4. Continuation of the boulevard character on the Visafslag area by constructing buildings on top of the dike. However, a high building density should be avoided to preserve the existing natural character of the area.

4. Complementary development types to the existing programs in Scheveningen. First, the revival of the old canal and preservations of historical buildings as a part of Holland Classics development type. Then, four and five star hotels, luxurious bungalows, high-class bed and breakfasts, as well as health centres are also developed as a part of Holland the Good Life.

Case Study

Allocations of parking garage on the water defence system’s ground level, with commercial uses facing the waterfront or beach and commercial or residential programs on top of it.

Architectural Study

In order to gain maximum inner courts’ sunlight exposure while encouraging vibrant street lives at the same time, the building blocks should be no smaller than 60 x 60 m and bigger than 80 x 80 m, with streets lengths no shorter than 66 m and longer than 86 m. Nevertheless, this measurements serve as indications only and should not used as a strict principle in the design process.
FOUR

Scenarios
Water Defence

Heightening the Quay Walls or the Ground Levels

This scenario aims for creating a new primary water defence line alongside the quay walls in Scheveningen Haven (Fig. 48). Hence, all of the quay walls should fulfill the required height for once in 10,000 years flood risk.

The current Scheveningen Haven quay walls vary between +2.5 to +6 m NAP high. In order to fulfill the desired water safety level, they need to be heightened into +7 m NAP. Therefore, all of the quay walls will elevated for 1 to 4.5 m.

Heightening the quay walls cause visual and spatial disconnectivities to the water. Thus, the harbours cannot function normally and Scheveningen Haven loses its major tourism attractions. For that reason, instead of heightening only the quay walls, the whole waterfront areas will be elevated.

The new waterfront areas, including the streets and pedestrian paths will be higher compared to the hinterland. The buildings along the waterfronts will also have different ground levels on different sides, with higher levels facing the waterfront areas. Accordingly, horizontal visual and spatial connections to the water can be maintained. However, vertical disconnections may still occur because of the low water level compared to the waterfronts’ (Fig. 49).

In addition, because most of Scheveningen Haven areas are surrounded by water, the heightened parts cover not only the waterfronts, but also the whole piers, which results in more cost involved (Fig. 49).
Fig. 49. Water defence scenario 1: the heightened areas and their connections to the water and the hinterland (Author 2011)
Applying a Storm Surge Barrier at the Harbour Mouth

This scenario aims for creating a new primary water defence line on the border of Scheveningen Haven area (Fig. 50). As a consequence, the water level inside the harbour area is also kept stable.

The storm surge barrier is placed on the harbour mouth to create the shortest primary water defence line possible in Scheveningen Haven. The longer the addition of the primary water defence is, the more expensive the cost will be. Furthermore, this location enables a full protection for the whole harbour area from flooding. Shortly, this option enables maximum protection in relation to the cost involved.

The storm surge barrier only needs to be closed two times a year during storms. For that reason, there is no need to construct an additional channel so that the ships can enter the harbour when the barrier is closed. During storms, almost no ships are sailing because of the high risk and danger. Shortly, the construction of a storm surge barrier will not detain the port activities in Scheveningen Haven.

This scenario requires a minimum height of + 3 m NAP for the quay walls. It means, some parts of the Second Port waterfront areas need to be heightened by 50 cm (Fig. 51). Nonetheless, this procedure can be done cheaply and easily since the building areas are located on + 3 m NAP and only the pedestrian and street parking areas has to be elevated.

The most suitable storm surge barrier for Scheveningen Haven is the segment barrier (De Boer 2011). This choice is made by a Multi Criteria Evaluation that quantify the qualitative as-

![Fig. 50. Water defence scenario 2: new primary water defence line (Author 2011)](image-url)
pects of the assessment criterias. The criteria includes feasibility, ease, durability, adaptability, maintenance, cost, aesthetics and required space of the barrier. In the end, a segment barrier is chosen because it is maintainable, efficient in power distribution, reliable and has a reference project.

As suggested by De Boer (2011), the design reference for Scheveningen Haven’s storm surge barrier is the segment barrier on the Thames River, United Kingdom. It keeps its gates under the sea floor, which will be rotated upwards when the barrier is closed (Fig. 52). Because of its massive dimensions and striking visual appearance, this storm surge barrier can also serve as the new landmark of Scheveningen Haven.

The construction of a similar storm surge barrier as seen in Thames River requires a structure between the harbour mouth due to the limitation of span. Nonetheless, this condition is acceptable in Scheveningen Haven. The harbour mouth’s width of 75 m is excessive for the harbour’s biggest ships two way traffic, where the width of 50 m is considered sufficient.

This scenario enables the maintenance of visual and spatial connections to the water. Moreover, it doesn’t require a massive urban reconstruction in the harbour area. Thus, this scenario is favorable in consideration of the benefits for the spatial aspect.

Fig. 51. Water defence scenario 2: the heightened waterfront areas (Author 2011)
Fig. 52. The Thames River’s storm surge barrier and its mechanism diagram (www.wikipedia.com 2012)
Program Arrangement

The major tourism destinations in Scheveningen district are located on the northern part of the harbour. Accordingly, a design proposal that concentrates tourism developments on the northern part of Scheveningen Haven is interesting to be explored. In this sections, several possibilities of program arrangements, especially the industries are investigated.

Industrial Areas on the Present Location

This scenario keeps the industries on the same location as they are now (Fig. 53). Henceforth, the northern harbour area is not free for tourism developments and there are some limitations for residential or commercial developments on this part. The industries produce stench and noises that may disturb the residents. Furthermore, they also prefer an isolated site, which is not mixed by other programs.

On the contrary, keeping the industries on their current location is necessary to retain the strong fisheries identity inside the harbour area. Besides, a working harbour also has its unique charm as an attractive tourism destination in Scheveningen Haven.

Fig. 53. Program arrangement scenario 1: the industries stay on the current location (Author 2011)
A New Industrial Area on the Previous Location of the Afvoerkanaal

In this scenario, the Harbour Golf area is developed into the new industrial site with a new industrial harbour on the previous location of the Afvoerkanaal (Fig. 54). Consequently, the Second Port area is available for residential and commercial developments without any restrictions. Then, a stronger spatial connection among tourism developments in Scheveningen Haven can be established.

The new industrial constructions cause ecological disturbances and degrade the natural image of the Westduinpark. The vast view of the dunes is replaced with a line of industrial buildings. The residents of Duindorp may also experience nuisances from the closely located industrial area. Hence, although this scenario endorses versatile developments on the northern harbour area, it degenerates the positive image and diminishes the residential and commercial developments potentials on the southern harbour area.

Fig. 54. Program arrangement scenario 2: A new Industrial area on the southern part of Scheveningen Haven (Author 2011)
A New Industrial Area on the Southern Part of Scheveningen Haven

In this scenario, the Westduinpark area is developed into the new industrial site with a new industrial harbour (Fig. 55). Thus, a stronger spatial connection of tourism developments on the northern part of Scheveningen Haven can be established, while the Duindorp residents are not disturbed by the close presence of an industrial site.

The new industrial and harbour constructions consume more dunes area than the previous scenario. It means that this scenario also causes more environmental damage than the previous alternative.

Besides, the new harbour alignment conflicts with the historical pattern of the Afvoerkanaal. Because this canal embodies Scheveningen Haven’s spirit of the place, the new harbour design disrupts the place identity of Scheveningen Haven. In short, even though this option causes less disturbances to the Duindorp residents, it results in more ecological loss and a disruption of Scheveningen Haven’s spirit of the place.

Fig. 55. Program arrangement scenario 3: A new industrial area on the southern part of Scheveningen Haven (Author 2011)
Conclusion

Water Defence

The chosen water defence system is by applying a storm surge barrier at the harbour mouth. This option is chosen because compared to heightening the quay walls or the ground levels, it features more construction feasibility, spatial and visual connections to the water, as well as preservations of the historical buildings and urban patterns. Moreover, it can serve as the new Scheveningen Haven landmark with its enormous and distinguished figure. It can also be a new tourism destination for tourists that are interested in Dutch water defence system, like in Maelantkering (a storm surge barrier in the Nieuwe Waterweg between Hoek van Holland and Maassluis, The Netherlands). Thus, this scenario is chosen because of its many advantages on various aspects (Fig. 56).

Construction

Easy to construct, almost without any alteration to the present waterfront areas.

Occasional technical failures may occur, which detain proper works of the storm surge barrier.

Flexible alterations for future water safety requirements.

Difficult to construct because it involves major reconstructions not only on the waterfronts, but also the whole areas of the piers.

Inflexible alterations for future water safety requirements.

Fig. 56. The comparison of water defence scenarios (Author 2011)
### Connectivity

- Strong vertical and horizontal connections to the water.

### Spatial Quality

- It may serve as the new Scheveningen Haven landmark.
- It can also be a new tourism destination for visitors that are interested in Dutch water defence system.
- It doesn’t consume much space on both land and water.

- Although a strong horizontal connection to the water is maintained, a weak vertical connection may result from the long distance between the quay’s ground level and the current water level.
- This option causes a major change on the current urban atmosphere in Scheveningen Haven.
- It may also disrupt the historical urban patterns and buildings in the harbour area.

### Cost

- The estimated construction cost is approximately 260 million Euro, based on a comparison between Scheveningen Haven and the Thames river’s development scale.
- The estimated construction cost is approximately 138 million Euro, based on a project reference of new quay walls construction in Boskoop, The Netherlands (2008).
Program Arrangement

In the end, the industrial area is kept on the current location because it offers more benefits and causes less nuisances compared to other options. By keeping the industries at the same place, Scheveningen Haven’s place identity is preserved, the Harbour Golf area is available for various types of developments, the natural image of Westduinpark is maintained, environmental damage and nuisances towards the Duindorp residents are avoided. In addition, the industrial site may also be an attractive tourism destination in Scheveningen Haven (Fig. 57). Therefore, the presence of industries on the First Port area should be seen positively and further employed for tourism development in Scheveningen Haven.

Place Identity

Scheveningen Haven’s place identity is preserved because the industrial area stay at the same place.

The place identity is weakened because the fisheries that symbolize Scheveningen Haven are retreated outside of the harbour area.

The natural image of the Westduinpark and the southern beach area are degenerated by the presence of industries.

Scheveningen Haven’s place identity is severely disrupted because the fisheries are moved out from the harbour area and the Afvoerkanaal historical pattern is distorted.

The Westduinpark and the southern beach’s natural image are corrupted by the newly built industrial area.

Fig. 57. The comparison of program arrangement scenarios (Author 2011)
Nuisances

Nuisances occur only on the surrounding area of the First Port, where there are less residential and commercial buildings compared to other areas in Scheveningen Haven.

The Duindorp residents as well as the Westduinpark and the southern beach visitors may get disturbed by the closely located industrial area.

The Westduinpark and the southern beach visitors may experience nuisances from the closely located industrial area.

Future Development

No relocation cost involved.

The Harbour Golf area is available for diverse types of developments.

A huge cost is required for the industrial relocation and the new harbour construction.

The First Port area is available for various development types.

A huge cost is also needed for the industrial relocation and the new harbour construction.

The First Port area is available for diverse development types as well.

Environment

The Westduinpark is left undisturbed and no environmental damage is done.

The construction of the new industrial area and the harbour causes ecological damage to the Westduinpark.

A more severe environmental damage is done to the Westduinpark area because this scenario consumes more dunes areas for new industrial and harbour constructions compared to the previous option.
FIVE

Design
Design Strategy

Design strategies are employed to reach the project aim, which is to design Scheveningen Haven as a safe, accessible, attractive and lively tourism destination. They are based on the design guidelines, references, frameworks and explorations that are previously done in this project.

The strategies are categorized into three aspects: water defence, accessibility and spatial quality. Then, accessibility and spatial quality aspects are again divided into several themes that are related to the main topics. Thus, this project has cohesive and comprehensive design strategies.

Storm Surge Barrier

Application of a segment storm surge barrier.

Public Transport

Alteration of bus 23 to connect Scheveningen Haven with Dorp and Bad.

Alteration of tram 17 to connect Scheveningen Haven with Den Haag’s inner city.
Houtrustweg and Visser-shavenweg as the main entrances to the harbour area.

Decrease car street parking numbers and increase bike parking places.

New bridges constructions to improve pedestrian connectivities in the harbour area.

Allocation of parking garages on Houtrustweg and Visafslagweg.
Revival of the Afvoerkanaal to recover Scheveningen Haven’s spirit of the place.

Maintenance of the industrial area on the same place.

Preservation of historical, well functioning and new buildings in the harbour area.
Continuation of the boulevard character on the Visafslag area.

Commercial developments are concentrated on the Harbour Bay and the Visafslag area.

The streets should be between 66 to 86 m long to encourage vibrant urban atmospheres.

Preservation of waterfronts’ spatial diversities.

Wellness programs developments to complement the currently available functions.

Creation of mixed use area to encourage vibrant public spaces.

Building lengths of 60 to 80 m to ensure maximum sunlight exposure on the inner courts.

Transitional zones from public to private areas.
Master Plan

The new developments in Scheveningen Haven cover prominent tourism functions on the Harbour Bay area, a quiet residential area on the Harbour Golf area, the Afvoerkanaal revival with buildings alongside the Westduinpark, the multi-functional water defence system on the Visafslag area, the densification of the industrial area and commercial developments on the Second Port waterfront area.

New bus and tram lines are also introduced to improve the public transport accessibility of the harbour area, especially to the southern Scheveningen beach and the Harbour Bay beach.
F.A.S.T.
Beach Sports Stadium
Residential Building
Restaurant / Cafe / Bar
Hotel & Wellness Centre
Shops
Governmental Building
The Fisheries Centre
Industrial Building
New Bus 23 Track
New Tram 11 Track
Programs

The Harbour Bay area is developed into the new tourism and commercial centre of Scheveningen Haven, with four and five star hotels, commercial and residential functions, as well as a wellness centre. Additionally, the beach is opened for public with an addition of a pier going towards the water.

The Harbour Golf area is developed into a quiet residential area facing the Third Port. On the entrance of this area, there is a square that accommodates various shops and restaurants, bars or cafes specially intended for daily needs of the local residents.

On the other hand, the Afvoerkanaal is revived towards the Third Port and opened as a recreational public space for local residents. A hotel is also built on the side of the Westduinpark, which provides a direct connection from the Houtrustweg to the dunes. Furthermore, a residential tower that serves as the new landmark and enlivens the existing dunes landscape is also added.

The Visafslag area is further developed with a multi-functional water defence system that accommodates residential and commercial functions, as well as underground parking garages. The Visafslag is mainly converted into the Fisheries Centre, an educational and leisure centre of fish and fisheries in Scheveningen, while a small part of it is maintained as the loading area and temporary storage for the small fishing ships. The beach stadium is moved to the hinterland and made into a permanent building, while the F.A.S.T. compound is allocated at the beach, alongside the beach pavilions.

The new KNRM and commercial building at the Third Port area are incorporated into the water defence system.
while providing a new man-made landscape, building frontages and activities to the area.

New commercial buildings are added alongside the Second Port waterfront with various types of commercial functions. The shops alongside this waterfront are mostly dedicated for the local businesses. The local entrepreneurs can rent them for a lower price. Therefore, the local economy is also fostered through the harbour development.

Two squares are provided on the harbour entrance and the bridge entrance area. They enhance the significance of the place and the importance of the areas surrounding them. On the other hand, some street parkings on this area are preserved for short duration visitors. Hence, they can only be used for less than four hours parking.

Lastly, the industrial area is further extended with mixed-use buildings alongside the eastern waterfront. The industrial buildings are also incorporated with new commercial functions near the bridge to provide more active building frontages and enhance the place’s significance.
Water Defence System

The new water defence system allows a full protection of the harbour area (Fig. 58). It consists of a storm surge barrier, a multi-functional water defence, movable on-land flood gates and the dunes along the boulevard.

The multi-functional water defence that is combined with residential and commercial functions, as well as underground parking garages provides the height to form the required protection. The buildings along this line are also used as a water defence system, with waterproof walls, windows and openings. Additionally, movable on-land flood gates are added to provide flood protection between the buildings.

Fig. 58. The new primary water defence line (Author 2012)
New Industrial Harbour’s Loading and Storage Facilities
F.A.S.T.
Beach Sports Stadium
Residential Building
Restaurant / Cafe / Bar
Hotel & Wellness Centre
Shops
Governmental Building
The Fisheries Centre
Industrial Building
New Bus 23 Track
New Tram 11 Track
Harbour

In the mean time, the new Afvoerkanaal area is designed to be an open public space for the surrounding residents and tourists. Nevertheless, it can be easily altered to suit unpredicted future needs for an industrial harbour or a yacht marina.

The Afvoerkanaal as an Industrial Harbour

In the future, if the fisheries industries are growing and there is a demand for a new industrial harbour, the Afvoerkanaal can be converted into one. According to the previously conducted research, the number of cutters is growing and there is also a tendency that the trawlers are replaced by them. Because of that, the new harbour at the Afvoerkanaal is designed for cutters, not trawlers. In addition, storages are also prepared alongside the waterfront, where the fishermen can temporarily keep the fishes before distributing them to other places. Lastly, because the harbour and its activities doesn’t involve heavy industries and machineries, it doesn’t produce disturbing noise or pollution.

Despite the new harbour development, the existing Third Port area is maintained and able to operate normally as the KNRM headquarter. Thus, there is no need to remove or replace its function to another place in Scheveningen Haven.
New Yacht Marina’s Passantenhaven Facilities
F.A.S.T.
Beach Sports Stadium
Residential Building
Restaurant / Cafe / Bar
Hotel & Wellness Centre
Shops
Governmental Building
The Fisheries Centre
Industrial Building
New Bus 23 Track
New Tram 11 Track
The Afvoerkanaal as a Yacht Marina

In case that the demand for yacht marina is growing and there is a need for an expansion, the Afvoerkanaal can also be converted into one. It can operate as both a vastelichtplaats (a permanent yacht berth) and a passantenhaven (a transit harbour for travelling yachts), which accommodates yachts from nine to 30 m length. In addition, facilities such as toilets, shower rooms, kitchens, laundry rooms, electricity and internet connection are also provided inside the waterfront buildings.

If the new Afvoerkanaal area becomes a popular passantenhaven, there will be a constant flow of tourists coming by yachts. This situation may further enliven the southern harbour area and encourage the tourism development in Scheveningen Haven. That is why the Afvoerkanaal development as a yacht marina is more favorable from the tourism point of view.

In this scenario, the Third Port is maintained and able to function well in spite of the yacht marina development. Hence, there is also no need to remove or replace it to another place in Scheveningen Haven.
Fig. 59. The new and existing public transport lines to Scheveningen Haven (Author 2012)
Public Transport

Tram 17 and bus 23's line are altered to provide a direct public transport connection to Scheveningen Haven, especially to its important spots (Fig. 59).

Tram 17 line is extended to the south part of the harbour, with new stops on the Westduinweg, Houtrustweg (the harbour area main entrance) and the southern Scheveningen beach. These areas are chosen because of their significance as tourism destinations and strategic locations with a higher street integration level.

Bus 23 line is altered to pass through the harbour area with stops on the Houtrustweg, the Harbour Bay area (the new tourism centre of Scheveningen Haven) and the industrial area entrance.

The new public transport lines improves the public transport accessibility to both the northern and southern part of the harbour. The new bus 23 increases the connectivity of Scheveningen Haven with Scheveningen Dorp and Bad. In addition, the new tram 17 directly connects Scheveningen Haven with Den Haag's inner city. The improved connectivity increases also strengthen their positions and encourage movements among the tourism destinations.

The new public transport lines can also be combined with the existing tram 15 that connects the P+R facility with Den Haag's Centraal Station. the visitors can now visit Scheveningen Haven from the P+R building with the tram 15 and 17.
Car and Parking

Woonerf areas, where pedestrians are prioritised over cars are assigned on the Visafslag, the Harbour Golf, Bay and the Second Port waterfront areas (Fig. 60). While most of the street parkings are abolished, some of them are still maintained for short term (less than four hours) parking needs. The car presence in Scheveningen Haven is limited, so that the residents and visitors can roam around freely without the threat from cars. Furthermore, children can also play safely with minimum supervision from adults. This situation provides a conducive environment for vibrant public space, where pedestrian life and activities are encouraged over other street users.

Semi-underground parking garages are incorporated to the new building blocks (Fig. 61). They fulfill the parking needs of the residents without expanding the number of street parkings. This solution is chosen because it is cheaper compared to underground parking garages although it has the same benefit. Moreover, it can also provide continuous building frontages that are necessary for eyes on the street provision, spatial and visual connections from the buildings to the streets. Thus, the conducive situation for vibrant public space creation is also provided.

Fig. 60. The harbour’s car entrances, parking places and woonerf areas (Author 2012)
Fig. 61. Semi underground parking garages for closed and linear building blocks (Author 2011)
Fig. 62. The harbour’s car entrances, parking places and woonerf areas (Author 2012)
Pedestrian Passageway

In order to improve the pedestrian accessibility to the harbour area, two types of passageways are introduced in this project (Fig. 62).

Passageway through a Building

This passageway is found at the Visaf slag, the industrial buildings and a residential building on the Kranenburgweg. This corridor is made through the existing buildings and its sides are converted into building frontages to provide eyes on the street. A street corridor in Berlin is used as the design reference of this passageway (Fig. 63).

Passageway with an Inner Court

This passageway is found at the building blocks on the Treilerweg and the Korbootstraat (Fig. x). The passageway cross not only the building, but also the inner court inside the building block. Since this passageway will be used by the public, an opportunity to put commercial functions inside it arises. Thus, inside the inner court, a small shop, restaurant or cafe can be found. The design reference of this corridor is an inner court with a commercial function in Berlin (Fig. 63).
Fig. 63. Design reference for the passageway through a building (top) and the passageway with an inner court (bottom)
Design Description

The designed area can be classified into five different parts according to their spatial characters. They are the eastern waterfront of the Second Port, the industrial site, the Visafslag area, the Harbour Golf and the Harbour Bay area (Fig. 64).
Fig. 65. The eastern waterfront of the Second Port’s plan (Author 2012)
1. The Eastern Waterfront of the Second Port

This area is located on the eastern part of the harbour (Fig. 65). There are two waterfront types in this area. First, commercial buildings and active frontages alongside the waterfront. Second, the open space waterfront area with green areas and street parkings (Fig. 66).

In addition, there are two squares that serve as welcoming areas to the harbour and the bridge. The design concept of the harbour entrance square is water. The presence of small pool and fountain on this square serves as a transitional medium between the hinterland to the harbour (Fig. 67). On the other hand, the design concept of the other square is light (Fig. 68), where extensive lighting is given during the night. The area is important because of the bridge that connects the eastern and western part of the harbour. Because of that, a striking visual appearance is needed to signify the importance of this area.
Fig. 66. Section A (top) and section B (bottom) (Author 2012)
Various activities alongside the waterfront.
Square concrete tiles as the square’s pavement material.  

Fig. 67. Design reference for the water square

A pond that blends with the pedestrian area (Innichen, Austria).

The fountains and pond as children’s playing arena.

The use of different materials to stimulate a richer spatial experience.

The sky reflection by the water contributes to the visual and spatial character of the area.

The use of various materials to enrich the spatial quality of the area.

Square concrete tiles as the square’s pavement material.
Square brick tiles as the square’s pavement material.

And at night time as well (Curfa jev square, Jesenice, Slovenia).

Water fountains as a visual attraction during daylight (Curfa jev square, Jesenice, Slovenia).

Multi-functional colorful urban furnitures (Museum Quarter, Vienna).

Various night time lightings of the fountains (Chartres, France).

Square brick tiles as the square’s pavement material.

Fig. 68. Design reference for the light square
Fig. 69. The industrial site's plan (Author 2012)
2. The Industrial Site

This area is further developed with the expansion of the mixed use buildings alongside the eastern waterfront area and new commercial functions on the existing industrial buildings (Fig. 69). They increase the number of active building frontages and strengthen the sense of place on this area.

The industrial buildings near the bridge are converted into commercial functions. For example, fish shops that sell the products from the industries behind them. This conversion is done to signify the importance of this spot as the entrance of the bridge, the connection to other piers in the harbour. On the other hand, urban furnitures are also added along side the eastern waterfront to further engage and attract visitors to this place (Fig. 70).

The existing buildings in this area use brick as the facade material. However, various types of materials are introduced for the new buildings, in order to enrich the visual and spatial qualities (Fig. 71). Furthermore, they also contribute to the visual attraction of the area, which then encourages the creation of vibrant public life.
The waterfront promenade

Sitting places along the waterfront

Green area along the waterfront

Fig. 70. Section C (Author 2012)
Commercial activities along the waterfront

Diverse architectural waterfront building styles

The use of lighting along the waterfront as a night attraction
The existing building facade material, brick.

Combination of several materials for the building facade.

Uneven glass surface that reflects its surroundings.

Various colors for the building facade.

The use of wooden material on the facade design.

Combination of several materials for the building facade.

Balconies as a part of the building facade design.

Fig. 71. Reference for the building facade design on the eastern side of the Second Port
Key Projects

The Visafslag, the Harbour Golf and the Harbour Bay are considered as the key areas in this project because of the important functions they accommodate.

3. The Visafslag Area

The Visafslag area is an important part of this project because it accommodates various prominent functions, such as the Fisheries centre, the multi-functional water defence system, the beach stadium, the F.A.S.T. compound, the beach pavilions and the loading dock and fish storage (Fig. 72). Furthermore, it is also the ending part of the northern side of the boulevard before it crosses the harbour mouth towards the dunes. That is why this area is significant because of its functions and spatial notions.

The Visafslag is mostly converted into the Fisheries Centre, an educational and recreational centre of fisheries in Scheveningen. The parking lot in front of it is also converted into a public square with urban furnitures for various kinds of outdoor activities (Fig. 73). In other words, this area is designed to be pedestrian friendly and conducive for a vibrant public space creation.

At night, the Visafslag building facade is lit up with colorful lightings. The building frontages become the visual attractions for pedestrians. Hence, pedestrians still feel engaged with the building and the area, which encourages an active urban life at any time of the day (Fig. 74).

The multi-functional water defence system consists of an underground parking garage with residential and commercial functions on top of it. The building is designed like a mountain,
Fig. 72. The Visafslag's plan (Author 2012)
with a reference of the mountain dwelling in Copenhagen, Denmark by BIG architects. The descending building units configuration allows gradual visual and spatial changes from the pier to the top of the dike. Furthermore, some paths are opened for public, where they can climb the building to reach the dike, continued with steps towards the beach. Thus, this building serves as a connector and a transitional zone between the harbour, the dike and the beach.

This building provides active frontages on top of the dike with residential and commercial functions (Fig. 75). The presence of buildings along the dike continues the previous spatial pattern of the boulevard and strengthens the visual and spatial connection from the beach to the harbour area. As a result, this boulevard part has a more comprehensive spatial character in relation to other parts of the boulevard with its own character.

Some street parkings are maintained especially for surfers, so that they will have less difficulties in transporting their sports equipments from cars to F.A.S.T. compound or the beach. This easiness is one of the reasons why this part of the beach is attractive as a water sports venue. Moreover, the street parking is also preserved to continue the spatial pattern of the previous boulevard part on this area.

The presence of buildings on top of the dike and beach pavilions is limited in order to preserve the existing natural character of the boulevard. The new developments are intended to strengthen the place identity and spatial relation to its surrounding urban context. For that reason, the spatial atmosphere of this boulevard part is not altered heavily.

The residential buildings’ inner courts are accessible for public. It creates a linear connection of northern and southern part of the area, from one end of the residential area to the beach stadium location. Continuous visual and spatial continuity are maintained in this green stripe in order to preserve the continuity, as well as to encourage pedestrian movement from one point to another.
Attractive building facade lighting design (Frigoriferi Milanesi, Milan)

The Fisheries Centre’s front court as the venue of various kinds of public activities
The incorporation of lighting to the pavement design (Place du Molard, Geneva)

Diverse architectural design for the residential buildings' facades (Java Eiland, Amsterdam)

Semi public continuous inner courts
Fig. 73. Section D (Author 2012)

BIG architect’s mountain dwelling as the design reference (Copenhagen, Denmark)
The sea dike as a destination in Scheveningen Haven

Beach promenade as the continuation of the boulevard

Attractions along the coastal line
Fig. 74. Impression of the Fisheries Centre’s front court (Author 2012)
Fig. 75. Impression of the sea dike’s upper area (Author 2012)
Fig. 76. The Harbour Golf’s plan (Author 2012)
4. The Harbour Golf Area

The Harbour Golf area is developed into a quiet residential area facing the Third Port (Fig. 76). A square that serves as the neighbourhood centre is designed at the entrance area of the residents. It accommodates various kinds of public activities, along with shops for daily needs and restaurants for local residents (Fig. 77).

The new Afvoerkanaal area is opened as an open green public space (Fig. 78). The canal area has several spatial characters that form the spatial sequence from the existing Afvoerkanaal to the Third Port. The new Afvoerkanaal’s ground level is ascending from the existing Afvoerkanaal’s ground level to the water surface level of the Third Port. Thus, the spatial sequence of different parts is strengthened and the spatial uniformity of the canal is also broken.

A waterfall is designed at the end of the Afvoerkanaal that faces the Third Port. Thus, there is an impression that the sea water from the Third Port overflows to the new Afvoerkanaal (Fig. 79).

The residential buildings on the Harbour Golf area are designed with white or light colored facades. White or light colored building materials are the manifestation of Scheveningen Haven’s place identity. The use of balconies are also recommended to establish visual connections between the buildings’ occupants and the street users. Lastly, high variations of architectural designs are desired to provide rich spatial experience and attractions on the area (Fig. 80).

At the end of the road from the square towards the waterfront, steps that serve as an ending point and a sitting place are provided. Steps that go towards the water are also provided on the eastern waterfront area as an ending point of the street that connects the dune, the new Afvoerkanaal and the Harbour Golf area.

Along the Westduinpark, there are a hotel and an apartment tower. Both of them serve as transitional zones from the dunes landscape to the hinterland. The same goes with the new Afvoerkanaal. It also serves as the transitional zone between the dunes and the harbour area.

ESO Hotel on Atacama Desert, Chile is used as a design reference for the dunes hotel’s architectural design (Fig. 81). The brown wooden material of the building facade is in tune with the color and landscape of the Westduinpark, which then provides a spatial sequence from the dunes to the hinterland.

The hotel uses the same system as the Visafslag’s residential building. It has an underground parking garage with ascending building units that are accessible for public to reach the dunes. It is also an ending point of the route from the eastern Harbour Golf waterfront to the dunes (Fig. 82). Thus, pedestrians can easily visit the dunes from the waterfront areas or the Harbour Golf area.

On top of the building, an open public space is provided for building users and visitors. Therefore, they can sit on the available benches and enjoy the sceneries of the dunes (Fig. 83).
Fig. 77. Impression of the neighbourhood centre on the Harbour Golf area (Author 2012)
A natural atmosphere as the first spatial sequence from the existing Afvoerkanaal line.

Cheonggyecheon River (Seoul, South Korea) as the design reference of the new Afvoerkanaal.

The existing Afvoerkanaal.
The pedestrian bridge across the canal

Pedestrian paths on both sides of the canal on day light

And the lighting at night time
Bridges connect the areas on both sides of the canal.

The use of fountains to create attractions on the next spatial sequence of the canal.

The floating fountain by Isamu Noguchi as the design reference.
The waterfront at the end of the canal with lighting at night time

The canal area as a venue of various kinds of public events
The Turning Torso in Malmo, Sweden as the tower’s design reference.
The Westduinpark as a natural tourism destination

The tower becomes a landmark and a point of visual reference in the dunes area

The visual connection between the dunes and the beach
Fig. 79. Impression of the Afvoerkanaal area near the Third Port (Author 2012)
Diverse architectural styles with light colored building facades.

Steps and promenades along the Third Port’s waterfront area.

Steps going towards the water on the eastern waterfront side.

White or light colored building facades as the embodiment of the harbour’s place identity.

Balconies to maintain visual connections between building occupants and street users.

Fig. 80. Architectural and urban design reference for the residential buildings on the Harbour Golf area
ESO Hotel's brown wooden material forms the building's gridon facade unit.

Fig. 81. Reference for the dunes hotel's architectural design (Author 2012)
Fig. 82. Section F (Author 2012)
Fig. 83. Impression of the dunes hotel’s rooftop public area (Author 2012)
Fig. 84. The Harbour Bay’s plan (Author 2012)
5. The Harbour Bay Area

The Harbour Bay area is the new tourism centre in Scheveningen Haven (Fig. 84). It accommodates the four and five star hotels, the high class bed and breakfasts, the wellness centres, as well as shops, restaurants, cafes and restaurants. The hotels face the bay, where the users can enjoy the view of the beach, the sea, the Harbour Golf area and the harbour mouth. The shops are located near the bridge, where many pedestrians are expected to pass the streets. On the other hand, the restaurants, bars and cafes are located at the end of the pier, which is the sunny side of the harbour. Therefore, the visitors can enjoy the expansive view of the sea on the harbour mouth and the warm sunlight on sunny days.

The beach, which is the heart of this area is surrounded with all of the buildings. The steps form a linear connection from one side of the pier to another, while the buildings form the skyline of this area (Fig. 85). Because of its unique spatial character and location, the beach is also expected to be a popular tourism destination in Scheveningen Haven (Fig. 86).

The new buildings in this area should have diverse architectural styles and designs. Various kinds of building materials and facade designs are also encouraged to promote visual and spatial attractions, which then endorse the creation of vibrant public space on the Harbour Bay area.
The beach as a tourism destination

Sitting area and promenade along the bay

Fig. 85. Section F (Author 2012)
Various references for the surrounding buildings’ architectural designs
Fig. 86. Impression of the beach on the Harbour Bay area (Author 2012)
Conclusion

Personal Reflection

The main goal of this project is to provide an urban design in Scheveningen Haven with the focus of tourism development. Although design may be the most important aspect in this project, it certainly is not the only significant one. Research and strategy have a great influence in shaping the project framework and determining design decisions. Hence, this project should not be viewed as a design project only, but also as a research and planning project as well.

Research, planning and design are often viewed as separate entities in urban projects. In many cases, their contributions are not well regulated, which results in disconnections among available information, chosen strategies and built designs. This situation is intriguing for me because I believe that a good research helps constructing a strong strategy and then, a successful design. That is why I decide to explore the comprehensive use of research, strategy and design in this project.

As a result, I acknowledge the importance of a comprehensive research in building the project framework. Without coherent and integral information, confusions and indecisiveness about the project direction may arise. Furthermore, a design project without strong strategies may lack integrations among its design entities. Thus, an integrated approach to research, planning and design is absolutely inevitable in any urban projects.

Recommendations for Other Water Defence Related Urban Projects

This project is unique because it combines not only water defence, accessibility and spatial aspects, but also other issues, such as urban historical development, place identity, harbour activities and tourism development. However, there is still a general lesson that can be learned from this project.

The causal effects relationship among research, strategy and design (Fig. 87) should be acknowledged. A comprehensive research is necessary to generate strong spatial strategies and later, a convincing design. Nevertheless, priorities are also essential in determining project steps and design decisions, although all of them share the same amount of importance.

The Next Step

This project focuses on the local rather than the global scale. Because of that, there is an opportunity to further develop this project with spatial strategies in regarding the tourism destinations on the bigger scales. For example, the seaside resorts in The Netherlands and along the North Sea.

Other issues that are important on the bigger scales should also be included, such as landscape design and environmental aspects. However, because of the large scale this project will cover, spatial strategy will have more prominent role compared to urban design.
Fig. 87. The causal effects relationship among research, strategy and design (Author 2012)
Six

Evaluation
## WATER DEFENCE SYSTEM

The whole harbour area is protected with once to 10,000 years flood risk, which matches the Rijkswaterstaat’s standard.

The new storm surge barrier becomes the new landmark and tourism attraction in Scheveningen Haven, which may attract more and new groups of visitors.

The new water defence system is expensive. It also covers the whole harbour’s beachfront area, where its development may cause nuisances for residents and visitors during an extensive construction period.

## HARBOUR

### The Third Port Alteration and Development

Completion of the Afvoerkanaal’s revival, the historical urban pattern in Scheveningen Haven.

Preparation for the Harbour Golf area development and the unpredictable future needs, where more industrial harbour or yacht marina area are needed.

The alteration is costly and extensive, which makes it inflexible for different future scenarios than what are already predicted.

## The Afvoerkanaal Development

Revives the historical urban pattern and strengthens the place identity of the area.

Creates an attractive public space for the surrounding residents of the area.

Anticipates the future needs for a new industrial harbour or a yacht marina.

Because its construction is costly and extensive, it is not flexible for different future scenarios that what are already predicted.

It consumes the Harbour Golf’s business area.

## PUBLIC TRANSPORT

### Tram 17 Alteration

Provides a direct public transport connection from Den Haag’s inner city to the southern harbour area.

Increase the visibility, accessibility and prominence of Scheveningen Haven in Den Haag’s urban context.

The tram line construction is costly and consumes the car space on the road.
<table>
<thead>
<tr>
<th>Opportunity</th>
<th>Threat</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>The new storm surge barrier and water defence system may enhance the uniqueness of Scheveningen Haven as a seaside tourism destination in The Netherlands.</td>
<td>Scheveningen Haven’s economical value may not increase much in the future. Hence, the water defence system will have a low cost-benefit value, where the cost is considered excessive considering the gained profits.</td>
<td>Medium priority level because its urgency is unknown. However, considering the current sea level and future assumption, the need for a new water defence system may arise in 20 to 30 years.</td>
</tr>
<tr>
<td>The new Third Port area can be easily combined with an industrial harbour or a yacht marina, which future need is unpredictable.</td>
<td>The extensive alteration on the Third Port area may cause disruptions and nuisances for the harbour activities, residents and visitors of the area.</td>
<td>High priority level. The Third Port alteration is inseparable from the Afvoerkanaal development. Hence, the Third Port alteration starts before or during the canal’s development.</td>
</tr>
<tr>
<td>The new Afvoerkanaal area can be actively used for various public activities. Hence, it may be the new centre of public space of this area. It may also increase the attractiveness and economical value of its surroundings.</td>
<td>Like the existing Afvoerkanaal, the new canal area may be deserted. Then, it results in an urban void, which decreases the spatial attractiveness of this area.</td>
<td>High priority level because it is a part of Den Haag's historical urban pattern. Moreover, it may also encourage the economical and spatial developments in its surroundings.</td>
</tr>
<tr>
<td>The improved accessibility may attract more visitors and commercial development opportunities that result in the increasing economical value of the southern harbour area and its surroundings.</td>
<td>The new tram line may attract more tourists to the southern Scheveningen beach that is now mostly visited by Den Haag’s residents. Thus, the exclusivity of the beach decreases, which can result in the destination’s diminishing attractiveness.</td>
<td>Medium priority level because there may be a low passenger number at the end of the line. For that reason, the tram alteration should be done during or after the construction period of the Harbour Golf’s residential area or the dunes hotel.</td>
</tr>
</tbody>
</table>
CAR AND PARKING

The Woonerf Area

The designation of woonerf area improves the pedestrians’ feeling of traffic safety and freedom.

The car presence contributes to the eyes on the street and the sense of safety, especially at night.

The New Car Routes and Parking Garages, along with the Street Parkings Reduction

The assignation of car route and parking areas concentrates the car traffic on the Houtrustweg and the Visafslagweg, which then lowers the car densities on other places in Scheveningen Haven.

Because the semi-underground parking garages constructions increase the development cost of the new buildings in Scheveningen Haven.

Strength

Weakness

Bus 23 Alteration

Provides a direct connection from the centre of Scheveningen Haven to Dorp, Bad and other places in Den Haag.

Because of the alteration, there is no direct bus connection from the eastern harbour area to Duindorp as well as other places in Scheveningen and Den Haag.

The Harbour Mouth Bridge

Provides a continuous boulevard route to the southern Scheveningen beach and an uninterrupted pedestrian route alongside the North Sea.

It doesn’t improve the street integration level on other locations than its own.

Strength

Weakness
<table>
<thead>
<tr>
<th>Opportunity</th>
<th>Threat</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>The improved connectivity among tourism destinations in Haven, Dorp and Bad may encourage tourists’ movements and increase the number of visits and developments among these places.</td>
<td>During the low tourism season, there may be a low number of passengers along the line of Scheveningen Haven, Dorp and Bad.</td>
<td>Low priority level. Currently, there is only a small number of destinations and potential passengers along the new route. Therefore, the application of the new route shall start after the Harbour Golf, Bay or the industrial area has enough attractions or densities to use the new public transport.</td>
</tr>
<tr>
<td>The increased feeling of traffic safety and freedom may encourage more pedestrian activities and a public space vibrancy.</td>
<td>The slower car traffic may create a bottleneck effect in Scheveningen Haven, which may cause traffic jams.</td>
<td>High priority level. The woonerf area can be assigned easily. In addition, it may greatly improve the pedestrian activities and public space qualities.</td>
</tr>
<tr>
<td>The areas around the car routes and parking garages can be further developed with commercial programs because of the high number of car traffic and visual exposure, which are favorable for business developments.</td>
<td>The street parkings reduction in the harbour area may decrease the convenience level of car users since they cannot park their cars directly on their destinations.</td>
<td>Low priority level. The new parking garages are constructed after there is enough attractions, activities or parking demands in Scheveningen Haven. After that, the new car routes are assigned and street parkings are eliminated. Hence, there is no lack of parking places in the harbour area.</td>
</tr>
<tr>
<td>The new bridge may encourage tourists’ mobility and endorse the natural tourism development alongside the coastline</td>
<td>Because it is located on the harbour mouth, it may be vulnerable towards the sea storm. For that reason, it needs to have a sturdy construction.</td>
<td>High priority level. Its construction may open new tourism and development opportunities along the coastline.</td>
</tr>
</tbody>
</table>
## Bridge 2
The First and Second Port Bridge

**Strength**
Strengthens the connectivity between the Visafslag and the Harbour Bay area.

**Weakness**
This bridge is considered redundant due to Bridge 1’s construction that is located closely to Bridge 2.

## Bridge 3
The Northern and Southern Part of the Second Port Bridge

**Strength**
Strengthens the connection between Scheveningen Haven and Dorp, as well as the northern and southern part of Scheveningen district.

**Weakness**
This bridge construction may be more expensive compared to others because it accommodates both car and pedestrian traffic.

## Bridge 4
The Eastern and Western Part of the Second Port Bridge

**Strength**
Strengthens the connection between Scheveningen Haven and Dorp along the northern waterfront area of Doctor Le-Lykade and the Harbour Bay, as well as the Vissershavenweg with a lesser impact compared to Bridge 3.

**Weakness**
The street integration levels are increased on the areas that are intended to be less developed. In other words, this bridge’s impacts do not match the design purposes.

## Bridge 5
The Afvoerkanaal Bridge

**Strength**
Provides an East-West connection on the Third Port.

**Weakness**
This bridge doesn’t improve the street integration level on other places than its location.
<table>
<thead>
<tr>
<th>Opportunity</th>
<th>Threat</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>The increased accessibility and connectivity may encourage more mobility from each part. Then, more pedestrian exposures may endorse new businesses or constructions in the Visafslag and the Harbour Bay area.</td>
<td>It may detain the water traffic for industrial ships that are going in and out from the First Port, as well as the yachts on the Second Port.</td>
<td>Because this bridge is considered redundant, it should not be built.</td>
</tr>
<tr>
<td>The improved connectivity among the Westduinpark, Scheveningen Haven, Dorp and Bad may bring tourism or development opportunities that are previously unthinkable.</td>
<td>The improved car connectivity from the northern to southern part of Scheveningen district may encourage more car traffic.</td>
<td>High priority level. The same with Bridge 1, Bridge 2 has larger impacts on bigger scales.</td>
</tr>
<tr>
<td>The northern waterfront area of Doctor Lelykade and the Harbour Bay, as well as the Vissershavenweg may be commercially developed due to their improved street integration levels.</td>
<td>The northern waterfront area and the Vissershavenweg may be overcrowded with unintended new commercial developments.</td>
<td>Because this bridge and its impacts are considered unnecessary, it should not be built.</td>
</tr>
<tr>
<td>This bridge may serve as one of the new landmarks and visual attractions on the southern part of Scheveningen Haven.</td>
<td>Its presence may detain the Third Port activities, where ships have to wait for the bridge to open in order to reach the inner harbour area.</td>
<td>This bridge is totally unnecessary because of its limited impacts on the street integration level. Because it has a low cost - benefit value, it should not be built.</td>
</tr>
</tbody>
</table>
**Strength**

The Eastern Waterfront of the Second Port

Commercial Buildings

The new commercial developments encourage more pedestrian activities, which are essential to create the vibrant public area.

They also anticipate the growing demands for more commercial functions along the waterfront, such as yacht clubs, terrace restaurants and cafes.

**Weakness**

The passageway construction change the original design of the Visafslag building. This act may be unfavourable due to its historical value.

**Strength**

The Passageways on the Visafslag Building

Passageway 1

Provides a direct connection from the Visafslag building to the First Port. Moreover, it maintains visual and spatial connections from the Visafslagweg to the waterfront area, which may improve its spatial quality.

**Weakness**

The construction can be costly because the passageway is relatively long (80 m).

**Strength**

The Passageways on the Industrial Buildings

Passageway 2

Improves the integration level of some western waterfront parts of industrial area and the Vissershavenweg.

**Weakness**

Because the building blocks are privately owned, the construction of this passageway can be difficult to realise.

**Strength**

The Passageways on the Residential Blocks of the Treilerweg and the Vissershavenweg

Passageway 3

Improves the connection between Scheveningen Dorp and Haven.

**Weakness**

The new commercial developments change the visual and spatial characteristics of the southern waterfront area, which may be an attractive point for visitors.

**Strength**

**PEDESTRIAN PASSAGeway**

Passageway 1

The Passageways on the Visafslag Building

Provides a direct connection from the Visafslag building to the First Port. Moreover, it maintains visual and spatial connections from the Visafslagweg to the waterfront area, which may improve its spatial quality.

**Weakness**

The passageway construction change the original design of the Visafslag building. This act may be unfavourable due to its historical value.
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<tr>
<th>Opportunity</th>
<th>Threat</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>The new commercial developments increase the economical value and attractiveness of the area, which may attract more businesses and visitors.</td>
<td>This passageway may disrupt the building's functions or activities inside it.</td>
<td>High priority level. It should built at the same time as the construction of the Fisheries Centre in the Visafslag building.</td>
</tr>
<tr>
<td>Visual and spatial connections to the Zeesluisweg, a highly integrated street may encourage the developments on both sides of the waterfronts.</td>
<td>This passageway may disturb the industrial activities inside the buildings.</td>
<td>Very low priority level. This passageway is needed to lessen the enclosed atmosphere of the Zeesluisweg due to the new mixed-use buildings. For that reason, it is built after the mixed-use buildings' construction in the industrial area is finished.</td>
</tr>
<tr>
<td>The improved accessibility from Scheveningen Dorp to Haven may encourage more mobility from one place to another. Then, it may also encourage the tourism developments on both places.</td>
<td>Due to the increased number of pedestrians and movements, the building blocks' occupants may feel disturbed.</td>
<td>Because this passageway is considered unnecessary, it should not be built.</td>
</tr>
<tr>
<td>The new commercial developments increase the economical value and attractiveness of the area, which may attract more businesses and visitors.</td>
<td>The southern waterfront area may be overcrowded with commercial functions and activities, which can decrease the attractiveness of the area.</td>
<td>Low priority level. The new buildings are developed when there are more demands for commercial functions, such as yacht clubs, restaurants or cafes, which may arise in four to seven years.</td>
</tr>
<tr>
<td><strong>Strength</strong></td>
<td><strong>Weakness</strong></td>
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<tr>
<td><strong>Public Squares</strong></td>
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<tr>
<td>The new squares increase the clarity and sense of direction in and around the area. The water square role is especially important because it is located on the main entrance area of Scheveningen Haven.</td>
<td>The meaning of these squares are dependent on their contexts as the welcoming area of the harbour and the bridge. If the entrances are removed to other places, they will lose their significations.</td>
<td></td>
</tr>
<tr>
<td>They also improve the spatial quality of the waterfront area by providing an attractive place to stay.</td>
<td></td>
<td></td>
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<tr>
<td><strong>The Industrial Site</strong></td>
<td></td>
<td></td>
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<tr>
<td><strong>Mixed-use Buildings</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The new mixed-use buildings create more building frontages, eyes on the street, pedestrian activities and densities. Then, they result in increasing feeling of safety that encourages the public spaces vibrancy in this area.</td>
<td>The new mixed-use buildings are closely located to the industrial area, which produces disturbing noises and smells.</td>
<td></td>
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<tr>
<td></td>
<td>They occupy the empty lot, which is now used as a place for public performances on the Vlaggetjesdag. Hence, the venue’s area is decreased because of the new buildings.</td>
<td></td>
</tr>
<tr>
<td><strong>Commercial Functions on the Existing Industrial Buildings</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provide more building frontages and eyes on the street, which contribute to the creation of a vibrant public space.</td>
<td>Because the industrial buildings are privately owned, this construction may be difficult to realise.</td>
<td></td>
</tr>
<tr>
<td><strong>The Visafslag Area</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>The Fisheries Centre</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Serves as one of the major destinations that attracts people and activities to the Visafslag area.</td>
<td>Consumes the space for commercial and industrial functions that are currently accommodated in the Visafslag.</td>
<td></td>
</tr>
<tr>
<td>Its presence promotes the rich history and culture in Scheveningen Haven.</td>
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<td></td>
</tr>
<tr>
<td>Opportunity</td>
<td>Threat</td>
<td>Priority</td>
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</tr>
<tr>
<td>The improved sense of direction and spatial quality may increase the economical value and endorse further development of the waterfront area.</td>
<td>The water square may create an urban void because it is not actively used by various types of users on different times.</td>
<td>High priority level for the water square construction due to its prominent role at an important spot. On the other hand, the light square is not needed anymore because of the cancellation of Bridge 4 construction.</td>
</tr>
<tr>
<td>Instead of allocated on the waterfront, the water square should replace the parking lot on the Westduinweg as a welcoming area to the Second Port’s area.</td>
<td>The new mixed-use buildings may not be needed because of the decreasing house sales and office occupations due to the 2007 - 2012 economic crisis.</td>
<td>Very low priority level. The best time to construct this area is when there is an explicit demand for residential and commercial developments in Scheveningen Haven that may arise in 20 years. Otherwise, there is no urgency to develop this area.</td>
</tr>
<tr>
<td>The new mixed-use buildings can fulfill the housing demands in Scheveningen.</td>
<td>The mixture of other functions inside the buildings may disturb the existing industrial activities.</td>
<td>The development of commercial functions on the industrial buildings should not be planned because it is expected as a natural result of the Zeesluisweg’s high integration level.</td>
</tr>
<tr>
<td>The Zeesluisweg side of the industrial buildings may be developed with successful commercial functions due to the high street integration of the Zeesluisweg and the businesses’ high visual exposures.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>It may enliven the public life of its surroundings because it attracts more people and activities to the Visafslag area.</td>
<td>The Fisheries Centre cannot coexist with industrial functions, which results in the disturbance of one or both activities.</td>
<td>High priority level. Despite the Visafslag area’s potentials, this area is not thought or developed as a prominent commercial location yet. That is why a major attraction like the Fisheries Centre can help promoting and boosting its developments.</td>
</tr>
<tr>
<td><strong>The Multi-functional Water Defence with Residential and Commercial Functions</strong></td>
<td><strong>Strength</strong></td>
<td><strong>Weakness</strong></td>
</tr>
<tr>
<td>---</td>
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<td>---</td>
</tr>
<tr>
<td>Provides parking garages that fulfill the parking needs in its surroundings.</td>
<td>It is a big and costly development. Hence, all of its parts are unlikely to be constructed at once.</td>
<td></td>
</tr>
<tr>
<td>Increases the area’s density, active building frontages and eyes on the street.</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Permanent Beach Sports Stadium and F.A.S.T. Relocation</strong></th>
<th><strong>Strength</strong></th>
<th><strong>Weakness</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>The beach sports stadium has a permanent place that is flood resistant.</td>
<td>The new F.A.S.T. location is vulnerable towards sea storms and flooding risks.</td>
<td></td>
</tr>
<tr>
<td>The new location of F.A.S.T. is closer to the sea, which is favorable for the surfers.</td>
<td>Instead of relocating F.A.S.T. and building the stadium to create flood walls, movable flood gates can be constructed to provide water protection.</td>
<td></td>
</tr>
<tr>
<td>The new stadium is incorporated to the new water defence system to protect the harbour area.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>The Harbour Golf Area</strong></th>
<th><strong>Strength</strong></th>
<th><strong>Weakness</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>The new developments increase the number of users and activities, the feeling of safety, encourage the creation of a vibrant public space and the spatial quality in this area.</td>
<td>The new developments drastically change the visual and spatial identity of the Harbour Golf area.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>The Dunes Hotel</strong></th>
<th><strong>Strength</strong></th>
<th><strong>Weakness</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Provides a parking garage for its surroundings.</td>
<td>It consumes the Westduinpark area.</td>
<td></td>
</tr>
<tr>
<td>Serves as a transitional zone between the dune and the harbour landscape.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Becomes a new landmark on the southern harbour area.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Promotes ecotourism in the Westduinpark.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
This area can be developed into an attractive residential area with a high economical value. Therefore, it may attract rich residents, which then create a gentrification effect.

The new beach stadium can serve as the new landmark and attraction in the Visafslag area.

The increasing interest in eco-tourism and the Westduinpark as a tourism destination.

Opportunity

It may be the new landmark or attraction in Scheveningen Haven.

The new beach stadium can serve as the new landmark and attraction in the Visafslag area.

This area can be developed into an attractive residential area with a high economical value. Therefore, it may attract rich residents, which then create a gentrification effect.

The increasing interest in eco-tourism and the Westduinpark as a tourism destination.

Threat

Because it is a big and costly development, there is a possibility that not all of its parts can be developed.

Instead of improving the spatial quality of the area, this development may degrade it because it corrupts the Visafslag’s place identity.

There may not be enough housing demands to supply the new developments. That is why this area can be empty and deserted.

There are may be not be enough housing demands to supply the new developments. That is why this area can be empty and deserted.

The new hotel construction and its activities may cause environmental damage to ecosystems in the Westduinpark.

Threat

Medium priority level. Its construction should wait for a better economic or housing market situation, which may happen in 10 to 15 years. Nevertheless, its construction should be prioritized because it fills in the urban void in Scheveningen Haven.

The new hotel construction and its activities may cause environmental damage to ecosystems in the Westduinpark.

Priority

Low priority level. Residential functions that provide more active building frontages and eyes on the street are beneficial for the spatial quality improvement. Nonetheless, a radical change that alters the Visafslag’s place identity should not be done.

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Low priority level. This proposal is considered attractive because it endorses tourism developments on the southern harbour area, which is not fully explored yet. Nevertheless, the improvements of existing conditions are prioritised and the hotel’s construction follows afterwards.

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The Harbour Bay Area
Mixed-use Building Blocks

It becomes the new tourism centre in Scheveningen Haven, where the highest value of commercial programs are located.

Improves the area’s image, where it used to be an industrial area.

The proposed programs greatly differ from the existing functions. Therefore, this development has a big failure risk.

Strength

Weakness

The Dunes Residential Tower

Increases the area’s density, building frontages and eyes on the street.

Serves as the new landmark of the southern Scheveningen Haven.

Its high density of residents can cause severe environmental damages on the Westduinpark.

Its presence as the new landmark will compete with the wind turbine, the existing landmark of the southern harbour area that is closely located from the dunes tower.

Opening the Beach for Public

This step can be taken to introduce and explore the possibility of tourism development in this area.

Its close location to the industrial area may make it unsuitable for swimming.
Due to its unique location and spatial quality, the Harbour Bay area may be a popular tourism destination in the harbour area.

Because the new developments complement the existing programs in Scheveningen, they may attract new types of tourists to Scheveningen Haven.

The beach can be the new type of public space in the Harbour Bay area.

The beach may be a favourite future destination in Scheveningen Haven.

<table>
<thead>
<tr>
<th>Opportunity</th>
<th>Threat</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>Due to its prominent location, it may be developed into a residential building with high economical values.</td>
<td>Its presence may diminish the natural atmosphere of the Westduinpark. This situation is not preferable because most of the dunes’ visitors come to enjoy the nature.</td>
<td>Very low priority level. Although this area has a potential to be a tourism destination, it is now still unknown and unexplored. Thus, it should be developed gradually, starting from small and diverse commercial functions.</td>
</tr>
<tr>
<td>It can be a new visual attraction in Scheveningen Haven.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Due to its unique location and spatial quality, the Harbour Bay area may be a popular tourism destination in the harbour area.</td>
<td>If the proposed program is built at once, it may not be successful because it is very different from the existing functions. Therefore, a gradual development is strongly advised to realise this proposal.</td>
<td>High priority level. This is the first step to explore the possibility of major tourism developments with the beach as the main attraction in the Harbour Bay area.</td>
</tr>
<tr>
<td>Because the new developments complement the existing programs in Scheveningen, they may attract new types of tourists to Scheveningen Haven.</td>
<td>The new development that has no relation to the existing programs may corrupt the Harbour Bay area’s place identity.</td>
<td></td>
</tr>
<tr>
<td>The beach can be the new type of public space in the Harbour Bay area.</td>
<td>Currently, the beach is located faraway from other commercial or tourism functions. Hence, visitors may not be interested to visit it.</td>
<td></td>
</tr>
<tr>
<td>The beach may be a favourite future destination in Scheveningen Haven.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The final design is considered as a result of an optimum tourism development in Scheveningen Haven, where the level of water defence, accessibility and spatial quality are all maximised. Nevertheless, it fails to incorporate the sensibility of preserving the original spatial character of Scheveningen Haven, which is rough, tough and not always attractive.

Furthermore, a design hierarchy that differentiate the importance of each components is not clearly visible. Hence, a question whether each and all of the design parts should be equally safe, accessible and attractive also arises.

This chapter is an introspection of the final design with a stronger sensibility of the existing place identity, as well as the awareness of the design impacts on larger scales and issues.

**Design Assessment**

The strength, weakness, opportunity, threat and priority of the design components are evaluated based on the sustainable tourism development principles (Fig. 88). As for the bridges and passageways, Space Syntax analyses (Appendix C) are conducted to measure the change in street integration levels, which results are incorporated into the design assessment.

Then, the assessment result is used to determine the new design components and phasing as described on the next section.

**Design Phasing**

The priority level of each design component determines whether they will be built or not and how soon the construction is. The higher priority and feasibility the components have, the sooner they will be developed. The feasibility is measured from the development’s scale and cost that influence the difficulty level to realise the proposal. Small and cheap developments are often perceived as having the higher feasibility.

In addition, there are also some design components that are predicted as a result from the previous construction periods. Thus, they are not included into the construction plans, but their developments are anticipated in this project.

The assessment identifies some design improvements that will be incorporated in the revised design and phasing. Hence, this section will describe the revised design and its phasing, not the previous final design.

Design phasing provides a flexibility to adjust the project to the latest demand and situation during the development period. The results and impacts of each phase can be observed, while needed design improvements can be incorporated to the next steps. The gradual construction progress also enables residents to slowly accept and adapt to the change. In the mean time, other development opportunities may arise as a result of the previous construction periods. Then, when they are realised, they can contribute to the diversity and vibrancy of the area.

The phasing is divided into four parts as follows (Fig. 89).
Fig. 89. Phasing of the revised design (Author 2012)
Exploration Phase (Year Zero to Five)

This phase focuses on improving the existing spatial qualities and examining the development potentials of Scheveningen Haven as a tourism destination by following actions.

1. Regeneration of the harbour’s pedestrian entrance route from tram 11 stop

The gas station and parking lot on the Westduinweg are removed to provide a more attractive and inviting harbour entrance area. On the previous parking lot area, an underground parking lot that serves Jumbo customers and harbour visitors are constructed, along with the water square that encourages more pedestrian activities on its surroundings (Fig. 90).

This step is important because it rejuvenates the visual image of Scheveningen Haven’s entrance area. It strengthens the pedestrian route from the tram 11 stop by creating a clear and attractive entrance area. Then, the improved image is meant to encourage more visits or tourism activities in the harbour area.

2. Assignation of woonerf area in Scheveningen Haven

The woonerf status is important because it encourages more pedestrian activities in Scheveningen Haven. The mixture of different street users are also favourable because it increases the diversity of street life, which stimulates the creation of a vibrant public space.

3. The Harbour Bay’s beach public opening

Although the Harbour Bay’s beach has a potential to be a tourism destination,
it is now closed for public. That is why it should be opened to trigger the interest of public and stakeholders on the area. This step is also seen as a test to measure public’s enthusiasm about tourism development in the Harbour Bay area.

4. Construction of Bridge 1

This bridge has a large impact on the tourism route along Scheveningen boulevard and the North Sea coastal area. It may also open many tourism opportunities that are now unseen. Hence, its construction should be prioritised.

4. Construction of Bridge 3

This bridge is also important because it connects the northern and southern part of Scheveningen district through Scheveningen Haven. However, its construction is considered a second priority compared to Bridge 1 because it has lesser tourism impacts on the bigger scales.

5. Development of the Fisheries Centre and its outdoor public space

Despite the importance of the Fisheries Centre, its construction is put as the last one in this phase. Other components are considered more urgent because they improve the less desirable qualities in Scheveningen Haven. On the other hand, the Fisheries Centre is seen as an addition to the Visafslag area that employ its tourism potentials. Thus, it has a lesser urgency level.
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Fig. 90. Impression of the revised water square (Author 2012)
Revival Phase (Year Six to Ten)

This phase focuses on the southern harbour area’s spatial quality improvements and preparations for the future developments. These components are included in the second phase because of their high priority level and lesser feasibility (bigger scale and higher cost) compared to the previous period, which may require more preparation time to collect fundings and convince the stakeholders.

1. The Third Port’s alteration

This alteration is needed as a preparation for the new Afvoerkanaal and the Harbour Golf area’s developments.

2. The Afvoerkanaal’s construction

The new Afvoerkanaal can boost the public and stakeholders’ interest to this area. It enhances the visibility and connectivity to southern Scheveningen Haven and increases its economical value as a result of its improving spatial quality (Fig. 91 and 92).

A multi-functional public square is designed as the ending point of the canal. It can be used as a sitting area, a playground or a venue for various events or performances (Fig. 93). Therefore, the currently empty southern harbour area is activated with the new users and activities.

If there is an increasing demand for commercial developments on the Second Port’s eastern waterfront (Fig. 94) and the Harbour Bay area before or during this period, their constructions should also be included in this phase.
A natural atmosphere as the first spatial sequence from the existing Afvoerkanaal line

The existing Afvoerkanaal

Cheonggyecheon River (Seoul, South Korea) as the design reference of the new Afvoerkanaal
The pedestrian bridge across the canal

Pedestrian paths on both sides of the canal on day light

And the lighting at night time
Bridges connect the areas on both sides of the canal. The use of fountains to create attractions on the next spatial sequence of the canal. The floating fountain by Isamu Noguchi as the design reference.
The waterfront at the end of the canal with lighting at night time

The canal area as a venue of various kinds of public events
The long continuous sitting place becomes a sculpture by itself.

The water is flowing out from the ground, heading towards the new Afvoerkanaal.

The information board that serves as the dunes entrance and frames the scenery.

Fig. 91. Section G (Author 2012)
The visual connection between the dunes and the beach

The Westduinpark as a natural tourism destination

The tower becomes a landmark and a point of visual reference in the dunes area
Fig. 92. The revised impression of the Afvoerkanaal area near the Third Port (Author 2012)
Fig. 93. Impression of the Afvoerkanaal square (Author 2012)
Fig. 94. Section H (top) and section I (bottom) (Author 2012)
Various activities alongside the waterfront.
Protection and Regeneration Phase (Year Eleven to 20)

There are two development alternatives in this phase. These choices are available as a response to the unpredictable future needs and demands in Scheveningen Haven. Hence, the most suitable choice can be made according to the latest future situation.

1. Development of the water defence system

This alternative is chosen if there is a growing need for a better water protection in Scheveningen Haven. It also focuses on the Visafslag area’s development by constructing the multi-functional water defence system.

2. Construction of the Harbour Golf area

In case that there is no urgent need of a better water defence system at the beginning of this phase, the residential and commercial functions in the Harbour Golf area can be developed instead. This alternative also focuses on the southern harbour development by constructing the dunes hotel (Fig. 98) as well as altering the tram 17 and bus 23 that may encourage the tourism development growth of this area. Because the final design of this area is retained, no further descriptions are repeated in this section.

This phase consists of two periods: the construction of the first chosen alternative, followed by the other option’s development. Therefore, at the end of this phase, both alternatives are fully built.
The Revised Water Defence System

It consists of a storm surge barrier and on-land movable barriers that are incorporated on the beachfront buildings and gates. They create the new primary water defence line that protects the whole harbour area (Fig. 95). Nevertheless, the revised line still closely follows the final design, where they use the same elements and line.

Fig. 95. The revised primary water defence line (Author 2012)
The Revised Multi-functional Water Defence System

It employs the same building typology as the final design. However, the inner courts and the front building blocks are removed in order to maintain the existing urban pattern and concentrate the outdoor activities on the Visafslag front square (Fig. 96 and 97). The bigger plaza can also accommodate more types of activities with different scales.

Various urban furnitures are placed on the front square in order to break down its immense scale. Their presence improves the spatial diversity and stimulate public activities, which then encourage the vibrant public space creation.

The revised design develops full building frontages with front yards as transitional zones between public and private areas. Thus, each unit can be designed individually with different functions, such as shops, offices, or apartments.

On the other hand, the sea dike area’s final design is maintained without the street lamps that are changed with subdued ground LED lighting (Fig. 98). Hence, the dimly lit atmosphere on top of the dike can be preserved.

The Dunes Hotel

Its final design is maintained apart from the new street lamp selection. Thus, this area’s revised design uses the same street furnitures, which preserve its visual quality and place identity (Fig. 99).
Attractive building facade lighting design (Frigoriferi Milanesi, Milan)

The Fisheries Centre’s front court as the venue of various kinds of public activities
The incorporation of lighting to the pavement design (Place du Molard, Geneva)

The green area as a subtle barrier between car and pedestrian area

Diverse architectural design for the residential buildings' facades (Java Eiland, Amsterdam)
Fig. 96. Section J (Author 2012)
The sea dike as a destination in Scheveningen Haven

Beach promenade as the continuation of the boulevard

Attractions along the coastal line
Fig. 97. The revised impression of the Fisheries Centre's front court (Author 2012)
Fig. 98. The revised impression of the sea dike’s upper area (Author 2012)
Fig. 99. Section K (Author 2012)
Optional Development Phase (Year 21 to 30)

This phase starts only when there is a demand for further developments in the industrial, new Afvoerkanaal, or the Harbour Bay area. Because their future demands or potentials are still unknown, there are three alternatives that can be chosen in this period.

1. Construction of the industrial area

This option is taken if there is a strong development demand for the industrial area (Fig. 100). It covers the construction of mixed-use buildings along the Doctor Lelykade waterfront and Pas sageway 2 through the existing industrial buildings.

The revised design uses the existing street lamps in order to preserve the area’s visual and spatial identity. Nonetheless, some new urban furnitures are also added to stimulate outdoor public activities and engage the visitors to this area.
The waterfront promenade

The vast view towards the harbour

Sitting places along the waterfront

Fig. 100. Section L (Author 2012)
Commercial activities along the waterfront

Diverse architectural waterfront building styles

The use of lighting along the waterfront as a night attraction
2. Construction of the new Afvoerkanaal area as an industrial harbour

This alternative is chosen if there is a demand for a new industrial harbour due to the growing fisheries industry. In the future, the number of cutters is predicted to increase. Henceforth, the new Afvoerkanaal area is prepared for small fishing ships only.
3. Construction of the new Afvoerkanaal area as a yacht marina

In case that Scheveningen Haven becomes more popular as a yacht harbour with an increasing demand for berthing places, the Afvoerkanaal area can also be converted into one. In addition, a passantenhaven facility buildings are also constructed to serve the travelling yacht passengers.
4. Construction of the Harbour Bay area

If there is a strong development demand for the Harbour Bay area, this alternative will be taken instead. Due to unpredictable future demands in this area, there are two development possibilities for this option.

First, a further commercial development mixed with the existing industrial functions. This scenario applies when the beach becomes a popular destination that attracts a growing number of visitors and commercial developments into this area.

Second, mixed-use building blocks construction in place of the existing industrial functions (Fig. 101 and 102). This scenario applies only when there are strong demands for commercial and residential developments in this area. However, this scenario is more unlikely to happen because of the bigger gap between the current and predicted future situation.

Nonetheless, whichever scenario is chosen, the alteration of bus 23 is included because an improved public transport accessibility will greatly benefit commercial or residential development in this area.

The construction of the first chosen alternative isn’t necessarily followed by the other options because each scenario has to fulfill certain requirements in order to be realised. Thus, there is a possibility that this phase is partially done or extensively delayed.
Fig. 101. Section M (Author 2012)
Various references for the surrounding buildings’ architectural designs
Fig. 102. The revised impression of the beach on the Harbour Bay area (Author 2012)
Conclusion

The Relation between the Final and Revised Design

In the end, the revised design should be seen as the end product, with the final design as the design tool of this project. The final design serves as an intermediate step between the research, strategy and the revised design by providing a discussion material that is assessed then formulated to be the end product. In other words, the revised design is the improvement of the final design with more sensitivity, awareness and consideration to the aspects and components involved in this project.

The revised design is the opposite of the final design in many ways. The revised design approaches the project by intervening only on the most essential components. It emphasises the importance of place identity and appreciates it by maintaining the harbour’s existing spatial quality, including the street furnitures as far as possible. Lastly, it establishes the design based on the timeline, possibilities and scenarios. Hence, it offers a flexibility in developing this project.

On the other hand, the final design approaches the project by maximising its components’ level of water protection, accessibility and spatial quality. It results on the visual likeness to other urban projects and the loss of unique spatial identity of Scheveningen Haven. It uses different types of new street furnitures that increase the harbour’s visual diversity, but decreases its uniqueness. Furthermore, it is less sensible in formulating the development proposals in relation to the existing situation. That is why it contains many components that are not feasible

Nevertheless, the final design holds a prominent role in the design process by accommodating the research by design on the evaluation stage. Because of that, the end product of this project is conscious of various standpoints and reasonings, which sharpens its design proposal. Therefore, its contribution should not be seen as a failed design attempt, but as a tool to generate a sensitive design.
Fulfillment of the Project Aim

This project aims for designing Scheveningen Haven as a safe, accessible, attractive and lively tourism destination. Nonetheless, it should not bluntly maximise all of these aspects, but question what are their suitable levels in the harbour area. For that reason, fulfillment of the project aim should not be measured only with the level of these aspects, but also with how they relate to the existing situation and place identity of Scheveningen Haven.

The definition of tourism destination that this project uses is not only limited to a place where tourists spend at least one overnight. It also covers a place that is visited by tourists for a short time span, ranging for a couple of hours to the whole day. This definition is selected due to the established tourism activity in Scheveningen district that covers the day to overnight visits. Because of that, the development of Scheveningen Haven as a tourism destination in this project should be seen as an effort to maximise its existing qualities and develop its potential to attract more residents and visitors.
SEVEN

Appendices
Appendix A

Den Haag and Scheveningen
Context Study
Den Haag’s Historical Urban Development

In the beginning, Scheveningen and Den Haag are clearly seen as two separate urban entities. However, due to the continuous urban growth, they are united as one urban entity, despite their different origins and characters (Fig. 103).

Both Scheveningen and Den Haag’s urban developments follow their original patterns closely. Scheveningseweg that has been present since 1712 is still preserved until now, along with the Afvoerkanaal, Haringkade and tram 11 track from 1895. For that reason, their future existence should also be preserved.

Because of the aforementioned reasons, this project should be aware of Scheveningen and Den Haag’s place identity in designing Scheveningen Haven. In respect to its genius loci, the Afvoerkanaal extension should be revived and tram 11 line should be maintained.
Fig. 103. Den Haag’s historical urban development (Author 2012, based on various historical maps provided by Kaartenkamer, TU Delft)
Den Haag’s Urban Centralities

Den Haag is the center of international justice and peace, where the highest number of ministries and embassies are located. Because of that, aside from the tourism and residents oriented programs, international functions in Den Haag are also mapped.

Tourism Oriented Programs

The highest concentration of tourism oriented programs in Den Haag are located on the inner city and then, Scheveningen Bad area (Fig. 104). Both of them are popular tourism destinations and perceived as the urban centres in Den Haag.

The program density in Scheveningen Haven is lower than in Dorp and Bad. Moreover, all of them are not clustered but separated on different places. Nevertheless, Scheveningen Haven is closely located to a local shopping street, the Frederik Hendriklaan, which is filled with various kinds of shops, restaurants and bars and Schevenengeweg, the main shopping street in Scheveningen Dorp.

Residents Oriented Programs

There is an even distribution of residents oriented programs in Den Haag (Fig. 105). For that reason, there seems to be no need for urgent development of certain residents oriented programs.

International Programs

Den Haag’s municipality claims that most of the international organizations are located on the International Zone. On the contrary, most programs are located on the southern edge of the International Zone and the inner city area (Fig. 106). Thus, the International Zone boundaries should be adjusted to its definition.

Summary

The last map presents various kinds of centralities in Den Haag, such as shopping streets, the inner city, museum and international program locations (Fig. 107). It shows that all of the previously mentioned centralities are located on some parts of the Kortenbos and Voorhout neighbourhoods. Consistently, this area is also prominent in its visual and spatial aspects.

Scheveningen Haven and District’s Urban Centralities

Tourism Oriented Programs

Scheveningen Haven is closely located to tourism programs centralities in Scheveningen district (Fig. 108). In general, tourism programs inside the harbour area are scattered and not clustered like in other places. However, there are still small concentrations as seen on the eastern and northeastern Second Port waterfront, the Visafslag area near the harbour mouth and the Vissershavenweg.

Residents Oriented Programs

Scheveningen Haven has the highest density of working places (industry and offices) in Scheveningen district (Fig. 109). They are distributed evenly, especially on the eastern and western Second Port areas. It may imply that Scheveningen Haven’s urban identity is a working place in Scheveningen district.

Shopping Streets

There is no shopping streets inside the harbour area (Fig. 110). Nonetheless, Scheveningen Haven is closely located to the Schevenengeweg, the main
Fig. 104. Tourism oriented programs in Den Haag (Author 2011, based on www.edugis.nl)
Fig. 105. Residents oriented programs in Den Haag (Author 2011, based on www.edugis.nl)
Fig. 106. International programs in Den Haag (Author 2011, based on www.edugis.nl)
Fig. 107. Diverse kinds of centralities in Den Haag (Author 2011, based on www.edugis.nl)
Fig. 108. Tourism oriented programs in Scheveningen district (Author 2011, based on www.edugis.nl)
Fig. 109. Residents oriented programs in Scheveningen district (Author 2011, based on www.edugis.nl)
Fig. 110. Shopping streets in Scheveningen district (Author 2011, based on www.edugis.nl)
Fig. 111. House prices and incomes in Scheveningen district’s neighbourhoods (Author 2011, based on www.edugis.nl)
<table>
<thead>
<tr>
<th>Location</th>
<th>House Price</th>
<th>Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>OOSTDUINEN</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
<tr>
<td>DUTTENDEL</td>
<td>687,000 Euro</td>
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<tr>
<td>WESTBROEK PARK</td>
<td>638,000 Euro</td>
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<td>VAN STOLKPARK EN SCHEVENINGSE BOSJES</td>
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<td>EELINCKPLEIN EN OMGEVING</td>
<td>383,000 Euro</td>
<td>45,600 Euro</td>
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Fig. 112. Crime rates in Scheveningen district’s neighbourhoods (Author 2011, based on www.edugis.nl)
<table>
<thead>
<tr>
<th>District</th>
<th>Threat</th>
<th>Car &amp; Bike Theft</th>
<th>House &amp; Company Theft</th>
<th>Mistreatment</th>
<th>Mugging</th>
<th>Destruction</th>
<th>Total Number of Crime</th>
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<tr>
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<td>30</td>
<td>21</td>
<td>11</td>
<td>0</td>
<td>30</td>
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<tr>
<td>DUINOORD</td>
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<td>62</td>
<td>52</td>
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<td>4</td>
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<td>84</td>
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<td>1</td>
<td>4</td>
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<td>28</td>
<td>4</td>
<td>1</td>
<td>11</td>
<td>60</td>
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<tr>
<td>OOSTDUINEN</td>
<td>1</td>
<td>5</td>
<td>7</td>
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<td>0</td>
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<td>BELGISCH PARK</td>
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<td>26</td>
<td>15</td>
<td>4</td>
<td>50</td>
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Fig. 113. Scheveningen Boulevard’s visual and spatial characters (Author 2012)
1. Beach pavilions

2. Rows of restaurants and cafes on the boulevard

3. The entrance of the pier

4. Rows of restaurants and cafes on the boulevard
5. Kurhaus

6. Urban art installations

7. Corridor next to the beach pavilions

8. Corridor with a direct access to the beach
8. Corridor with a direct access to the beach

9. Statue and the entrance of Scheveningen Dorp

10. Corridor with no direct access to the beach

11. Street parking area
12. Beach pavilions and the entrance of Scheveningen Haven

13. Sea dike and street parking area

14. Sea dike and beach pavilions

15. Car route and the beach stadium’s parking lot
16. Street hawkers, F.A.S.T. and car route

17. Car route and sea wall

18. Parking area next to the dunes

19. Westduinpark
shopping street in Scheveningen Dorp and the Frederik Hendriklaan, the shopping street on the Statenkwartier neighbourhood.

House Prices and Incomes

Scheveningen Haven, which is located on the Vissershaven neighbourhood has the third lowest house prices and incomes in Scheveningen district (Fig. 111).

Crime Rates

Scheveningen Haven, along with Dorp and a part of Bad have the highest crime rates in Scheveningen district (Fig. 112). Because these areas are the most popular tourism destinations in Scheveningen district, the criminal acts may be attracted and directed to local (tourism) businesses as well as tourists. Unfortunately, no correlation or assumption to other mappings can be deduced because of unavailability of a more precise spatial data.

Scheveningen Boulevard’s Visual and Spatial Characters

Scheveningen Boulevard stretches from the Gevers Deynootweg to the Visafslagweg. In general, its visual and spatial characters can be classified into five parts (Fig. 113). Nevertheless, in order to further understand the boulevard’s character, the visual and spatial attributes of the area on its both ends are also recorded as follows.

1. Beach Pavilions Area

This area is located on the northern part of Scheveningen Boulevard. Beach pavilions are placed in front of the Oostduinpark that faces the beach. These pavilions are temporary constructions, which open only from April to October each year. Therefore, deserted pavilions phenomena can be avoided on the low seasons. During their opening time, this area is famous as the beach’s late night party site.

2. Boulevard with Commercial Buildings Area

This area spans from the northern boulevard area to the Sea Life, an underwater world leisure centre. It is characterized by a row of commercial functions (hotel, leisure and wellness centre, shops, restaurants, cafes, bars) that are directly accessible from the boulevard, with sitting places and beach pavilions on the other side. It is also the densest and most crowded commercial area of the boulevard.

The most notable buildings in this part are the pier, the Palace Promenade and the Kurhaus. All of them are the biggest and most striking buildings, which make them the landmarks of the area.

3. Boulevard without Commercial Buildings Area

This area stretches from Museum Beelden aan Zee to the Vissershavenweg. Unlike the previous part, commercial functions are rarely found, apart from some pavilions on the beach.

This part is the existing boulevard’s new extension. Their distinctions can be seen from the different pavement and wall materials, as well as urban furniture. The new boulevard also incorporates car and bicycle traffics, street parking areas, bicycle sheds as well as some food stalls, in addition of the existing pedestrian path.

4. Sea Dikes Area

This area is located on the Scheveningen Haven, which spans from its en-
trance to the F.A.S.T. This part has a distinctive character compared to the previous boulevard areas. First, there is no hinterland buildings that can be seen from the boulevard, which makes the sea dikes presence more prominent. Previously, medium rise hinterland buildings are always visible alongside the boulevard. Hence, the dikes become less conspicuous because of the buildings. Second, the beach pavilions functions not only as restaurants and night clubs, but also as surfing schools. In other words, the only surfing schools on the boulevard is located on this area.

Although these features make this boulevard part unique, its striking visual difference disconnects the spatial sequence to the previous boulevard parts. The absence of visual connections to the hinterland houses gives the feeling of isolation and detachment to the hinterland. This situation is in contrast with the former parts, where hinterland buildings are always seen from the boulevard. For that reason, a need to establish a visual connection to the hinterland buildings arises. However, maintaining the current isolated spatial character is also important. Thus, the new development in this area should incorporate a visual connection to the hinterland buildings with a low density to preserve some of the detached spatial identity.

5. Cluster of commercial and leisure functions

This area covers the rest of the boulevard part in Scheveningen Haven. As the name suggests, it accommodates various commercial and leisure functions, such as restaurants, food stalls, shops, a night club, a beach sports stadium, parking lots, street parkings and F.A.S.T., a surfing community with a water sports shop and facilities, a hostel, conference rooms and a museum. It is the most vibrant part of Scheveningen Haven’s boulevard with the densest and most diverse programs, which serves as an attractive ending point of the boulevard.

Den Haag municipality is considering to construct a cable car that connects both sides of the harbour mouth. Therefore, Scheveningen Boulevard will stretch from dunes to dunes and connect the natural and recreational landscape along the coastline.

6. Street Parking Area

This area occupies the Third Port’s waterfront area, with the KNRM headquarter, a street parking area and a wind turbine. Both the Third Port and the KNRM quarter are closed for public. Nonetheless, the street parking area is actively used in the peak season, especially by Den Haag residents that often frequents the southern Scheveningen beach.

7. Dunes Area

The Westduinpark is an environmentally protected dunes area, which is considered as a favourite leisure destination in Den Haag. The park is accessible through pedestrian paths, which are connected to the Kijkduin.
Fig. 114. West Europe’s railway tracks (Author 2011, based on Google Maps)
Fig. 115. West Europe’s highway roads (Author 2011, based on Google Maps)
Fig. 116. Dutch railroad tracks and its surroundings (Author 2011, based on Google Maps)
Fig. 117. Dutch highway roads and its surroundings (Author 2011, based on Google Maps)
Fig. 118. Travelling time by public transports and cars from major cities in The Netherlands and its surroundings to Scheveningen Bad (Author 2011, based on www.anwb.nl)
Scheveningen Bad is the most popular seaside resort in The Netherlands, which is visited by not only Dutch, but also Belgians and Germans (BRO 2008). Because of that, a closer observation of car, public transport and bike accessibilities to Scheveningen on various scales is necessary to be done.

**West Europe**

Scheveningen Bad is accessible by trains through railways (international trains, Dutch national trains and trams or buses) (Fig. 114) and by cars through highways (international and national highways, Den Haag’s ring roads then district roads) (Fig. 115).

**The Netherlands**

Scheveningen Bad is also accessible by trains through railways (trains and trams or buses) (Fig. 116) and by cars through highways (national highways, Den Haag’s ring roads and district roads) (Fig. 117). However, cars take much lesser time than public transport to reach Scheveningen Bad (Fig. 118).

**Haaglanden Region**

In this scale, there are three possible options to reach Scheveningen Bad: by public transports (trains and trams or buses), cars (highways, ring roads then district roads) or bikes. Compared to the other options, cars have the least travelling time (Fig. 119). In general, public transports take lesser travelling time than bikes. Nevertheless, inside 18 km radius, bikes consume the same amount of time or even lesser than public transport. Thus, it can be concluded that the public transport’s accessibility to Scheveningen Bad is lower than car’s and bike’s.

**Den Haag**

Scheveningen Bad’s is accessible by public transports (trains and trams or buses), cars (highways, ring roads then district roads) and bikes in this scale (Fig. 120). Cars have the least travelling time, followed by bikes then public transports. Hence, public transports have the lowest accessibility level in this scale.

Public transports and bikes take the same amount of travelling time from Den Haag’s urban centralities, such as the inner city, International Zone and museum locations to Scheveningen Bad (Fig. 121). This situation puts public transport and bike at the same level, where one option is favored than another not because of the higher level of accessibility.

Even though cars have the highest accessibility level in this scale, only 21% visitors from Den Haag choose to use cars instead of public transports (43%) and bikes (19%) (BRO 2008). Most probably, this situation is caused by high parking rates, the difficulty of finding parking lots and severe traffic jams in the peak season.

**Scheveningen District**

The Space Syntax’s step and choice analyses are done to measure a street's integration level in relation to other streets on the map. The step analysis measures the street’s integration level based on its connectivity to other streets in three street turns. On the other hand, the choice analysis measures the street’s integration level based on its connectivity to other streets on a certain radius. Both analyses are combined in order to determine the most integrated streets in Scheveningen district. The more integrated a street is, the higher vitality degree and
Fig. 119. Travelling time by public transports and cars from cities in the Haaglanden region and its surroundings to Scheveningen Bad (Author 2011, based on www.anwb.nl)
Fig. 120. Travelling time by public transports and cars from various places in Den Haag and its surroundings to Scheveningen Bad (Author 2011, based on www.anwb.nl)
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<th>Straatnaam</th>
<th>Gemeente</th>
<th>Stationsnaam</th>
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Fig. 121. Centralities in Den Haag and travelling time by public transports and cars from various places in Den Haag and its surroundings to Scheveningen Bad (Author 2011, based on www.edugis.nl and www.anwb.nl)
Fig. 122. Space syntax’s global analysis of Scheveningen district’s street (Author 2011)
Fig. 123. Space syntax’s local analysis of Scheveningen district’s street (Author 2011)
economic value it has.

In this project, this analysis is conducted to streets in Den Haag on global and local scale, with the focus of Scheveningen district.

The analysis on the global scale measures the street integration for high speed movements on a bigger radius, such as cars. On the global scale, the most integrated street in Scheveningen is the eastern part of Scheveningseweg, followed by some parts of the district roads, such as the Houtrustweg, the President Kennedylaan and the Haringkade (Fig. 122). This result can be used to explain the visitors's route preferences to Scheveningen. The Scheveningseweg is claimed to be the easiest route to take due to its accessibility, as confirmed by the Space Syntax result. The Haringkade is also another popular route to be taken. And, the Houtrustweg can be assigned as the main entrance to Scheveningen Haven area due to its high connectivity level.

The analysis on the local scale measures the street integration for low speed movements on a smaller radius, such as pedestrians. On this scale, the most integrated streets in Scheveningen are the western part of the Scheveningseweg, the Gevers Deynootweg, the Badhuiskade, the eastern part of the Haringkade, the Stevinstraat, the Nieuwe Duinweg and the Westduinweg (Fig. 123). This result also matches the finding that the western part of the Scheveningseweg is a vibrant and popular shopping street, while the Gevers Deynootweg is filled with hotels.

Almost no streets inside the harbour area has a high accessibility level. However, an improvements can be made by connecting the area to the closest highly integrated streets, such as the Jan Kistenstraat or the Kolenwagenslag.
Appendix C

The Final Design’s
Space Syntax Analyses
In order to improve accessibility and connectivity in Scheveningen Haven, bridges and pedestrian passageways are introduced in the final design (Fig. x).

Bridge

There are five new bridges in Scheveningen Haven (Fig. 124).

1. The harbour mouth bridge
2. The First and Second Port bridge
3. The northern and southern part of the Second Port bridge
4. The eastern and western part of the Second Port bridge
5. The Afvoerkanaal bridge

In this section, their impacts on street integration are analysed using the Space Syntax program. Moreover, possible combination of bridges are also observed in order to determine the most effective application of bridges in Scheveningen Haven. However, because there is no visible change on the global scale, only the impacts on the local scale will be described.

From this point on, for the sake of clarity, each bridge is referred with a number as pointed out on the map below.

![Map showing the new bridges in Scheveningen Haven](image)

Fig. 124. The new bridges in Scheveningen Haven (Author 2012)
Fig. 125. One bridge analyses: Bridge 1 (Author 2012)
Fig. 126. One bridge analyses: Bridge 2 (Author 2012)
Fig. 127. One bridge analyses: Bridge 3 (Author 2012)
Fig. 128. One bridge analyses: Bridge 4 (Author 2012)
Fig. 129. One bridge analyses: Bridge 5 (Author 2012)
Fig. 130. Two bridges analyses: Bridge 1 and 2 (Author 2012)
Fig. 131. Two bridges analyses: Bridge 1 and 3 (Author 2012)
Fig. 132. Two bridges analyses: Bridge 1 and 4 (Author 2012)
Fig. 133. Two bridges analyses: Bridge 1 and 5 (Author 2012)
Fig. 134. Two bridges analyses: Bridge 2 and 3 (Author 2012)
Fig. 135. Two bridges analyses: Bridge 2 and 4 (Author 2012)
Fig. 136. Two bridges analyses: Bridge 2 and 5 (Author 2012)
Fig. 137. Two bridges analyses: Bridge 3 and 4 (Author 2012)
Fig. 138. Two bridges analyses: Bridge 3 and 5 (Author 2012)
Fig. 139. Two bridges analyses: Bridge 4 and 5 (Author 2012)
Fig. 140. Three bridges analyses: Bridge 1, 2 and 3 (Author 2012)
Fig. 141. Three bridges analyses: Bridge 1, 2 and 4 (Author 2012)
Fig. 142. Three bridges analyses: Bridge 1, 2 and 5 (Author 2012)
Fig. 143. Three bridges analyses: Bridge 1, 3 and 4 (Author 2012)
Fig. 144. Three bridges analyses: Bridge 1, 3 and 5 (Author 2012)
Fig. 145. Three bridges analyses: Bridge 1, 4 and 5 (Author 2012)
Fig. 146. Three bridges analyses: Bridge 2, 3 and 4 (Author 2012)
Fig. 147. Three bridges analyses: Bridge 2, 3 and 5 (Author 2012)
Fig. 148. Three bridges analyses: Bridge 2, 4 and 5 (Author 2012)
Fig. 149. Three bridges analyses: Bridge 3, 4 and 5 (Author 2012)
Fig. 150. Four bridges analyses: Bridge 1, 2, 3 and 4 (Author 2012)
Fig. 151. Four bridges analyses: Bridge 1, 2, 3 and 5 (Author 2012)
Fig. 152. Four bridges analyses: Bridge 1, 2, 4 and 5 (Author 2012)
Fig. 153. Four bridges analyses: Bridge 1, 3, 4 and 5 (Author 2012)
Fig. 154. Four bridges analyses: Bridge 2, 3, 4 and 5 (Author 2012)
Fig. 155. Five bridges analyses: Bridge 1, 2, 3, 4 and 5 (Author 2012)
**BRIDGE**

**IMPACT ON LOCAL SCALE**

**One Bridge**

Bridge 1

This bridge strengthens the North - South connection of the harbour mouth area. But, it doesn’t improve the integration levels of other streets.

Bridge 2

It strengthens the connection between the Visafslag and the Harbour Bay area, where the streets’ integration levels are highly improved. This bridge will be beneficial in case that there are major developments on the Visafslag and the Harbour Bay area.

Bridge 3

It strengthens the connection between Scheveningen Haven and Dorp. It improves the street integration levels on the industrial area and the northern part of the Visafslag area.

Bridge 4

This bridge strengthens the connection between Scheveningen Haven and Dorp along the northern waterfront area of Doctor Lelykade and the Harbour Bay, as well as the Vissershavenweg with a lesser impact compared to Bridge 3.

Bridge 5

This bridge only provides an East - West connection on the Third Port without improving the integration levels on the other areas.

**Two Bridges Combination**

Bridge 1 and 2

They improve the connection between the northern and southern part of the harbour mouth, as well as the Visafslag and the Harbour Bay area.

Bridge 1 and 3

They strongly improve the connection between the northern and southern parts of Scheveningen Haven, as well as the Scheveningen Dorp and the Westduinpark. In other words, they strengthen the connectivity among tourism destinations in and around Scheveningen Haven.

Bridge 1 and 4

They improve the connection between the harbour mouth as well as the eastern and western part of the Second Port. They also increase the integration level on the northern part of Doctor Lelykade.
## Bridge Impact on Local Scale

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<th>Bridge Combination</th>
<th>Impact Description</th>
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<td>Bridge 1 and 5</td>
<td>They improve the integration level of the western part of the Kranenburgweg.</td>
</tr>
<tr>
<td>Bridge 2 and 3</td>
<td>They improve the connectivity and the integration level of the Visafslagweg, the Harbour Bay and the industrial area. Nonetheless, this bridge combination excludes the Westduinpark and the southern beach area.</td>
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<tr>
<td>Bridge 2 and 4</td>
<td>This combination increases the integration level of the Visafslag, the eastern waterfront of the Harbour Bay and the northern part of Doctor Lelykade. These bridges also make the northern waterfront of the Harbour Bay area to be highly integrated.</td>
</tr>
<tr>
<td>Bridge 2 and 5</td>
<td>They have a similar impact compared to the bridge 2 and 4 combination, with a lower integration level on the northern waterfront of the Harbour Bay area.</td>
</tr>
<tr>
<td>Bridge 3 and 4</td>
<td>This combination only improves the integration level on the industrial area.</td>
</tr>
<tr>
<td>Bridge 3 and 5</td>
<td>They increase the integration level on the industrial area and provide a connection between the eastern and western side of the Third Port.</td>
</tr>
<tr>
<td>Bridge 4 and 5</td>
<td>They provide an East - West connection of the Second and the Third Port.</td>
</tr>
</tbody>
</table>

### Three Bridges Combination

Bridge 1, 2 and 3

Apart from providing a connection between the harbour mouth, these bridge also improve the integration level of the Harbour Bay and the industrial area.
<table>
<thead>
<tr>
<th>BRIDGE</th>
<th>IMPACT ON LOCAL SCALE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bridge 1, 2 and 4</td>
<td>This combination provide a connection between the harbour mouth, while highly increasing the integration level of the northern waterfront of the Harbour Bay area and Doctor Lelykade.</td>
</tr>
<tr>
<td>Bridge 1, 2 and 5</td>
<td>They provide a connection between the harbour mouth, the Third Port as well as the Visafslag and the Harbour Bay area.</td>
</tr>
<tr>
<td>Bridge 1, 3 and 4</td>
<td>Apart from connecting the harbour mouth, these bridges also improve the integration level of the industrial area.</td>
</tr>
<tr>
<td>Bridge 1, 3 and 5</td>
<td>They provide the connection between the harbour mouth and increase the integration level on the industrial area as well as the Kranenburgweg.</td>
</tr>
<tr>
<td>Bridge 1, 4 and 5</td>
<td>This combination provides a connection between the harbour mouth as well as the eastern and western part of the Third Port. Moreover, it also improves the integration level of the northern part of Doctor Lelykade and the Kranenburgweg.</td>
</tr>
<tr>
<td>Bridge 2, 3 and 4</td>
<td>These bridges improve the integration level of the Harbour Bay and the industrial area. They also make the northern waterfront of the Harbour Bay area to be highly integrated.</td>
</tr>
<tr>
<td>Bridge 2, 3 and 5</td>
<td>They increase the integration level of the industrial area, the eastern Harbour Bay area and the Kranenburgweg.</td>
</tr>
<tr>
<td>Bridge 2, 4 and 5</td>
<td>They improve the integration level of the northern waterfront of the Harbour Bay area and the Doctor Lelykade. This combination also makes Bridge 4 to be highly integrated to its surroundings.</td>
</tr>
<tr>
<td>Bridge 3, 4 and 5</td>
<td>Besides providing a connection from the Harbour Bay to the industrial area and the eastern waterfront of the Second Port, this combination only increase the integration level of the industrial area.</td>
</tr>
</tbody>
</table>
Four Bridges Combination

Bridge 1, 2, 3 and 4  
Apart from connecting the harbour mouth, this combination creates a highly integrated axis that stretches from the eastern waterfront of the Second Port to the Visafslag area.

Bridge 1, 2, 3 and 5  
They connect the harbour mouth and improve the integration level of the industrial area and the Kranenburgweg.

Bridge 1, 2, 4 and 5  
This combination creates a highly integrated axis from the eastern waterfront of the Second Port to the Visafslag area. Although it is similar to the bridge 1, 2, 3 and 4 combination, it has a lesser integration level.

Bridge 1, 3, 4 and 5  
Besides providing connections between the harbour mouth, the Harbour Bay and the industrial area as well as the eastern waterfront of the Second Port, this combination also improves the integration level on the industrial area and the Kranenburgweg.

Bridge 2, 3, 4 and 5  
They increase the integration level of the industrial area, the eastern waterfront of the Harbour Bay and the Kranenburgweg.

Five Bridges Combination

Bridge 1, 2, 3, 4 and 5  
This combination provides connections between the harbour mouth, the Harbour Bay with the Visafslag, industrial area and the eastern waterfront of the Second Port, as well as the eastern and western part of the Third Port. These bridges make the northern waterfront of the Harbour Bay to be highly integrated and centrally positioned in Scheveningen Haven.
Conclusion

Bridge 5 has proven to have the least impact on the integration level in Scheveningen Haven. Therefore, its construction also has the least priority.

Although Bridge 1 shares the same integration impact compared to Bridge 5, its construction is considered a high priority because it continues the boulevard route to the Kijkduin and the coastal landscape along the North Sea. Hence, its construction affects larger scales and other issues, such as landscape and tourism.

Bridge 4 improves the connectivity from Scheveningen Dorp and Haven by increasing the integration level of the Vissershavenweg and the northern part of the western Second Port waterfront. Nevertheless, its construction is considered a low priority because it connects the low priority development of the Harbour Bay area and the eastern waterfront of the Second Port, which doesn’t hold any important position in Scheveningen Haven.

Even though Bridge 2 provides a direct connection between the Visafslag and the Harbour Bay area, its construction is also considered a low priority. This decision is taken considering the more favorable impact of Bridge 3 and the need to limit the number of bridges in order to provide a swift water traffic in Scheveningen Haven.

Bridge 3 has a high construction priority because of it establishes a direct connection from Scheveningen Dorp to Haven, as well as the northern and southern part of Scheveningen Haven. It has a larger impact on the bigger scales, where it significantly improve the connectivity and accessibility of Scheveningen Dorp, Haven, the Westduinweg and the coastal urban area alongside the North Sea.

Due to the aforementioned reasons, only Bridge 1 and 3 should be built in Scheveningen Haven. This combination is chosen because of the need to limit the bridge number to be as few as possible by selecting the most essential bridges.

Even though other bridge combinations have bigger impacts on the street integration level, Bridge 1 and 3 are still considered superior. The new connection between the Westduinpark and Scheveningen Haven, as well as the northern and southern Scheveningen coastline may encourage the existing tourism developments and open new opportunities for natural tourism alongside the North Sea. These impacts on larger scales and issues are not found in other bridge combinations. Thus, the reason why Bridge 1 and 3 are the most important bridges in Scheveningen Haven.
Passageway

There are three groups of new passageways in Scheveningen Haven (Fig. 156).

1. The passageways on the Visafslag building
2. The passageways on the industrial buildings
3. The passageways on the residential blocks of the Treilerweg and the Vissershavenweg

The impacts on the street integration will be observed on each group of the passageways and their possible combinations. Nonetheless, because there is no visible change on the global scale, only the local scale impacts are described in this section.

From this point on, for the sake of clarity, each group of passageways is referred with a number, which is pointed out on the map below.

Fig. 156. The new groups of passageways in Scheveningen Haven (Author 2012)
Fig. 157. No passageway analyses (Author 2012)
Fig. 158. Passageway 1 analyses (Author 2012)
Fig. 159. Passageway 2 analyses (Author 2012)
Fig. 160. Passageway 3 analyses (Author 2012)
Fig. 161. Passageway 1 and 2 analyses (Author 2012)
Fig. 162. Passageway 1 and 3 analyses (Author 2012)
Fig. 163. Passageway 2 and 3 analyses (Author 2012)
Fig. 164. Passageway 1, 2 and 3 analyses (Author 2012)
<table>
<thead>
<tr>
<th>Passageway Combination</th>
<th>Impact on Local Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>No Passageway</strong></td>
<td>The absence of passageways reduces the integration level on the Vissershavenweg, eastern and western waterfronts of the Visafslag as well as the industrial area.</td>
</tr>
<tr>
<td><strong>One Passageway</strong></td>
<td></td>
</tr>
<tr>
<td>Passageway 1</td>
<td>The passageways provide a direct connection from the Visafslag building to the beach. This connection is crucial because it links two important (future) tourism destinations. Some of the passageways are also well integrated, which indicates their successful allocations.</td>
</tr>
<tr>
<td>Passageway 2</td>
<td>The new passageways improve the integration level of some western waterfront parts of industrial area and the Vissershavenweg.</td>
</tr>
<tr>
<td>Passageway 3</td>
<td>These passageways improve the connection between Scheveningen Dorp and Haven with a well integrated route to the First Port. Moreover, they also increase the integration level of the Vissershavenweg and the western waterfront of the industrial area.</td>
</tr>
<tr>
<td><strong>Two Passageways Combination</strong></td>
<td></td>
</tr>
<tr>
<td>Passageway 1 and 2</td>
<td>They combine the impacts of Passageway 1 and 2 without further influence on other streets in Scheveningen Haven.</td>
</tr>
<tr>
<td>Passageway 1 and 3</td>
<td>They also combine the impacts of Passageway 1 and 3 without further influence on other streets in Scheveningen Haven.</td>
</tr>
<tr>
<td>Passageway 2 and 3</td>
<td>This combination provides a direct connection from Scheveningen Dorp to the industrial area and increases the integration level on the Vissershavenweg as well as the western waterfront of the industrial area.</td>
</tr>
</tbody>
</table>
PASSAGEWAY IMPACT ON LOCAL SCALE

Three Passageways Combination

Passageway 1, 2 and 3

These passageways increase the integration level on the Vissershavenweg further than other combinations. In other words, the Vissershavenweg becomes one of the prominent streets in Scheveningen Haven.

Conclusion

All of the passageways and their variants have limited impacts on the street integration level. Nevertheless, Passageway 1 is undeniably the most important passageway in Scheveningen Haven because it connects the Visafslag area with the boulevard and the beach.

This connection is considered crucial because of the new Fisheries Centre on the Visafslag area, the boulevard’s position as the main pedestrian route alongside the coast and the beach’s status as the most popular destination in Scheveningen district. Passageway 1 will increase the visibility of the new Fisheries Centre and the Visafslag area from the boulevard and the beach, which then may encourage the tourism development on this area.

Passageway 2 is considered important because it enables visual and spatial connections from both waterfront sides to the Zeesluisweg. The increased visibility of the waterfronts from the Zeesluisweg is considered advantageous because the Zeesluisweg is a highly integrated street with car and pedestrian traffic. Thus, it may encourage any types of businesses or developments on the waterfronts.

Apart from that, the feeling of safety and the spatial quality of the Zeesluisweg is also improved by the view and direct access to the waterfronts. The increased number of active frontages that results in more eyes on the street increase the pedestrians’ feeling of safety. Furthermore, the passageways also lessen the enclosed atmosphere of the Zeesluisweg and improve its spatial quality with occasional views of the harbours.

Lastly, Passageway 3 is considered to have the lowest development priority despite its extensive impact on the street integration level and the connectivity between Scheveningen Dorp and Haven. This decision is taken based on the purpose and the urgency of this project, where connectivities among major tourism functions and urban regenerations of the existing areas are prioritised.

The exclusion of Passageway 3 can also be seen as a step to preserve the inward nature of Scheveningen Haven. Currently, the harbour area seems to be detached from its surroundings be-
cause of the lack of accessibility, visual and spatial continuities. That is why in spite of this project’s aim to improve the accessibility to Scheveningen Harbour, maintaining some degree of detachment and disconnectivity is also important. Hence, its spatial character is preserved regardless the new developments.
<table>
<thead>
<tr>
<th>specification</th>
<th>Bus Rapid Transit (BRT)</th>
<th>Light Rail Transit (LRT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Right-of-Way</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investment cost per pairs of lanes</td>
<td>5 - 40 million USD / km</td>
<td>10 - 50 million USD / km</td>
</tr>
<tr>
<td>Capacity per Transit Unit and vehicle</td>
<td>75 - 200 ppl (1 cart)</td>
<td>120 - 600 ppl (1 - 4 cars)</td>
</tr>
<tr>
<td>Speed</td>
<td>70 - 90 km/h</td>
<td>60 - 100 km/h</td>
</tr>
<tr>
<td>Terminal</td>
<td>500 - 800 m</td>
<td>500 - 1000 m</td>
</tr>
<tr>
<td>Lane-width (one-way)</td>
<td>3.65 - 3.75 m</td>
<td>3.40 - 3.60 m</td>
</tr>
</tbody>
</table>

Fig. 165. Bus Rapid Transit, Light Rapid Transit and Rail Rapid Transit’s specifications (Author 2011, based on Vuchic 2007)
Design proposals of new public transport are made in order to improve the accessibility to tourism destinations in Den Haag. The new public transports selected are Bus Rapid Transit (BRT), Light Rail Transit (LRT) and Rail Rapid Transit (RRT) (Fig. 165). They are chosen because of their higher passenger capacity and speed compared to Den Haag’s current public transport specification.

Design Process

Mappings and analyses are done to determine the design guidelines for the new proposals.

First, tourism destinations in Den Haag are mapped (Fig. 166), along with the current bus and tram networks (Fig. 167), as well as car and public transport routes to Scheveningen (Fig. 168).

Second, the mappings serve as the basis for the guidelines. The guidelines are decided based on the existing public transport lines and the possible alterations for each new public transport. Bus Rapid Transit design guideline is based on the existing bus lines to Scheveningen and the possible alterations of Den Haag’s bus networks (Fig. 169). Light Rail Transit design guideline is based on the existing tram connection to Scheveningen and the possible alterations of Den Haag’s tram networks (Fig. 170). On the other hand, since there is no existing Rail Rapid Transit network in Den Haag, there is only one preferred line to be incorporated into the design (Fig. 171). The line is the existing tram 15 route from the P+R facility to the Central Station, where major spatial (on and under ground) alterations can be easily done.
Fig. 166. Tourism destinations in Den Haag (Author 2011)
Fig. 167. Existing bus and tram networks in Den Haag (Author 2011)
Fig. 168. Car and public transport routes to Scheveningen district (Author 2011)
Car Route to Scheveningen
Bus 22 Route to Scheveningen
Tram 1 Route to Scheveningen
Tram 9 Route to Scheveningen
Tram 11 Route to Scheveningen
Fig. 169. New Bus Rapid Transit’s design guidelines (Author 2011)
Fig. 170. New Light Rapid Transit’s design guidelines (Author 2011)
Destinations

Preferred LRT route

Possible LRT route

Kijkduin

Museum Kwartier

City Centre

Central Station

Hollands Spoor

Madurodam

Harbour

Village

Boulevard
Fig. 171. New Rail Rapid Transit’s design guidelines (Author 2011)
Destinations
Preferred RRT route
Kijkduin
Museum Kwartier
City Centre
Central Station
Hollands Spoor
Madurodam
Harbour
Village
Boulevard
Fig. 172. Proposal 1: New Light Rail Transit in Den Haag to Scheveningen Bad (Author 2011)
Fig. 173. Proposal 2: New Light Rail Transit and Bus Rapid Transit in Den Haag to Scheveningen Bad and Kijkduin (Author 2011)
Fig. 174. Proposal 3: New Light Rail Transit in Den Haag to Scheveningen Bad and Kijkduin (Author 2011)
Fig. 175. Proposal 4: New Light Rail Transit and Bus Rapid Transit in Den Haag to Scheveningen Bad and Kijkduin (Author 2011)
Fig. 176. Proposal 5: New Rail Rapid Transit in Den Haag to Scheveningen Bad (Author 2011)
Fig. 177. Proposal 6: New Rail Rapid Transit in Den Haag to Scheveningen Bad and Kijkduin (Author 2011)
Fig. 178. Proposal 7: New Bus Rapid Transit and Rail Rapid Transit in Den Haag to Scheveningen Bad and Kijkduin (Author 2011)
<table>
<thead>
<tr>
<th>spatial planning</th>
<th>cost (million $)</th>
<th>P+R to Boulevard (minute)</th>
<th>number of tourism destinations</th>
<th>total track (km)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposal 1</td>
<td>324</td>
<td>8.1</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>Proposal 2</td>
<td>430.4</td>
<td>8.1</td>
<td>9</td>
<td>15</td>
</tr>
<tr>
<td>Proposal 3</td>
<td>489.5</td>
<td>5.7</td>
<td>10</td>
<td>16</td>
</tr>
<tr>
<td>Proposal 4</td>
<td>595.25</td>
<td>5.7</td>
<td>10</td>
<td>21</td>
</tr>
<tr>
<td>Proposal 5</td>
<td>1,500</td>
<td>7.3</td>
<td>8</td>
<td>11</td>
</tr>
<tr>
<td>Proposal 6</td>
<td>1,260</td>
<td>6.7</td>
<td>8</td>
<td>15</td>
</tr>
<tr>
<td>Proposal 7</td>
<td>1,600</td>
<td>6.7</td>
<td>9</td>
<td>15</td>
</tr>
</tbody>
</table>

Fig. 179. Assessments of new public transport proposals in Den Haag (Author 2011)
<table>
<thead>
<tr>
<th>Track length (km)</th>
<th>Current track alteration (km)</th>
<th>On-ground new track (km)</th>
<th>Elevated new track (km)</th>
<th>Underground new track (km)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.85</td>
<td>10.85</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.6</td>
<td>0.6</td>
<td>4.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16.3</td>
<td>16.3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.1</td>
<td>0.6</td>
<td>4.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.8</td>
<td></td>
<td></td>
<td>4.5</td>
<td>6.6</td>
</tr>
<tr>
<td>6.9</td>
<td>4.8</td>
<td></td>
<td>4.5</td>
<td>6.6</td>
</tr>
</tbody>
</table>
Design Proposals

Light Rail Transit

Proposal 1
This proposal alters the current lines of tram 1 and 15, then incorporates them into the new LRT line that connects the P+R facility, the Hollands Spoor and Centraal Station train station, the city centre, the Museum Quarter, Scheveningen Haven, Dorp and Bad (Fig. 172). Scheveningen Bad and P+R facility become the end destinations, where there are many potential passengers expected. This proposal connects all of the major destinations in Scheveningen with the P+R facility, which may decrease the number of tourist cars in the district.

Proposal 2
This proposal combines Proposal 1 with a BRT extension to Kijkduin (Fig. 173). Hence, the Museum Quarter becomes the transit hub where the LRT and BRT lines meet, which results in the increasing prominence of this area. Because Proposal 2 has the same end destinations and LRT tracks compared to Proposal 1, it may also encourage the higher use of public transport to Scheveningen district rather than cars.

Proposal 3
This proposal combines Proposal 1 with another LRT extension to Kijkduin (Fig. 174). Hence, the P+R facility and Kijkduin become the end destinations. However, this proposal is considered weak. There is a low number of potential passenger in Kijkduin, which may result in the passive use on the second half of the line. Without enough passenger load, the public transport cannot operate on time on the designated schedule and may suffer economic deficiency.

Proposal 4
This proposal is a variation of the third proposal, where the Museum Quarter is the end of the LRT line and then, it is continued with a BRT line to Kijkduin (Fig. 175). The end destinations of the LRT line are the P+R facility and the Museum Quarter. Because of the low number of potential passengers in Museum Quarter, this proposal is considered as weak. On the other hand, this proposal connects the highest amount of tourism destinations with the longest track length compared to other LRT proposals.

Rail Rapid Transit

Proposal 5
This proposal is the alteration of Proposal 1, where it connects the same tourism destinations with almost the same route (Fig. 176). Because of the RRT's right-of-way requirement, new elevated and underground tracks should be made, which then increases the construction cost. Nevertheless, despite the higher construction cost, the travelling time of this option doesn’t differ much from Proposal 1’s.

Proposal 6
This proposal is the alteration of Proposal 3, where new routes that fulfill RRT's right-of-way requirements are assigned (Fig. 177). The new routes are chosen because of the sufficient width and possibility of constructing elevated track with minimum visual and spatial obstructions. This option is considered weaker than Proposal 3 because it involves higher construction cost with weak destinations appeals.

Proposal 7
This proposal is the alteration of Proposal 2, where the LRT line is replaced
with RRT and the BRT line is maintained (Fig. 178). Even though it provides faster connections to appealing end destinations, the BRT extension is considered redundant because it increases the construction cost with little potential benefits.

Assessments

The proposals are assessed based on their cost-benefit value in economic and spatial terms. The alteration of the current public transport network, as well as the construction of new tracks, on and under ground, as well as elevated are assessed in relation to the number of destinations connected and cost involved (Fig. 179).

In conclusion, Proposal 1 is considered the most promising one, which has strong end destinations, higher efficiency of travelling time and route in relation to the construction cost and spatial alterations of the current network. Moreover, this proposal connects all the most important destinations that are related to Scheveningen. Nonetheless, this proposal, like the others also have a setback. Because it mainly connects seasonal tourism destinations, it may not be actively used outside of peak season. Hence, this proposal may only be optimal for a temporary seasonal tourism public transport only and not an all-year-long service.
Appendix E

Sustainable Tourism Development
Tourism is now a major sector of the world economy, especially at the international trade in services. Its management affects the conditions of destinations and host communities, as well as the future of ecosystems, regions and nations. Because of that, well-managed strategies and decisions at all scales are essential so that tourism can be a positive contributor to sustainable development in keeping with its role as a significant source of both benefits and potential stresses.

Tourism Destination

According to the World Tourism Organization’s working group on destination management, a local tourism destination is a physical space in which a visitor spends at least one overnight. It includes tourism products such as support services and attractions, and tourism resources within one day’s return travel time. It has physical and administrative boundaries defining its management, and images and perceptions defining it market competitiveness. Local destinations incorporate various stakeholders often including a host community, and can nest and network to form larger destinations.

Sustainability Principles

The principles refer to the environmental, economic and socio-cultural aspects of tourism development, and a suitable balance must be established between these three dimensions to guarantee its long-term sustainability. Hence, sustainable tourism should:

1. Make optimal use of environmental resources, maintain essential ecological processes and help conserving natural heritage and biodiversity.

2. Respect the socio-cultural authenticity of the host communities, conserve their built and living cultural heritage and traditional values, as well as contribute to inter-cultural understanding and tolerance.

3. Ensure viable, long term economic operations, providing socio-economic benefits to all stakeholders that are fairly distributed, including stable employment and income-earning opportunities and social services to host communities, and contributing to poverty alleviation.

Furthermore, sustainable tourism should also maintain a high level of tourist satisfaction and ensure a meaningful experience to the tourists, raising their awareness about sustainability issues and promoting sustainable tourism practices among them.

Sustainability Issues and Indicators

In this section, only the issues that are relevant to this project are presented. They are as follows.

1. Wellbeing of Host Communities

Local Satisfaction with Tourism

Communities are the host for tourists. They can be affected both positively from tourism through jobs, economic activity and improved social services, as well as negatively due to stress or damage on local resources and cultural values. That is why local satisfaction is critical for tourism sustainability. The components of satisfaction cover a wide range of issues, such as crowding, access to jobs, sharing in benefits, reaction to tourist behaviour and many more.

Effects of Tourism on Communities

The social, cultural and economic impacts on a host community are inextric-
cably lined. Accepting economic development often means accepting the cultural changes that accompany the tourism development. It may happen without the opportunity for the community to decide whether they want to change or not.

This issue can be measured from the social benefits associated with tourism (local residents' percentage who believe that tourism helps bringing new services or infrastructure), general impacts on community life (number of tourists per day, ratio of tourists to locals), changes of residents' lifestyles (local residents' percentage that change their occupation to tourism related ones, change of frequency in cultural activities or traditional events), housing (number of affordable housings for residents, mode and average distance of travel to work or school), community demographic (number of residents who leave the community and immigrants that take the tourism jobs).

2. Sustaining Cultural Assets

Conserving Built Heritage

This issue concerns the cultural sites, monuments, damage, maintenance, designation and preservation of the protected areas or monuments.

3. Community Participation in Tourism

Community Involvement and Awareness

The development of a sense of ownership and responsibility of sustainable tourism in host communities is a major issue. Therefore, a participatory approach that empowers the local community and the tourism industry so they can develop and appreciation and knowledge regarding local and individual issues and costs associated with developing tourism is needed.

4. Tourist Satisfaction

Sustaining Tourist Satisfaction

Tourist satisfaction is central to whether tourists return, recommend the destination to others or conversely advise others to stay away. For that reason, it becomes a leading indicator of the longer-term sustainability of a destination. Tourist satisfaction is based on many different factors, including the range of attractions of a destination, its market positioning, the quality of services, the expectations of tourists and the experiences of each tourist during the stay.

Accessibility

This issue mainly concerns the accessibility for people with impaired mobility to destinations and attractions.

5. Safety

Local Public Safety

Public safety is measured not only in crime statistics, but also in safety and security perceptions of the beholder. Hence, it is important to document not only the objective incidence of safety problems, but also to try understanding the uneasiness perceived by tourists, which will affect their experience and constitute a risk to tourism in the destination.

6. Capturing Economic Benefits from Tourism

Tourism Seasonality

Very few destinations have consistent tourism throughout the year. Tourism seasons, especially in beach tourism, are largely dependent on climate and
weather patterns. Low seasons reflect unfavourable weather conditions at destinations (cold, rain, excessive heat and humidity, storms), while high seasons with optimal weather at destinations can be affected by warmer and more favourable weather conditions in source countries.

A growing trend is the establishment of four season resorts, which attempt to diversify the tourism product and serve a range of different niche markets in different seasons. For example, in summer, many of the winter trail facilities are converted to mountain bike trails with ski lifts carrying bikers and their bicycles to the mountain.

All year round tourism activities are also important to sustain the local services and tourist employment. Tourism seasonality may cause unemployment, seasonal employment, as well as social and economic impacts on the destination. In extreme cases, tourist communities shut down in the low season with the remaining residents experience difficulties in obtaining basic services.

Tourism as a Contributor to Nature Conservation

Tourism can be a threat to natural conservations. But, tourism can also help protecting them by raising awareness through its distribution channels and providing an economic incentive to protect the natural habitats.

Competitiveness of Tourism Business

A successful competitive tourism strategy yields above average returns for a destination compared to others. The key components of this issue are as follows.

a. Cost advantage, price and value of accommodations, attractions, tours or packages compared to similar products at other destinations.

b. Differentiation of products and experiences, inherent attractions, positioning the destination, branding, quality and psychological advantages (e.g. a perception of exclusivity may allow higher charged prices).

c. Specialty focus strategy, which narrows the focus for tourism products and target markets, tourist experiences, destination appeal and thematic business clusters.

d. Cooperation among businesses, common marketing, image, branding of the destination, as well as research and support for small businesses.

e. Vitality of the industry, such as the longevity of tourism businesses, resale value of tourism businesses, level of participation by business in tourism strategy development, strength of membership in tourism industry associations, tourism revenues and annual profit of tourism businesses.

7. Protection of Valuable Natural Assets

Protecting Critical Ecosystems

Rare flora and fauna as well as unique ecosystems are significant attractions for tourists. The growth of eco-tourism may enhance the learning of the environments or damage them. Because of that, governments are increasing the efforts to protect natural areas for tourism purposes. The components involved in this issue are the area’s location and degree of protection, intensity of use, disturbance to species and fragile systems, as well as costs of maintenance of protection.
Seawater Quality

The quality of the beach and seawater is a significant factor in choice of destination since many activities, such as fishing diving, boating or nature viewing are affected if water quality is compromised.

8. Managing Scarce Natural Resources

Climate Related Damage

This issue covers the percentage of tourist infrastructure (hotels, other) located in vulnerable zones (as defined in each country’s climate change program or equivalent), value of tourism infrastructure in coastal zone below estimated maximum storm surge levels or equivalent, value of damage annually due to storm events or flooding, the percentage of tourist area and infrastructure with sea defences (could be classed by level of protection), percentage of tourism dependent on viewing certain species in its natural habitat, as well as percentage of key species considered vulnerable to changes in climate.

In addition, the transportation fuel use should also be monitored. It concerns total consumption per capita of fossil fuels for transportation and total consumption of fossil fuels in the destination for tourist transportation.

9. Limiting Environmental Impacts of Tourism Activity

Sewage Treatment

Sewage treatment is a key concern for tourism. Contaminations of its key sources (beaches, lakes, rivers) may harm this industry. Moreover, pollution from resorts, local communities and industries can degrade the destination and contribute to diseases and damages to wildlife and natural resources.

The components of this issue are: percentage of sewage from the destination receiving treatment, percentage of treated sewage recycled, percentage of tourism establishments on suitable treatment systems, percentage of the destination served by storm water systems, as well as the number of reported pollution or contamination events per annum in watercourses receiving effluents.

Controlling Noise Levels

Noise is identified as one of the major issues that degrade the quality of tourists’ experiences. The acceptable noise level on one place is different from others. For example, the noise tolerated at an amusement park or a rock concert most likely is not tolerated in a quiet beach resort. Furthermore, the acceptable level is also different on daylight and at night time.

In particular, the beach destinations noise levels often draw complaints. The tourists want to party until dawn but the local residents want to sleep. Nonetheless, noise levels tend to be quite specific. A street row that is filled with night clubs, outdoor attractions, restaurants or a major intersection is located only two blocks away from a quiet residential area.

Managing Visual Impacts of Tourism Facilities and Infrastructure

Architectural and urban designs of the facilities should not compete with the natural landscape and the surrounding vegetation. On the contrary, it should be harmoniously integrated into the environment. The presence of the facility should not disturb or intrude upon its natural setting as well. Additionally, the existing architectural forms should be assessed whether they are synchronized with the landscape or not.
The facility's form, colour and integration with the surrounding landscape must be taken into account. Besides, a facility should also be sensitive to the cultural context. It must integrate the cultural motifs and traditional styles of the vernacular architecture wherever possible. Hence, the facility can reflect the local cultural history, become visually and culturally sustainable over time, reduce any local traditional residents' feelings of cultural intrusions, as well as enhance the tourists' experience and appreciation of the local cultural forms and styles.

The components of this issue are as follows.

a. Design and construction of infrastructure: total length of roads, number and size of signposts.

b. Night lighting: number of light fixtures that throw direct light and quality in viewing the night sky in natural areas.

c. Physical form: height of buildings (average and maximum), number of buildings exceeding height of natural vegetation, shapes of buildings (percentage of matching the vernacular architecture), shapes of signs (percentage of matching vernacular style or natural environment) and density of buildings per hectare (footprint and floor space per unit area).

d. Planning / building permits: existence of aesthetic considerations in planning approval process.

e. Material selection: color (percentage of matching or coordinating with the vernacular) and texture (percentage of matching with the vernacular).

f. Integration with the landscape: percentage of site cleared for development, number of indigenous plants removed for development, percentage of landscaping done with native species and percentage of site covered by indigenous plants.

10. Controlling Tourist Activities

Controlling Use Intensity

The number and density of tourists are a driving factor in many of the tourism management's issues. The measure of stress on sites and systems can be both an indicator of potential and occurring damage, or whether the site is stressed due to excessive use.

This issue covers: total tourists numbers, tourists number per square metre of the site with the mean number or peak day and month average, density counts for vehicle use of site, percentage of total capacity used (average and peak), as well as percentage of local residents and tourists who believe that the destination is too crowded.

Managing Events

Events are significant for tourism and bring challenges to event organizers. It can vary from pilgrimages to cultural festivals, concerts, conferences or sports, with a large variety of organizers and participants. Their impacts are parallel to tourism activities'. They may provide benefits to local communities, but they can also disrupt the local communities' lives.

The components of this issue are as follows.

a. Site environmental sensitivity: total area of site used for the event and percentage of site changed.

b. Social sensitivities (impact on local communities): existence of a participa-
tory planning process for events, percentage of local population who support the event, ratio of numbers of spectators to population, percentage of site permanently changed by the event and percentage of increase or decrease in use of the site after the event.

c. Impact caused by participants in the event (intensity of use of site and specific areas): number of participants at the event and number of circuits or repetitions per area or length of track (sports).

d. Impact caused by spectators: existence of a spectators management plan, number of spectators, ratio of expected number of spectators to actual, density of spectators, area cordoned off for / from spectators and number of portable toilets.

e. Impact caused by vehicles: number of vehicles, percentage of spectators using public transport, percentage of increase in number of vehicles and area for parking.

f. Impact due to infrastructure: area impacted / loss of natural habitat / landscape and increase use of site after the event.

11. Destination Planning and Control

Integration of Tourism into Local/Regional Planning

With a careful integrated tourism planning, many of negative impacts of tourism can be avoided. This issue covers the following components.

a. Performance of the tourism industry: tourist numbers over time / purpose of visit, average length of stay, visitor expenditure per day, revenue generated from tourism and leakages from the economy.

b. Impacts of tourism on the destination: traffic generated from tourism, ratio tourists to locals, local satisfaction with tourism and economic dependency on tourism (contribution to GDP).

c. Quality of the tourism product: attractiveness of sites and facilities, satisfaction of tourists and percentage of returning visitors.

d. Threats to tourism from other areas: number of sites damaged by other development, environmental threats (logging, industrial pollution, reduction of fish populations), environmental vulnerability (storm events, flooding) and crime rate per capita.

Tourism-Related Transport

The success of a tourism destination is closely related to the issue of accessibility, mobility and the site's nature preservation. Nonetheless, cars and airplanes are the most use transportation mode for tourism, which results in environmental threats. For example, greenhouse gas, air pollutants emissions, intensified consumption of energy and noise pollution. A sustainable tourism needs an environmentally friendly transport planning on the local and global levels. That is why an improvement of public transport is needed to shift the use of cars to more sustainable modes.

12. Designing Products and Services

Providing Variety of Experience

A greater variety of facilities often results in tourists staying longer for more experience. Tourists who have more variations of activities may find the overall experience more rewarding. On the other hand, destinations with little
variety may cause tourists to feel disappointed, especially on rainy days, storms or unsuitable temperatures that prevent the tourists from enjoying the facilities. In other words, this issue is strongly linked to seasonal tourism. That is why guidebooks that contain variety of attractions are often published to help tourists find alternative activities.

The components of this issue are as follows.

a. Maintaining a variety of experiences: number of different attractions in or near destination (cultural and natural heritage sites, events and festivities or leisure activities)

b. Provision of the full range of needed tourism services: range of tourist services available in the destination (accommodation and catering, transportation, information and guiding, conference and meeting).

c. Tourists’ satisfaction with the destination’s varieties: perception of variety by tourists.

Protection of the Image of a Destination

The decision to visit a destination is often based on the image of a potential visitor has of the place. The image may be based on their own experiences, what they have read, other people’s opinions or the images portrayed on the destination’s marketing materials. For that reason, sustaining tourism in a destination also means sustaining the appropriate image of the destination.

Driven by the increasing global tourism competition, a more distinguished development of tourism brand and image is endorsed. It intends not only to capture the central values of the place,
number of tourists

CRITICAL RANGE
OF ELEMENTS
OF CAPACITY

rejuvenation

stagnation

consolidation

decline

involvement

development

exploration

time

Fig. 180. Tourism area life cycle (Butler 1980)
Tourism Area Life Cycle

According to Butler (1980), tourism destinations have a life cycle with three different phases (Fig. 180) that is described as follows.

First, the Exploration phase, where a tourism destination starts as a relatively unknown place and visitors initially come in small numbers restricted by the lack of access, facilities and local knowledge.

Second, the Development phase, where more people discover the destination. It becomes more known to public and its attractions as well as its amenities are improved.

Third, the Stagnation phase, where the tourist numbers grow rapidly to certain environmental and social capacity levels.

Lastly, there are two possible scenarios after the Stagnation phase. The destination can enter the Rejuvenation phase, where technological developments or infrastructure improvements increase the capacity levels. Or, it can enter the Decline phase, where increasing congestion and unsustainable development cause the tourism resources become corrupted or ceased to exist. However, Butler also states that in the tourism area life cycle, the law of diminishing returns applies. It means, the constant improvements of the destination may backfire and corrupt the tourism itself.
Tourism-Oriented Harbour Regeneration
Case Study of Valletta and Bristol

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Abstract – Tourism is a powerful tool in harbour regeneration developments. It can be used to produce positive effects in spatial, social and economic dimensions. Furthermore, it benefits not only the project area, but also a bigger scope of the city. For that reason, there is a need to address factors in the project that contribute to the creation of positive impacts in the city. The factors are acquired from analyses of two case studies, cruise passenger terminal development in Valletta, Malta as well as arts and culture-related development in Bristol, United Kingdom. In each case, factors that contribute to the generation of positive and negative impacts are addressed. Additionally, possible improvements for factors that cause negative impacts are also pointed out. Then, they are compiled to form criteria of factors that produce positive effects in the city. First, large-scale and distinctive type of development, such as cruise passenger terminal. Second, preservation of place uniqueness, in relation to its historical context. Third, addressing social and economic problem on wider scale than project area. Fourth, awareness of development’s effect on traffic load and infrastructure. Fifth, creation of vibrant urban atmosphere. And sixth, consciousness of city’s capacity to accommodate all the new programs, considering the number of potential user and resident. Lastly, it is important to remember that the previously described criteria should be used as guidelines, rather than fixed formulas in harbour regeneration.

Key words – harbour; urban regeneration; tourism; guidelines

1 Introduction

The change on city and harbour’s relationship influences the emergence of harbour regeneration. The changing relationship can be explained in relation to Kondratieff’s classification in ‘long wave theory’. The need of harbour regeneration arises because of the shift between ‘infrastructural era’ (1846-1892) and the period of ‘increase in (auto) mobility’ (1893-1948). During ‘infrastructural era’, regional and national urban structures evolve. Meanwhile, the harbour transforms into a transit port, which is located adjacent to the city. Later on, period of ‘increase in (auto) mobility’ signifies the concentration of economic activities and formulation of metropolitan districts, as well as change of transit to industrial port. The harbour moves further away from the city and leaves the inner city port area empty (Meyer 1999). This situation then leads to the need of harbour area regeneration (Gospodini 2001; McCarthy 2003b).

The past and present dominant policy issue influences the definition of urban regeneration. Urban regeneration is ‘comprehensive and integrated vision and action which leads to the resolution of urban problems and which seeks to bring about a lasting improvement in the economic, physical, social and environmental condition of an area that
has been subject to change’ (Roberts 2000). Furthermore, Roberts (2000) adds that any approach to tackle the problems in urban regeneration should be constructed with a longer-term, more strategic, purpose in mind.

Tourism-oriented development generates positive influences in urban regeneration. Tourism can be the catalyst of radical changes in economy, social and physical aspects of a city in transition (Owen 1990). Moreover, tourism-related development can surely produce regenerative outcomes in urban waterfront areas (Kotval and Mullin 2001). Because of high visitor number and spending power that it brings, there are competitions among port cities in such development (Millspaugh 2001).

One of tourism’s major benefits is the great potential for producing employments. Travel and tourism sector are generally regarded as major growth sectors in today’s economy, with high potential for job creation. This is not surprising since a large portion of service sector consists of travel and tourism. The importance of tourism is also supported with a shift from goods production to service economy in North America and most West European countries (Vandermey 1984).

Furthermore, tourism is able to provide many low-skilled jobs that are needed by the conversion to service economy. The transition causes excessive amount of low-skilled or unskilled labour forces. Because better-qualified workers take many of the available job opportunities, there is a limited amount of jobs available for the low skilled or unskilled labour forces. Therefore, tourism jobs are suitable for them due to its labour-intensive character (Owen 1990).

Factors in the project that generate positive results need to be acknowledged because of their extensive and powerful impacts. So far, there is not yet a universal list that accommodates these criteria. Thus, this paper tries to conclude them through case study examinations of Valletta in Malta and Bristol in United Kingdom.

Valletta is chosen as a case study because of its distinctive type of development, a cruise passenger terminal. The cruise industry gains more importance since its expansion in the 1990s. It increases the amount of travellers, cruise ships built, trips on offer, cruise terminals started and completed, length of operation period, and significance of cruise travel for the city or region’s economy. The cruise market also gets bigger, with larger ships and a longer cruising season (McCarthy 2003b). Shortly, this case is worth learning because of its present significance and potential future development.

Additionally, Valletta demonstrates the typical conflict of urban regeneration in many cities. There is a clash between economic development and heritage preservation, as well as the need for environmental protection. In Malta, the tensions are particularly significant because of the high population density (McCarthy 2003b). Therefore, this case study is suitable to provide a closer observation on this topic.

Bristol is selected as another case study for its arts and culture-related development. The popularity of such development is growing in North America and Europe, with the increasing importance of cultural policy’s role. Cultural projects are used as key elements to revitalize public social life, revive a sense of civic identity and shared belonging to the city, create a more inclusive and democratic public realm and raise expectations of what city life has to offer (Montgomery 1990; Fisher and Worpole 1991). Thus, this case study will observe the needed strategies to achieve the targets.

Bristol’s comprehensive urban strategy is another reason why it is chosen as a case study. The project is located on the harbour area. Nonetheless, it takes not only the harbour area, but also the city
centre and Bath, the neighbouring city, into consideration. It collaborates with other cultural developments in city centre and cooperation with Bath to be Cities of Photography and the Electronic Image. In other words, this strategy indicates the objective of using culture as a means of promoting the city (Griffiths 1995).

2 Case Study Examinations

This section covers two case study analyses, where each of them is divided into three parts. The first part describes the project’s context and problems. The second part provides analysis of the positive and negative impacts of the development. The third part identifies factors in the project that contribute to the emergence of positive impacts. Moreover, it also describes possible improvements for factors that cause negative impacts. In the next section, the content of the third part will be assembled into conclusive criteria.

2.1 Cruise Passenger Terminal Development in Valletta, Malta

Project Context
Valletta is the capital city of Malta, a small country of archipelago, in Mediterranean Sea. Because of its historical building heritage, beautiful landscape and beach, as well as welcoming and friendly people, Valletta’s economy relies on tourism sector. This reliance will continue to happen with the increasing importance of tourism in the future (McCarthy 2003b).

Since 1957, Valletta’s population number, income per person and residential rent decline rapidly. For that reason, Grand Harbour Local Plan (Authority 1997) and Structure Plan for the Maltese Islands (Authority 1990) aspire to develop the economy, as well as to protect and conserve the environment. In detail, the Local Plan proposes development to reverse population decline and prioritises tourism uses. (McCarthy 2003b).

The new development covers a wide range of tourism programs. It includes a new cruise liner terminal, a shopping area, an entertainment and cultural complex and a water plaza that provides an outdoor entertainment. Therefore, the harbour area and Malta can benefit from the expansion of cruise market as well as the rising demand for cruise trips. With these developments, the government expects that the revenue will increase immediately (McCarthy 2003b).

The challenge in Valletta is to integrate project’s development with the need for preserving historic heritage. Some areas for the proposed terminal have a high historical value, with seventeenth century stores and forts. Many buildings are decaying, while some areas are vacant and used for car parking and port-related storage. That is why the project’s brief necessitates the rehabilitation of important historic buildings (McCarthy 2009).

Positive Impacts
Cruise terminal development is able to generate positive impacts on larger scales, compared to its project area. It can bring economic benefits for the cities and regions involved, including the generation of new service industries in the wider harbour area (Sousa 2001). It can also generate additional revenues as a result of year-round activities, such as concerts, conferences, exhibitions and retail uses, in addition to their primary functions (Capocaccia 2001). Then, it leads to synergetic effect on the regeneration of the wider area (Bruttomesso 2001). Lastly, aesthetic image of ships contributes to an enhanced image of modernity, leisure and luxury of the city (Sousa 2001).

Unfortunately, the possible positive impacts of cruise terminal development is not maximised in Valletta. It succeeds on attracting more shipping lines and passengers, as well as increasing employment rate and tourism flows (Consulting 2006). However, it fails to spread its regenerative effect to a wider
scope of urban area. In general, Valletta still has a problem with low level of income. Moreover, it fails to build a stronger visual image of the city, with the scenery of cruises on the harbour. The ships’ presence weakens the uniqueness of Valletta’s historical context. It may even decrease its competitiveness because its place distinctiveness is diminishing (McCarthy 2003a).

Negative Impacts
On the contrary, cruise terminal development may damage the existing structure of the area. It can cause problems of inadequate infrastructure because of increasing passenger flows. It will particularly affect the historic city centre, where heritage conservation and enhancement is the main concern (Shaw 2001). It can also cause environmental pollution with the noise and decreasing air, ground and water quality, as well as the loss of natural habitat (Matvejevic 2001). Finally, local companies do not benefit on the development because cruise companies contracts them and income from products sold on ship goes directly to ship owners (Sousa 2001).

The development in Valletta causes similar negative impacts as described above. It increases congestion in the immediate area, a designated Urban Conservation Area and surrounding areas of sensitive heritage quality. Besides, it suffers from bad pedestrian access to the city centre. Improvement of existing road is dilemmatic because many warehouses and industrial buildings have to be removed. If this decision is taken, the area will suffer from the loss of economic source (McCarthy 2003a).

Project Reflection
Although cruise terminal development can produce many positive impacts, its implications on a wider perspective should be well thought. Cruise tourism development will be counter-productive if it leads to homogeneous image and identity erosion based on unique heritage value (Krieger 2001). Therefore, a thorough study to determine the development impacts should be conducted.

Factors in the project that generate positive impacts are as follows. First, large-scale and distinctive type of development, which is cruise passenger terminal. Second, preservation of place distinction, with consideration of visual and physical aspects on historical context. Third, addressing the social and economic problems on a wider scale than the project area. And fourth, awareness of development’s effect on traffic load and infrastructure.

2.2 Arts and Culture-Related Development in Bristol, United Kingdom

Project Context
Bristol is the sixth largest city in England and one of eight ‘core cities’ outside of London (COMEDIA 2002; (BCC) 2003). Until mid-1980s, Bristol experienced economic prosperity because of industrial sectors, especially aerospace and financial service. It had low unemployment number and high-income level. That is why culture-related development was started later, compared to other British cities (Bassett 1993).

Bristol initiated its culture-related development because of the downturn in local economy towards the end of the 1980s (Griffiths 1995). It affected Bristol’s reliance to industrial sector and forced the city to find alternative economic resources (Aubrey, Chatterton et al. 2001). Thus, it started a series of developments, where cultural policy is seen as the centre of urban regeneration process (Griffiths 1995).

The project covers not only city centre, but also harbour area. ‘Arts and entertainment zone’ is developed in the city centre because of existing institutions and amenities. Meanwhile, Bristol’s harbour area, Harbourside, is regenerated with leisure and cultural programs, such as bars, Internet cafés, floating restaurants, bookshops, galleries, as well as media and art performance centre. Hence,
Tourism-Oriented Harbour Regeneration  Amy Ikha Yanti Santoso

Harbourside becomes the heart of Bristol’s ‘arts and entertainment zone’ (Griffiths 1995).

**Positive Impacts**

Arts and culture-related development is able to generate positive effects in physical, economic and social dimensions. They are interrelated to one another, where one effect leads to the others. First, conversion of former industrial or commercial buildings to cultural uses may regenerate the decaying area into a new cultural centre. They can be used for cultural tourism, which satisfy public’s curiosity of the usually closed historic buildings. They also increase the number of cultural clusters, which bring micro-scale business and provide more job opportunities. Second, development of new cultural buildings improves the sense of pride in the area, as well as encouraging gentrification process. Then, it increases the use of public space that leads to reduction in vandalism and increase in sense of safety. Third, employment of artists to create public artwork, bench and lamppost results in increasing land values, number of companies and investment, as well as local distinctiveness. Altogether, the effects support cultural tourism in the area (Evans and Shaw 2004).

Development in Harbourside launches Bristol as the hype place to party, with its cutting-edge music and lively clubs. Locals and tourists come to Harbourside to use its leisure and cultural programs. It also creates new trends, where city centre becomes young people’s favourite place to live. They enjoy living in the area that is close to Harbourside, the new entertainment centre (Aubrey, Chatterton et al. 2001). In conclusion, the development is successful in improving Harbourside’s image.

In spite of its success, Harbourside development does not maximise all of cultural development’s potentialities. It doesn’t involve artists and artworks in its process and design execution. It focuses more on new buildings’ creation to uplift the area’s atmosphere (Griffiths 1995). Nonetheless, this setback doesn’t outweigh the development’s positive impacts.

**Negative Impacts**

The efforts in producing positive impacts can backfire on creating negative results. First, the development of conventional cultural programs may lessen the area’s uniqueness. Programs such as concert halls, international festivals, aquaria, post-modern buildings, are widely used as a part of cultural-related development. Hence, the project area will look like other places with same development type (Boyer 1992). Second, including urban regeneration in cultural policy may harm other cultural divisions. For example, Birmingham’s prestige cultural development causes large cut in the city’s education budget (Loftman and Nevin 1992). Third, the improved image of project area increases the rent value, so that the artists and existing residents cannot afford to live there anymore. The area then suffers from the lack of creative community’s presence, while advertising itself as a creative hub. Henceforth, strategy in cultural development should be perceived at the broader range of contemporary urban policy (Griffiths 1995).

Even though the previously described negative impacts do not happen in Bristol, it faces other problems as a result of cultural developments. The city is threatened by stagnation, where there are too many cultural programs without enough people to use them. Other than that, the city’s growth may cause exclusion, alienation and marginalization. These circumstances happen because the project does not address the need for cheap housings for low-income people (Aubrey, Chatterton et al. 2001).

**Project Reflection**

Cultural-related development is a powerful tool in regenerating urban areas. It causes a chain reaction, where one positive impact leads to another. On the contrary, one positive impact can also result in
negative effects. Therefore, awareness of the intertwining relations should be deeply implanted during its process.

Because of the previous reason, factors in the project that produce positive impacts are appointed based on the initial stimulus. First, development of cultural buildings, along with leisure programs that create vibrant urban atmosphere. Second, consciousness of city’s capacity to accommodate the new culture and leisure programs, in relation to the number of residents and visitors.

3 Conclusions

3.1 Findings on Case Study Analyses

Case study in Valletta and Bristol shows the significant role of tourism in harbour regeneration. It regenerates spatial, social and economic aspect of the area, as well as the city. First, it improves the spatial quality of the harbour, along with providing new leisure and touristic programs. Then, it attracts more visitors and new residents to the area that result in increasing use of public space and decreasing rate of crime as well as vandalism. Second, new developments and programs create jobs, which lessen the unemployment rate in the area as well as the city. They also contribute to the growth of city’s revenue, due to tourism activities. Third, it enhances image and unique character of the city, through distinctive type of touristic developments. The developments boost tourism sector, increase city’s revenue, and then provide more capital for other developments in the city. In short, tourism produces a full cycle of not only harbour, but also urban regeneration in city context.

Case study in Valletta and Bristol also demonstrate the threats of touristic development in harbour regeneration. Although Valletta and Bristol face different kinds of threat, they share a common characteristic. The threat comes from negligence to acknowledge intertwining and cause-effect relations among aspects as well as impacts of the development. The contemplated aspects should cover not only physical, social, economic dimension, but also project strategy and urban policy. Thus, decisions in the project should be taken carefully, in consideration of all the elements involved.

Factors in the project that cause positive impacts derive from analyses of Valletta and Bristol. First, large-scale and distinctive type of development, such as cruise passenger terminal. Second, preservation of place distinction, with consideration of visual and physical aspects on historical context. Third, addressing the social and economic problems on a wider scale, not only on the project area. Fourth, awareness of development’s effect on traffic load and infrastructure. Fifth, spatial developments that result in creation of vibrant urban atmosphere. Sixth, consciousness of city’s capacity to accommodate all the new programs, considering the number of potential user and resident.

Finally, it is important to remember that the factors described above are more flexible rather than rigid indicators. Each development case may have different patterns of relation among its elements and effects. For that reason, criteria presented in this paper should be used only as guidelines in tourism-oriented harbour regeneration projects.

3.2 Theory Application in Graduation Project

I want to propose a design for Scheveningen Harbour area as the final result for my graduation project. That is why I feel the need to understand more about harbour regeneration projects, their aspects and implications to the city. Because Scheveningen Boulevard is popular as a tourist destination, the harbour area has a potentiality to be developed into a touristic place. This argument is supported by the presence of fishing-related activities and buildings, which give the place a unique character.
and atmosphere. Nonetheless, Scheveningen Harbour still needs spatial improvement, in order to launch itself as an attractive tourist destination.

Through this review paper, I want to know the factors that contribute to the positive impacts of such development. This information is very crucial because it serves as a guideline during the design process. Furthermore, I also get more comprehension of the relation among aspects and effects in the project. Thereupon, I can be aware of my design’s impact in the city.

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The Role of Public Space in Urban Context
The Role of Public Space in Urban Context
Its Significance in Shaping the City

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Abstract – Urban complexity, with its ‘hard city’, ‘soft city’ and their interactions, is clearly apparent in public spaces. ‘Hard city’, with its buildings and spaces, constructs public space. At the same time, public space serves as platforms of ‘soft city’, which consists of people and activities. According Gehl (1936), design of ‘hard city’ influences the result of ‘soft city’. In particular, attractive and high quality public space encourages lively and safe urban environment. Attractive spatial design of public space motivates people to use them and stay in it for longer time. The longer their stays are, the bigger the chances are for optional and social activities to happen. For that reason, public spaces that accommodate basic activities of walking, standing and sitting are fairly needed, since they are the start of optional and social activities. Even though all of the activities require different criteria, they demand attractive spatial design, with people and activities in it. Other than that, they also prefer edges that offer closure and openness at the same time, as well as back protection and better opportunity to observe the surroundings. Furthermore, lively public space with constant flow of people and activities ensures the safety of its users. An attractive and well-used public space motivates surrounding residents and building occupants to watch over it (Jacobs 1961). Their actions, in form of ‘eyes upon the street’, keep the area safe by noticing and preventing criminal acts to take place. In conclusion, public space has important and extensive roles in urban context, where its physical construction affects not only how often people use it, but also the type of activities and public safety level in the area.

Key words – public space; outdoor activities; public safety

1 Introduction

Urban design is ‘an open system that uses individual architectural elements and ambient space as its basic vocabulary, and that is focused on social interaction and communication in the public realm’. From its two broad traditions, ‘visual-artistic’ and ‘social usage’, the third one comes forward. The third one, ‘place-making’ tradition, is the combination of both, which emphasizes the design of urban places as physical/aesthetic entities and as behavioural settings. Hence, it is concerned with ‘hard city’ of buildings and spaces, as well as ‘soft city’ of people and activities (Carmona, Tiesdell et al. 2010).

Lynch further observes the relations of ‘hard city’ and ‘soft city’ in his book “The Image of the City”. He states that city is an object that is perceived by diverse kind of people from various backgrounds and characters. At the same time, it is also a product of many builders, who are constantly modifying the structure based on their own purposes. Therefore, the art of designing a city is a temporal one. Nonetheless, it is incomparable to any other temporal arts, such as music, where
control and supervision can be applied (Lynch 1992).

One perceives the city based on the mental image he gets from his physical environment. Because of that, legibility or clarity is one of the most important aspects in city design. It means, one can easily recognize the city parts, such as districts, pathways, or landmarks, and organize them into a coherent pattern. Legibility is especially significant in helping the people finding their ways inside the city. Based on studies of psychologists and researchers, it is unlikely that people use their instinct to direct themselves in the city. On the opposite, it is a continuous process of organizing sensory cues from the external environment. Henceforth, a construction of physical environment that results in preferable environmental image is strongly needed (Lynch 1992).

Environmental image can be classified into three components: identity, structure and meaning. First, a workable image needs to be distinctive and distinguishable from other objects. Second, the image must have spatial or pattern relation to other objects and observers. Third, it must be meaningful for the observer, whether it is practical or emotional. Shortly, an image is useful in helping one recognizing the city, figuring its relations to other objects and himself, as well as its meaning and use in daily life (Lynch 1992).

Due to the importance of environmental image in shaping the city, the question of what is imageability arises. Imageability is physical qualities that most likely to evoke a strong image in any given observer. It can be shape, color, or arrangement, which make the object highly identifiable, powerfully structured, or memorable. It can also be called ‘legibility’, or even ‘visibility’, where objects can be seen, while also sharp and intense to other senses (Lynch 1992).

Furthermore, a question of what physical elements that affects the ‘imageability’ in the city also surfaces. According to Lynch (1992), those elements are paths, edges, districts, nodes and landmarks. First, paths are ‘the channels along which the observer customarily, occasionally, or potentially moves’. They may be streets, walkways, transit lines, canals, or railroads. Second, edges are ‘the linear elements not used or considered as paths by the observer’. They are boundaries or barriers, which close one region off from another; or, they may be seams that joined them together. Third, districts are ‘the medium-to-large sections of the city, conceived of as having two-dimensional extent, which the observer mentally enters “inside of”, and which are recognizable as having some common, identifying character’. Although districts are identified from the inside, their exteriors are also referred from the outside. Fourth, nodes are ‘points, the strategic spots in a city into which an observer can enter, and which are the intensive foci to and from which he is travelling’. They may be main junctions, places of a break in transportation, a crossing or convergence of paths, moments of shift from one structure to another. They may also be concentrations, which is the result of condensation of some physical characters, such as street-corner hangout or an enclosed square. Fifth, landmarks are ‘another type of point-reference, but in this case the observer does not enter within them, they are external’. They are usually a rather simple physical object, such as building, sign, store, or mountain. Landmarks are often used as clues in way-finding with its distinctive feature.

2 Public Space and Outdoor Activities

High quality public space encourages optional and social activities to take place. Optional activities happen when there is willingness to do so, as well as possible time and place. For example, taking a walk for fresh air, sitting, or sunbathing. Social activities depend on the presence of other people in public space. It includes children playing and talking, or even seeing and
haring other persons. Social activities are considered ‘resultant activities’, since they are a result of other types of activities, optional and necessary ones. They are spontaneous, as a direct result of people moving around and being in the same place. It implies that social activities are supported whenever optional and necessary activities are given better conditions in public spaces (Gehl 1936).

Pedestrian streets or traffic-free zones have proven to improve the quality of daily and social activities. It increases the number of pedestrians, lengthens the average time spent outdoors and wider varieties of outdoor activities. The more the time one spends in outdoor spaces or activities, the more likely optional and social activities to occur. One of the most famous examples is Copenhagen. Between 1968 and 1986, it triples the number of pedestrian streets and squares in the city centre. It results in the tripling number of people sitting and standing as well (Gehl 1936).

Provision of pedestrian streets encourages people to go out, linger and then socialize. It is particularly evident in the case of children, where they will only go out and play if the environment is safe enough and conducive for extended social interaction, such as playing together with other children. Another case includes allocation of high-quality public spaces in Danish residential areas, which motivates the residents to interact with one another. Prior to the construction, people are sceptical about the usability of the space. Later on, the projects have proven to stimulate activity pattern that is previously non-existent in Denmark (Gehl 1936).

Basic activities such as walking, standing and sitting, are the base for bigger and more complex activities to take place. Therefore, it is very important to create public spaces that support those activities. Small-scale design of public space influences the actualization of potential activities to happen. Hence, more considerations have to be put in designing the detailed level of urban design (Gehl 1936).

3 Requirements for Basic Activities

3.1 Walking

Conducive walking environment requires several factors, ranging from space availability, street density, material choice, wheeled traffic supports, spatial experience, to provision of shortest route possible (Gehl 1936).

First, it is fairly important to provide enough space for all pedestrians, so that they have enough space to manoeuvre or without being disturbed and pushed by other people. This point is closely related to assignment of street density. People favour walking environments where the spaces are sufficiently narrow and rich in experience. Although demands for walking space differs from one person to another, the limit for acceptable density in streets is around 10 to 15 pedestrians per minute per meter street width. A greater density than this number suggests will cause in overcrowding, where people will walk in rows and chance of social interactions decreases sharply (Gehl 1936).

Second, pedestrian prefers smooth, non-disruptive pavement materials. Cobblestones, sand, loose gravel, and an uneven ground surface are unfavourable, especially for ones who have walking difficulties. The same goes for surface that is slippery, wet and snowy (Gehl 1936).

Third, there is a need to allocate ramps for wheeled traffic, such as wheel chair, baby strollers, or shopping cart. On pedestrian streets, the number of baby strollers is four times higher than car-oriented streets (Gehl 1936).

Fourth, interesting spatial experience with rich experiences, details, as well as close and winding streets encourages people to walk. One will feel disinterested to walk along an empty, straight street row, where no event is likely to happen. Moreover,
unlimited sight of walking path dispels pedestrians. One likes to walk on an edge, which provides coverage on one side and openness on the other (Gehl 1936).

Lastly, provision of shortest route possible is highly necessary. Walking needs some efforts, and at some points, exhausts people. Hence, the shortest route possible will always be taken. Assignation of pedestrian route that doesn’t closely follow the shortest path may not work. Instead, people will create their own paths, which are shorter in distance (Gehl 1936).

3.2 Standing

Most of the time, standing is a functional activity, where it happens because the condition necessitates one to do so. People stand when they stop at the traffic light, look at something, or fix something. They stop wherever they must do so, whether it’s on pavement, building façade, or a square. The significance of standing occurs when people employ it to stay in a place. It happens when one waits for somebody, or when he wants to enjoy the weather and observe others in a square or other public places. Thus, that is when standing becomes part of public life.

Popular spots for staying are located on the edge. They can be the edge of a square, a building, or even a forest. When one stays on the edge, he gets to observe his surroundings better. Furthermore, he is also less exposed, visually and physically. He can be seen only from several angles and be approached from the front. Hence, it results in the observer’s heightening sense of security (Gehl 1936).

An edge is the most probable place where inward activities can be brought to the outside. For that reason, residents linger and socialize in front of their houses, especially on the doorsteps. Additionally, children play in front of their doorsteps before they group with other children and take over the entire place. Apart from that, it also offers the possibility of being inside or outside whenever one desires to be (Gehl 1936).

Both hard and soft edges are attractive places to stay. Whether it is the edge of a building with high walls and columns, or merely bollards at the edge of a square. Nevertheless, there are some requirements for an edge to be attractive staying place. First, monotonous and straight building walls are highly undesirable. People are attracted with details and niches, where they can sit on or just simply stands. Second, presence of elements, such as benches and trees are psychologically inviting. If there is nothing to sit or stand next to, people feel hesitant to stay on that spot. In other words, smallest design details have to be considered to encourage people staying.

3.3 Sitting

Availability of sitting place is very substantial in public space. Sitting serves as a start of other activities, such as talking, reading, knitting, sleeping, sunbathing, watching people and many more, which encourage people to stay in a place. Nevertheless, people do not sit just everywhere or on any available benches. There are favourable conditions that encourage people to sit on certain spots. Hence, provision of preferable sitting place is very important in public space design (Gehl 1936).

People sit longer than when they stand or walk. Thus, they are more selective in choosing the place to sit on. Preferable sitting place is similar to preferable standing spots. One likes to sit on the edge, rather than in the middle of the area. In this manner, he feels that his back is protected and gets better opportunity to observe his surroundings. Moreover, people also prefer sitting places with good views, in terms of activities, buildings, or other objects. Although the sitting place is located on the edge, if it does not offer interesting sceneries, it will be occupied later than the opposite one. Lastly, weather, in terms of sun and wind, is very
determining in making a sitting place desirable. People prefer sitting places that are protected from the wind and offer enough exposure of sun. Shortly, choosing a location of sitting place is very crucial in encouraging its extensive use in the future (Gehl 1936).

There are two types of sitting places, primary and secondary seating. Primary seating is mainly intended for sitting, such as benches or chairs. User group that usually employs primary seating is elderly people. They have physical limitations and greater needs for comfortable sitting places. Hence, they are more selective in picking the place to sit on. On the other hand, secondary seating, which has functions other than sitting place, is used more extensively by children and youngsters. Those user groups are less picky in choosing their sitting places. Furthermore, extensive supplies of sitting place do not always go hand in hand with high quality public space. One has to keep in mind that there is a fluctuation of user numbers in public place, due to weather or other factors. When there is a small number of people and empty benches everywhere, the place will look rejected and overly empty. Because of that, the number of primary seating needs to be modest, while there are more secondary seating provided in the area (Gehl 1936).

4 Outdoor Activities and Public Safety

Safety in public spaces is closely related to the number of people and activities on the given area. The more people and activities are, the safer the area is. According to Jacobs (1961), this phenomenon can be explained by the presence by ‘eyes upon the street’ and continuous use of the space, whether it’s day- or night-time by different users. Other people provide supervisions on whatever occurs on the street. When an act of crime is bound to happen, other street users or even watchers will come to an aid. On the contrary, an empty street with small number of people and activity supplies less supervisions and possible helps. Thus, the area becomes less safe and attractive. Shortly, creating a lively public space equals creating a safe urban area.

‘Eyes upon the street’ are eyes that belong to the natural proprietors of the street, such as shopkeepers or residents, whose houses are located alongside the street. Their presence is fairly important, since they will be the first ones to spot on possible criminal acts or other misbehaviours on the street. Furthermore, they will also be the first ones to offer helps and guidance because of their sense of belonging to the area. For that reason, buildings should be directed towards the street. Consequently, maximum level of street provision can be achieved.

Continuous use of space encourages provision of ‘eyes upon the street’. A lively street that is used by different people at different times with various types of activities, is more interesting than a dull, empty street without anybody using it. People are not attracted to look after empty streets. Since there is no one is interesting in watching the street, there is no ‘eyes upon the street’. When there are no people on the street and ‘eyes upon the street’, criminal acts have chances to take place. In conclusion, the street becomes less attractive and safe.

5 Conclusions

Cities are indeed a complex system. As previously explained, they consist of ‘hard city’, ‘soft city’ and the interaction between them. Their interaction is particularly apparent in public spaces, which are constructed of spaces and surrounded by buildings, while at the same time, serve as platforms for people and their activities. According to Lynch (1992), people’s perception of cities is affected by built environment elements, such as paths, edges, districts, nodes and landmarks. Hence, those elements need to be clearly
defined and easily identified, so that one can easily perceive the city.

On the other hand, public space design influences what type of users and activities taking place in it. As observed by Gehl (1936), high quality public space encourages optional and social activities to take place. More precisely, public spaces should fulfil some criteria in order to serve their purpose of creation, which is a platform of public interaction. All of the requirements are mostly small-scale interventions on street level. Thus, special notice should be given in designing them.

Basic activities, such as walking, standing and sitting, are the start of other bigger public activities. Those activities are the first things people do when they stay in a place. The longer the stay is, the bigger the possibility for optional and social activities is. Because of that, public space design should encourage them to take place.

Although their spatial requirements differ from one another, criteria for walking, standing and sitting share some similarities. All of them necessitate attractive spatial dimension, with people and activities to look at. Edges are preferable, since they provide closure and openness at the same time, as well as back protection and better chance to observe the surroundings. Shortly, design of attractive environment and edge is strongly needed to accommodate public activities to take place.

Lastly, lively public space with continuous use of space and flow of people is the recipe for public safety. The more attractive a street is, with people and activities on it, the more surrounding residents and building occupants pay attention to it. Their presences, in forms of ‘eyes upon the street’, help noticing and preventing possible criminal acts. Therefore, it is utterly important to keep well-used public space because of its extensive social implications.

In conclusion, public space holds an important role in urban context. It is an important part of the city, which serves as the platform of the interactions between ‘hard city’ and ‘soft city’. The attractiveness of its physical construction results in the constant use of people and activities in it. Conversely, its failure in spatial design causes deserted places, with nobody interested in using it. If the public space is a success, there are constant flows of people and activities it. The area becomes lively and safe. Henceforth, the city itself becomes attractive and secured. For that reason, public space needs to be carefully designed, in order to create a better urban quality as a whole.

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