The Wilhelmina Pier:

An Urban Waterfront Celebration

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LA 404 Comprehensive Thesis Project

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Dedicated to my parents, Peter & Yvonne Oomkes, for all their support, encouragement, and patience over the course of my college career.

I would also like to thank the staff and faculty of the Landscape Architecture Dept. for getting me where I am today.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter One:</th>
<th>Abstract</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter Two:</td>
<td>Introduction</td>
<td>6</td>
</tr>
<tr>
<td>Chapter Three:</td>
<td>Background</td>
<td>8</td>
</tr>
<tr>
<td>Chapter Four:</td>
<td>Problem Statement</td>
<td>10</td>
</tr>
<tr>
<td>Chapter Five:</td>
<td>Literature Review</td>
<td>14</td>
</tr>
<tr>
<td>Chapter Six:</td>
<td>Site Location Maps</td>
<td>17</td>
</tr>
<tr>
<td>Chapter Seven:</td>
<td>Goals &amp; Assumptions</td>
<td>19</td>
</tr>
<tr>
<td>Chapter Eight:</td>
<td>Contextual Site Analysis</td>
<td>22</td>
</tr>
<tr>
<td>Chapter Nine:</td>
<td>Site Inventory &amp; Analysis</td>
<td>24</td>
</tr>
<tr>
<td>Chapter Ten:</td>
<td>Programmatic Statement</td>
<td>27</td>
</tr>
<tr>
<td>Chapter Eleven:</td>
<td>Design Process</td>
<td>31</td>
</tr>
<tr>
<td>Chapter Twelve:</td>
<td>Master Plan</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>• Figure Grounds</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>• Entry Court</td>
<td>38</td>
</tr>
<tr>
<td></td>
<td>• Canal Place</td>
<td>41</td>
</tr>
<tr>
<td></td>
<td>• Port Town</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>• The Point</td>
<td>46</td>
</tr>
<tr>
<td></td>
<td>• Harbor Front Cafes and Nautical Museum</td>
<td>50</td>
</tr>
<tr>
<td>Chapter Thirteen:</td>
<td>Conclusion</td>
<td>53</td>
</tr>
<tr>
<td>Bibliography</td>
<td></td>
<td>54</td>
</tr>
<tr>
<td>• Appendix</td>
<td>A cultural geographical study of Rotterdam and the Wilhelmina Pier.</td>
<td></td>
</tr>
</tbody>
</table>
Chapter One: ABSTRACT

A waterfront revitalization research and design project for the development of a historical Dockland in the harbor of Rotterdam, the Netherlands was the area of study and focus. The Wilhelmina Pier is a forty-three acre site that was primarily used for harbor activities, but due to economical shifts in the last twenty years the site has been left in a state of decay and abandonment. Large scale economics like containerization and oil refineries are now the main driving force behind Rotterdam’s international harbor success. This is also a study that informs the people who will come in contact with this report about the Dutch culture, and how their current societal needs will reflect upon a developed multi-use pier. The Wilhelmina pier has a lot of history, and a connection to North America because of the Holland America Line (H.A.L.) which had its operations here in the late 1800's to mid 1900's. This was a major immigration company who brought millions of people to the "new world." The site has great potential for a modern day society to be able to live, work, and recreate in the same area while enjoying the waterfront and many elements which portray the Dutch culture and history.
Chapter Two: Introduction

"Water is the source of life that has both controlled and yet provided for human existence....it is this artery that, while sustaining life, creates a unique environment and way of life at its edge....It is at the water’s edge that man is closest to the intuitive spirit that represents life itself." (Torre, p. 1989)

Water is a basic necessity of life. It provides a visual aesthetic, inspiration, mystery, and has a special quality which is soothing and mesmerizing. I am a Native Dutchman (Nederlander), and lived in the Netherlands up until the age of twelve. Water is an entity which can not be avoided in this country. First of all, the temperate sea climate provides for a very mild and wet climate. Secondly, elaborate dune and dike systems hold back sea and river water for approximately half of the country. And thirdly, the entire country is laced with rivers and canals. Therefore, water is an element that has strongly influenced the way I feel, and is a key to optimal recreational, social, and psychological experiences.
The Wilhelmina Pier will take advantage of the abandonment of the industrial harbor activities and establish an economical base that is physically and economically diverse. This development has the opportunity to establish an area which will provide the people of Rotterdam and its visitors with a variety of activities like social, cultural, and recreational. One other main feature will be to bring into perspective the many experiences that can be achieved and accessed with the waterfront edge.
Chapter Three: Background

The interest for this project became a reality when the author received support from a geography professor to research a cultural waterfront development area for an independent study credit. That, and the opportunity to return to The Netherlands for a period of five months sparked the idea to find a site which would be of historical significance and provide possibilities for future development opportunities preferably along the water’s edge. Upon arrival in the Netherlands, the consensus from talking to people was that Rotterdam is a city on the move with numerous projects for urban redevelopment and revitalization. A visit to the city’s planning department and walking tour of some of the areas of redevelopment sparked immediate interest for further research and study. The one area which brought immediate attention was a 300 acre area called the “Kop van Zuid” which is completely being redeveloped for urban residential and commercial amenities. A forty-three acre peninsula of the “Kop” jutting out into the Nieuwe Maas River is the focus of this study and design problem. The Wilhelmina pier is named for a dedication ceremony by Princess Wilhelmina in 1891 to commemorate the sailing of the Holland Amerika Line’s (H.A.L.) flag ship, “The Rotterdam.” This immigration
service company was one of the reasons for further study because of its connection to North America. A perfect opportunity presented itself to make a connection with the American public to tell them about how their ancestral roots could possibly have started here. The weekly trips offered by H.A.L. to the United States would start in Rotterdam with people from Eastern European countries, Germany, and the Netherlands. The trip would then go to Southampton to pick up English emigrants, and then to Boulogne-Surmer, France to take on French, Swiss, and Italian emigrants. One other reason of interests that a company called the Pakhuismeesteren handled goods from islands of the East Indies, a former colony of the Netherlands. These goods included spices, coffee, rubber, and tobacco which would then be shipped throughout Western Europe. Several trips to the site and numerous visits to the city’s library, archive’s department, and amenities of significance provided the needed background for the study’s completion.
Chapter Four: Problem Statement

The inner harbors of Rotterdam, the Netherlands have been left abandoned and in a dilapidated state which is having detrimental effects on the Wilhelmina Pier and its relationship with the city and the waterfront. Today's economic activity and societal needs are different from previous harbor activities which gave this city a vibrant and functional waterfront. Thus, there is a need to address this site for use that provides for a working, living, recreational, and social environment to enhance the city's waterfront.

Sub-problems

1. One of the major reasons for the Wilhelmina Pier being an abandoned industrial wasteland and for the relocation of the economic activity in Rotterdam westward down the Rhine River Delta to the North sea is because of the dramatic shift in seafaring container business. "To a great extent the world's largest port has achieved its premier position through the relentless pursuit of scale economics" (Pinder, 1981). The container business is a large scale operation utilizing immense oceangoing ships which are too big to
maneuver into the older harbors. This activity, also, requires a large area for storage leaving the smaller inner harbors without a solid economic base.

2. Another industrial force requiring more room to handle its operations, therefore leaving the smaller harbors, are the oil refineries. Shell, a Dutch-based company, is the world's second largest oil company and the world's largest refinery and chemical complex, and are now located in the Rhine river delta called the "Maasvlakte" (The Maas expanse). Because of these economic realities many buildings, warehouses, and harbor industry elements have fallen into a dilapidated state and have become an eye-soar on the Wilhelmina Pier and the downtown harbor areas.

3. Also, because of earlier economic activities which occurred right along the waterfront edge the city has a connection problem between the city, harbor, and river. Harbor activity and warehouses disrupted any visual connection, and the railroad which linked these areas, eventually became a highway network creating another barrier between the two entities.

4. Current connection issues are creating an adverse effect to the overall layout of the city, and have had an impact on the
cclesiveness of Rotterdam. There is no masterplan that suggests
good connections between city focal points and major thoroughfares
which could connect to the waterfront. There are numerous
individual entities that are very successful, but there is no
common bond between these entities and the waterfront.

5. The city of Rotterdam has a tremendously rich history which is not an easily recognized feature when one is in the city. The city’s motto “Sterker door strijd” (Stronger through battle) is really representative of what the city has endured. First of all, there is the fight against the ocean and river which has tested the morale and the engineering abilities of the Dutch and “Rotterdammers.” Rotterdam gets its name from an estuary of the Nieuwe Maas called the Rotte, and the dam part testifies to the fact that it is cited behind an elaborate dike system. Secondly, actions by the Germans in World War II resulted in the city being completely leveled requiring the city to rebuild from scratch. Currently, there are no easily identifiable elements or physical attributes which explain that rich history of Rotterdam and some of the forces behind the development of the city.
6. Today's society has a changing attitude and different needs. There are not enough people-focused services which would make for a successful harbor and city center. On top of that there is not a solid integration of living, working, and recreational activities near the harbor that could play a vital part in establishing a revitalized urban waterfront community.

7. And lastly, there is not an organized tourist program for the city of Rotterdam. Attractions are not advertised and promoted in an appropriate manner and are scattered throughout the city without any common links.
Chapter Five: Literature Review

The review of the literature was derived in two different ways: by looking at site specific information about Rotterdam and the Wilhelmina Pier, and by researching other waterfront developments throughout the world.

Through research at the site and local Rotterdam libraries the necessary information was compiled to help in understanding the site specific problems, features, and attributes. This also gave me an understanding of what was occurring in Rotterdam and the Netherlands and how that would influence a development for the Wilhelmina Pier.

The other method used to gain an understanding of how other waterfront work was accomplished by library research here at Ball State University and site visits to other waterfront developments. Several cities with successful waterfront redevelopment uses that were used as examples and inspiration were Baltimore’s Harborfront, Philadelphia’s Penn’s Landing, San Antonio’s Riverwalk, San Francisco’s Pier #39, and the entire city of Amsterdam whose whole city is laced with canals and water features. These have succeeded in reclaiming the water’s edge from an
industrial age which dominated and shut the waterfront off from the urban centers.

The book research produced many examples which dealt with an urban environment and some sort of waterfront activity like the ocean, river, or lake. The following quotations were some of the inspirational forces guiding the decision and design elements for the Wilhelmina Pier. "[I]dentify should not be defined as a static and clearly defined notion, but rather as one related to history and developing over time. Thus one must look beyond interpretation of the city in terms of town planning concepts alone, and place the history of town planning against the background of the 'genesis' of Rotterdam's urbanized area and its 'settlement history'" (Pinder, 1988). This quotation set the stage for looking into the historical elements of the city and site, exemplifying the importance of the physical, cultural, social, and historical labor development.

"[A] notable aspect of successful waterfronts is the financial success that is created by either touristic, residential, or work amenities." (Torre, 1989). This quotation was a driving force in establishing some program elements which combined several functioning uses which are proven to be successful in waterfront development.
"Wherever in the world as an incident of the highways and wharves along its riverbanks, a riverwalk has provided opportunity for the people to walk and sit under pleasant conditions where they can watch the water and the life upon it, where they can enjoy the breadth of outlook and the sight of the open sky, the opposite bank, and the reflections in the stream, the result has added to the comeliness of the city itself, the health and happiness of the people and their loyalty and local pride." (Olmsted, 1911). And lastly, this provided a sense of enjoyment of what could come out of a well-developed waterfront which provides for a diversity of possibilities for its users. The research of other waterfronts and these quotations have been a source of inspiration to the further development of my waterfront revitalization project by seeing the significance that other projects have made to their urban environments and to the people that are using and enjoying them.
Chapter Six: Site Location Maps

European Map

The Netherlands is located in Western Europe, and is bordered by Germany to the East, Belgium to the South, and the United Kingdom across the North Sea to the West. The Netherlands and Rotterdam are in a very important geographical location to these bordering nations, and it is also located strategically according to the Rhine River and its Delta. Rotterdam is centrally located to these countries and an approximate population of 160 million people within a 300 mile radius.

The Netherlands Map

Zooming in a little bit closer to the map of the Netherlands, the Netherlands has an approximate population of fifteen million people, and is approximately two-thirds the size of the state of Indiana. The North to south mileage is one hundred and eighty-seven, and the East to west mileage is one hundred and thirty-five. Rotterdam’s location is shown in relationship to some other metropolitan cities in the country. The Hague which is where the parliament presides is only one half hour West. The
country's capitol, Amsterdam, is located just over one hour north of Rotterdam.

**Rotterdam Map**

This map shows the city of Rotterdam and the location of the Wilhelmina Pier to the old Waterstad and the rest of the city. The city was first settled in the early 1200’s. However, the jump across the river did not actually occur until the late 1800’s. The city currently has a population of 600,000 inhabitants, but is surrounded closely by several satellite cities which add to the actual numbers of people who could actually be influenced or take advantage of this new development.
Chapter 7: Goals and Assumptions

GOALS

1. To use historically significant elements and/or events to establish a theme for the Wilhelmina Pier. This is to educate the residents, visitors, and tourists about the history of Rotterdam and the pier: its development and international influence.

2. To provide an area which is physically and economically diverse.

3. To develop a scheme for a cohesive community environment which allows for a diversity of uses (i.e. interaction with residents, workers, recreational users, and tourists to coincide in a cohesive manner).

4. To provide a connection between the Wilhelmina Pier and its entities to the waterfront for maximum interaction. This
in turn establishes a reason for people to return to the water’s edge to show them potential uses in a very personal way.

ASSUMPTIONS

1. That a conceptual masterplan has been developed for the entire city which links the major urban entities to the waterfront. This will provide for a unique city setting which would only enhance the developments that will occur on the Wilhelmina Pier.

2. That funding has been provided by the city of Rotterdam and private enterprise corporations for the Wilhelmina Pier redevelopment.

3. That with this development of a living, working, social, and recreating environment uses are going to be promoted by local governments for residential occupation and a provision of services which are going to enhance the site and its amenities.

4. That adequate access routes will be constructed to allow the users easy access to the site. First, by way of the construction of the new Erasmus bridge connecting the
southern side and the Wilhelmina Pier with the downtown and the "Ouwe Havens" (old harbors). Secondly, the construction of a new metro stop which runs directly underneath the entrance area of this site. And lastly, the addition of a tram line which would transverse the site with several stops.

5. That educational features are promoted by the city on the site to teach the people about Rotterdam's development as a city, its history, and its impact on the international trading world.

6. And lastly, that the tourist promotions will be given a main priority by the city to attract tourists to the area which in turn will provide this site with a focus, so elements and amenities can be constructed in a manner which will educate and provide for recreational opportunities.
Chapter Eight: Contextual Analysis

A contextual analysis was performed in a couple of different ways. One way took the shape of a city plan that placed the Wilhelmina Pier at its center, and taking a mile radius in every direction to study the spatial characteristics and features that are closely related. The second way which helped me analyze the contextual characteristics and land uses of Rotterdam was accomplished by construction of a model.

The first of four maps generated which looked at the spatial characteristics and features was the Water/Land map, and it shows the Nieuwe Maas River, the harbors, and canals versus the land areas. Within this one mile radius there are approximately twenty-two and half miles of waterfront edge providing for an incredible amount of recreational opportunity.

Secondly, a corridor map was created to visualize the main access and thoroughfares in the city and connection points to the Wilhelmina Pier. The connection to the pier will be perfect once the construction for the Erasmus bridge and the metro station located at the base are complete.

Thirdly, a green open space map was drawn up to show the inadequate amount of parks and boulevards which are currently present in the city. The city currently has fifty-seven parks, most of which are small
neighborhood parks. There are approximately one hundred thirty thousand street trees, twenty-six hundred and seventy-five acres of grass fields, and nineteen hundred and eighty-five acres of woodlands. These green open areas are receiving a lot of attention, and are strongly connected as they have throughout the history to the new developments that are in process.

And finally, an attractions and activity's map shows the attractions, museums, and theater in the city. These are predominantly located on the north side of the city, and randomly scattered out. This trend presents great opportunities for an area on the south side of the river to combine some of these amenities in close proximity to one another.
Chapter Ten:  Site Inventory and Analysis

The general feel which is currently created is one of desolation and dilapidation. Near the base of the site some of the abandoned lots are currently being used for parking, and some are used for construction equipment storage from the Erasmus bridge and from the building demolition companies.

There are four existing buildings on the site. The first one being the Hotel New York which was formerly the Holland America Line headquarters building. This structure is the visual and historical focal point of the site. The Hotel has seventy rooms, none on which are exactly alike which creates for a unique environment because some of the rooms are in two level configurations. And all the rooms have the unique distinction of having some sort of view of the water and its activities. The second building is the Pakhuismeestersen Co. (Warehouse masters) building. This structure used to handle goods from the Dutch colonial islands of the East Indies: Java, Borneo, Sumatra, and Celebes. This building can be renovated because it is still in good shape, and there is a possibility of development into a festival market space. The third structure which used to be a departure hall for the H.A.L. is now a Maritime Simulator Center for
training of Marine personnel. This building has a lot empty space that could be used to handle the office functions of a cruise ship companies. And the last building left on the site is a dilapidated structure which is currently being used as a harbor office space. This building will be removed because of its shape and the location on the site it occupies. It is located right in the center which could be a great opportunity for a central focal plaza space.

There are two streets that run parallel to each other to the tip of the pier where they join in front of the Hotel New York. These are asphalt paved roads in average to poor condition because of the heavy truck traffic. The movement in this manner will be the best possible layout because there are limited options, but these streets would benefit from installation of a paver system, so a definite separation between elements, crossings, and bicycle and pedestrian lanes can be identified.

There are some tremendous views from the site across the river. The water’s edge and the boating activities create for a stimulating and dynamic visual experience. The views within the site are not too great because of the abandonment and dilapidation of the structures discussed previously.
Chapter Ten: Programmatic Statement

1. **Existing structures**--Save as many of the existing buildings that are worth saving for other uses.
   
a. The Holland America Line headquarters building (H.A.L.)--
   Use as a hotel, restaurant, and meeting space.

b. The Pakhuismeestersen (Warehouse Masters) building that was used as storage and handling for East Indies Goods like coffee, tea, spices, etc.-- renovate and turn into a retail market festival space which still has an international flavor by using it for the selling of foreign foods and goods.

c. The Maritime Simulator building which is currently used for training for marine personnel, can continue to function in that manner with a possibility for a harbor cruise ship office to operate in the vacant spaces.

d. The old H.A.L. storage and repair building which is now being used as an office for harbor activities is to be demolished due to the poor condition and decaying facades.

2. **New Structures**--Combine features and activity uses within each building to encourage community and cultural interaction.
a. Another hotel at the entrance to the site.
b. Retail outlets.
c. Restaurants.
d. Residential apartments.
e. Theaters.
f. Nightclubs.
g. Buildings to re-introduce harbor boating activities.
h. Museums-- to focus on the Rotterdam harbor and Wilhelmina Pier, and their international influence.

3. Accessibility
   a. The new Erasmus bridge which connects right near the base of the Pier will provide vehicular, pedestrian, bicycle, and public transportation possibilities.
   b. The metro which crosses underneath the Nieuwe Maas River will have a stop at the base of the site that provides another way of getting to site.
   c. Provide boat traffic from certain points in the city for a direct connection to designated points on the Pier.
d. There will be a tram (streetcar) system which transverses the site alongside vehicular traffic and makes several stops.

4. **Traffic Patterns and Parking**
   
a. Provide a one way flow of traffic on existing road layout infra-structure.

   b. Improve road surface to a paver system. Use surface changes to separate different areas like pedestrian crossings.

   c. Car parking will be located primarily near the base of the site next to proposed metro, bus, and trolley stations. There will be a limited amount of parking available for residents and merchants of the site in underground parking structures.

   e. Provide pedestrian patterns or systems (active/passive).

5. **Open Space**—Provide public spaces for the following which incorporate visual viewsheds, interaction with the water’s edge, visitor and residential uses, define certain uses, and connect to certain building functions.
   
a. Green park space.

   b. Display spaces.
c. Concert uses.
d. Market areas.
e. Public plazas.
f. Promenades.
g. Vehicular and pedestrian boulevards.

6. **Tourist Boating Tours**--Provide a docking area for ships.
   a. Hourly city tours, daily inland, or North Sea tours
   b. Weekly Scandinavian or Mediterranean trips.

7. **International Character elements**--Give residents and visitors a flavor of some of the things that have occurred on the site and show the international flavor of the city.
   a. Restaurants and Markets which display a variety of international foods.
   b. Retail and commercial outlets that provide items from different countries and Dutch novelties for the tourists.
   c. Museums--historical international connection.
Chapter Eleven: Design Process

The design process started by taking the contextual analysis features which were of significance and looked at what uses would be optimal for the Wilhelmina Pier. The lack of amenities and features on the south side prompted the development of a multi-use development with retail, commercial, cultural, historical, residential, and recreational features. The possibility to provide residential waterfront housing was also a key element for this development. These and the clients' (the city of Rotterdam) needs which are integrated into the programmatic statement were looked at and evaluated for suitability functions.

The first step taken was to look at the site in a conceptual manner. The Wilhelmina Pier was spatially designed into functional zonal spaces depicting several general uses: historical, recreational open space, cultural, social/residential, and commercial/retail space.

This process further developed with the evolution of the spaces and the integration and overlapping of uses. Throughout this stage the general spatial zones were more defined into specific uses like the recreational zonal function being delegated new uses like an urban pocket.
park, a promenade waterfront with active and passive spaces, and a focal interactive water feature.

At this stage, I developed some non-site specific sections and sketches which provided a three-dimensional vertical stacking view of some of the uses. This was a tremendous help in being able to visualize the space. One combined the water's edge with a promenade and restaurant/cafe, and residential located on the second or third floor up to approximately six to eight stories. Another looked at the actual intrusion of a water feature into the site and the features which would occur alongside such an amenity. A third section looked at the possibility of a museum alongside the water and a possible tourist cruise boat docking alongside the pier. And finally, a fourth sketch looked at the water's edge and its connection to a promenade and an open space park feature.

The final conceptual plan consists of a variety of features and amenities for the Wilhelmina Pier which helped support two spatial concept ideas. A focal element/anchor concept was the first, and this became evident because of the location of the historical Hotel New York at the point of the site which would be a destination point for the site. And then a focal feature at the entry point of the Wilhelmina Pier would have to provide the
character of the space, and act as a visual and physical attraction to bring the people into the site. And a third area, located in the middle, is a focal space because of the surrounding features and buildings. The area is surrounded by an educational center, a festival market space, a green open space, and a historical nautical museum. This point is also the transitional space between the dense urban spaces and a recreational green open space.

The second concept which became evident upon looking at the main issues associated with the Wilhelmina Pier was a corridor linking idea. This is a concept which looked at pedestrian access into and throughout the site in a manner which provides for amenities and features to be located periodically along the corridor. This is done to provide stimulating amenities and elements which attract people and then to help them move onward to the next amenity. Therefore, one is always intrigued into a space and can stay and experience it, or take the option to continue to the next new and exciting feature which can be sensed either by sight, smell, or sound. There are three main corridors on the site: the Maas River’s edge corridor, the Rhine harbor edge, and the central corridor which goes on the inside of the Pier, first through an urban setting with commercial retail shops and market spaces, and secondly through an open space system.
Chapter 12: MASTER PLAN

The final design phase gives way to looking at areas from the conceptuals to distinct shapes with specific spatial qualities and functions in more detail. The actual Master Plan is designed to only a certain extent of detail due to the forty three acre size of the site. The space and the character elements are shown to a greater extent in detailed blow-up plans and sketches. In the masterplan all the general zonal uses are incorporated along with circulation patterns, areas of historical interest, open green and play spaces, restaurant and cafe spaces, etc.

The experience created for the Wilhelmina Pier is a festive one. The integration of a variety of amenities will give the people of Rotterdam a place which will provide them with an abundance of uses. The spaces created will attract people to the site, but along with that there are a lot of planned and/or spontaneous activities which will encourage public interest and participation.

Another issue which was contemplated and given special attention was the goal of an interaction between the elements and people of the Pier with the amenities of the water. Along the Nieuwe Maas River at several points along the rivers edge the water is brought into the Pier to promote
and celebrate the historical significance the water has had for the Dutch and how this element has become part of the cultural heritage. Along the Rhine Harbor edge elements are brought out into the water to increase human interaction with the water and provide the people with the soothing and calming effects of the water.

I choose several areas which needed closer observation because of their position in the site. The entry court and the point of the pier are two areas which are looked at in 1 inch = 30 feet scale. The other areas of interest are blown up to a scale of 1 inch = 50 feet.
FIGURE GROUNDS

The figure grounds studies show some main uses for the site in a black and white format.

The first one shows the building/land correlation. For example, the entry area (northwest corner) on the site shows the denser concentration of buildings on the site representative of the urban feel being created.

The second figure ground, open space, relates to the idea of keeping the water’s edge open for maximum interactive possibilities. The solid areas show the active recreational opportunities which have a focused circulation pattern, and people-oriented activities. The dashed areas show the passive open space areas which deal more with green open space areas for impromptu activities, or an opportunity to relax and people watch.

And the third figure ground shows the circulation patterns. The solid line shows the vehicular traffic which goes through the site, and the minimal area of activity it takes up. The dashed lines are representative of the pedestrian circulation which is a dominant aspect of the site, and utilizes the water’s edge for maximum interaction.
ENTRY COURT

The entry court is a crucial area on the Wilhelmina Pier. It sets the stage for entry into the site. There is a bell tower located here to act as a visual focus for the people who are entering the site from the north over the Erasmus bridge, or from the south along the tree lined boulevard. Extending off of the tower is an arm which leads to a historically significant sculptural piece to begin to show the character of the space.

Being that this is a pedestrian oriented site, vehicular car access is limited, and off site parking, or entry onto the pier by way of tram is encouraged. The pedestrian connection into the site is very important since the metro stop, tram station, and parking facilities are located directly on the other side of the boulevard street. Along with the tower, an entry gate will act as the main visual pedestrian draw into the retail space. A ground plain will also help guide the pedestrian movement through the space.

As a Pedestrian, upon entering through the central corridor, on the left will be a hotel which is comprised of two structures connected by an atrium space. This atrium also serves as a marked feature to signal its position in the space. It is a visual feature not only for people entering the space from the boulevard street, but also for the vehicular access from the street which brings people through and out of the space from the South
West side. The next experience for the people will be to go underneath the gate into an open urban plaza which is the beginning of a commercial and retail shopping area with residential flats occupying the upper levels. This open space will also act as a place for street musicians to entertain the shoppers and add a lively character to the place. Along the South side harbor edge, there is a small marina for small yachts for the residents of the Wilhelmina Pier. This provides a unique setting for the residents and visitors to be able to see the operations of a small marina.
CANAL PLACE

This is a waterfront residential area with semi-public spaces. A canal is brought into the space to recreate some of the old canals which are still prevalent in the Waterstad District on the North side of The Nieuwe Maas River. This canal has a lot of historical harbor and nautical elements represented along its edge. This character is evident throughout the site. There are old boats, cranes, tie up bollards, signage, etc. which provides some character which helps educate the visitors about the significant historical influence that the Wilhelmina Pier and Rotterdam have had. The water's edge and its pedestrian corridor provides for easy flow in two different forms. There is the active corridor right along the water's edge for pedestrians, bicycling, rollerbladers, etc. And then there is a second corridor which serves as a buffer for the residential units and the active corridor. This space is delineated for small recreational play use and has lots of seating opportunities to relax and people watch.

As one continues to move along the river a market space will be encountered (refer back to masterplan on page 34). This space has a small harbor coming into the space which is used as a weekly flower market and auction space. The flowers sold here come from just down the river from a place called the "Westland." This is where thousands of greenhouses and
tulip fields cover the landscape. These flowers are shipped all over the world for their beauty and are a major part of Dutch economy.

The next space encountered is the old storage and handling building for the Holland America Line which is now being used as a marine personnel training center, and as office space for a cruise ship line. This is the site where loading and unloading of goods and passengers occurs for the cruise ships which offers trips to the Scandinavian and Mediterranean seas (refer to the Nautical Museum section on Page 50).
PORT TOWN

This is a space which provides for a festive atmosphere and people place. There are numerous outdoor restaurants and cafes which have great views across the site over the small harbor and across the river. This harbor is brought inside the space and even reaches underneath the building structure. Small boats can enter this space and temporarily dock to take advantage of the waterfront restaurants. The pedestrian corridor along the waterfront edge is not interrupted, but it does change into a raised pier walk to allow for a higher view into the site and adequate boat passage.

The street side of this building has small grocery style shops like a baker, a grocer, and a butcher. These are here to provide the essential items to the residential units which are located above the restaurants.

There is a pedestrian corridor connection across the site from the rivers edge to the harbors edge (refer to the section on page 44). In the central core of the site there is a civic theater which is backed by the Hotel New York. This is a theater which has a variety of cultural activities such as ballets, operas, and large stage productions. The pedestrian corridor has a colonnade of tensile structured banner pieces which are present to help celebrate the space and the activities. There is also provision for an outdoor stage area, and an outdoor plaza with a vine covered trellis system.
THE POINT

This area is the culminating point on the Wilhelmina Pier. Here the view can extend for kilometers downstream and great views are created across the river and harbor. A connection is provided to the Hotel New York by way of a path and mast poles which serve as lanterns.

There is an additional purpose for this Point. The underlying concept which helped shape this space came from a ship prop. The prop is the driving force for a ship, as is this point. This shape helped me tie all spaces and access corridors together. There is an easy flowing way how one enters this site and how different amenities can be pieced together. There is a sculptural water element (refer to section on page 46) which serves as a focal point for pedestrian and vehicular circulation. This piece is only partially visible because it is sunk down, and there is a tree buffer. This piece draws its water from two sides. The water is funneled in from the river and harbor side, and is then cascaded down to the sculptural art piece. Along the harbor fed cascade there is a timeline wall which depicts different eras of historical significance (refer to the sketch on page 46).

Right before entering into the Point space and its features, there is a long promenade which connects the restaurants and the cafes to the Point amenities. This space also has an active and passive pedestrian corridor.
At the point where the water enters into the space from the river side there is an extension out into the water which serves as a lookout pier. This pier is aligned with the “Euro Mast” located on the North side of the river. This tower was built for a World’s Fair, and is still used as a tourist attraction. On a clear day, one can go up and view the entire city and the North Sea. At the point where the water enters the space from the harbor, there are a series of piers, and then a small light tower as the anchor to balance the two sides of the Point and serve as a beacon.

At the very tip there is a cascading water flow which is representative of the regional Rhine River Delta. This starts with a small fountain which then funnels the water down several levels and along the way the water is channeled into different fingers. This provides for a very interactive play space with the water. At some points the water is dispersed through the main path, and at others the larger flow goes underneath the path.

Continuing along in front of the Hotel New York to the Rhine Harbor cafes and residential units, one experiences a play ground which is a sculptural piece with a variety of play pieces and mounding to provide for the optimum play experience. Along the water’s edge there is a colonnade.
which provides as a transition piece between the open space and the dense urban feel of the Harborfront cafes (refer to Master Plan on page 34).
HARBORFRONT CAFES AND NAUTICAL MUSEUM

This again is a busy people oriented space with small shops, waterfront cafes, and floating restaurants. This space is focused onto the other side of the Rhine harbor and currently looks upon active harbor activities. At the extension of the cross site pedestrian corridor (spoken of earlier and can be seen on the section on page 44) there is a pier which has two docking spaces for floating restaurants, and one for an old restored and converted barge also used as a restaurant.

The next point of interest is a huge old crane which shows some of the more recent industrial uses this site occupied.

The next stop along the way is the Historic Nautical museum which features items of historical significance. The early middle age history will be represented here and the how the Dutch dominated the seas during the colonization period. There will be some restored larger ships to be featured in the water, while smaller ones will be housed inside, or in the extension which reaches out into the harbor.

There is also a cross-site pedestrian corridor here (refer to section of Nautical Museum on page 50) which links the cruise ship activities, the central core open green space, and the museum.
Located next to the museum is a dry dock ship yard which is used to educate the public about the steps involved in the process of ship reparation and restoration.

The next area is the area which is connected by a cross-site pedestrian corridor to the indoor festival market space and the flower market (refer to the Master Plan on page 34). This is also an open space which is used twice a week for a farmers market and has a fish market with daily use. This fish market is located along a pier which juts out into the harbor. The open space is used at other times for art display spaces and small performances.

The next area is a residential area (refer to the master plan on page 34, and the Canal Place drawing section on page 41), which also has a pier which extends out into the harbor. This pier is also lined up on a pedestrian cross-site corridor linking the residential units with the central core commercial retail space which has a fountain in the center, and the Canal Place residential apartments.
Chapter 13: Conclusion

In conclusion, the Wilhelmina Pier is an urban waterfront revitalization project which deals with many different aspects, uses, and amenities. These have been combined and placed in a manner which develop a scheme for a cohesive community environment. The connection to the water's edge has been utilized in several ways by going out into the harbor, or bringing the water into the site. The Pier is now a physically and economically diverse space because of the variety of economic possibilities and the diversity and abundance of commercial and retail outlets. And the site has integrated a lot of historically significant elements and events which help educate the residents, visitors, and tourists about the significant development and international influence of the Wilhelmina Pier and Rotterdam. Overall, the character created is for a festive waterfront development which is unique for the city of Rotterdam and the Netherlands.
Chapter 14: Bibliography

TEXTS


**PERIODICALS**

