Abstract

Title of Thesis: An Imageable Place for the Downtown Waterfront. Salisbury, MD
Tanya Karamian, Master of Architecture, 2004

Thesis Committee Chairman: Ralph Bennett, Professor, School of Architecture

This thesis will look at the revitalization of downtown Salisbury, Maryland, by introducing an imageable public space and a mixed-use complex on the waterfront.

The city of Salisbury is a small historic city on the Eastern Shore of Maryland, thirty miles west of Ocean City and the Atlantic coast, and 150 miles east of Washington, DC/Baltimore. The town has seen a remarkable 25% growth in the last 40 years. The downtown area, however, has not developed along with this changing population. Businesses declined, and most downtown inhabitants have since moved out. Bringing residents as well as tourists back to the downtown area would be an important strategy for downtown revitalization. If there are more inhabitants and ownership of this area, there will be more reason for businesses and retail which attract the public and invigorate the district.

The Wicomico River flows through the center of Salisbury, which traditionally had been the city’s major reason for existence. The historic downtown is compact and walkable and was once a vibrant urban area. However, many of the historic shops lining the streets are vacant, their upper level apartments are abandoned, and large, un-kept open-spaces are sprinkled throughout, most of which are unused parking lots today. The Wicomico River has one marina and many industrial sites with old shipyards and abandoned warehouses. The city is in need of revitalization, and clearly there is much opportunity for it in the downtown area. The purpose of this thesis is to explore different options for introducing a mixed-use complex which will rejuvenate downtown Salisbury, MD.
An Imageable Space for the Downtown Waterfront
Salisbury, MD

by
Tanya Karamian
2004

Thesis submitted to the Faculty of the Graduate School
of the University of Maryland in partial fulfillment
of the requirements for the degree of
Master of Architecture
2004

Advisory Committee:

Professor Ralph Bennett FAIA: Chair
Professor of the Practice: Gary Bowden
Associate Dean Stephen Sachs
I would like to dedicate this thesis to my mother and father, for without their support none of this would be possible.
I would like to thank my fellow architecture students who have helped me throughout my architectural education, and I wish them the best of luck in their future endeavors.

Special thanks to Faculty Members: Ralph Bennett, Gary Bowden, Karl DuPuy, Amy Gardner, Steve Sachs
# Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. List of figures</td>
<td>vi</td>
</tr>
<tr>
<td>II. List of Tables</td>
<td>x</td>
</tr>
<tr>
<td>III. Introduction</td>
<td>1</td>
</tr>
<tr>
<td>IV. Location</td>
<td>4</td>
</tr>
<tr>
<td>Transportation and Markets</td>
<td>5</td>
</tr>
<tr>
<td>Industry and Agriculture</td>
<td>7</td>
</tr>
<tr>
<td>Facts and Figures</td>
<td>8</td>
</tr>
<tr>
<td>Site</td>
<td>9</td>
</tr>
<tr>
<td>Climate and Resources</td>
<td>11</td>
</tr>
<tr>
<td>Design Implications</td>
<td>19</td>
</tr>
<tr>
<td>V. History</td>
<td>20</td>
</tr>
<tr>
<td>Site History</td>
<td>22</td>
</tr>
<tr>
<td>VI. Context</td>
<td>24</td>
</tr>
<tr>
<td>VII. Central Business District</td>
<td>37</td>
</tr>
<tr>
<td>History</td>
<td>38</td>
</tr>
<tr>
<td>Zoning</td>
<td>39</td>
</tr>
<tr>
<td>Site Implications</td>
<td>46</td>
</tr>
<tr>
<td>Downtown Action Agenda</td>
<td>50</td>
</tr>
<tr>
<td>VIII. Site Investigation</td>
<td>55</td>
</tr>
<tr>
<td>IX. Site photographs</td>
<td>66</td>
</tr>
<tr>
<td>X. Precedents</td>
<td>70</td>
</tr>
<tr>
<td>Pickering Wharf</td>
<td>71</td>
</tr>
<tr>
<td>Del Mar Plaza</td>
<td>74</td>
</tr>
<tr>
<td>Robina Town Center</td>
<td>78</td>
</tr>
<tr>
<td>Jill Sander Boutique</td>
<td>79</td>
</tr>
<tr>
<td>The Adelphi</td>
<td>80</td>
</tr>
<tr>
<td>Ondine</td>
<td>81</td>
</tr>
<tr>
<td>XI. Program</td>
<td>82</td>
</tr>
<tr>
<td>Concept and Issues</td>
<td>83</td>
</tr>
<tr>
<td>Elements of the Program</td>
<td>84</td>
</tr>
<tr>
<td>Square Footage Outline</td>
<td>86</td>
</tr>
<tr>
<td>XII. Schematic Design Studies</td>
<td>89</td>
</tr>
<tr>
<td>General Statement and Scope</td>
<td>90</td>
</tr>
<tr>
<td>Issues</td>
<td>96</td>
</tr>
<tr>
<td>Parti 1</td>
<td>97</td>
</tr>
<tr>
<td>Parti 2</td>
<td>100</td>
</tr>
<tr>
<td>Parti 3</td>
<td>103</td>
</tr>
<tr>
<td>Page</td>
<td>Section</td>
</tr>
<tr>
<td>------</td>
<td>---------</td>
</tr>
<tr>
<td>XIII</td>
<td>Design Solution 106</td>
</tr>
<tr>
<td></td>
<td>Urban Intervention 107</td>
</tr>
<tr>
<td></td>
<td>Design Proposal 110</td>
</tr>
<tr>
<td>XIV</td>
<td>Endnotes 125</td>
</tr>
<tr>
<td>XV</td>
<td>Bibliography 127</td>
</tr>
</tbody>
</table>
# List of Figures

<table>
<thead>
<tr>
<th>Figure Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Regional Location Map</td>
<td>6</td>
</tr>
<tr>
<td>2. Wicomico County Map</td>
<td>6</td>
</tr>
<tr>
<td>3. City of Salisbury Aerial</td>
<td>7</td>
</tr>
<tr>
<td>4. City of Salisbury Aerial</td>
<td>9</td>
</tr>
<tr>
<td>5. City Streets of Salisbury</td>
<td>10</td>
</tr>
<tr>
<td>6. Climate Diagram</td>
<td>12</td>
</tr>
<tr>
<td>7. Hydrology Diagram</td>
<td>16</td>
</tr>
<tr>
<td>8. Soil Diagram</td>
<td>17</td>
</tr>
<tr>
<td>9. Climate Design Diagrams</td>
<td>19</td>
</tr>
<tr>
<td>10. Salisbury Map</td>
<td>21</td>
</tr>
<tr>
<td>11. Pivot Bridge on W. Main Street</td>
<td>23</td>
</tr>
<tr>
<td>12. Replacement Bridge on W. Main Street and Lumber Yard</td>
<td>23</td>
</tr>
<tr>
<td>13. Aerial</td>
<td>27</td>
</tr>
<tr>
<td>14. Aerial</td>
<td>28</td>
</tr>
<tr>
<td>15. Context Map</td>
<td>29</td>
</tr>
<tr>
<td>16. Axon</td>
<td>30</td>
</tr>
<tr>
<td>17. Existing Building Use</td>
<td>31</td>
</tr>
<tr>
<td>18. Historic Camden</td>
<td>32</td>
</tr>
<tr>
<td>19. Historic Camden</td>
<td>32</td>
</tr>
<tr>
<td>20. Historic Newtown</td>
<td>33</td>
</tr>
<tr>
<td>21. Historic Newtown</td>
<td>33</td>
</tr>
<tr>
<td>22. Historic Downtown</td>
<td>34</td>
</tr>
<tr>
<td>No.</td>
<td>Description</td>
</tr>
<tr>
<td>-----</td>
<td>-------------------------------------------------------</td>
</tr>
<tr>
<td>23</td>
<td>Historic Downtown</td>
</tr>
<tr>
<td>24</td>
<td>Historic Main Street</td>
</tr>
<tr>
<td>25</td>
<td>Historic Main Street</td>
</tr>
<tr>
<td>26</td>
<td>Downtown Waterfront</td>
</tr>
<tr>
<td>27</td>
<td>Downtown Waterfront</td>
</tr>
<tr>
<td>28</td>
<td>Zoning</td>
</tr>
<tr>
<td>29</td>
<td>Zoning - Central Business District</td>
</tr>
<tr>
<td>30</td>
<td>Section Diagrams of Zoning on Site</td>
</tr>
<tr>
<td>31</td>
<td>Axon Diagram of Zoning on Site</td>
</tr>
<tr>
<td>32</td>
<td>Parking Requirements Diagram</td>
</tr>
<tr>
<td>33</td>
<td>Parking Precedence</td>
</tr>
<tr>
<td>34</td>
<td>Parking Strategy Diagram</td>
</tr>
<tr>
<td>35</td>
<td>Land Use Objectives</td>
</tr>
<tr>
<td>36</td>
<td>Master Plan</td>
</tr>
<tr>
<td>37</td>
<td>Action Agenda</td>
</tr>
<tr>
<td>38</td>
<td>Downtown Aerial</td>
</tr>
<tr>
<td>39</td>
<td>Site Location Map</td>
</tr>
<tr>
<td>40</td>
<td>Site Location Axon</td>
</tr>
<tr>
<td>41</td>
<td>Figure-Ground</td>
</tr>
<tr>
<td>42</td>
<td>Streets, Parking, Green Space</td>
</tr>
<tr>
<td>43</td>
<td>Traffic Direction</td>
</tr>
<tr>
<td>44</td>
<td>Existing Vacant Warehouse on Site</td>
</tr>
<tr>
<td>45</td>
<td>Site Topography</td>
</tr>
<tr>
<td>46</td>
<td>Site Sections</td>
</tr>
</tbody>
</table>
47. View approaching from the north 67
48. View approaching from the west 67
49. View from the west across the river 68
50. View from the north across the river 68
51. View from the site - NW 69
52. View from the site - N - Drawbridge 69
53. View from the site - W 69
54. View from the site - Marina 69
55. View of the site from the south 69
56. Pickering Wharf 72
57. Pickering Wharf Diagrams 73
58. Del Mar Passage 75
59. Del Mar Market Plaza 75
60. Del Mar Plaza 76
61. Del Mar Plaza Diagrams 77
62. Robina Town Center 78
63. Jill Sander Boutique 79
64. The Adelphi 80
65. Ondine 81
66. Program Relationship Diagram 87
67. Program Size Diagram 87
68. Program and Spatial Relationships 88
69. Traffic Pattern diagrams 91
70. Parking Diagrams 92
<table>
<thead>
<tr>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>71. Marina Diagrams</td>
</tr>
<tr>
<td>72. Contextual Urban Amenities</td>
</tr>
<tr>
<td>73. Site Zoning</td>
</tr>
<tr>
<td>74. Parti 1</td>
</tr>
<tr>
<td>75. Parti 1</td>
</tr>
<tr>
<td>76. Parti 2</td>
</tr>
<tr>
<td>77. Parti 2</td>
</tr>
<tr>
<td>78. Parti 3</td>
</tr>
<tr>
<td>79. Parti 3</td>
</tr>
<tr>
<td>80. Existing Plan</td>
</tr>
<tr>
<td>81. Master Plan</td>
</tr>
<tr>
<td>82. Building Diagrams</td>
</tr>
<tr>
<td>83. Building Diagrams</td>
</tr>
<tr>
<td>84. Plan - Parking Levels</td>
</tr>
<tr>
<td>85. Plan - Plaza Level</td>
</tr>
<tr>
<td>86. Plan - Upper Plaza Level</td>
</tr>
<tr>
<td>87. Wall Section and Site Section</td>
</tr>
<tr>
<td>88. Site Sections</td>
</tr>
<tr>
<td>89. Long Section and Elevations</td>
</tr>
<tr>
<td>90. East Elevation and View from the Bridge</td>
</tr>
<tr>
<td>91. Riverwalk</td>
</tr>
<tr>
<td>92. Upper Plaza</td>
</tr>
<tr>
<td>93. Central Plaza</td>
</tr>
<tr>
<td>94. View from Boat</td>
</tr>
</tbody>
</table>
# List of Tables

<table>
<thead>
<tr>
<th>Table Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Pressure Systems and Wind</td>
<td>11</td>
</tr>
<tr>
<td>2. Wind Patterns</td>
<td>12</td>
</tr>
<tr>
<td>3. Relative Humidity</td>
<td>12</td>
</tr>
<tr>
<td>4. Temperature and Precipitation</td>
<td>13</td>
</tr>
<tr>
<td>5. Summary of Elevations</td>
<td>14</td>
</tr>
<tr>
<td>6. Parking Space Dimensions</td>
<td>46</td>
</tr>
<tr>
<td>7. Parking Space Requirements</td>
<td>46</td>
</tr>
</tbody>
</table>
Introduction

Salisbury, Maryland has enjoyed a rich relationship with its waterfront for 300 years. The Wicomico River – 30 miles to the great Chesapeake Bay – provided first access to early settlers and later developed into a principal industrial and commercial crossroads during the 19th century with intersecting railroads and later highways. Salisbury became and is still Maryland’s second largest port, carrying oil products, aggregates for building, and feed for the region’s still growing broiler industry.

The economic prosperity of the late nineteenth and early twentieth centuries is readily evident in the diverse collection of commercial, public, and religious buildings, which line a small number of streets that constitute the city’s core business district.

In the second half of the 20th century, a drastic change began to appear in Salisbury as in most other cities. Population spread into less developed sections of the city and into the four quadrants of the suburbs that had been farmland. Business followed to the new neighborhoods. Shopping centers of eight to seventy-five stores appeared, banks opened branches, schools multiplied. The central district was no longer dominant, though most established businesses retained roots there.

The railroads and steamboats, which once provided passenger services, are gone. Remaining today are a number of major truck lines, which serve the region’s need for freight. Barges carrying oil and aggregates and corn are still busy on the Wicomico River, however, the industrial companies which once lined the river have since moved away or slowly diminished, leaving vacant lots and abandoned warehouses.

It is my intention in this thesis to suggest a way to reinvigorate the Salisbury waterfront for enjoyment, public accessibility, and to establish an urbanistic and architectural dialogue between this waterfront property and the adjacent urban fabric of the city and introduce an imageable waterfront center which creates a new ambiance for
the city which extends this atmosphere into the heart of the downtown.

The plan is a mixed-use development of office, retail, restaurants, recreational and marine facilities, a hotel, and a variety of dwelling units. The new residential and commercial waterfront developments will be strongly linked to downtown Salisbury in order that their attraction will reinforce increased market support for the city as a whole. Salisbury will provide new enjoyment and excitement to those who visit, shop, live and work there.
Location

Salisbury and Wicomico County are located in the geographic center of the Delmarva Peninsula, the strip of land comprised of parts of Delaware, Maryland and Virginia, and bordered by the Atlantic Ocean and Chesapeake Bay. With open expanses of farmland threaded by scenic rivers and creeks, the region is bound both to the sea and the land.

The city is thirty miles west of Ocean City and the Atlantic coast, and 150 miles east of Washington, DC/Baltimore and focused on the upper end of the Wicomico River which winds some thirty miles out to the Chesapeake Bay. The location of Salisbury on Route 50 (east-west) and Route 13 (north-south) connects this city to the majority of northeastern Atlantic region and makes a potential recreation and tourist destination for travelers.

Transportation and Markets

In colonial days transportation was mainly by water. As recently as 1920, steamboat service was provided between Salisbury and nearby points. Small tankers, as well as carriers of grain and other cargo, still use the docking facilities at Salisbury. The county is served by the Baltimore and Eastern and the Penn Central Railroads and by modern highways that cross the county in nearly all directions. Thus, Wicomico County is readily accessible to markets in Wilmington, Philadelphia, New York, Washington, Baltimore, and Norfolk. Flights are scheduled daily between the Salisbury airport and Washington, Baltimore, and Philadelphia.
Settlement of the area that is now Wicomico County began in the middle of the 17th century. Settlers came from England and Scotland, but others, including religious refugees were from Virginia. Settlement was mainly along the banks of rivers, where soils were well drained and water was easily accessible for travel and transportation. The name Wicomico came from two Indian words meaning house and building. It apparently referred to an Indian town on the banks for the river having the same name.\(^1\)
Industry and Agriculture

Many of the industries in Wicomico County are closely related to agriculture and to the natural resources of the area. There are canneries, packinghouses for truck crops and seafood, and facilities for processing poultry and poultry feed. Lumbering is also an important industry in the county providing various types of millwork, creosoted wood products, and pleasure boats.

Agriculture is favored by a temperate climate, a fairly long growing season, well distributed rainfall, and responsive soils. About 54 percent of the total acreage was in farms in 1960. According to the Maryland Department of Forests and Parks, the county had 113,400 acres of forest in 1965. Farms have decreased in number, but have increased in size. Corn and soybean are the principle crops. They are chiefly used as feed for poultry.²
Facts & Figures

POPPULATON
City of Salisbury - 20,592
Wicomico County - 74,339

FOUNDED
City of Salisbury - 1732
Wicomico County - 1867

AREA
County - 380 square miles

ELEVATION
17 to 40 feet above sea level

HOUSES OF WORSHIP
Protestant - 78
Catholic - 2
Jewish - 1

TRANSPORTATION
Air - Salisbury/Wicomico County Airport, the second largest in Maryland. Passenger and freight service by USAir Express. Connecting to Baltimore, Washington, and Philadelphia
Railroads - Conrail, two trains daily
Highways - U.S. 13 and U.S. 50
Bus - Trailways
Motor Freight Carriers - 60 authorized, 4 terminals

FINANCIAL INSTITUTIONS
Banks - 10
Savings and Loans - 6

RETAIL SALES
$549,583,420

LIBRARIES
Wicomico County Free Library, Plus Book mobile
Total circulation - 605,000

GOVERNMENT
City - Charter form, mayor and council, executive secretary
County - Home rule form, administrative director and council

CLIMATE
Average yearly rainfall - 46.13 inches
Average yearly snowfall - 10.5 inches
Average summer temperature - 75 degrees F
Average winter temperature - 38.4 degrees F
Average duration of freeze-free period - 191 days

INDUSTRY
Poultry processing, heavy equipment, petroleum equipment, business forms, electronics assembly

EDUCATION
Wicomico County Public School System - 17 elementary, 2 middle, 4 high school, 1 vocational-technical, 15 private

COLLEGES
Salisbury State University
(4-year Masters Programs)
Wor Wic Community College (2-year)

HEALTH CARE
Peninsula Regional Medical Center - General acute care, emergency
Deer’s Head Center - chronic illnesses, Rehabilitation, dialysis unit
Holly center - services for mentally disabled
Chesapeake Rehabilitation Hospital

COMMUNICATIONS
Newspapers - one daily, Daily Times, circulation 30,000; one weekly, The Salisbury News & Advertiser;
plus daily and sunday newspapers from Baltimore, Washington, Philadelphia, New York
Radio - 13 FM, 3 AM
Television - Channels 16, 47, 28 (PBS); Storer Cable - 37 channels

Salisbury Area Chamber of Commerce Publication
Site Location

The site is located at the confluence of the Wicomico River in Downtown Salisbury. The property is the southern corner of land between the west and eastern prongs of the river. Mill Street and Riverside Drive line the eastern and southern sides of this property; therefore, the site also has a corner condition on land. This site is critical because it is a primary access point to the Main Street and Central Business District, and is accustomed to a high volume of river traffic. The site has excellent views of the marina, the drawbridge, and the historic main street buildings. The design will introduce a public square and mixed-use buildings that can be accessed from both the water and land. This complex will have restaurants and retail space, a hotel, and residential units. The riverwalk will continue on this site and the public square will offer people a gathering area and central point of location for the complex.
The Proposed site is a waterfront property located at the confluence of the Wicomico River. The ‘North Prong’, ‘East Prong’ and ‘West Prong’ of the river meet in the heart of Salisbury’s dynamic central business district which is home of the historic main street shopping plaza. The site location is advantageous for a multitude of uses.
Climate & Resources

Salisbury, Maryland is located 38 degrees north latitude and is therefore in the Temperate region, a region that receives relative extremes in both the summer and winter months.

PRESSURE SYSTEMS & WIND

Wicomico county has a humid, continental climate modified by nearness to large bodies of water. The general flow of atmospheric air is from west to east but alternating high and low pressure systems dominate or control the climate during the colder half of the year. The high pressure normally bring westerly to northerly winds, cooler temperatures, and clearing weather. Low pressure systems bring southerly winds, warmer temperatures, cloudiness and rain or snow. The summer, however, warm moist air spreads northward from the south and southwest and remains over the area much of the time. The prevailing wind is from the west to northwest except in the summer when the prevailing wind is southerly. The average wind velocity is 8 - 10 miles per hour, but winds of about 50 - 60 miles per hour sometimes accompany hurricanes and thunderstorms or general storms in the winter.

<table>
<thead>
<tr>
<th>Table 1 - PRESSURE SYSTEMS &amp; WIND</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressure systems</td>
</tr>
<tr>
<td>------------------</td>
</tr>
<tr>
<td>Winter</td>
</tr>
<tr>
<td>high</td>
</tr>
<tr>
<td>low</td>
</tr>
<tr>
<td>Summer</td>
</tr>
<tr>
<td>low</td>
</tr>
</tbody>
</table>
Climate

Figure 6: Climate Diagram
The Atlantic Ocean and Chesapeake Bay modify the masses of air that pass over them before reaching the county. In winter the temperature rises when easterly winds, associated with a low pressure system, bring air from off the ocean. During the summer, winds from the east lower the temperature, as well as winds flowing inland from the bay.

### Table 2 - WIND PATTERNS

<table>
<thead>
<tr>
<th>Season</th>
<th>Prevailing Wind</th>
<th>Westerly Wind</th>
<th>Easterly Wind</th>
<th>Average Wind Velocity</th>
<th>General Air Flow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winter</td>
<td>West to Northwest</td>
<td>--</td>
<td>T° rises</td>
<td>8 - 10 mph</td>
<td>from west to east</td>
</tr>
<tr>
<td>Summer</td>
<td>Southerly</td>
<td>T° lowers</td>
<td>T° lowers</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### HUMIDITY  FOG & SUNSHINE

The relative humidity generally is lowest in February, March, and April and is highest in July, August, and September. On a normal day the highest relative humidity occurs about sunrise; at this hour it is about 85% late in summer and early in fall and is about 75% late in winter and early in spring. In the afternoon, humidity generally ranges from 50 - 55% in summer and 60% in winter. Heavy fog occurs on about 35 days of each year. Normally, the county receives sunshine about 60% of the maximum time possible, but the range is from 55% in winter to 65% in summer.

### Table 3 - RELATIVE HUMIDITY

<table>
<thead>
<tr>
<th></th>
<th>Yearly</th>
<th>Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>February, March &amp; April</td>
<td>Afternoon</td>
</tr>
<tr>
<td></td>
<td>50% - 55% summer</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>60% winter</td>
</tr>
<tr>
<td>High</td>
<td>July, August &amp; September</td>
<td>Sunrise</td>
</tr>
<tr>
<td></td>
<td>85% summer / early fall</td>
<td></td>
</tr>
<tr>
<td></td>
<td>75% late winter</td>
<td></td>
</tr>
</tbody>
</table>
TEMPERATURE

The average annual temperature at Salisbury is approximately 57°F. The hottest period of the year is the last half of July when the maximum temperature in the afternoon averages near 90°F. Temperatures exceeding 100°F occurs infrequently. The coldest period of the year is the latter part of January and the early part of February, when the minimum temperature in early morning averages near 26°F. During an average winter, a freezing temperature of 32°F can be expected on about 90 days. A temperature of 0° or lower is rare.3

Table 4 - TEMPERATURE AND PRECIPITATION

<table>
<thead>
<tr>
<th></th>
<th>Temperature (F°)</th>
<th>Precipitation (inch.)</th>
<th>Elevation (10 feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Average High</td>
<td>Average Low</td>
<td>Average Rain</td>
</tr>
<tr>
<td>January</td>
<td>48.0</td>
<td>29.3</td>
<td>3.66</td>
</tr>
<tr>
<td>February</td>
<td>49.6</td>
<td>29.1</td>
<td>3.21</td>
</tr>
<tr>
<td>March</td>
<td>56.3</td>
<td>34.8</td>
<td>4.18</td>
</tr>
<tr>
<td>April</td>
<td>67.2</td>
<td>44.0</td>
<td>3.34</td>
</tr>
<tr>
<td>May</td>
<td>76.9</td>
<td>53.4</td>
<td>3.62</td>
</tr>
<tr>
<td>June</td>
<td>84.4</td>
<td>62.4</td>
<td>3.49</td>
</tr>
<tr>
<td>July</td>
<td>87.6</td>
<td>67.0</td>
<td>4.39</td>
</tr>
<tr>
<td>August</td>
<td>86.4</td>
<td>65.8</td>
<td>6.01</td>
</tr>
<tr>
<td>September</td>
<td>80.7</td>
<td>58.9</td>
<td>4.44</td>
</tr>
<tr>
<td>October</td>
<td>70.5</td>
<td>48.0</td>
<td>3.50</td>
</tr>
<tr>
<td>November</td>
<td>60.2</td>
<td>38.4</td>
<td>3.21</td>
</tr>
<tr>
<td>December</td>
<td>68.1</td>
<td>46.8</td>
<td>3.13</td>
</tr>
</tbody>
</table>

PRECIPITATION

The annual precipitation at Salisbury averages about 46 inches. Generally, precipitation is fairly evenly distributed throughout the year. It ranges from 3 - 4 inches per month from October - June and is slightly more than 4 inches in July and September. Only in August is the average monthly amount as high as 6 inches.4
In summer rainfall occurs mostly in showers and thunderstorms which may be heavy in one area and light in another. Thus, moisture stored in the soil varies markedly in very short distances. In winter, precipitation usually occurs in general storms that cover large areas and may last for several days. Thunderstorms occur on an average of 32 days a year, and two-thirds of these storms are in June, July, and August. Occasionally crops are damaged by lightning, wind, hail, or flooding. Hail falls during these storms only once or twice a year, usually in the period from May through August.

Drought may occur at any time of year, but a serious drought affecting farm crops is most likely in summer.

Tornadoes are rare and have caused little damage. The effects of tropical storms or hurricanes are felt in the county about once a year, usually in August or September.

The average annual snowfall at Salisbury is 12.4 inches, but the annual total varies greatly from year to year.5

FLOODS, TIDES & WATER SUPPLY

Minor or local floods can be expected every year or so along the streams in the county. Although flooding can occur in any month, it is most frequent late in winter and in spring. Severe thunderstorms in summer occasionally cause flash flooding. Tidal frequency data for the Wicomico River were based upon a tidal surge computer model, which was used to extrapolate tidal surge elevations throughout the tidal limits of the Wicomico River. A summary of peak elevation-frequency relationships is shown in Table 5 “Summary of Elevations.”6

<table>
<thead>
<tr>
<th>Elevation (feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flooding Source</td>
</tr>
<tr>
<td>10-year</td>
</tr>
<tr>
<td>WICOMICO RIVER</td>
</tr>
</tbody>
</table>
According to the Salisbury Public Works Department, daily tidal elevations for the Wicomico River are 2 feet at high tide and 1 foot at low tide.

Wicomico County has an abundant ground water available for development. Generally the depth of the water table is less than 25 feet and is within the limit of lift by suction pumps. Other aquifers, or water-bearing beds occur at greater depths, but these remain unexplored.  

Figure 7: Hydrology Diagram

GEOLOGY, RELIEF & DRAINAGE

Wicomico county is on the Coastal Plain of Maryland, where the relief is level to gently rolling. The elevation is mostly less than 40 feet above sea level, but it ranges from sea level in the tidelands to 85 feel in Parsonsburg.

The streams of the county are fairly well established, but their flow is rather sluggish and, during wet periods, causes flooding in some low lying areas. All of the county is drained by streams that flow into the Chesapeake Bay. Surface water from the central part of the county and the city of Salisbury flows southwestward into the Wicomico River.

Relief has an important effect on the retention and infiltration of rainfall, the retardation of runoff, and the discharge of ground eater through evapotranspiration. Most of the ground water comes from precipitation that filters through the soil or seeps in from streams, lakes, or ponds that recharge the ground-water reservoirs. The percentage of precipitation that recharges the ground water is highest in winter and is lowest in summer.
and early fall. About 51 percent of the total rainfall enters the soil, and the rest runs off.

Wicomico County lies in the physiographic province called the Atlantic Coastal Plain and is about 80 miles east of the fall line that separates the plain from the Piedmont Plateau. The county is underlain by sediments about 1 mile thick consisting mainly of gravel, silt clay, sand, and shells and shell fragments. Beneath the sediments is crystalline rock that dips to the southeast about 90 feet in a mile.

The county is part of a low eroded plain where the differences in elevation are slight. Although it appears monotonously level to the untrained eye, it actually includes terraces, stream channels, drowned valleys, basin like depressions, remnant dunes, swamps, and marshes. Dunes occur at nearly all elevations in the county and consist of mainly sand, but those at higher elevations consist of silt and clay capped with sand.

Along the Nanticoke and Wicomico Rivers, there are tidal marshes that lie at or near sea level.8

![Soil Diagram](image)

**Figure 8: Soil Diagram**
Figure 8 shows the geologic conditions for the proposed site. The northern half of the site is classified as Evesboro sand, 5 to 15 percent slopes (ErD), and the southern half of the site is Made land (Ma).  

Made land consists of areas where the soils have been so disturbed or modified by grading or filling that they cannot be classified. This land is so variable that examination is needed on the site to determine suitability for specific uses. Most areas are used for industrial or residential developments. It is likely that the acreage of made land is increasing in Wicomico County.

Soils of the Evesboro series are nearly level to steep, sandy, and somewhat excessively drained. They occur mainly on upland deposits of sand, some of which are dune like. Evesboro soils formed in beds of sandy marine sediments or very old river sediments, generally underlain by finer textured material. A typical profile has a surface layer of very dark gray loamy sand about 4 inches thick. The next layer, to a depth of 23 inches, is much the same as the surface layer but a yellowish brown. It is underlain by a layer of pale-yellow loose sand. Between the depths of 41 and 52 inches, the soil material is massive, olive sandy loam and sandy clay loam. Below 52 inches is a massive, light-gray sandy clay loam.

The Evesboro soils are extensive in this county. They are readily penetrated by roots, water, and air; they warm up early in spring, and are easily worked throughout a wide range of moisture content. The native vegetation is scrub, hardwoods, cominantly oaks, but many of the more level areas have been invaded by loblolly pine. In the dunelike areas, plant cover is mainly shortleaf and Virginia pines, and normally understory shrubs are lacking. Cactus grows on these dry ridges.
Design Implications

The temperate climate of Salisbury and Wicomico County provide an opportunity to use the natural resources of the area in conjunction with the building design to conserve energy and control the interior climate of the buildings and site specific. To account for the hot and humid summer months, design issues will include that of providing shade and cooling devices, as well as ventilation systems which take advantage of the cooling winds. A good design strategy for the winter months would include low glazing and protection against the cold winds towards the northwesterly direction, and more southern glazing to absorb sunlight and preserve heat.

Figure 9: Climate Design Diagrams
History

Salisbury, at the headwaters of the Wicomico River, was chartered in 1732. Over the years, as its potential as a port and regional distribution center was recognized and schools, churches and cultural institutions were established, the groundwork was laid for its later emergence as the dominant city on the Delmarva Peninsula. With the 1867 creation of Wicomico County from portions of Somerset and Worcester, Salisbury became the county seat.

The role of economic growth and industry have had a major impact on the development of the city. Salisbury’s economic and commercial prominence in the region started to surface by the late 18th century. Locally grown tobacco was shipped to England and other parts of Europe in exchange for everyday needs of new society. In time, faster steamboats, no longer dependent on wind and tide, speeded up commerce. One offshoot has been the development of oil processed from soybeans, a major agricultural crop, for use in food.

In the second half of the 20th century that growth accelerated markedly. A major reason has been its economic diversity, from agriculture to light industry, and an ever growing range of professional services, as well as the development of the arts and recreation.

The history of Salisbury is responsible for much of the city’s present day character, and is important for understanding the present conditions. Salisbury supports a population of approximately 26,000 people. The city boasts three distinct historic areas, the Central Business District, and the Newtown and Camden neighborhoods. Despite two massive fires that destroyed the town in 1860 and again in 1886, Salisbury recovered and ultimately prospered as it continues to make the most of its advantageous geographic location.
Site History

The proposed site for this thesis was once used as a lumberyard and mill warehouse as well as a dock for the Steamboat “Virginia” which provided regular passenger service overnight to Baltimore. The structure now on the site was once a metal recycling facility and also has been home to a Perdue factory. The building’s earliest
known use was as a warehouse for storing goods unloaded from steam engine ships and
is currently vacant and on the market for lease. The lot is also currently used by Bay Star
Cruiselines as a loading dock, which would serve to help bring people to the mixed use
complex proposed for this site.

Figure 11: “Pivot Bridge” on W. Main Street (washed out by a failure of the Isabella
St. Dam). Salisbury Waterfront dates back to 1700’s

Figure 12: Pivot Bridge replacement on W. Main Street

This picture was made before Route 50 was built. The “Virginia was still running,
and the lumber yard was also still in operation. (as shown by the stacks of lumber
visible in the background)
The city of Salisbury has many amenities, both natural and man-made, around which neighborhoods have developed. There are a large number of ponds, lakes, creeks, and streams that cluster and meander through the city. Highways and straight streets like Route 13 and Route 50, North Division Street and Camden Avenue sector the city, connecting quickly neighborhoods to conveniences. A profusion of native dogwoods, large trees, green growing fields, lawns, and courses add to the beauty of the area. The City of Salisbury is focused on the upper end of the Wicomico River which winds some thirty miles out to the Chesapeake Bay.

The two Victorian Style Historic District neighborhoods of Newtown and Camden Avenue are within walking distance to the heart of town and were developed on the North and South sides of the River. These neighborhoods boast Queen Anne, Gothic, French, Spanish and English Revivals styles in addition to many 1920-30 Neo-Colonials. Along both shores of the River, large new expensive $300,000 - $800,000 homes have been built over the last dozen years. The active harbor life of tugs and barges plus the wildfowl attract home seekers, sportsmen, and tourists.

Main Street, between Division and Market Street, is a pedestrian thoroughfare with a diverse mixture of retail space, financial and service businesses, professional services as well as a wide range of county, state, and federal government offices. The Downtown neighborhood, which is divided by U.S. Route 50, is also home to several historic religious groups who trace their congregational histories back through the eighteenth and early nineteenth centuries. In it’s hayday, downtown Salisbury was the crossroads of the city, attracting visitors from across the area with retail shops and theaters. But as commercial development exploded in other areas of Salisbury, the
downtown has continued to lose business. Today, the city center is home to mostly
government buildings and agencies and some small shops and restaurants.

Downtown Salisbury’s architecture is a traditional mix of brick buildings with
lots of interesting window treatments and rooftops. There is quite a bit of Victorian
Influence. The central business district is defined by a wide range of late 19\textsuperscript{th}-century
and early 20\textsuperscript{th}-century public and commercial buildings. Particularly outstanding is
the Wicomico County courthouse, an elaborate Victorian edifice executed in 1878, and
which was miraculously saved from destruction during the 1886 fire. Lining East and
west Main as well as North and South Division streets are numerous Victorian, Art Deco,
and Neoclassically inspired designs. Many of these buildings, originally erected for
one purpose have been adapted sensitively for new uses including architectural and law
offices, a news station and banks.

The Wicomico River’s banks are lined with numerous waterfront parking lots,
industrial sites and vacant properties. Tugs and barges still bring the Black Dog Stone
company its supplies up the north prong of the river. Fifty-three percent of all river traffic
goes up the North Prong using the two draw bridges at Route 50 and West Main Street.
Between the two draw-bridges is a parking lot and a small building used by an insurance
company. The river’s west prong is the most active of the three with boat traffic, and
Cheasapeake Shipbuilding is operated along the north shore of this area. Salisbury has
built a river walk along the Wicomico River which now begins at route 13 and ends near
the Carroll Street bridge, then picks up again near Brew River Restaurant on West Main
Street. New riverfront development should continue the riverwalk as an amenity for the
city.
Figure 20: Historic Newtown
Tanya Karamian

Figure 21: Historic Newtown
Tanya Karamian
Central Business District

The site proposed for this thesis is located in the area which is zoned as the Central Business District.

History

The Central Business district is located in the central area of the city where the town began at the head of the Wicomico River. For many years “downtown” was the center of all trade and industrial activity for the region. The focal point of Salisbury’s commercial activities was Downtown Main Street, known as ‘The Plaza,’ and two blocks of Division Street. On Saturdays, the “big” shopping day, people were crowded on Main Street until closing hour. In the second half of the 20th century, a drastic change began to appear in Salisbury as in most other cities. Population spread into less developed sections of the city and into the four quadrants of the suburbs that had been farmland. Business sprang up along major highways, and followed to the new neighborhoods. Shopping centers of eight to seventy-five stores appeared, banks opened branches, schools multiplied. The downtown area evolved from the traditional main street central shopping area into the center of governmental, professional, institutional and law enforcement facilities while still retaining service and retail activities. The central district was no longer dominant, though most established businesses retained roots there.

In 1962 the central business district revitalization plan was adopted. In the late 1960’s and early 1970’s an urban design study was completed, two urban renewal projects were completed, and an urban river plan was adopted, recognizing the Wicomico River as an important asset to future development of the downtown area. Aware of the changing downtown scene, the city used urban renewal programs to preserve Main Street and further establish identity for the downtown area. In 1980 a R/UDAT Study was
completed, and in 1981 a downtown historic district was created. The plaza was attractively landscaped with a brick surface and made an historical commercial district. Older structures were cleared away to create more parking spaces including a 562-car parking garage. The area immediately west of the main street bridge would be included in the downtown revitalization program and the entire project would be developed in phases under the management of a central council.

**Zoning**

The City of Salisbury Zoning Code was adopted during the years of 1986 - 1987, portions of which have since been updated as of January 2002.

![Figure 28: Zoning of Downtown Salisbury](image)
Zoning

Figure 29: Central Business District
With respect to the proposed site located in the Central Business District, the zoning requirements are summarized as follows:

Chapter 17.24
CENTRAL BUSINESS DISTRICT

PURPOSE (17.24.010)
To maintain and strengthen the role of the downtown area as the community and regional center for a broad range of governmental, cultural, institutional, professional, business, service and retail activities; to enhance the vitality of the downtown by encouraging residential uses.

PERMITTED USES (17.24.030)
Those that fulfill the purpose and intent of the district, encourage residential use, provide business, professional or financial services, bring people together for cultural and recreational events, support the nearby regional medical center and offer, at retail, a variety of consumer goods and services and promotional activities.
• Apartments above the first floor, apartment buildings, motels, hotels and single-family attached dwellings;
• Business uses and offices, including insurance, real estate and financial offices;
• Cultural uses, such as museums, libraries, meeting rooms, theaters and convention facilities;
• Professional uses, including medical, legal, engineering, surveying and architectural offices and facilities;
• Retail activities, such as, but not limited to, department stores, variety stores, specialty shops, boutiques, restaurants (all types), nightclubs, bars and dance halls, saunas, health clubs, marinas, boat ramps, indoor recreational establishments and swimming pools as an accessory use;
DEVELOPMENT STANDARDS (17.24.040)

• Setback shall be the same as the established setbacks for existing buildings within the same block.

• Where no established building setbacks exist, the setback shall be a minimum of five feet from the back of the sidewalk.

• Setbacks from the Wicomico River shall be a minimum of ten feet from the back of the existing or proposed bulkhead line.

• Setbacks from interior lot lines will be a minimum of ten feet.

• Floor area for commercial or other uses shall not be used when computing density for dwelling units;

• Inherent density shall not exceed forty (40) units per acre.

• Height of all buildings shall not exceed seventy-five (75) feet.

• Landscaped open space shall be provided wherever possible to attract development and provide a pleasing environment to conduct business, trade, civic and cultural affairs and improve the appearance of downtown.

• Development adjoining the Wicomico River shall provide public open space easements as required in the urban river plan or other adopted plans and shall provide open space and landscaped areas coordinated with existing open space and landscaped areas developed by the city.

• Common loading and unloading areas serving more than one business shall be encouraged where possible.

• Parking shall be provided in accordance with Chapter 17.196, except where governed by established parking tax district regulations.
Figure 30: Section Diagrams of Zoning on Site
Chapter 17.196

OFFSTREET PARING AND LOADING STANDARDS

GENERAL STANDARDS (17.196.020)

• All required spaces shall be located on the same lot as the use they serve, except that:
  - The owner of two or more abutting lots may locate the use on one lot and the parking
    spaces required for the use on another of his abutting lot.
- Two or more abutting property owners may locate the parking spaces required for their uses on any of their lots if:

  - The lot(s) providing the parking space abuts the lot(s) containing the use(s) it serves
  - All of the affected lots are in the same zoning district
  - The total number of spaces provided is not less than the sum of spaces required for all the uses

  - Means of pedestrian access is provided from the parking space to the uses so that pedestrians are not required to traverse property owned by other than said property owners, except where public sidewalks may provide the access.

  - All parking spaces and lots open to the sky shall be located no closer than three feet from the interior property line or back of sidewalk or eight feet from the curbline where no sidewalk exists, except for abutting property lines of two or more lots exercising the options for common parking stipulated above.

  - All covered parking spaces and lots, including garages and carports, shall not be located within any yard setback area, except when permitted as an accessory building.

  - All uses and structures shall provide off-street parking spaces in an amount equal to or greater than the number required in Section 17.196.030, parking space requirements. The total number of parking spaces necessary for two or more uses on the same lot shall be the sum of that required for each use.

  - Parking spaces other than those parallel to a curb, aisle or accessway required for off-street parking space shall be at least nine feet wide and twenty (20) feet long.

  - Minimum dimensions of all aisles providing access to parking lot spaces shall be as follows:
Table 6 - PARKING SPACE DIMENSIONS

<table>
<thead>
<tr>
<th>Angle of Parking Space to Aisle</th>
<th>Aisle width (feet) one-way</th>
<th>Aisle width (feet) two-way</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parallel</td>
<td>12</td>
<td>20</td>
</tr>
<tr>
<td>30°</td>
<td>12</td>
<td>20</td>
</tr>
<tr>
<td>45°</td>
<td>15</td>
<td>20</td>
</tr>
<tr>
<td>60°</td>
<td>18</td>
<td>20</td>
</tr>
<tr>
<td>90°</td>
<td>24</td>
<td>24</td>
</tr>
</tbody>
</table>

Table 7 - PARKING SPACE REQUIREMENTS (17.198.030)

- Residential: Apartment development - 1½ spaces for each dwelling unit, plus 20% of total or guest parking.
- Commercial: Office - 1 per 200 square feet of gross floor area.
- Commercial: Retail sales and service - 1 per 200 square feet of gross floor area.
- Entertainment: Restaurant; tavern; nightclub; dancehall - 1 per 25 square feet of floor area set aside for patrons, plus 1 for each employee.
- Mixed-use building (built after July 1, 1994) - 1 space per 200 gross square feet of building area plus any additional parking as may be required for any restaurant.

SITE IMPLICATIONS

Parking for this site will be handled in such a way as not to take away from the planned development. Therefore, a possible parking solution includes waterfront parking lot design as described in the site diagrams (figure 32) and precedence diagrams (figure 33) for Irvington Place, The City Marina of Annapolis, and 15th & Pearl Mixed Use.
Figure 32: Parking Requirements Diagram
Figure 33: Parking Precedence
Another possible parking solution is a proposal to the city council for an agreement to use existing spaces toward the program’s parking requirements. The City Council has been known to allow a certain number of public parking spaces for private use under a lease agreement with lot maintenance to be taken care of by the lessor. Currently the city’s parking Lot 1 has been noted by the public works department to be at 60 - 75% of capacity during it’s peak hours of parking. This lot is directly across Mill street from the proposed site and access to and from the lot and site may be accommodated by a pedestrian bridge, or a continuation of the existing riverwalk.

Figure 34: Site relationship to city parking lot 1
Downtown Action Agenda

Now more than 100 years after the second fire, downtown is being reconstructed for a third time, prompted by the realization of Salisburians that revitalization and historic preservation are important to the future of the city. Through the downtown revitalization program, the riverfront is being re-developed, and the Westside residential area will receive extensive improvements.

In 1992, the National League of Cities (NLC) decided to take a more aggressive role in the areas of Downtown enhancement. Together, NLC and HyettPlama, a Washington consulting firm under contract to the National League of Cities, designed a new pilot program. The new pilot would offer on-site, technical assistance to a limited number of communities. The purpose of limiting the number of communities who could participate was to ensure quality of service. Salisbury is one of the eleven cities chosen to participate in the pilot.

When revitalization became a necessity for Salisbury, the city decided there needed to be an organization to take the community input and run with it, hence Urban Salisbury was formed. One of the goals for the Urban Salisbury board was to compile a vision plan for the revitalization efforts. HyettPalma met with the mayor, City Council and several neighborhood groups, and created and agenda of action items Urban Salisbury needed to accomplish. Therefore, contracted with NLC, Salisbury’s government has been provided with recommendations for success-oriented solutions designed to improve the Downtown as well as on-site assistance. The result is the 2001 Downtown Action Agenda for Salisbury, Maryland, from which Urban Salisbury developed it’s vision plan. (Figure 35 - 36)
Figure 35: Urban Salisbury Land Use Objectives
Figure 36: Urban Salisbury Master Plan
One of the first suggestions from HyettPalma was to re-open the Plaza to cars. Salisbury has completed this action immediately to show the city’s serious commitment to the revitalization efforts. HyettPalma reported that of 250 or more cities that closed their Main St. Plazas in 1970’s as response to the mall retail concept, 15 have yet to reopen them. But Salisbury is also one of the last to reopen it after business began to stifle. “Opening The Plaza after nearly three decades was more of a symbolic event” (Frank Kea, Urban Salisbury Board member).

The Action Agenda (Figure 37) serves as a general statement of recommended strategies in which the Urban Salisbury team derives the city’s specific course of action. The recommended strategies of the Downtown Action Agenda 2001 is that Salisbury should create and reinforce four districts:

• Old Town for primarily retail, arts, entertainment and upper level housing.
• Office and Institutional District for primarily government, medical, and professional facilities.
• Development district for uses which can benefit from water views including lodging and food establishments.
• West side District for primarily housing, neighborhood businesses, and Industries.
Figure 37: Salisbury Action Agenda 2001 Recommended strategy districts

Downtown Salisbury Development Districts

1 = Old Town District  3 = Development District
2 = Office & Institutional District  4 = West Side District
Site Investigation

The proposed site is located directly on the waterfront of the Wicomico River, an estuary of the Chesapeake Bay. The site is considered the prime location for development on the river, due to its close proximity to existing residential, commercial, and governmental centers. It has a corner condition on the water as it is where the river splits forming three prongs. The east prong is unnavigable by water traffic other than small boats, however, the West prong which enters the city from the west then extends to the north prong is very active with commercial barges, as well as private yachts. The site has North-West views of the Salisbury Marina, and Northern views of the Historic Tug Boat, and Main Street Draw Bridge. The site is within a 5 minute walk from Downtown Main Street Shopping, and the Central Business District.

The Property: Size: 106,000 square-feet = 2.34 acres

Present use of the property: With the exception of Bay Star Cruise lines using to site as a loading dock, the property is generally unused, with an empty warehouse on it. There has been no offers for lease of the existing building and no further use is anticipated. The property is currently zoned as part of the Central Business district, and has been proposed for Mixed Use: Hotel / Office / Retail in the Downtown Revitalization Land Use Objectives.
**Location:** The site is considered the prime location for the proposed mixed-use complex.

- On the water.
- One block from the Main Street Shopping Area.
- One block away from the Historic Camden residential neighborhood.
- Across the river from the new Brew River Restaurant Bar.
- Located at the intersection of four major roads.
- Located on the southern side of Rt. 50 thus allowing easy access for pedestrians from the downtown area.
- Zoned for the uses proposed on the site.
The site has approximately 650 linear feet of waterfront. Across the river is a restaurant bar and a small park space. I will propose a connection of the two river banks by a small ferry system. The site boundaries are defined on the east and south by low-speed streets that intersect two other streets at the southeast corner of the site. I will propose that a traffic circle be implemented at this intersection rather than a traffic signal so as to alleviate the congestion which occurs from the light, to create an easier flow of traffic and slow it down. To the west is the property of a small two story office building. The site boundary to the north is the waterfront. Mill Street, the eastern boundary to the site, is a four lane street which crosses over the river’s east branch, and the majority of traffic from Rt. 50 use this street to enter the downtown. The adjacency of the site to Mill street occurs at the base of the bridge, thereby creating a somewhat impractical situation for access to the site from this street. Mill street becomes one-way and changes to Camden Avenue as it continues south towards Salisbury State University. The southern boundary is Riverside Drive which continues west along the river and leads traffic to the affluent neighborhood of Riverside. This is a four lane road in which traffic from the neighborhood of Camden and Salisbury University would use to travel north to Rt. 50. Continuing east through this intersection is Carroll Street which leads traffic to Rt. 13. Across Riverside Drive is a Store which sells the famous Maryland crabs, and adjacent to that is a vacant lot. On the other side of Mill Street are the backs of Downtown’s Feldmans furniture store, and an expansive parking lot. I intend to connect the proposed site to the downtown by a pedestrian bridge, thereby taking advantage of the existing parking lot and allowing pedestrians to freely walk to and from the proposed complex and the downtown area. I will also propose an alternate use for the majority of the riverfront property which surrounds the vast parking lots. The site has a gentle slope from Riverside Drive (south) to the waterfront (north), a difference of approximately 5 feet. The topography in the east-west direction is relatively consistent across its length.
Site Objectives

• Respond to vehicular, pedestrian, and boat traffic.

• Maximize waterfront views of Wicomico River.

• Respect the scale and context of the existing urban fabric

• Respond to the issue of a site with two fronts:
  - waterfront
  - street

• To create an image which is representative of Salisbury’s strong history, and the new attitude towards development of Salisbury’s waterfront.

• To create a space which will draw people to the waterfront, and re-invigorate the downtown.
Figure 46: Site Sections
Figure 47: Approach to the site from the North

Figure 48: Approach to the site from the West
Figure 49: View of site from west across the river

Figure 50: View of the site from North across the river
Figure 51: View from the site to the north-west

Figure 52: View from the site north of the draw bridge

Figure 53: View from the site west

Figure 54: View from the site of Marina and Brew River Restaurant Bar

Figure 55: View of the site from the south
PICKERING WHARF
Salem, Massachusetts, 1980

Architect: ADD Inc.

Awards: 1977 Progressive Architecture Award; Boston Exports Award

Program: The program of Pickering Wharf was to provide a waterfront commercial, residential, and theater development on a former oil company tank farm in Salem, Massachusetts, designed essentially as a self-contained neighborhood, with its separation from downtown Salem declared by a tower symbolic of the area.

• 50,000 square-feet of street level retail shops and restaurants - These shops would line the narrow streets and small squares.
• Located directly above the shops is approximately 25,000 square-feet of leasable office space, and also above the retail are sixty loft-style condominium units.
• A marina with 30 slips for boats encourages waterside activity.
• The project also includes a 20,000 square-foot museum and theater.

The Pickering Wharf development serves as a major tourist attraction to those visiting the Salem area, as well as a successful and active year-round shopping and living community for residents.

The solution presents an assemblage of freestanding, gable and hip-roofed structures. The structures are juxtaposed with each other in such a manner to form a progression of pedestrian paths and defined open spaces. Compositional placement of the buildings also defines the interior streets and traffic circles. The uses of this site ensure activity both day and night. The emphasis of this project towards a pedestrian pace and scale is reinforced by the building forms and materials.
Figure 56: Pickering Wharf
Figure 57: Pickering Wharf Diagrams
DEL MAR PLAZA
Del Mar, California, 1989

Architect: The Jerde Partnership, Inc.

Program: A terraced, three level specialty shopping center on a gently sloping 91,000-square-foot hillside site. The 74,600 square feet of retail space includes thirty five specialty shops, five major restaurants, a food market, and four small service establishments that primarily cater to local residents. A three-level, 160,000-square-foot parking garage for 380 cars is located beneath and adjacent to the lower levels of the shopping center. Special features include large panoramic ocean views, and Contextual, environmentally sensitive site planning and design.

Del Mar Plaza provides multi-level plazas with views directed toward the Ocean where by the sequence of spaces are connected by meandering paths which are store lined to give the feel of walking through European streets. The complex serves as an attraction and gathering place for tourists as well as residents.

Site Area: 91,000 sq. ft.
Gross Building Area: 234,600 sq. ft.
retail: 74,600 sq. ft.
parking facility: 160,000 sq. ft.
FAR: 0.77
Number of levels of retail: 3
Site coverage: 95%
Total Parking Spaces: 380
Figure 58: Del Mar Plaza Passage

Figure 59: Del Mar Market Plaza
Figure 62: Robina Town Center exemplifies how public space and Service Corridors are employed in a retail complex.
Figure 63: Jill Sander Boutique shows an example of a typical retail space.
Figure 64: The Adelphi is a good example of how hotel rooms can be arranged in a bar building and also accommodating suites.
Figure 65: Ondine Restaurant is a good example of how the public and private spaces may be separated, yet appropriate arrangement of various elements between these spaces keeps the house functioning efficiently.
Program

Development Concept

The concept is to create a mixed-use commercial center that will attract people as a destination for boating activities, shopping, working, formal and casual dining, and relaxing on the waterfront. The project will link the waterfront to the adjacent residential, commercial, and governmental centers of the downtown. A clean accessible waterfront with boating activity is an irresistible draw for residents of the community and workers to go and experience the waterfront setting, meet friends, shop, or just stroll around.

Issues

The main issue concerning the design of a mixed-use center is understanding that the whole is more important than any of its parts. The design of this complex will be successful if the program elements relate functionally and architecturally to each other in order to satisfy the whole continuity of the mixed-use development.

Another issue involves the attractiveness and flexibility of the facilities functions to accommodate both the tourist as well as the immediate residents. In addition, careful consideration must be taken for the square footage allotted per programmatic element. These elements will dictate the general use and character of the waterfront complex and in turn the general overall of the downtown area.
**Elements of the Program**

**Public Square:** The square will be the focal point of the complex. This great space will be an entrance to the complex from water and from land, and will be an organizing element for circulation through the scheme. The surrounding businesses will provide justification for this space, attracting people, allowing comfortably for enjoyment of the waterfront. In addition, this space will create an image for the development and in turn for the downtown as a whole.

**Several Small Plazas:** More intimate plazas at multiple levels will provide a variety of outdoor atmospheres while servicing the upper level retail and compensate for the grade change.

**Restaurants:** The complex will have a first class restaurant overlooking the waterfront. In connection with the restaurant will be a bar with an adjacent outdoor terrace overlooking the river. In addition, there will be smaller more informal restaurants and bars with outdoor seating as well.

**Meeting Room/Ballroom:** A flexible meeting space will be provided for as few as 20-30 people and up to 800 people for large events such as banquets, conventions, wedding receptions. This space will be on the same level as the restaurant so that large events in the Ballroom have the opportunity to be catered.

**Waterfront Promenade:** This will be a waterfront public walk architecturally designed to compliment the complex. It will also serve as a transition space between the water and the commercial center.
**Tower:** The tower will serve as an identifying symbol for the complex. It may also contain a small real estate office.

**Commercial Retail Space:** The retail shops will be designed as leasable space allowing the lessee to provide the interior components necessary for operation. The retail space will provide options for different shops of different sizes.

**Flats:** Several penthouse river-view flats will be provided, allowing valuable residential real-estate to be brought into the downtown waterfront.

**River Transport:** To connect pedestrians to various locations along the river and to the site, ferries will be proposed.

**Small Inn:** A waterfront hotel to provide accommodations in a prime location and function in connection with the restaurant and ballroom/conference room.
Program

Large Restaurant and Bar 11,300 sq. ft.

Meeting Room/Ballroom 9,000

Tower 5,600

Retail Space 42,300

Loft/Condominiums

28 @ 1500 sq.ft. 42,000
4 @ 1000 sq.ft. 4,000

Hotel

33 rooms 35,000

Parking

180 sq. ft. per space (295 spaces) 53,100

Gross Building Area 202,300 Total
Site area: 106,000 sq. ft.
FAR: 1.9
Coverage: 62%
Figure 66: Programmatic elements and their relationships diagram

Figure 67: Program size in relation to site size in plan diagram
Figure 68: Programmatic spatial relationship to the site, axon diagram.
SCHEMATIC DESIGN STUDIES
Schematic Design Studies

General Statement

The purpose of this exercise is to explore pre-schematic design concepts in terms of feasibility for the proposed site on the Wicomico River in Salisbury, MD.

The Scope of the Study

The urban context was studied through scaled plan drawings and diagrammatic dimension requirements with the intention to introduce necessary building uses to the downtown area and reconfigure traffic patterns that will maintain a pedestrian pace for the area.

Site strategies were explored through diagrammatic studies of circulation, spatial elements, and public amenities. Dimensional studies of marine as well as automobile parking were to ensure appropriate public access to the site. Diagrammatic studies of the appropriate arrangement for site program was to ensure good circulation about the site, good views from the site while adding to and complimenting existing amenities.

The pre-schematic design explorations were studied by looking at figure-ground, site sections, and spatial diagrams.
Figure 69: Traffic pattern diagrams
Figure 70: Parking diagrams
Figure 71: Marina diagrams
Figure 72: Contextual urban Amenities diagram
Figure 73: Site zoning diagram
The schematic design study section consists of three concepts, parti 1, 2, and 3. The purpose is to evaluate each concept in terms of feasibility for the site by looking at issues such as massing, site composition, accessibility, traffic movement, accommodations for parking, relationship to the waterfront, contextual and other urban and architectural issues that will effect the design for this particular site.

**Issues**

- Edges, Connections.
- The street vernacular.
- Connection to Main Street
- How buildings should be places on a waterfront site.
- Public gate from water to land.
- Front - Back relationships.
- Development of two fronts: one relating to water, and one relating to land.
- Role of the street: how one adds to the street, connects it, and terminates it.
- Location of public space vs. private space
- Automobile and Marine parking
- Circulation (pedestrian and vehicle access)
- Maritime Symbolism.
Parti 1

Parti 1 involves a straightforward site planning scheme in which the program is organized with Retail at the lower level, offices on the second level and the flats on the south west end of the site to create a separation of public and private as well as a separation of quiet from noise for residents. There is a single pavilion on the water which is the primary restaurant at the lower level and the ballroom on the second level. This composition allows for a riverwalk, and a large square on the water, as well as several more intimate exterior spaces on the site. There are 9-10 private slips for residents to use and visiting boats may dock along the riverwalk for the day. This Parti uses Pickering wharf as a precedent.
**Parti 2**

Parti 2 displays a site composition similar to Del Mar Plaza. In this scheme the buildings are situated on the perimeter of the site forming space in the center of the site for multi-levels of parking. The program would be organized with the retail on the lower level, offices on the second level, and the flats on the third level. The riverwalk is then manipulated to be between the water and three story waterfront facades. The public square is large and raised from ground level, and smaller intimate spaces lack view of the water, however both the street edge and the waters edge have the privilege of being defined by building fronts.
Parti 2

Site: 100,000 sq. ft.
Gross Bldg Area: 2,735,000
Retail: 50,000 + 16,000
Office: 19,000
Residential: 30,000 (HOTEL)
FAR: 1.08
Coverage: 75%
Parking: 150 cars
No. Spaces: 450 cars

Figure 76: Parti 2
Parti 3

Parti 3 consists of two large buildings which both have central atriums and are arranged in a way that they form a large central square. Both buildings have an inner courtyard which is private and specifically for the private use of its surrounding program. The Southwest building consists of the residential and hotel with their respective slips for docking boats which creates a more private entity. The Northeast building consists of retail, office and restaurant which would extend to a more public end of the site. Parking will be below grade.
Figure 78: Parti 3

Site: 100,000 sq. ft.

Gross Bldg Area: 2,631,900

Retail: 35,000 + 24,000

Office: 14,400

Hotel/Residential: 37,000

FAR: 1.34

Coverage: 69%

Parking: 121,500 sq. ft.

No. Spaces: 350 cars
Design Solution

Urban Intervention

The waterfront of Salisbury, MD has historically been inhabited by industrial sites and the historic downtown Main Street was once a vibrant shopping block. A figure-ground diagram of the existing conditions illustrates the breakdown of the area’s waterfront and the disjointed infrastructure that occurs in the downtown.

During the design portion of this thesis exploration, it became evident that a larger area of downtown Salisbury would have to be examined in order to adequately address the problems of city edge, density, typology and affordability. By introducing more downtown and waterfront housing, hotels, retail, museums, and green space, the area becomes more dense, more inhabited and invigorated. The scale of Salisbury is that of a small town and should maintain this quality, therefore introducing buildings within the height limitations and employing traffic circles in place of traffic lights would uphold a pedestrian pace for the city.

The city has used its existing amenities to begin efforts towards revitalization of the downtown area. A riverwalk follows the river from the east and then also from the west, however it becomes disjointed around the downtown area. This thesis proposes a connection of this riverwalk by a pedestrian bridge across the east prong and an extension along the proposed site. In addition, this thesis proposes to add public plazas which contribute to the existing array of outdoor public spaces sprinkled through the city.
Figure 81: Master Plan and Roof Plan of proposed complex
Design Proposal

Waterfront Mixed-Use Complex

Introducing this mixed use complex is the beginning of many new downtown waterfront developments which begins a chain reaction towards a new town center, a refurbished Main Street, and a more active area. However, first there must be provided a place where residents as well as tourists will enjoy for many reasons. Therefore, the focus of this thesis proposal are the spaces in which people can gather, which are defined by their surrounding programmatic elements.

The introduction of residential units is to bring ownership to the land, and the retail will soon follow. The residential units are located at the south-west end of the site and have a central courtyard swimming pool which is shared by the hotel. This end of the site becomes the dwelling unit end and the quiet, residential side of the property, which contextually lends itself to the adjacent residential properties that follow west along Riverside Drive. The north-east end of the site is occupied by primarily retail shops and a large restaurant with an upper level conference/ballroom.

The various uses of this complex coexist together symbiotically by supporting each other’s functions. This site could very well support a live-work situation, city tourism and company conventions, as well as the more temporary visitor for shopping, eating or outdoor functions such as festivals and the riverwalk.
The multi level plazas together act as a town square redefining the downtown and providing an imageable place for residents as well as tourists. The small plaza at the north-east end of the site acts as a welcoming space for pedestrians who will most likely be travelling from the main street shopping area. The main central plaza will serve as a central point for the complex and act a entry space to the entire complex as well as to the individual functions which surround it. The grand space may also serve as a public space for flea markets, musicians, a weekly farmers market, or annual festivals. The upper plaza functions as the entry to the ballroom and the upper level retail. It is accessed by two, intimate, mid-level plazas at either end.

Accessibility to these levels is made possible by two ramps at either end of the site or by the elevator within the lookout tower. The elevator is one of three public elevators in which the other two access the two parking levels below. The tower elevator, accompanied by stairs continues up 70 feet above sea level so one can enjoy the gorgeous views of the city of Salisbury and it’s downtown waterfront.
Figure 82: Building Diagrams

SITE: 106,000 sqft.
GROSS BUILD AREA: 217,900
RETAIL: 30,000
OFFICE: 13,800
RESIDENTIAL: 40,000 (52 units)
HOTEL: 35,000 (570 rooms)
RESTAURANTS: 11,300
TOWER: 5,000
BALL-ROOM: 9,000
FAR: 2.05
COVERAGE: 62%
PARKING: 106,000 sq. ft.
# SPACES: 288 (61 private
227 parking

CIRCULATION

PARKING
FUR vs. PRIV.

SERVICE
Figure 83: Building Diagrams
Figure 84: Plan - Parking Level 1 and 2
Figure 86: Plan - Upper Plaza Level
Figure 8.7: Wall Section and site section
Figure 89: Long section and Elevations
Figure 90: East Elevation and View from the Bridge
Figure 91: Riverwalk
Figure 92: Upper Plaza
Figure 94: View from an approaching boat
Endnotes


7. Soil Survey. p.84.


Bibliography


2. Carmean, Joe E.  *Developers propose Riverside Drive Hotel*, The Daily Times, Salisbury, MD; Wednesday, July 30, 2003; p.1,4.

3. City of Salisbury Zoning Code


