

A PATH FOR WATER

Joanne A. Trumbo

Thesis submitted to the faculty of the Virginia Polytechnic Institute and State University in
partial fulfillment of the requirements for the degree of

Masters
of
Architecture

Jaan Holt, Director (Chairman)
Caren Yglesias, Ph.D (Committee Member)
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Washington-Alexandria Architecture Center
Alexandria, Virginia

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A PATH FOR WATER

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ABSTRACT

Abstract:

How can water influence the rhythm of Architecture?

Water is referred to as the blood of the earth, the liquid that runs through the veins of the earth. At times rain falls calmly to the earth's surface bringing life to plants, animals, and people. At other times, rain falls in a fury and causes the rivers to swell and flood, destroying life. In the film *Rivers and Tides Working with Time* Andy Goldsworthy states, "the thing that brings it to life is also the thing that causes its death." The essential element of water is needed by all living things. Vitruvius stated that "without the influence of moisture living creatures will be bloodless and having the liquid element sucked out of them will wither away." Every living thing includes a percentage of water, without which life would not be possible. However, when the vengeance of a storm comes water can become an unforgiving force. A force more powerful than life can sustain. Water can provide life for years, nourishing our bodies, souls, and minds, but it can take life away in an instance and leave nothing but destruction and death behind.

The architecture of the proposed building has been inspired by the ebb and flow of the the Potomac River. By using the tide and seasonal changes of the river the architecture will react and embrace this element of the Alexandria, Virginia.

The project is for the Alexandria Sculpture Museum. This Museum will provide a forum for the public to be able to enjoy the dynamics of a museum in the downtown area as well as the public interaction between the city, the land, and the river.

A PATH FOR WATER

ALEXANDRIA SCUPLTURE MUSEUM BY JOANNE A. TRUMBO

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Joanne A Trumbo
Washington Alexandria-Architecture Center
Alexandria, Virginia

Defense Date: June 15, 2007

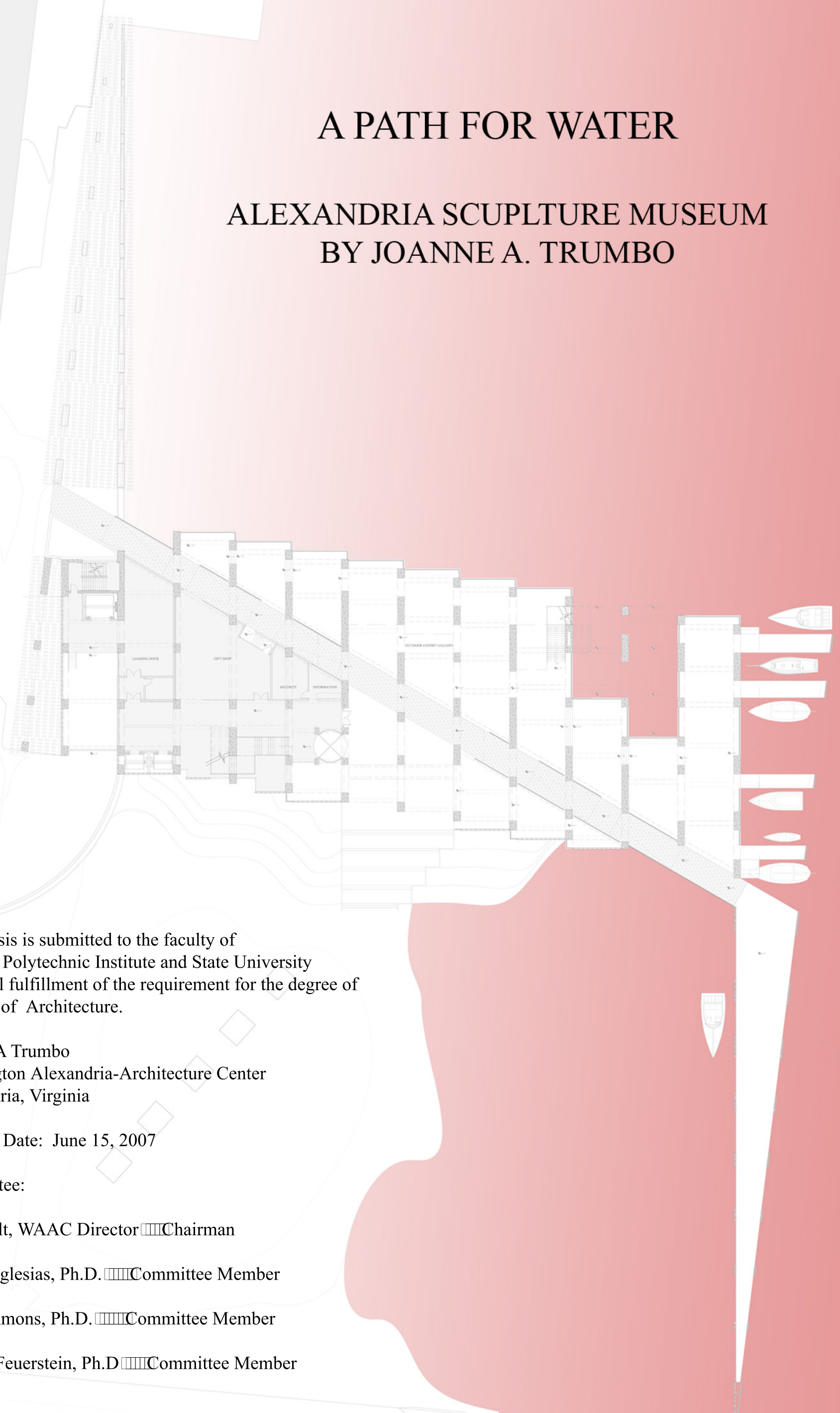
Committee:

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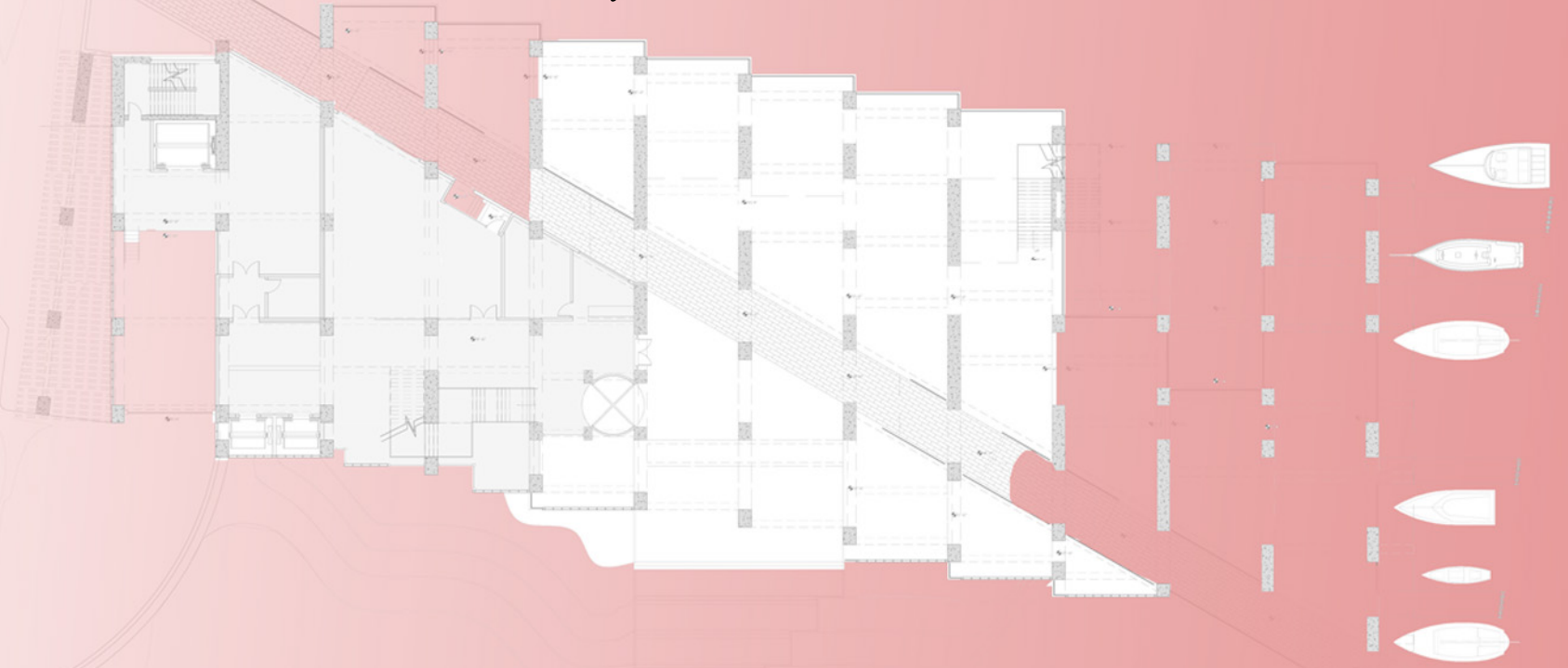
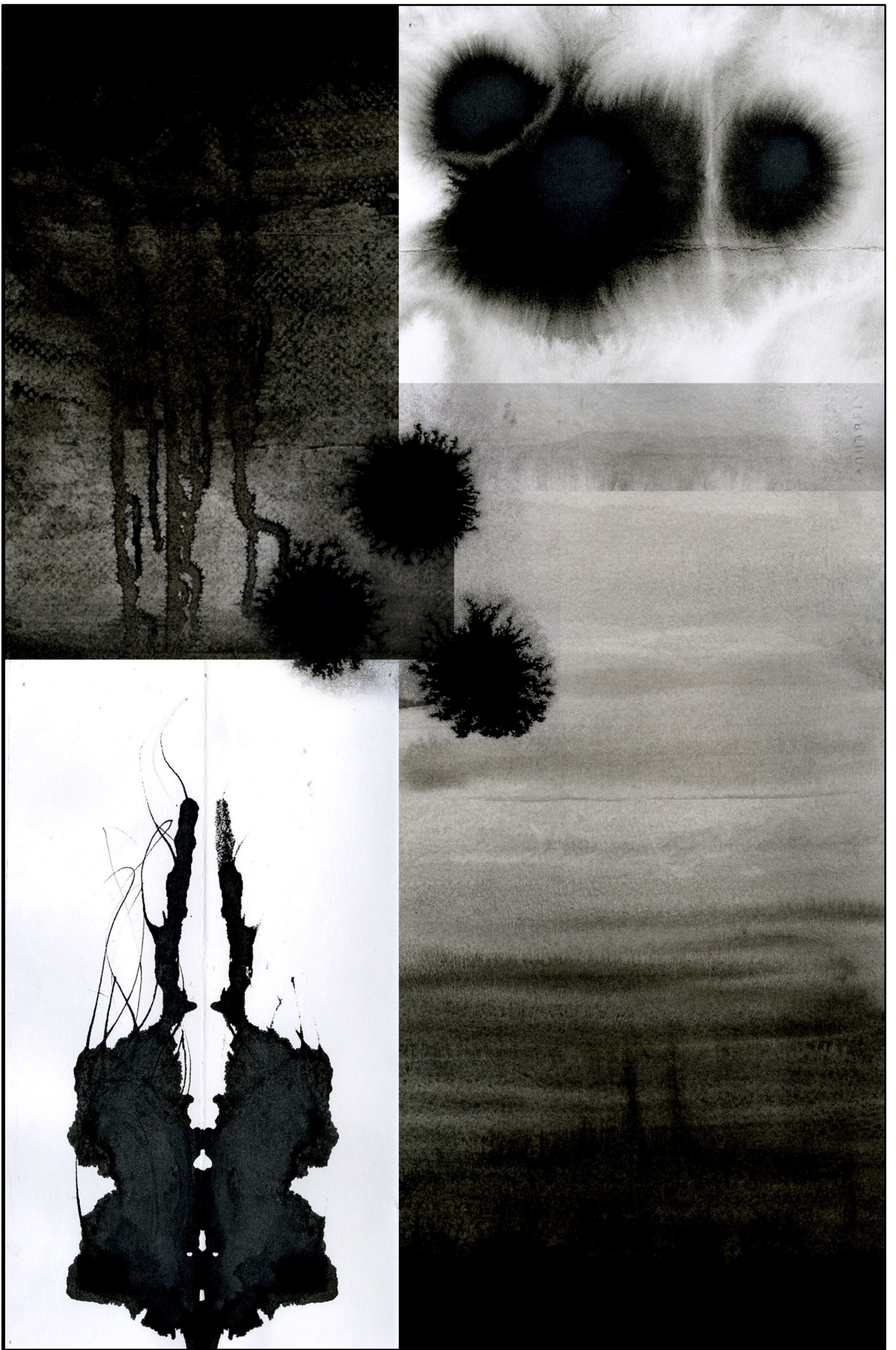


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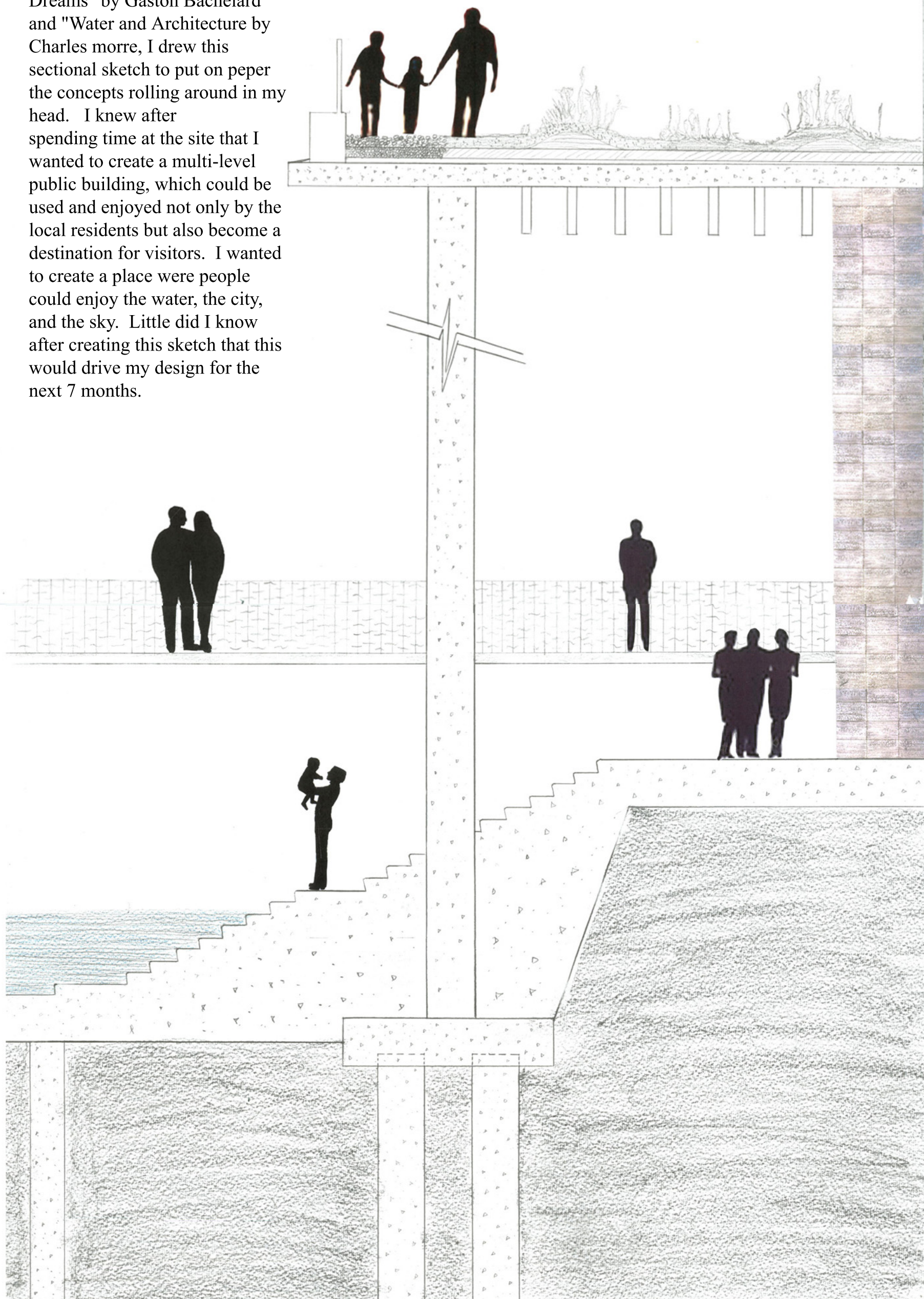
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INK STUDIES - At the beginning of the thesis project, after determining that the thesis would deal primarily with water, I worked on a series of Ink studies to study and manipulate the flow of the ink across the paper. I worked with different types of paper as well as different ways of manipulating the flow, such as dry verse wet media.

ALEXANDRIA SCULPTURE MUSEUM

After reading "Water and Dreams" by Gaston Bachelard and "Water and Architecture" by Charles Morre, I drew this sectional sketch to put on paper the concepts rolling around in my head. I knew after spending time at the site that I wanted to create a multi-level public building, which could be used and enjoyed not only by the local residents but also become a destination for visitors. I wanted to create a place where people could enjoy the water, the city, and the sky. Little did I know after creating this sketch that this would drive my design for the next 7 months.

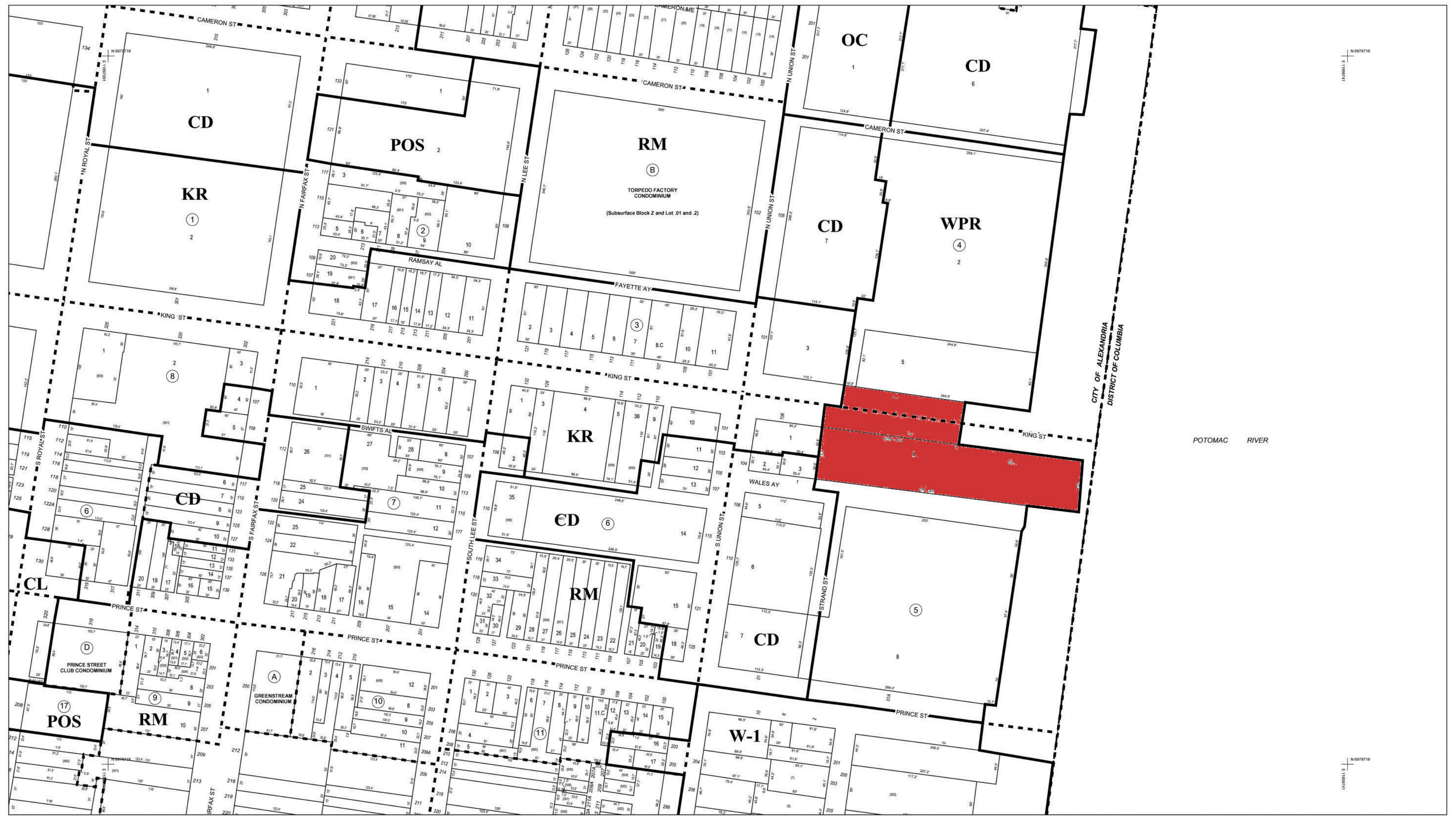


THE BEGINNING OF THE IDEA -

ALEXANDRIA SCULPTURE MUSEUM

THE SITE

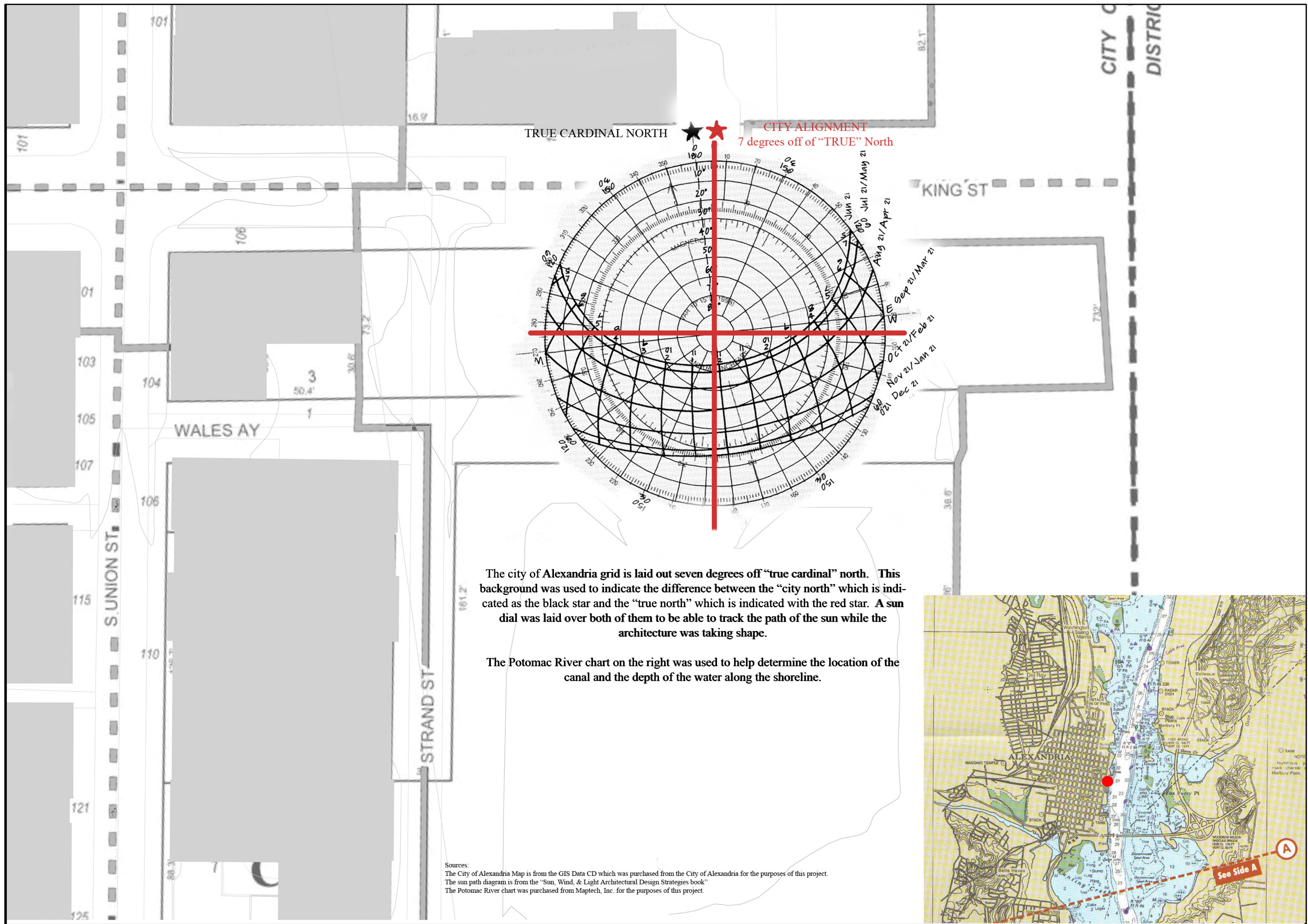




<p>Special Notations</p> <p>The maps provided hereunder are provided "as is" and the City expressly disclaims all warranties, UCC and otherwise, express or implied, including warranties as to accuracy of the maps and merchantability and fitness for a particular purpose, and further expressly disclaims responsibility for all incidental, consequential or special damage arising out of or in connection with the use or performance of the map.</p>	<p>Legend</p> <p>Private Road: - - - - - City Boundary: - - - - - Zoning Line: - - - - -</p> <p>Block Line: - - - - - Property Line: - - - - -</p> <p>Address: 1317 Parcel Area: 12 A</p> <p>Parcel No.: 7 Block No.: 4 Legal Lot No.: 691</p>	<table border="1"> <tr><td>64.04</td><td>65.03</td></tr> <tr><td>74.02</td><td>75.01</td></tr> <tr><td>74.04</td><td>75.03</td></tr> </table>	64.04	65.03	74.02	75.01	74.04	75.03	<p>50 25 0 50 100 Feet</p>	<p>N</p>	<p>ALEXANDRIA, VIRGINIA ASSESSMENT MAP</p>	<p>SHEET NUMBER 75.01 06-08-2006</p>
64.04	65.03											
74.02	75.01											
74.04	75.03											

CITY OF ALEXANDRIA MAP - This map provides information regarding the general overall site relationship with the city and the Potomac River. The site chosen is indicated in red.

ALEXANDRIA SCULPTURE MUSEUM



The city of Alexandria grid is laid out seven degrees off “true cardinal” north. This background was used to indicate the difference between the “city north” which is indicated as the black star and the “true north” which is indicated with the red star. A sun dial was laid over both of them to be able to track the path of the sun while the architecture was taking shape.

The Potomac River chart on the right was used to help determine the location of the canal and the depth of the water along the shoreline.

Sources:
 The City of Alexandria Map is from the GIS Data CD which was purchased from the City of Alexandria for the purposes of this project.
 The sun path diagram is from the “Sun, Wind, & Light Architectural Design Strategies book”
 The Potomac River chart was purchased from Maptech, Inc. for the purposes of this project.

SITE INFORMATION

Directional information regarding “true” cardinal north and the city alignment. Information regarding the Potomac River water depth and channel location

ALEXANDRIA SCULPTURE MUSEUM



SITE PHOTOGRAPHS OF EXISTING CONDITIONS

AERIAL PHOTOGRAPHS ARE FROM GOOGLE EARTH OTHER PHOTOGRAPHS
HAVE BEEN TAKEN BY JOANNE A TRUMBO

ALEXANDRIA SCULPTURE MUSEUM



CURRENT CONDITIONS AT THE END OF KING STREET

- * KING STREET MOST TRAVELED / UTILIZED BY RESIDENTS AND VISITORS
- * END OF THE STREET IS UNFRIENDLY
- * PARKING LOT, CHAIN LINK FENCE, AND LACK OF PUBLIC WALKWAY DETERS PEDESTRIANS FROM USING WATERFRONT PARK
- * DIRECT CONNECTION TO YELLOW LINE METRO
- * CONCENTRATION OF COMMERCIAL L BUSINESSES

KEY

- █ PRIVATE BUILDINGS
- █ COMMERCIAL BUILDINGS
- █ PARKS
- █ PEDESTRIAN WALKWAY
- - - COMMON PEDESTRIAN MOVEMENT
- █ PAVED ROAD
- █ PARKING LOT

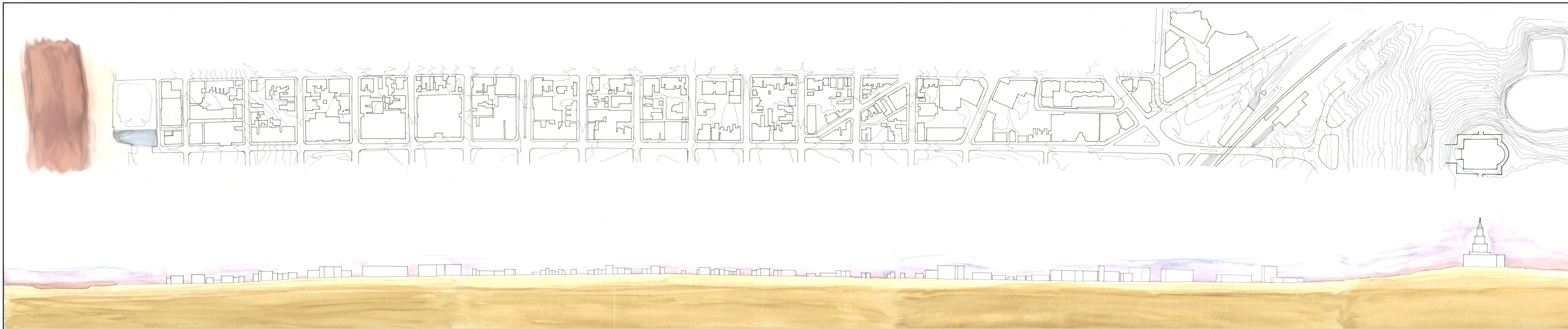


LOCATION FOR PROPOSED MUSEUM AND IMPROVEMENTS

- * END OF KING STREET OCCUPYING CURRENT PARKING LOT
- * RELOCATE THE BOAT CLUB AND DOCKS TO THE END OF PRINCE STREET
- * CREATE NEW PEDESTRIAN WALKWAY AND OPEN PLAZA TO IMPROVE MOVEMENT AND PUBLIC INTERACTION
- * IMPROVE UTILIZATION OF WATERFRONT PARK
- * IMPROVE CONNECTIONS BETWEEN FOUNDERS PARK AND WATERFRONT PARK
- * PROVIDE A LOCATION FOR THE PUBLIC TO INTERACT AND UNDERSTAND THE RIVER

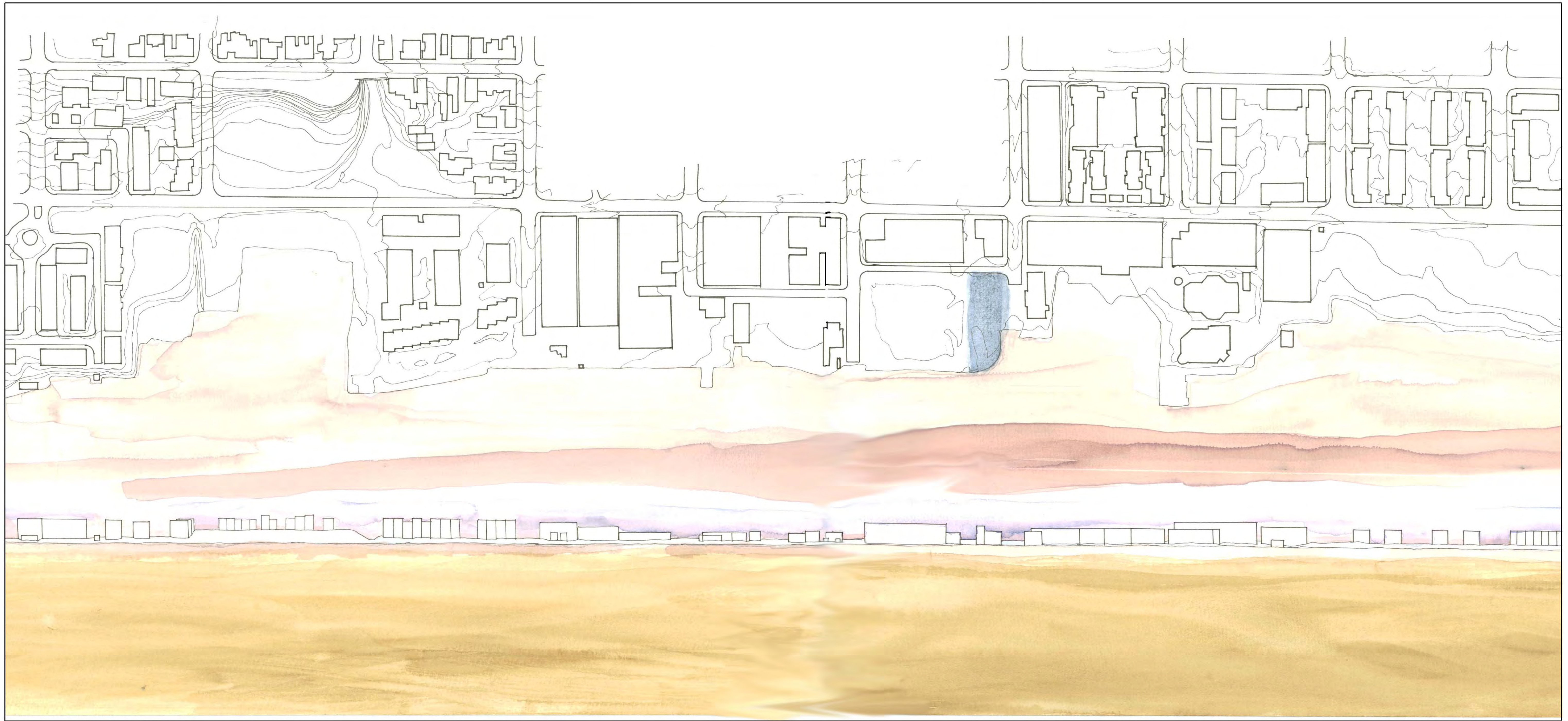
KEY

- PRIVATE BUILDINGS
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- PEDESTRIAN WALKWAY
- - - COMMON PEDESTRIAN MOVEMENT
- PAVED ROAD
- PARKING LOT



LONGITUDINAL SECTION OF KING STREET FROM THE KING STREET METRO STATION TO THE WATERFRONT
HAND INK AND WATERCOLOR

ALEXANDRIA SCULPTURE MUSEUM



CROSS SECTION OF WATERFRONT
HAND INK AND WATERCOLOR

ALEXANDRIA SCULPTURE MUSEUM

THE PROJECT



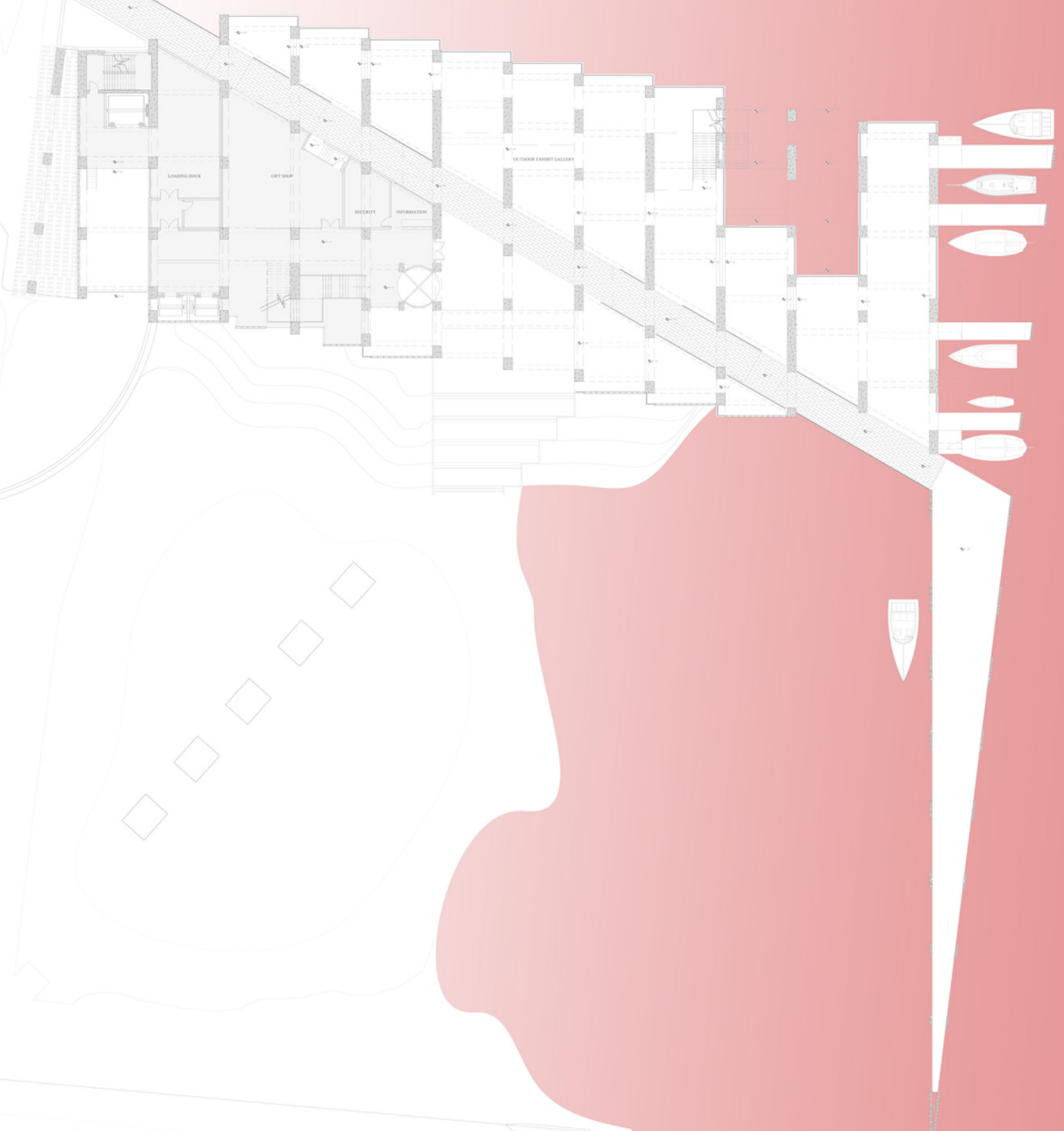
The Program

The architecture of the building will explore, engage, and integrate the senses of the body with the daily movement of the tide, the harmonic melody of falling rain, and the unforgiving flood waters.

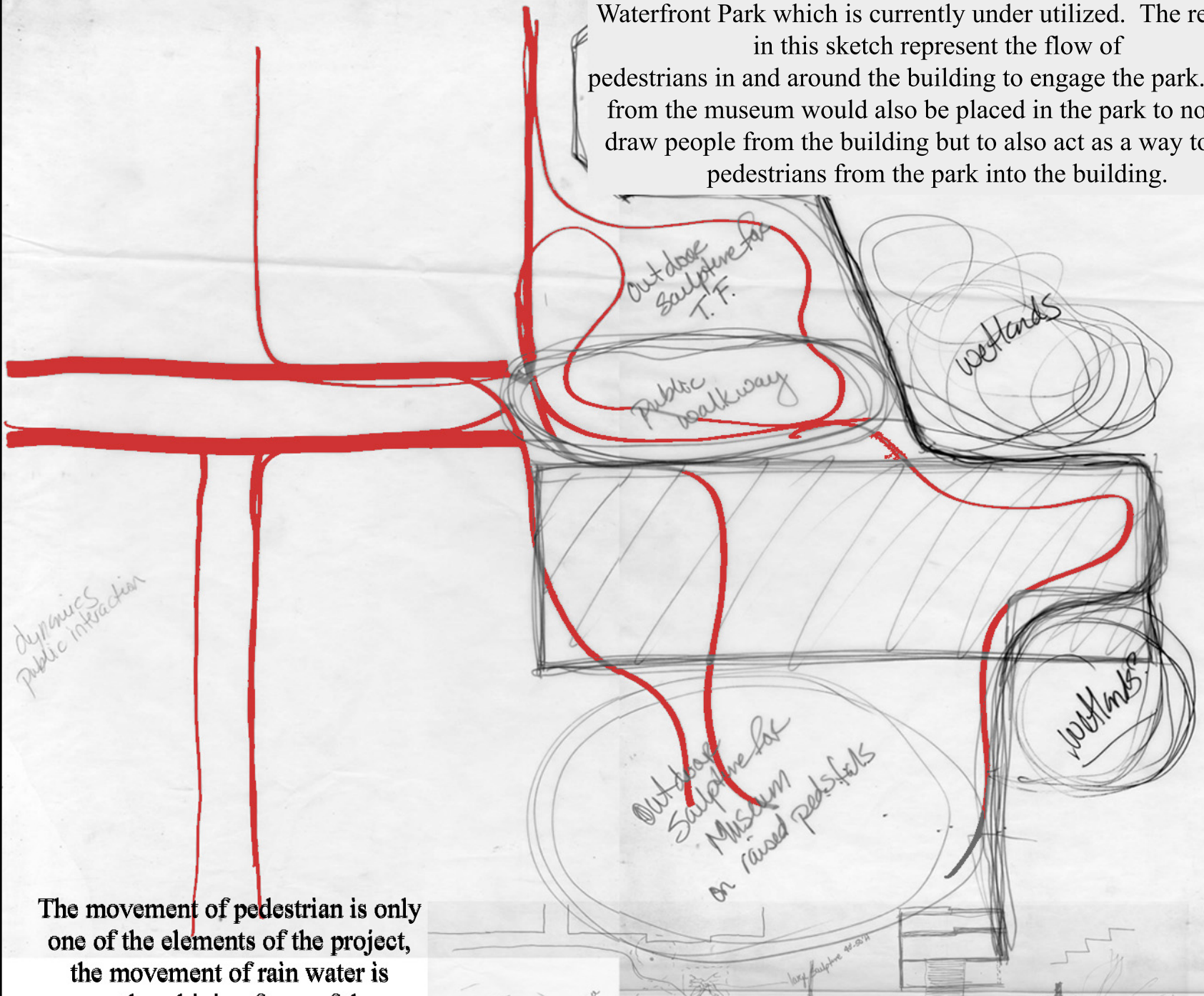
The building will include interior and exterior exhibit spaces, open public plaza, roof garden terrace, auditorium, administrative offices, and a gift shop.

The construction materials will be a combination of materials which need water to exist such as concrete and wood and materials which are selected for their qualities of enhancing the experience of water such as metal.

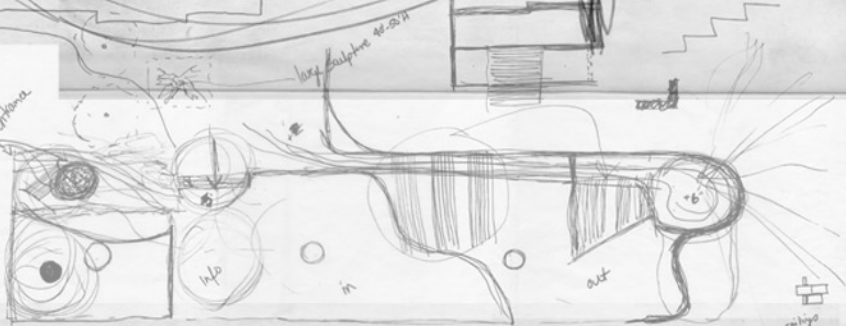
The forum of a public museum will provide the residents of Alexandria, Virginia, as well as visitors, a place to experience water naturally and dimensionally. The Architecture of the Museum will provide places to see, hear, smell, and touch the water. Through the architecture visitors of the Museum will experience the sight of water moving, rain falling and the wind blowing across the waters surface; the sound of water falling on the surface of the structure and of the river creating a natural melody which is ever changing and can only be imitated but never duplicated; the smell of the air right before the storm; and the touch of cool water to invigorate the skin.



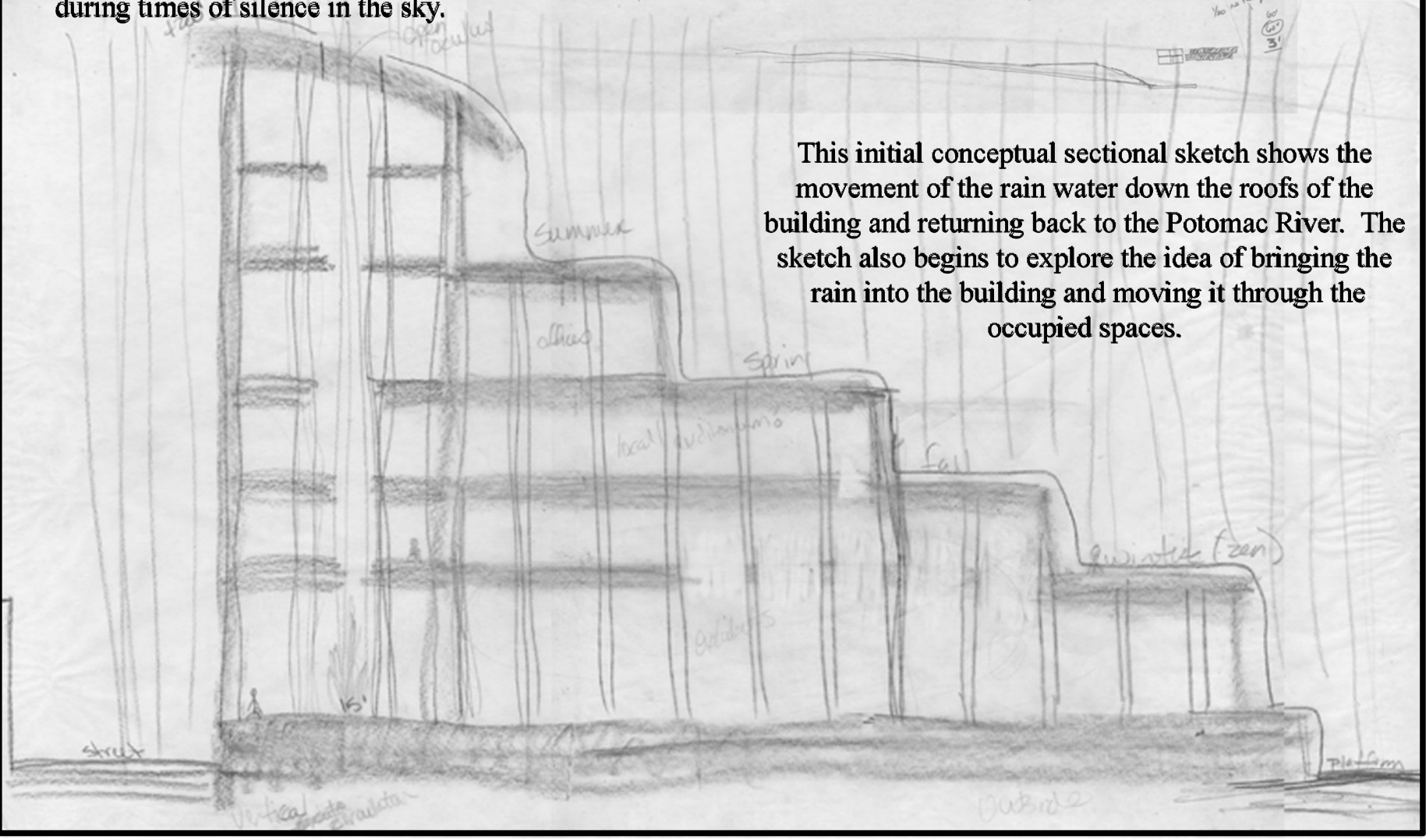
One of the goals of the project is to tie the building back into the Waterfront Park which is currently under utilized. The red lines in this sketch represent the flow of pedestrians in and around the building to engage the park. Pieces from the museum would also be placed in the park to not only draw people from the building but to also act as a way to draw pedestrians from the park into the building.



The movement of pedestrian is only one of the elements of the project, the movement of rain water is another driving force of the project. The flow of the rain water through the building as an element to be expressed by a person both at the time of the storm but also during times of silence in the sky.

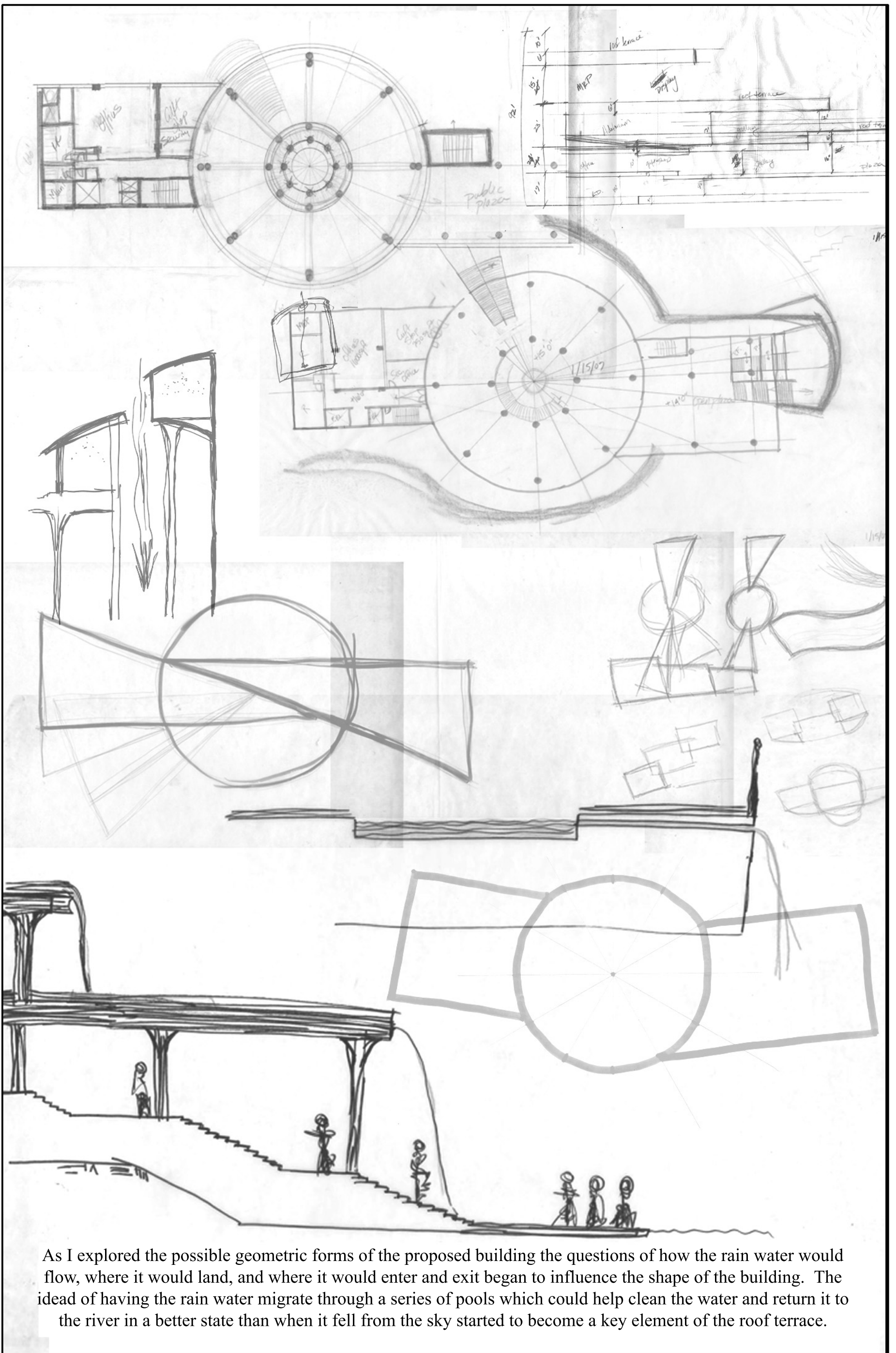


This initial conceptual sectional sketch shows the movement of the rain water down the roofs of the building and returning back to the Potomac River. The sketch also begins to explore the idea of bringing the rain into the building and moving it through the occupied spaces.



DESIGN DEVELOPMENT - Beginings

ALEXANDRIA SCULPTURE MUSEUM

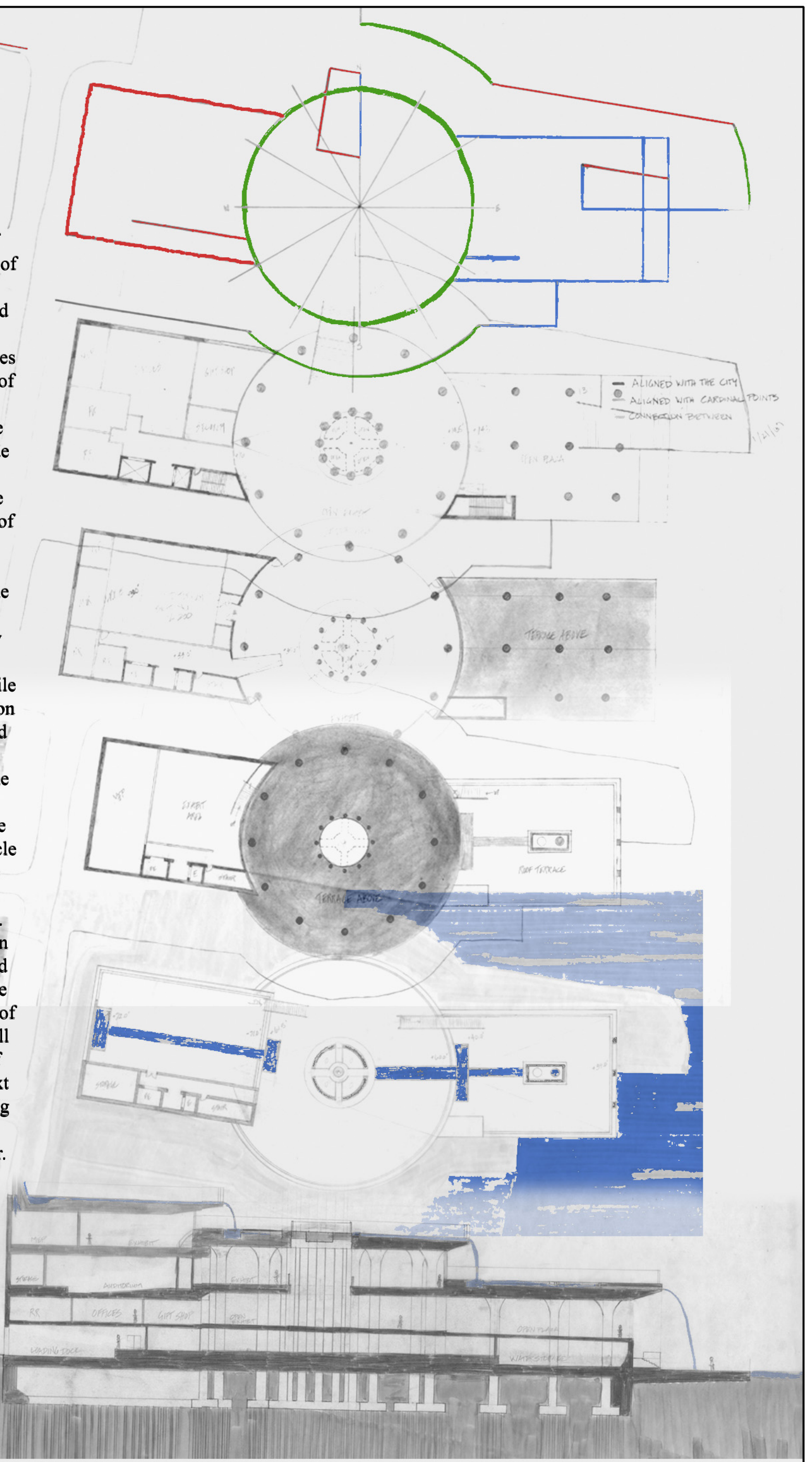


As I explored the possible geometric forms of the proposed building the questions of how the rain water would flow, where it would land, and where it would enter and exit began to influence the shape of the building. The idea of having the rain water migrate through a series of pools which could help clean the water and return it to the river in a better state than when it fell from the sky started to become a key element of the roof terrace.

DESIGN DEVELOPMENT - GEOMETRIC FORMS

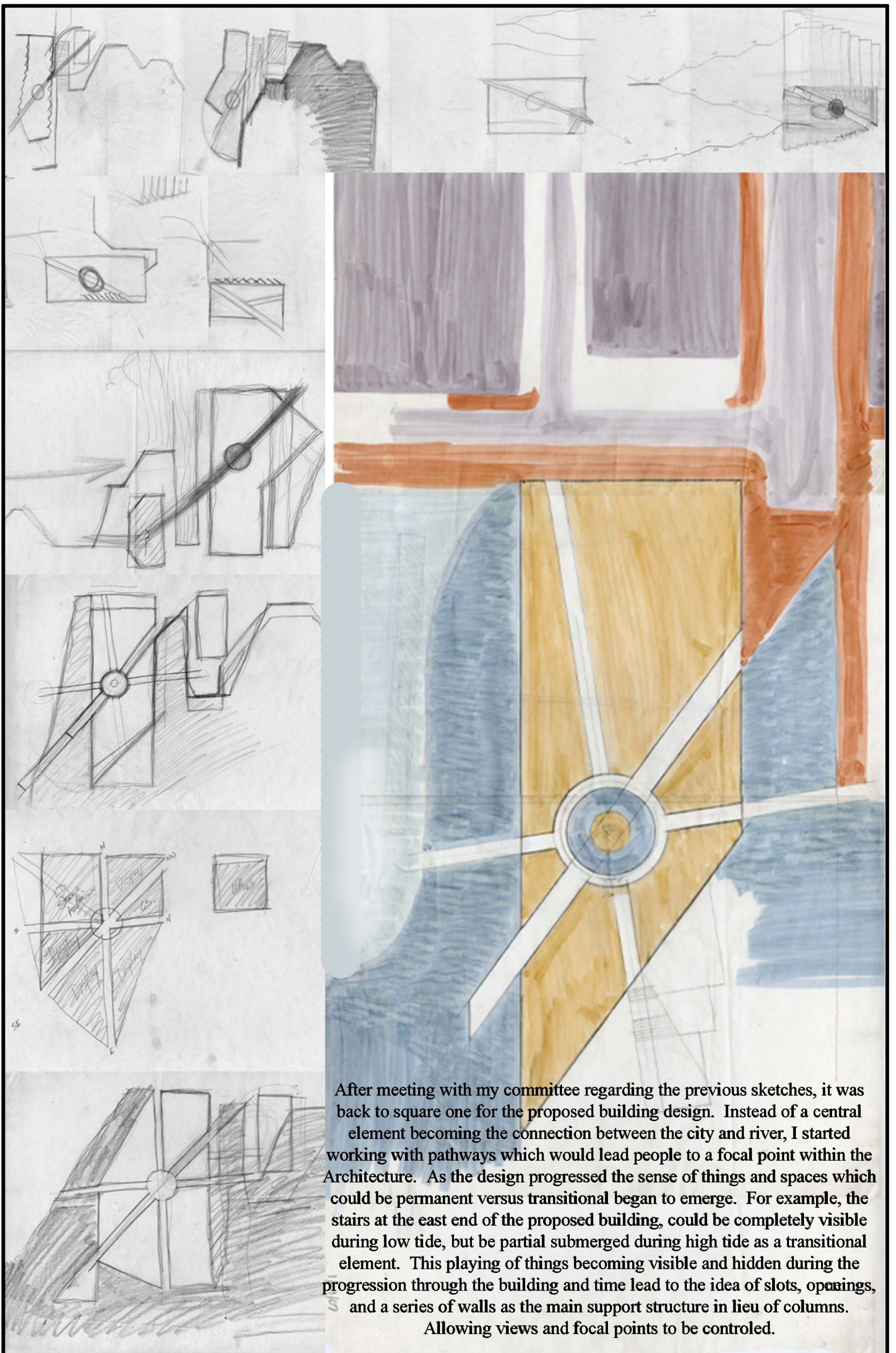
ALEXANDRIA SCULPTURE MUSEUM

This series of plans takes one of the geometric forms that I had been working with and explores the connection of the proposed building to the city and the true cardinal direction. The "west" portion of the proposed building is aligned with the grid established by the city of Alexandria, while the "east" portion of the proposed building is aligned with the true cardinal direction of the planet. The circle represents the connection between them. The roof design is also explored further with the idea of a series of pools which fall from one roof level to the next before returning back to the Potomac River.



DESIGN DEVELOPMENT - BUILDING CONCEPT 1

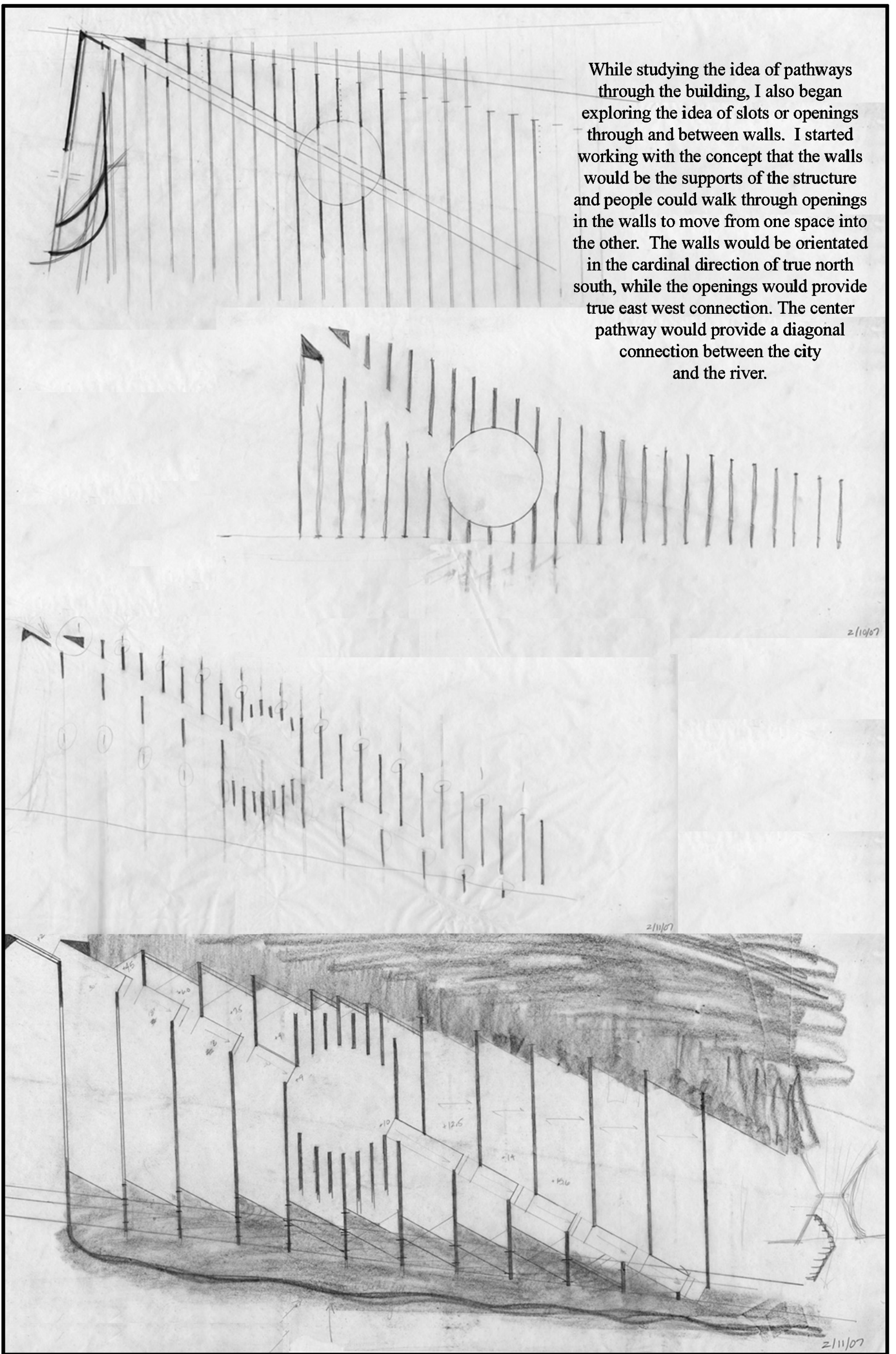
ALEXANDRIA SCULPTURE MUSEUM



After meeting with my committee regarding the previous sketches, it was back to square one for the proposed building design. Instead of a central element becoming the connection between the city and river, I started working with pathways which would lead people to a focal point within the Architecture. As the design progressed the sense of things and spaces which could be permanent versus transitional began to emerge. For example, the stairs at the east end of the proposed building, could be completely visible during low tide, but be partial submerged during high tide as a transitional element. This playing of things becoming visible and hidden during the progression through the building and time lead to the idea of slots, openings, and a series of walls as the main support structure in lieu of columns. Allowing views and focal points to be controlled.

DESIGN DEVELOPMENT - BUILDING CONCEPT 2

ALEXANDRIA SCULPTURE MUSEUM



While studying the idea of pathways through the building, I also began exploring the idea of slots or openings through and between walls. I started working with the concept that the walls would be the supports of the structure and people could walk through openings in the walls to move from one space into the other. The walls would be orientated in the cardinal direction of true north south, while the openings would provide true east west connection. The center pathway would provide a diagonal connection between the city and the river.

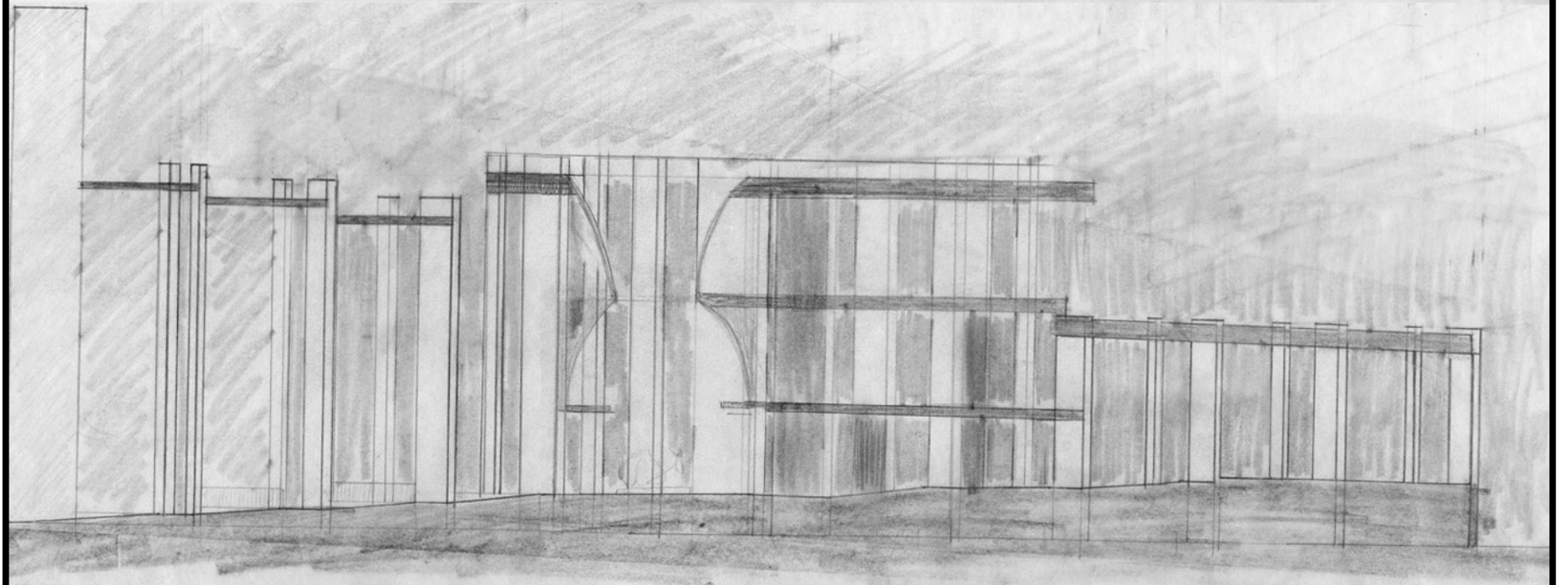
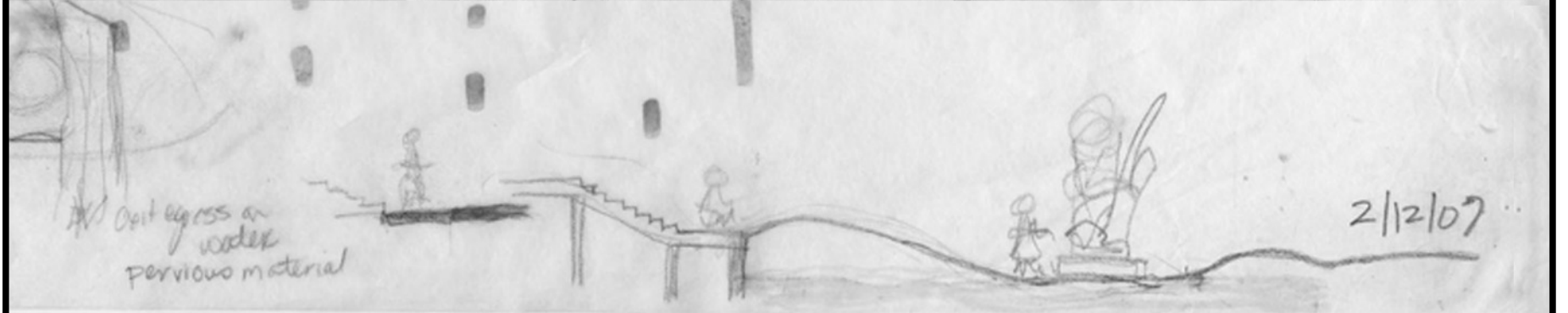
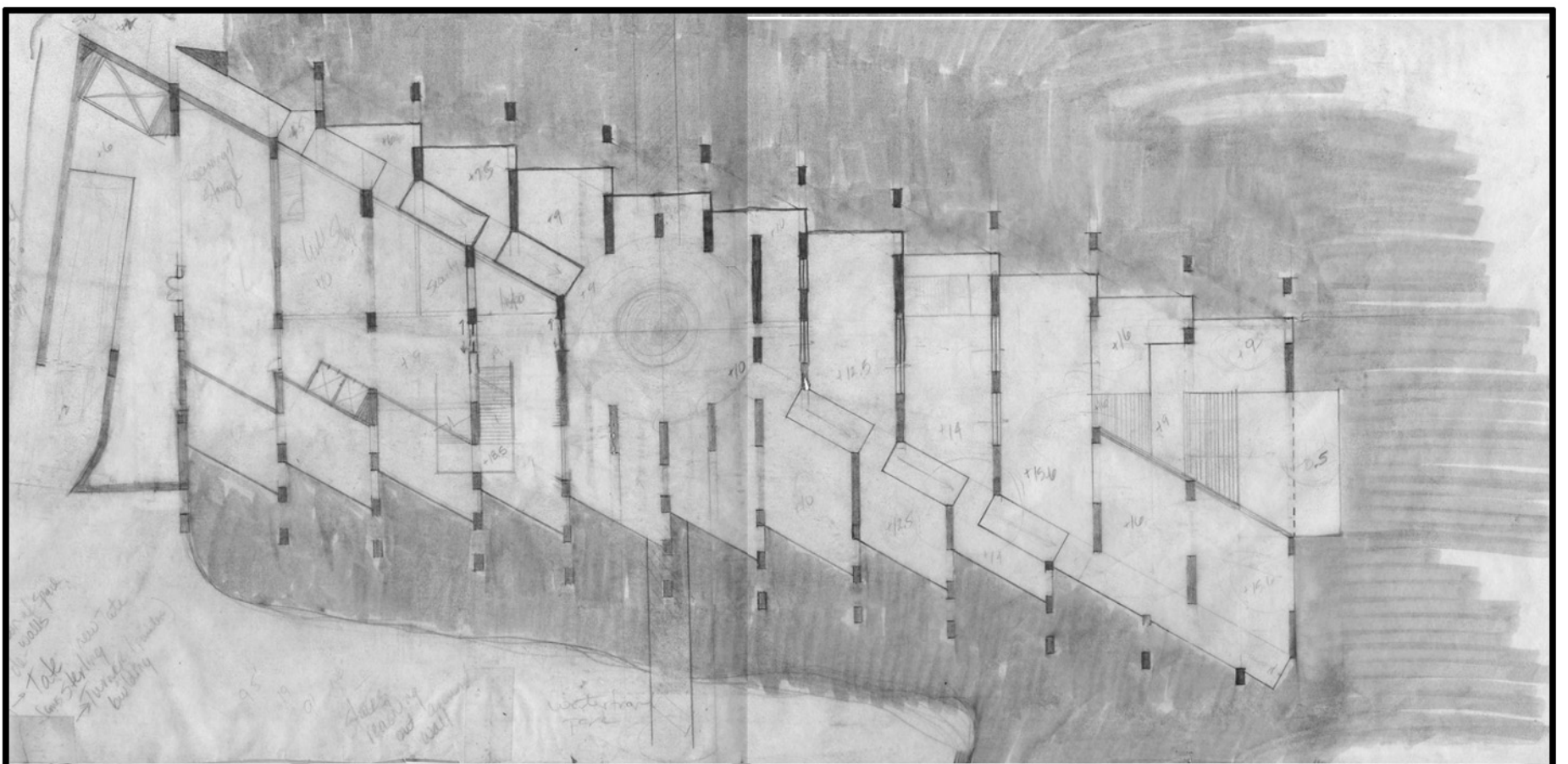
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DESIGN DEVELOPMENT - BUILDING CONCEPT 3

ALEXANDRIA SCULPTURE MUSEUM



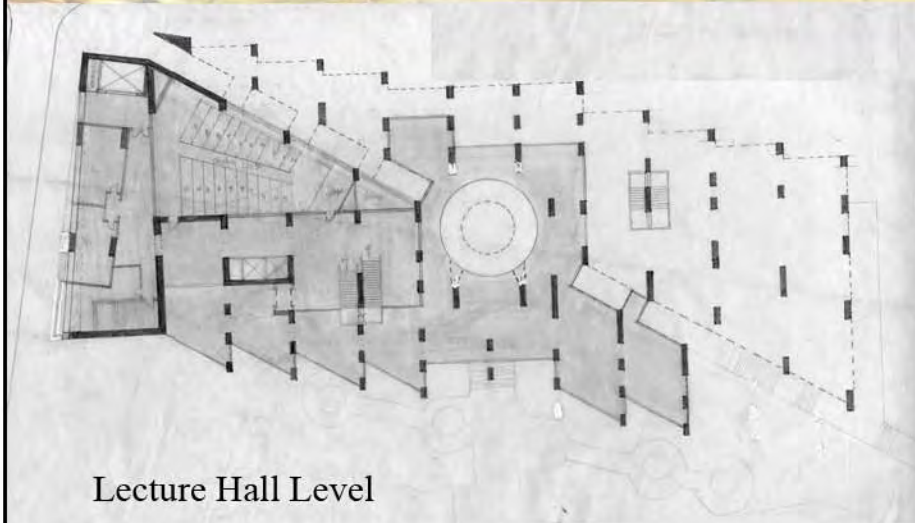
As the structural walls began to take a more solidified shape, I turned my attention back to allocating the space for the program set down during the beginning of the project as well as the volume of spaces. In the above section, I started to work more with the idea of stepping up in the building, creating an elevation change between the sidewalk of the city and the plane of the water. This concept solved one problem while going against one of the initial goals of the project. By elevating the main level of the building through a series of ramps, it brought the main level of the building out of the flood plane, but it eliminated the possibility of allowing the rain water to flow through the building and return back to the river. This concept would later be reduced to only being viable on the roof terrace and not throughout the buildings. As the project developed through the next series of plans and sections, I decided to move forward with the concept of sloping and ramping the floors which would allow a majority of the building to be above the typical flood plane of the Potomac River. This would mean that the movement of the rain water would need to be seen and felt on the roof terrace. Additional studies of the roof terrace would need to be conducted in order to address this element of the design.

DESIGN DEVELOPMENT - BUILDING CONCEPT 4

ALEXANDRIA SCULPTURE MUSEUM



Plaza Level



Lecture Hall Level

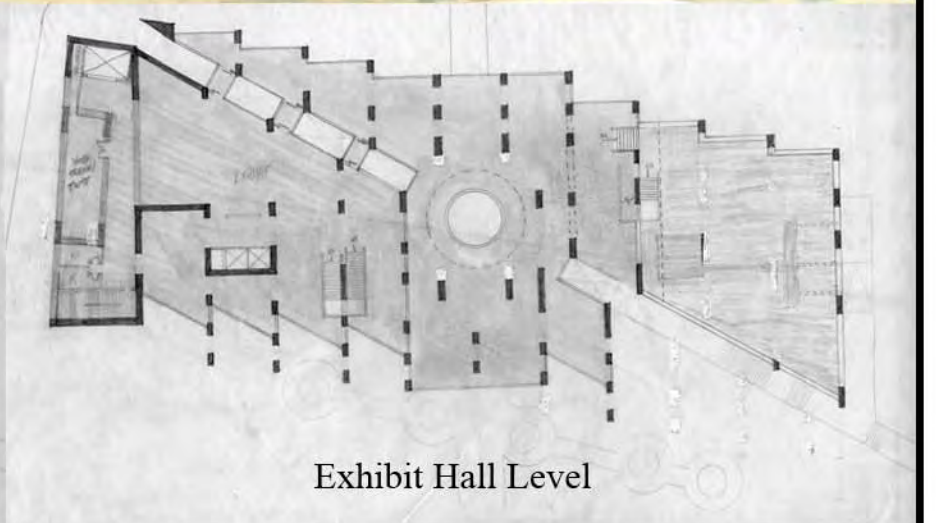
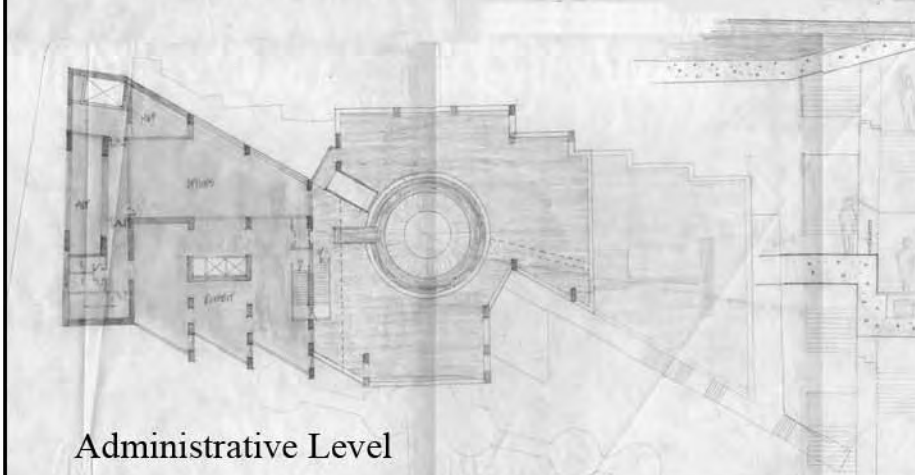
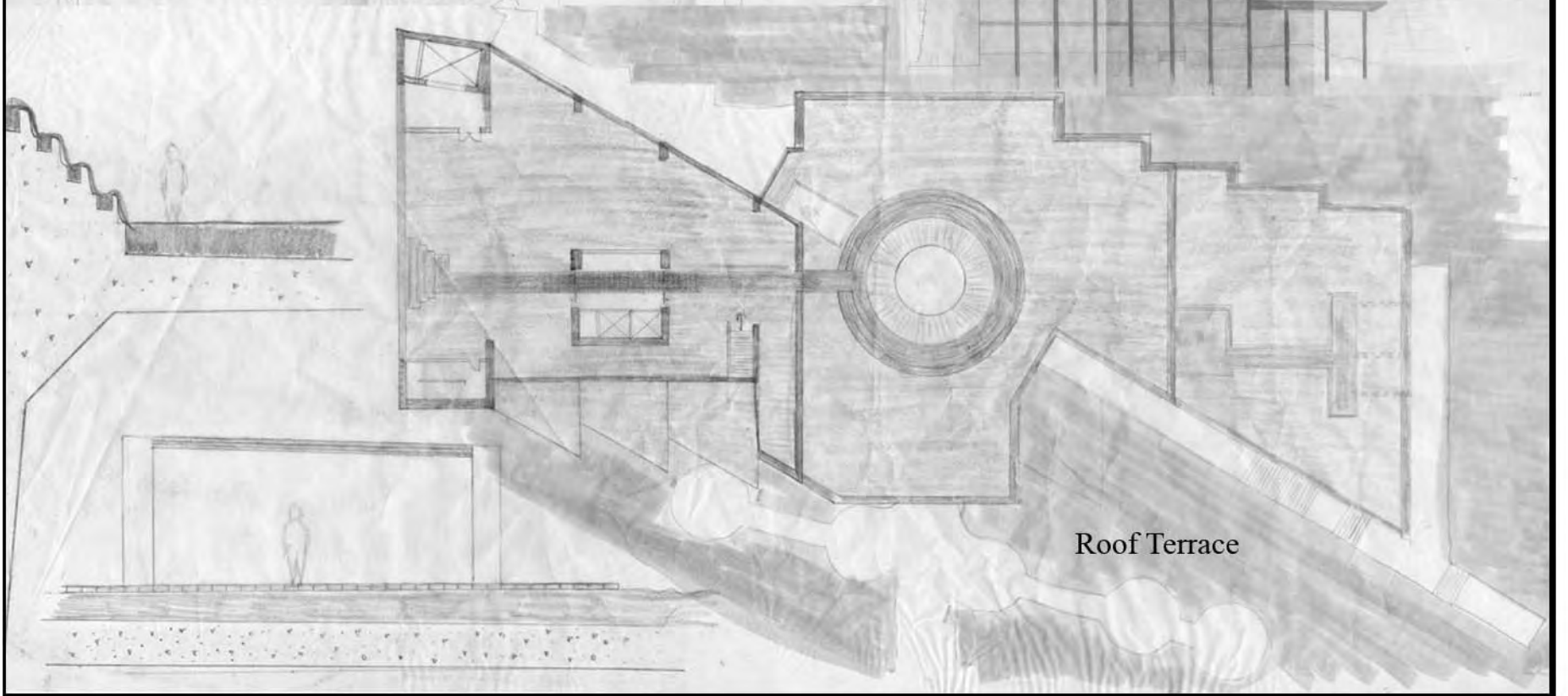
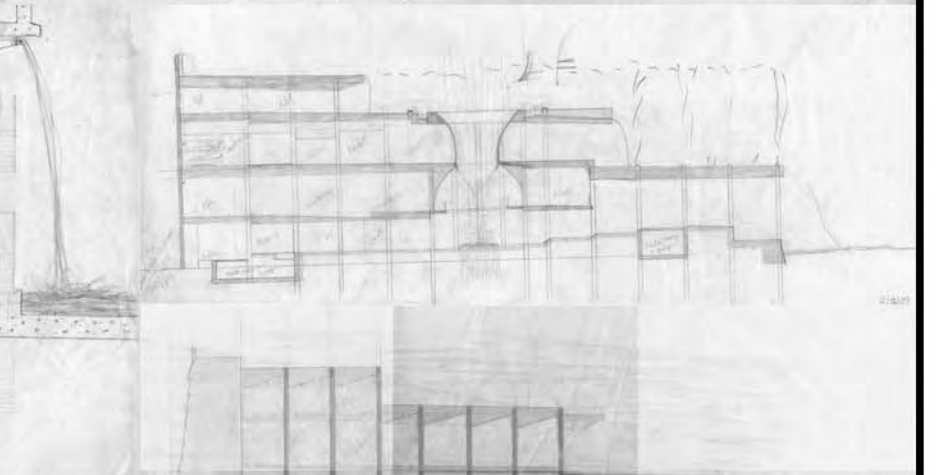


Exhibit Hall Level



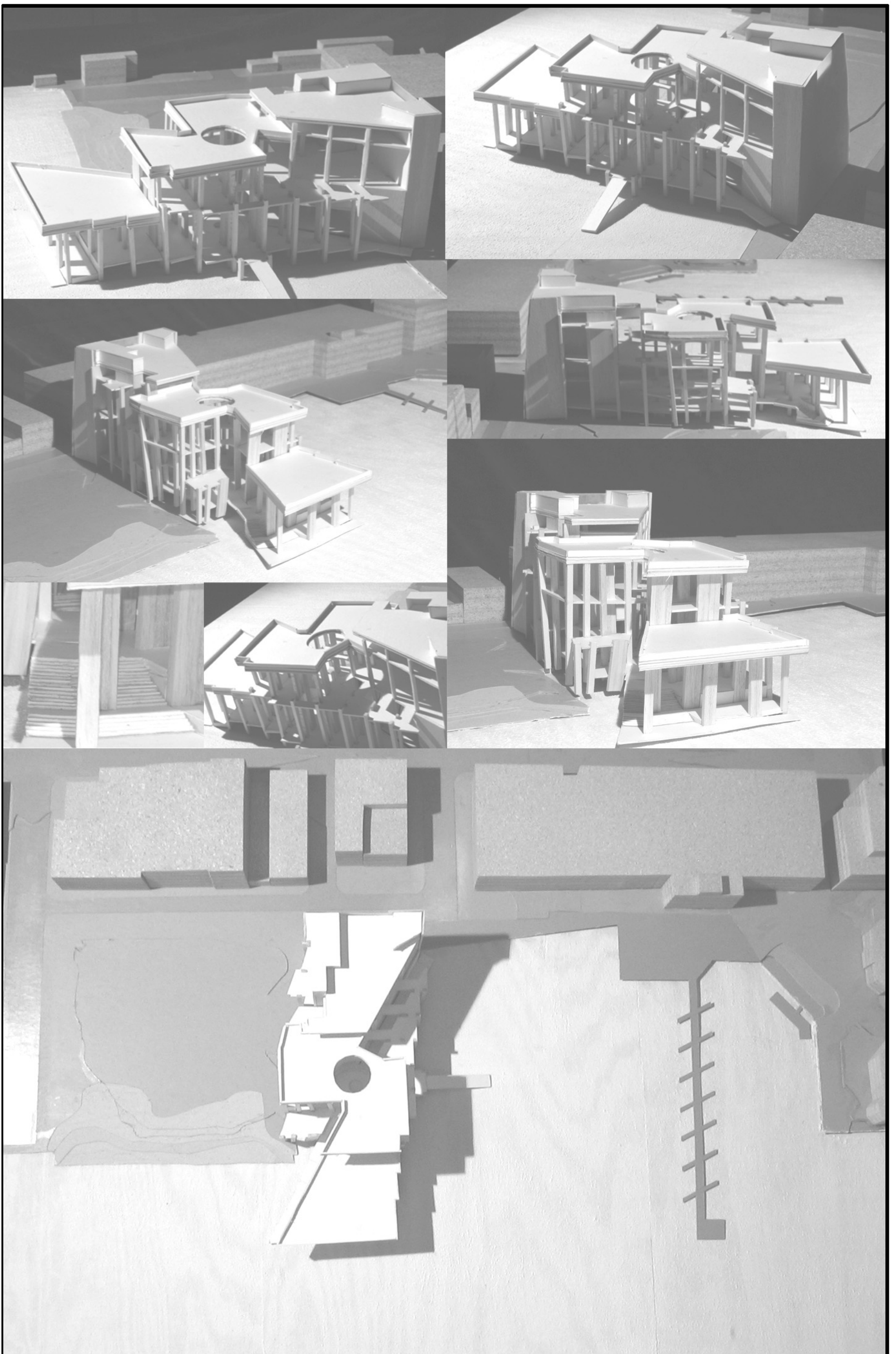
Administrative Level



Roof Terrace

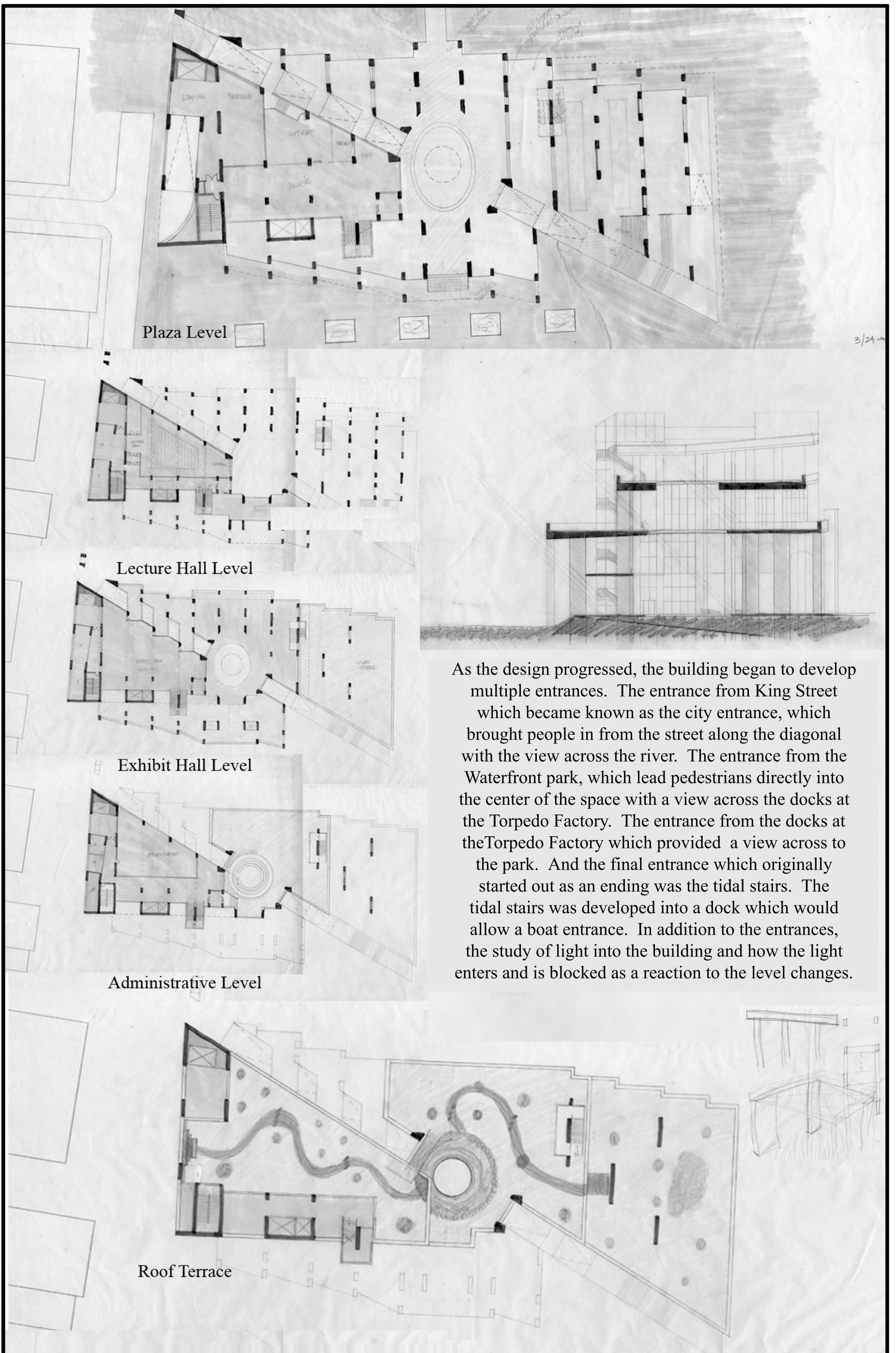
DESIGN DEVELOPMENT - BUILDING CONCEPT 5

ALEXANDRIA SCULPTURE MUSEUM



DESIGN DEVELOPMENT - BUILDING CONCEPT 5
STUDY MODEL

ALEXANDRIA SCULPTURE MUSEUM



Plaza Level

Lecture Hall Level

Exhibit Hall Level

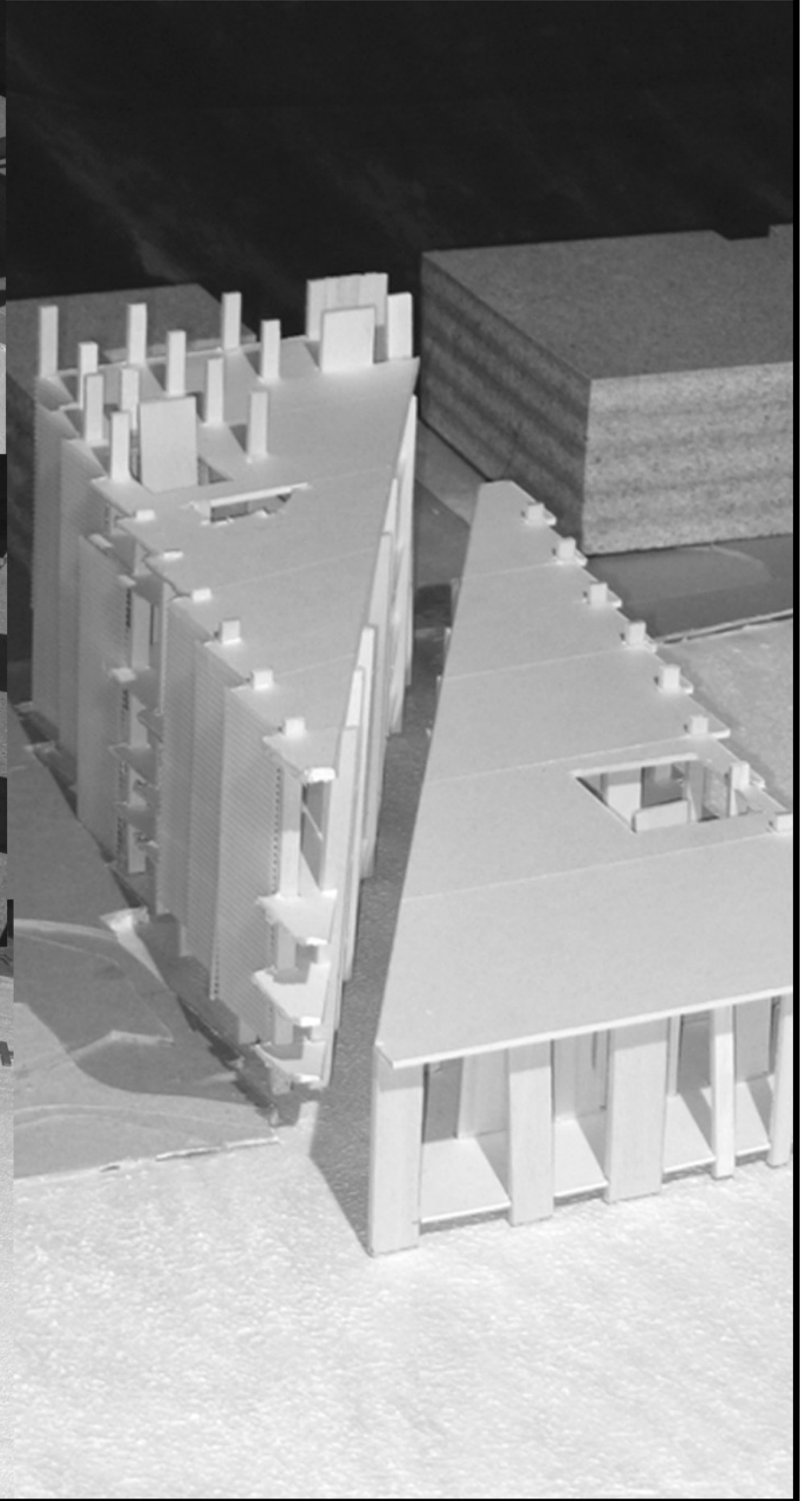
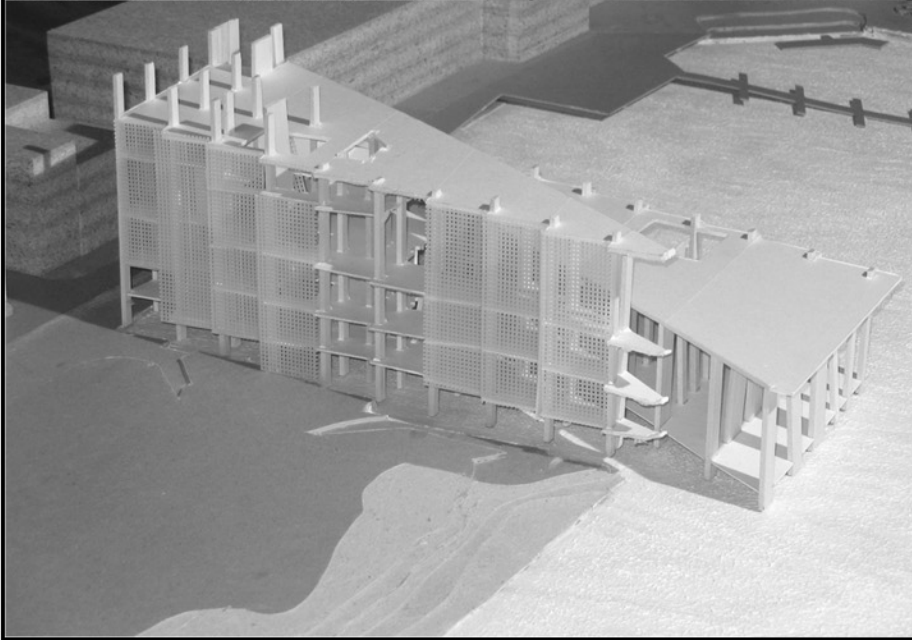
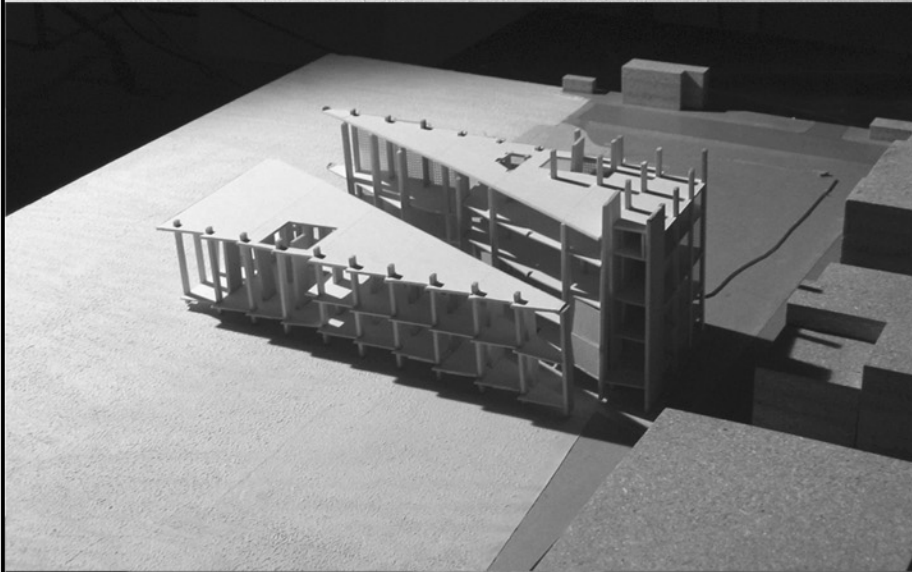
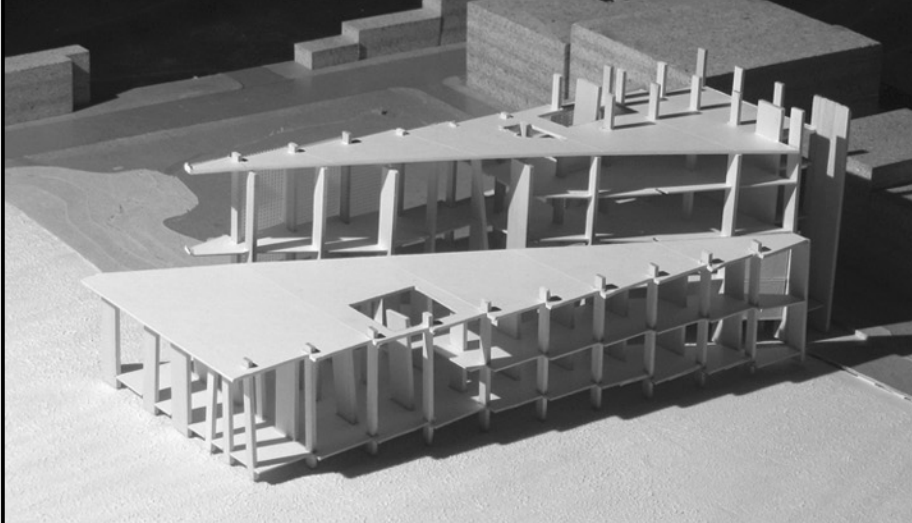
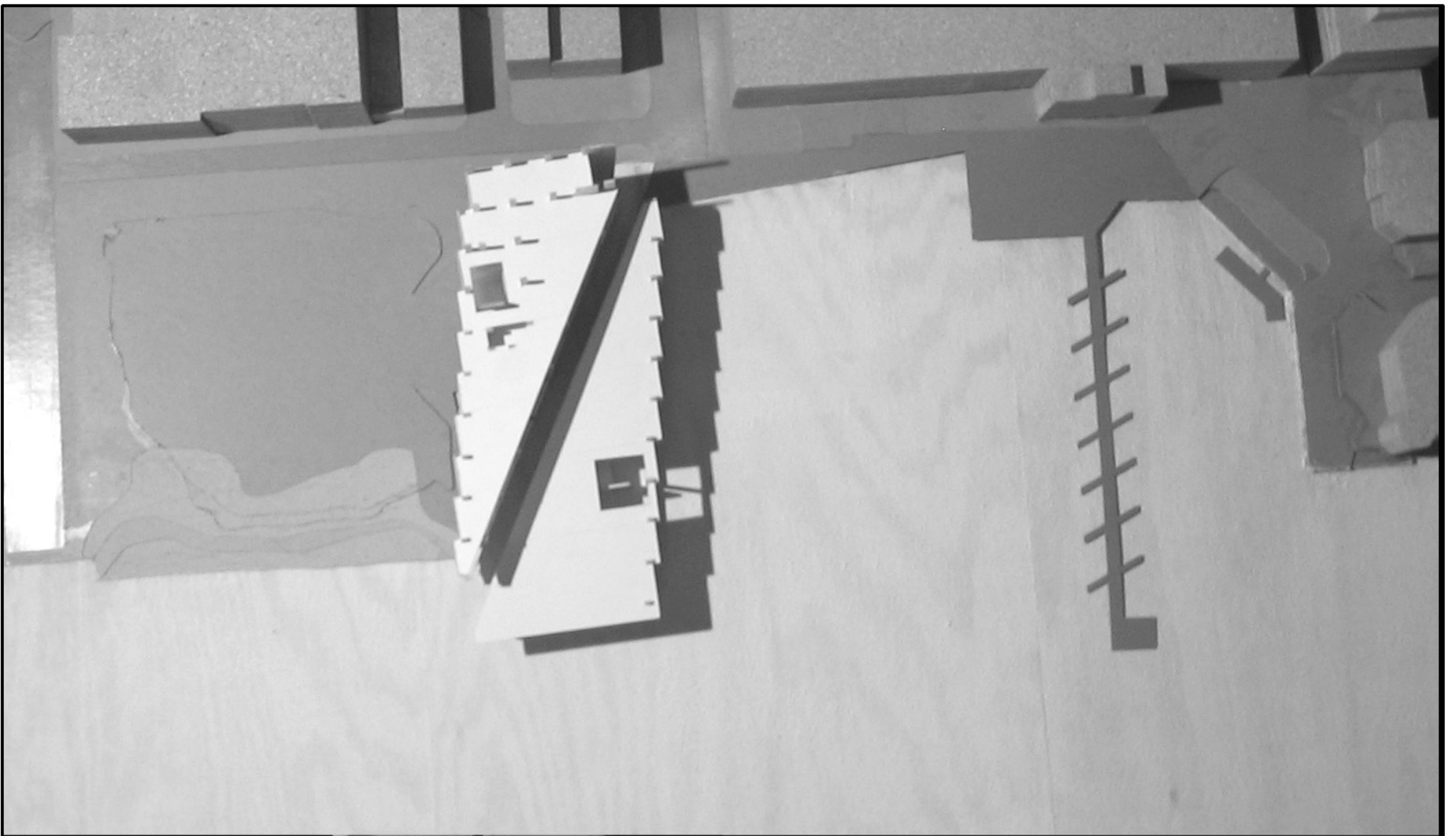
Administrative Level

Roof Terrace

As the design progressed, the building began to develop multiple entrances. The entrance from King Street which became known as the city entrance, which brought people in from the street along the diagonal with the view across the river. The entrance from the Waterfront park, which lead pedestrians directly into the center of the space with a view across the docks at the Torpedo Factory. The entrance from the docks at the Torpedo Factory which provided a view across to the park. And the final entrance which originally started out as an ending was the tidal stairs. The tidal stairs was developed into a dock which would allow a boat entrance. In addition to the entrances, the study of light into the building and how the light enters and is blocked as a reaction to the level changes.

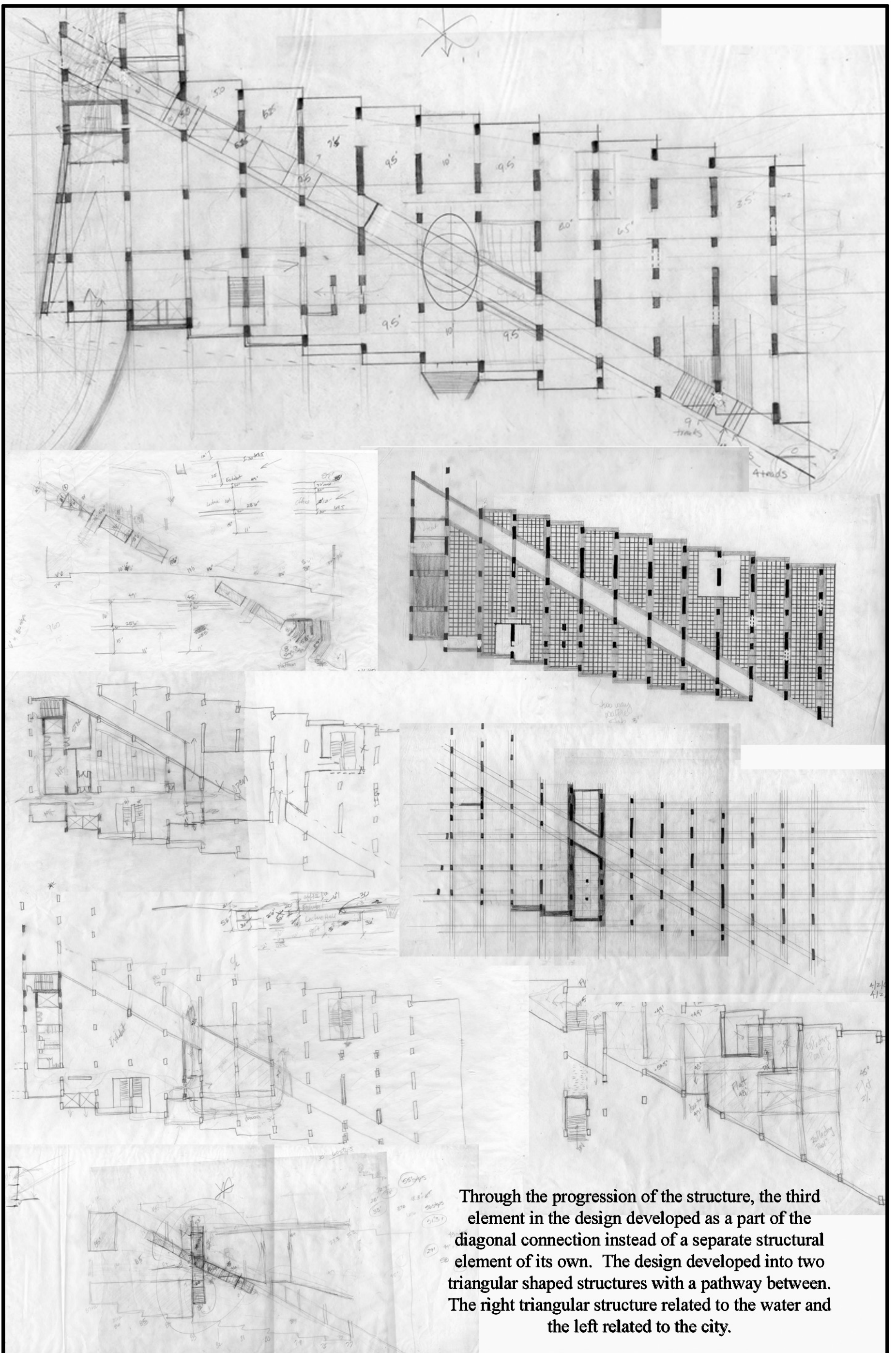
DESIGN DEVELOPMENT - BUILDING CONCEPT

ALEXANDRIA SCULPTURE MUSEUM



DESIGN DEVELOPMENT - BUILDING CONCEPT 7

ALEXANDRIA SCULPTURE MUSEUM



Through the progression of the structure, the third element in the design developed as a part of the diagonal connection instead of a separate structural element of its own. The design developed into two triangular shaped structures with a pathway between. The right triangular structure related to the water and the left related to the city.

DESIGN DEVELOPMENT - BUILDING CONCEPT 7

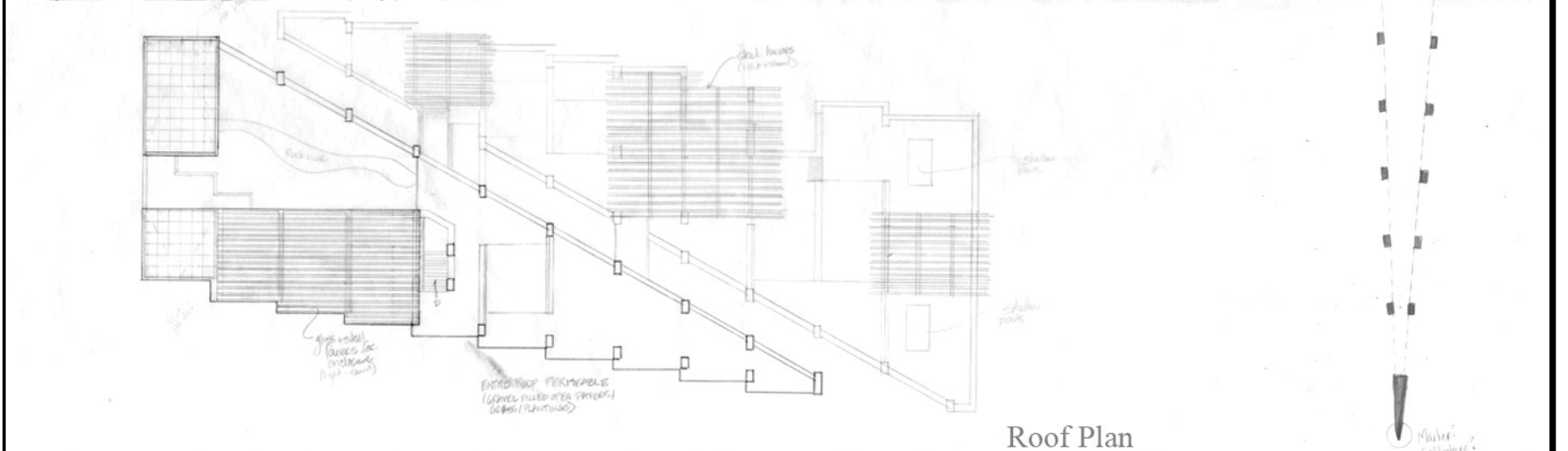
ALEXANDRIA SCULPTURE MUSEUM



Floor, Stair, and Wall Detail

4/10/07

Plaza Level Reflected Ceiling Plan



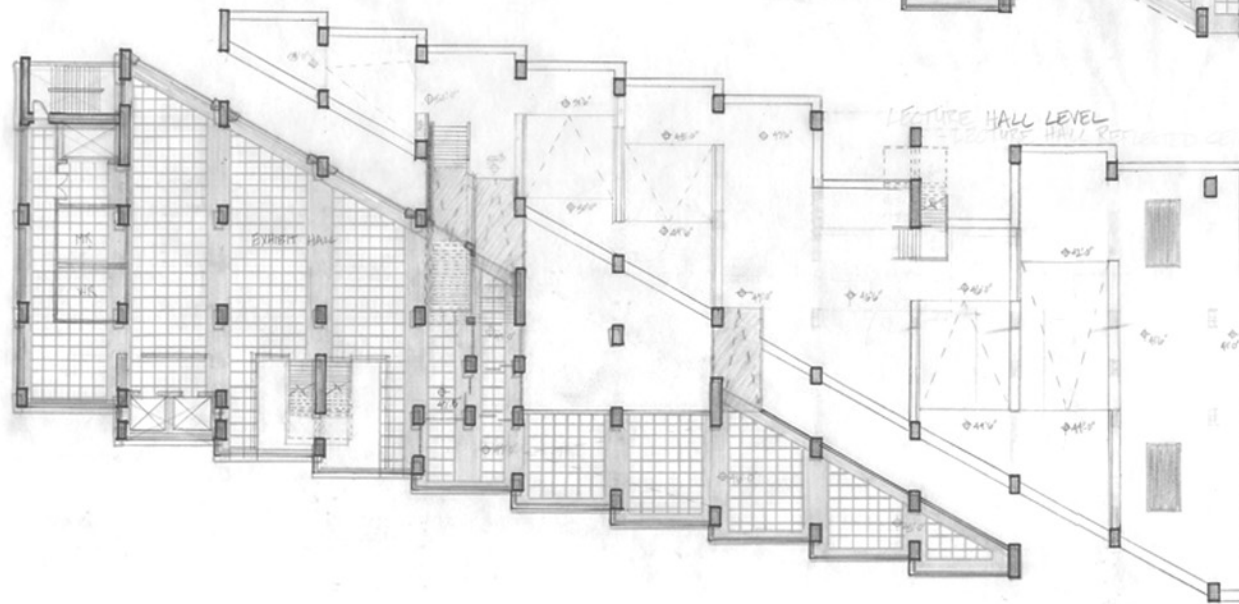
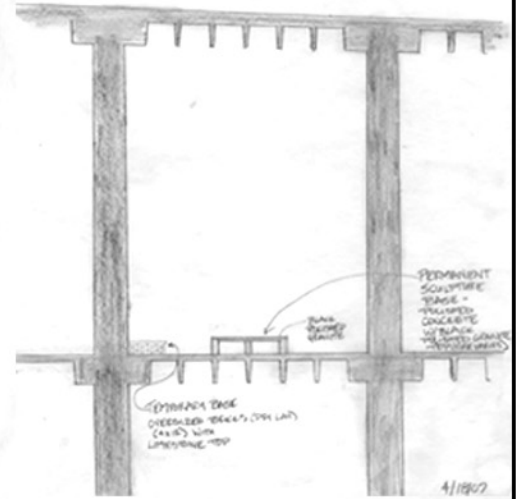
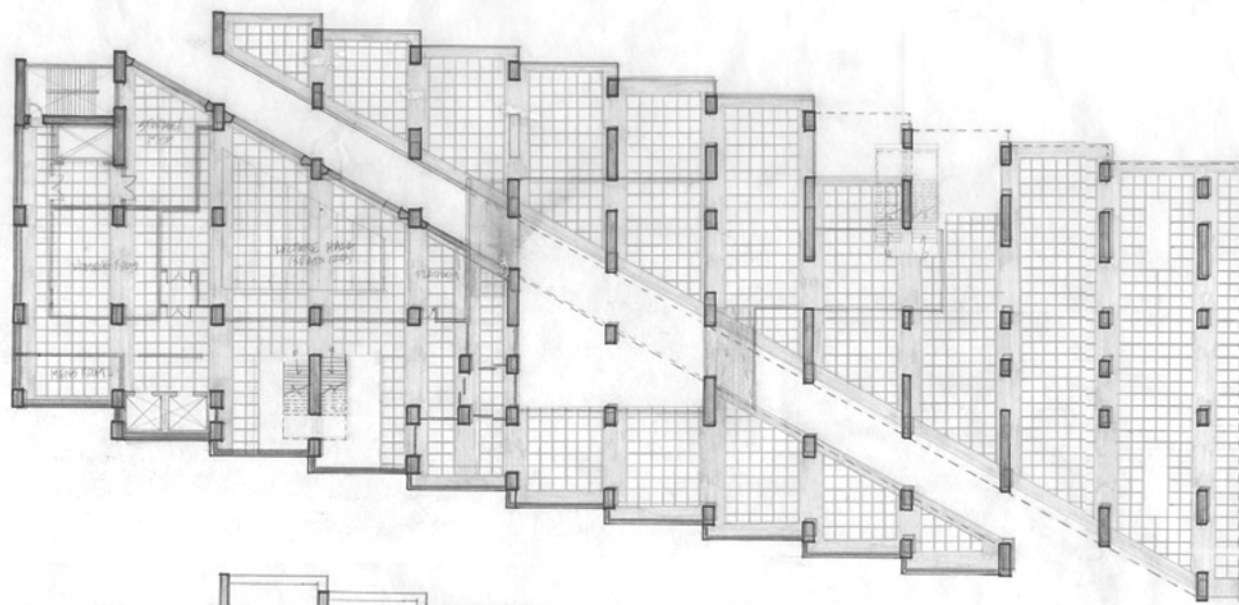
Roof Plan

West Elevation

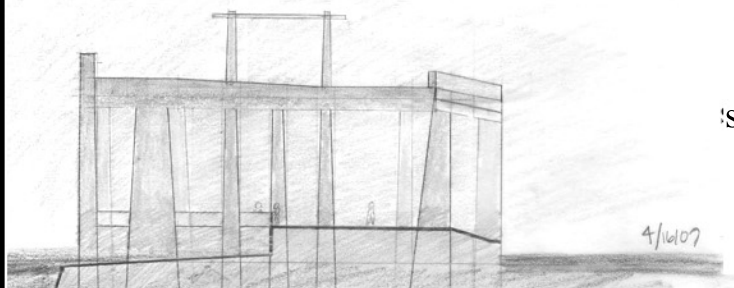
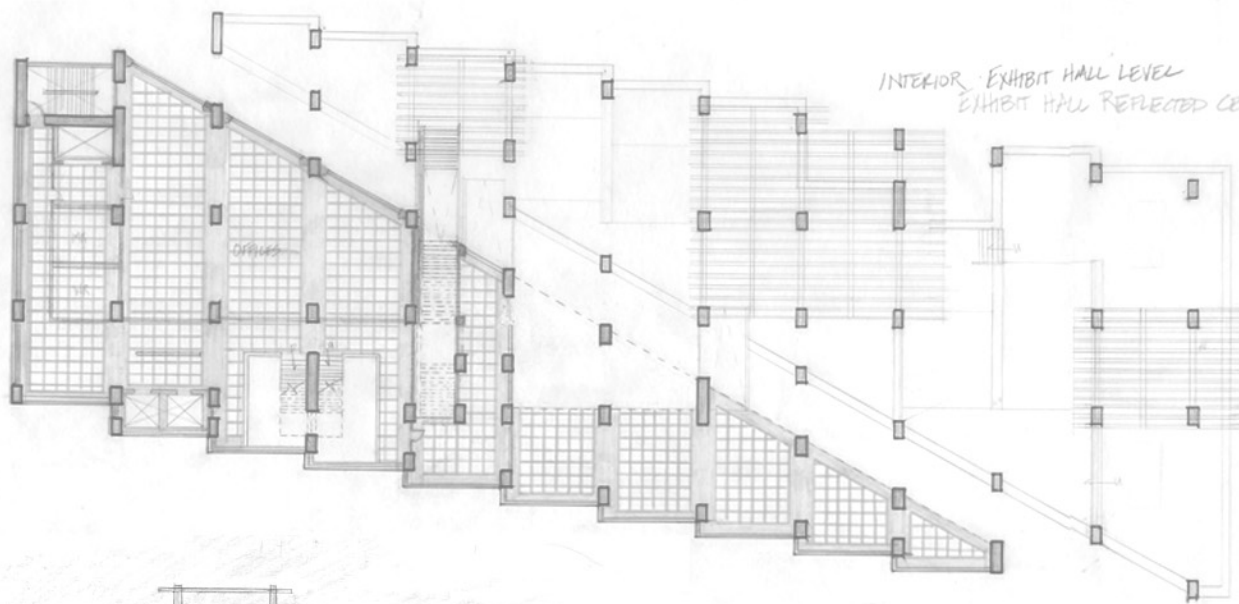
DESIGN DEVELOPMENT - BUILDING CONCEPT 8
 SITE, ELEVATION, AND DETAIL

ALEXANDRIA SCULPTURE MUSEUM

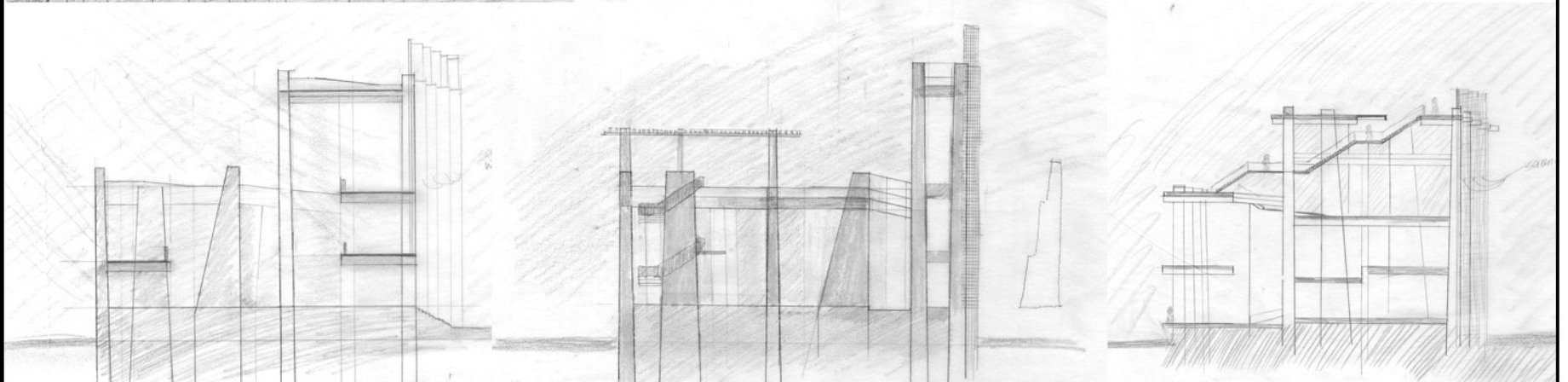
The concept of the waffle slab or two-way slab construction was explored. The idea of the two-way slab construction would allow full flexibility and placement of the sculptures throughout the life of the building. However, this system did not allow for flexibility in the interior spaces such as the administrative offices or lecture hall area. The final decision was to go back to a slab and beam construction which would provide the greatest flexibility for the entire project.



As the entire structural system for the building was taking its final shape the idea of how to display the sculptures on a flat platform when the floors sloped was addressed. The temporary platforms for the traveling or non-permanent sculptures would be constructed out of blocks on top of the concrete structure. This would allow the platforms to be constructed and removed as needed without damaging the permanent structure of the building.

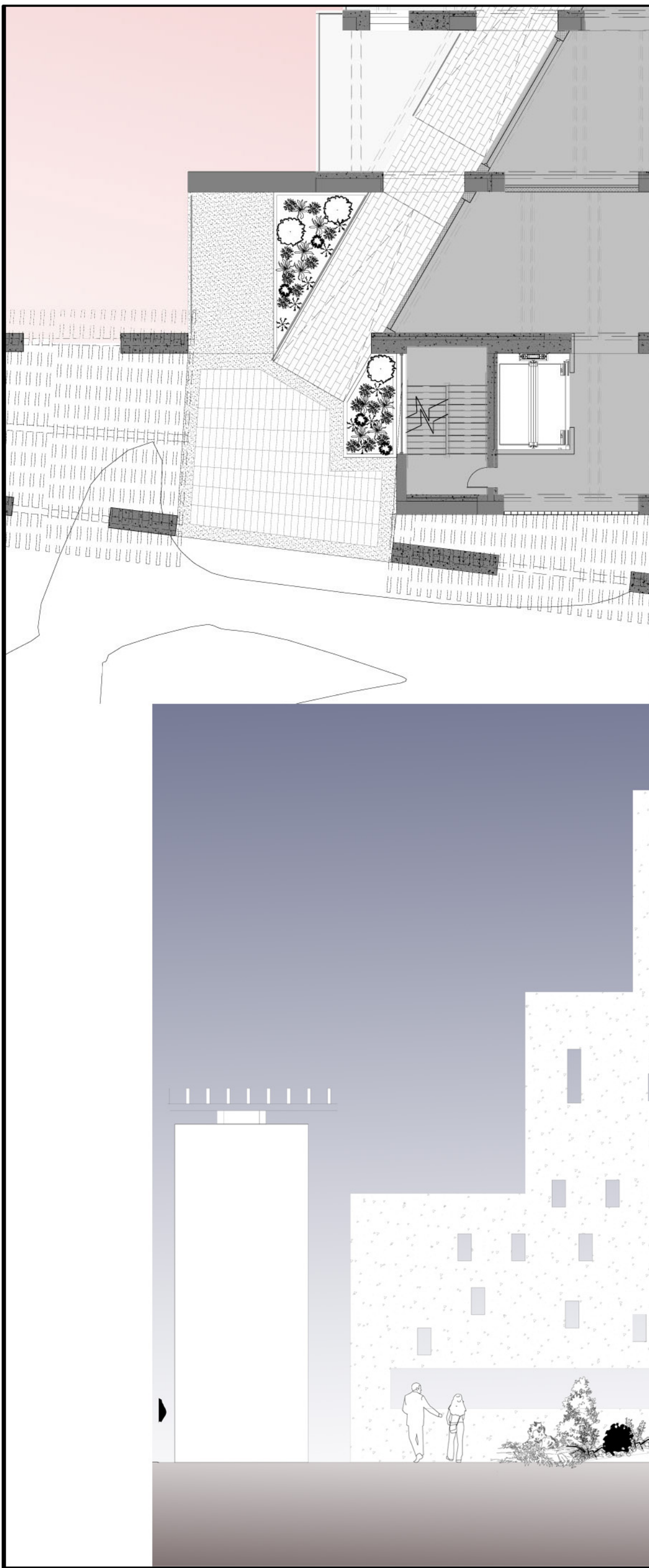


With this group of sections, I began to work with the idea of the structural walls changing in size as they moved up through the building. Being less wide at the top and more wide at the bottom so that the feeling of the weight beginning transferred back down to the earth could be observed by the patrons of the museum.



DESIGN DEVELOPMENT - BUILDING CONCEPT 8
UPPER FLOOR PLANS AND SECTIONS

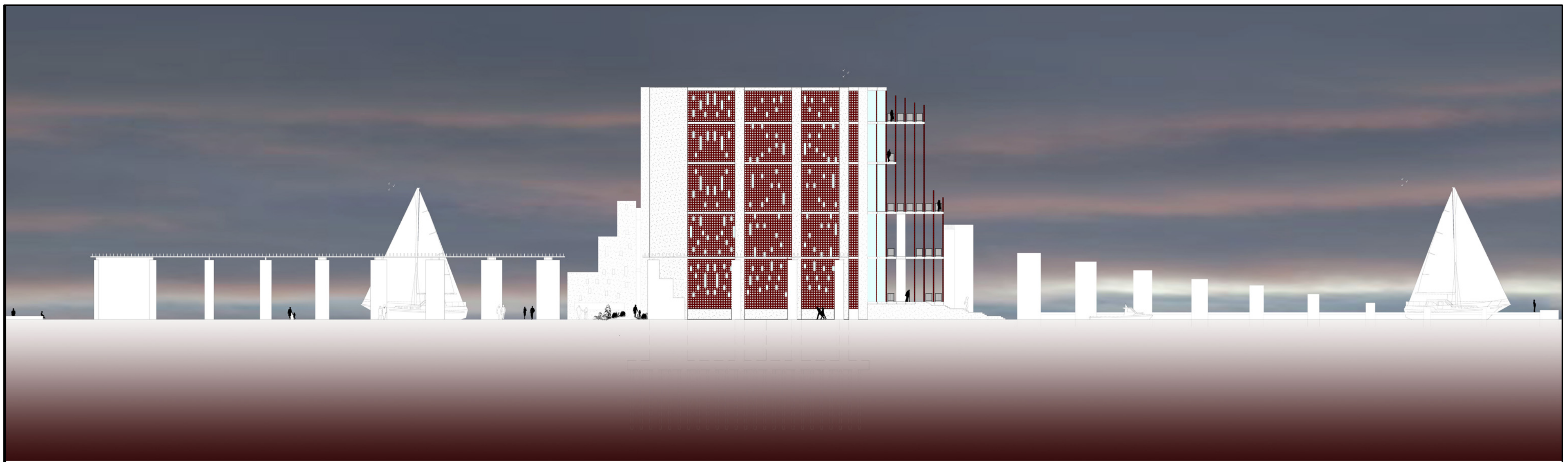
ALEXANDRIA SCULPTURE MUSEUM



This enlargement of the entrance from King Street was created to show how pedestrians would enter into the building and would be provided with a framed view of the river. After further discussions and explorations of this area, it was decided to abandon the idea of framing the view. The large stepping wall felt too opposing and too much of a barrier between the city, the river, and the people. This design would be followed by further studies and the final product which is more in keeping with the original design intent.

DESIGN DEVELOPMENT - BUILDING CONCEPT 9

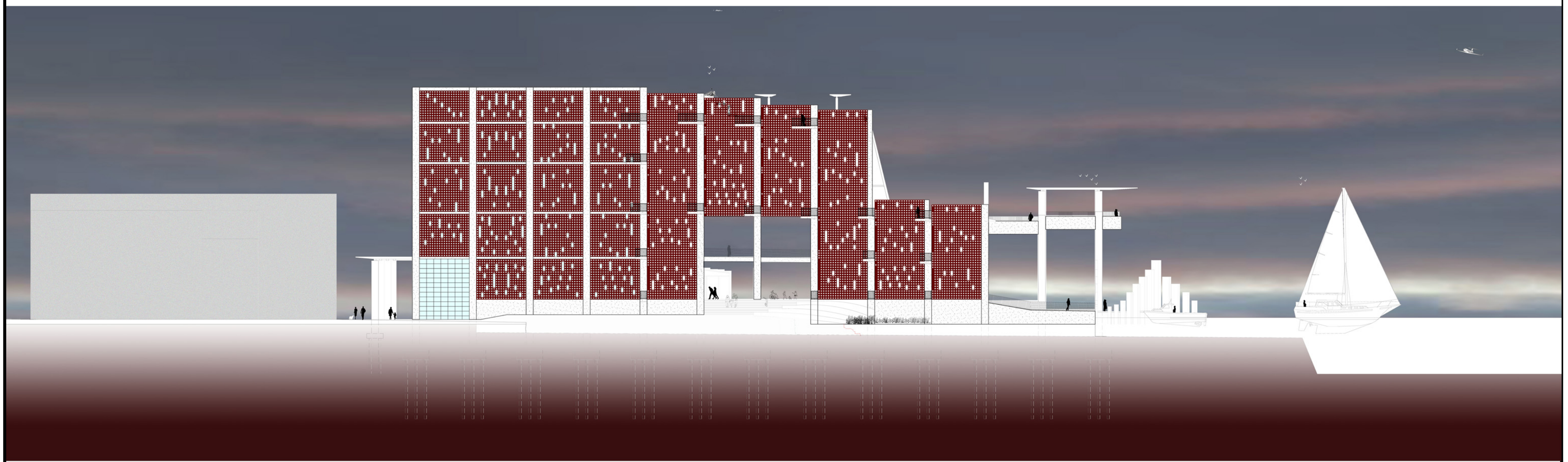
ALEXANDRIA SCULPTURE MUSEUM



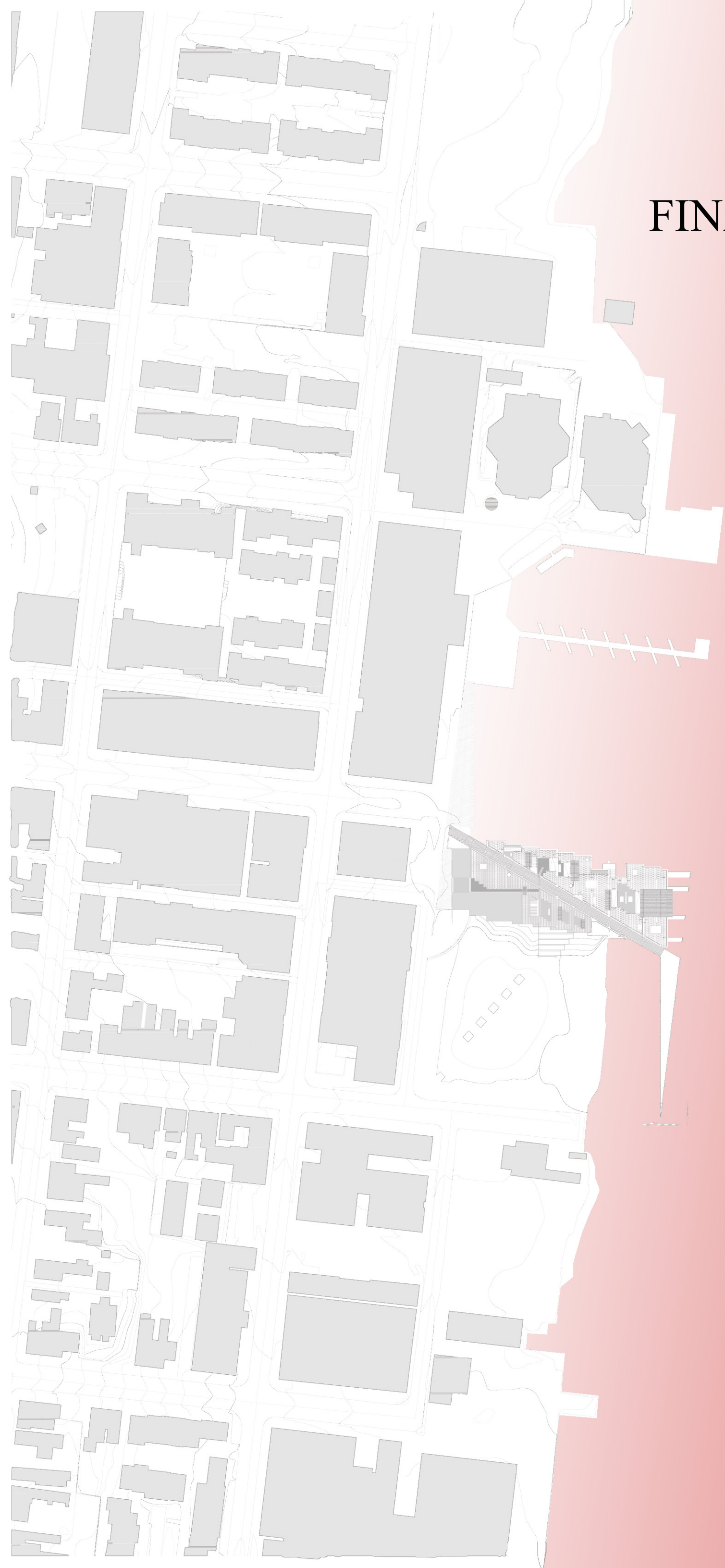
West Elevation

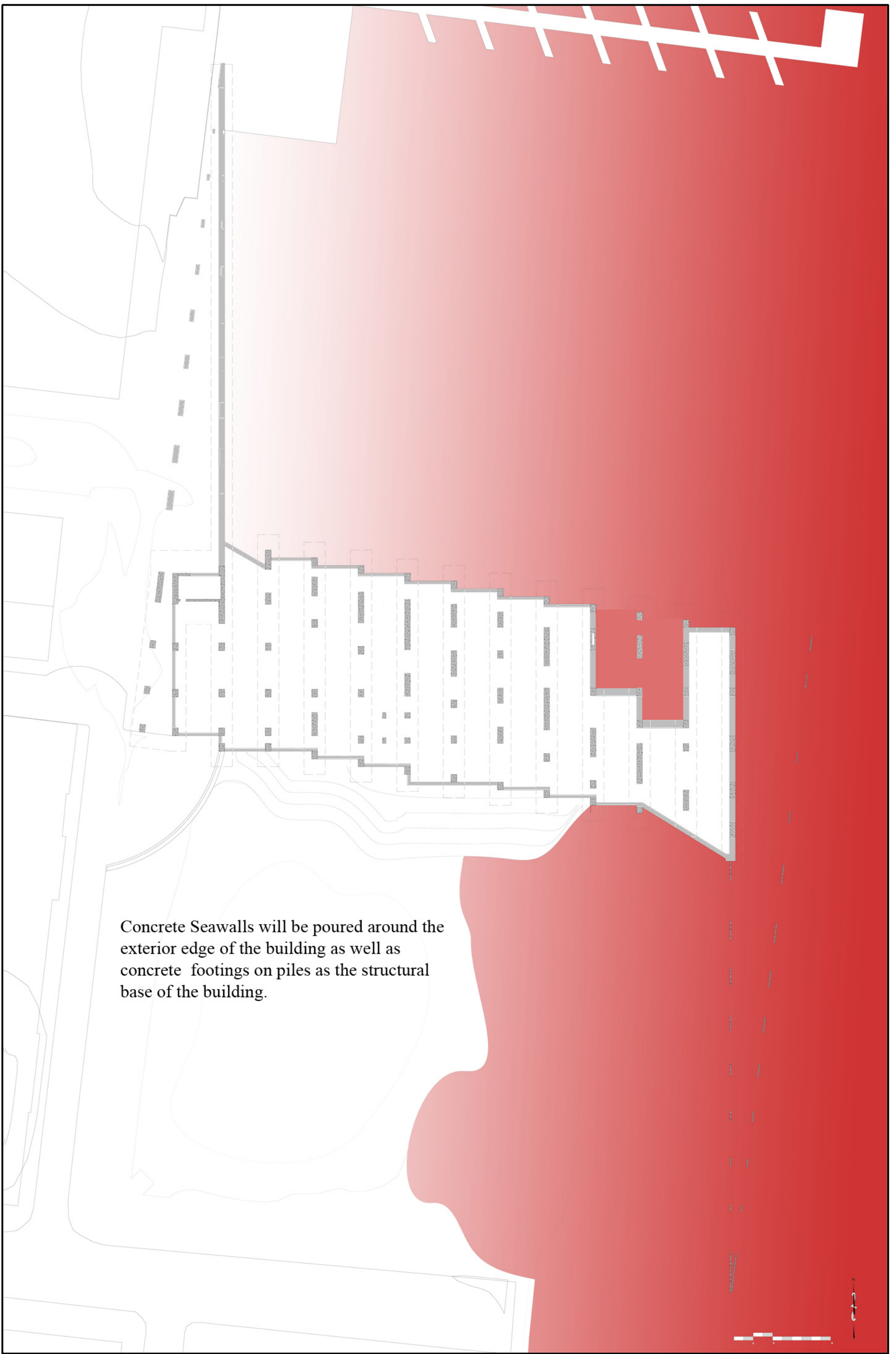
Several Elevation studies were done to determine the pattern of openings on the West and South Elevations. The West and South elevations are protected by the custom block openings which could be enlarged or removed to create larger openings for vision glass or larger opening to allow more air flow and light into the exterior exhibit hall spaces. I wanted the opening to appear more random. The concept for these initial patterns goes back to the study that I did in the beginning of the project with the Styrofoam and colored tiles. The mathematical placement of the tiles appears to be random.

South Elevation



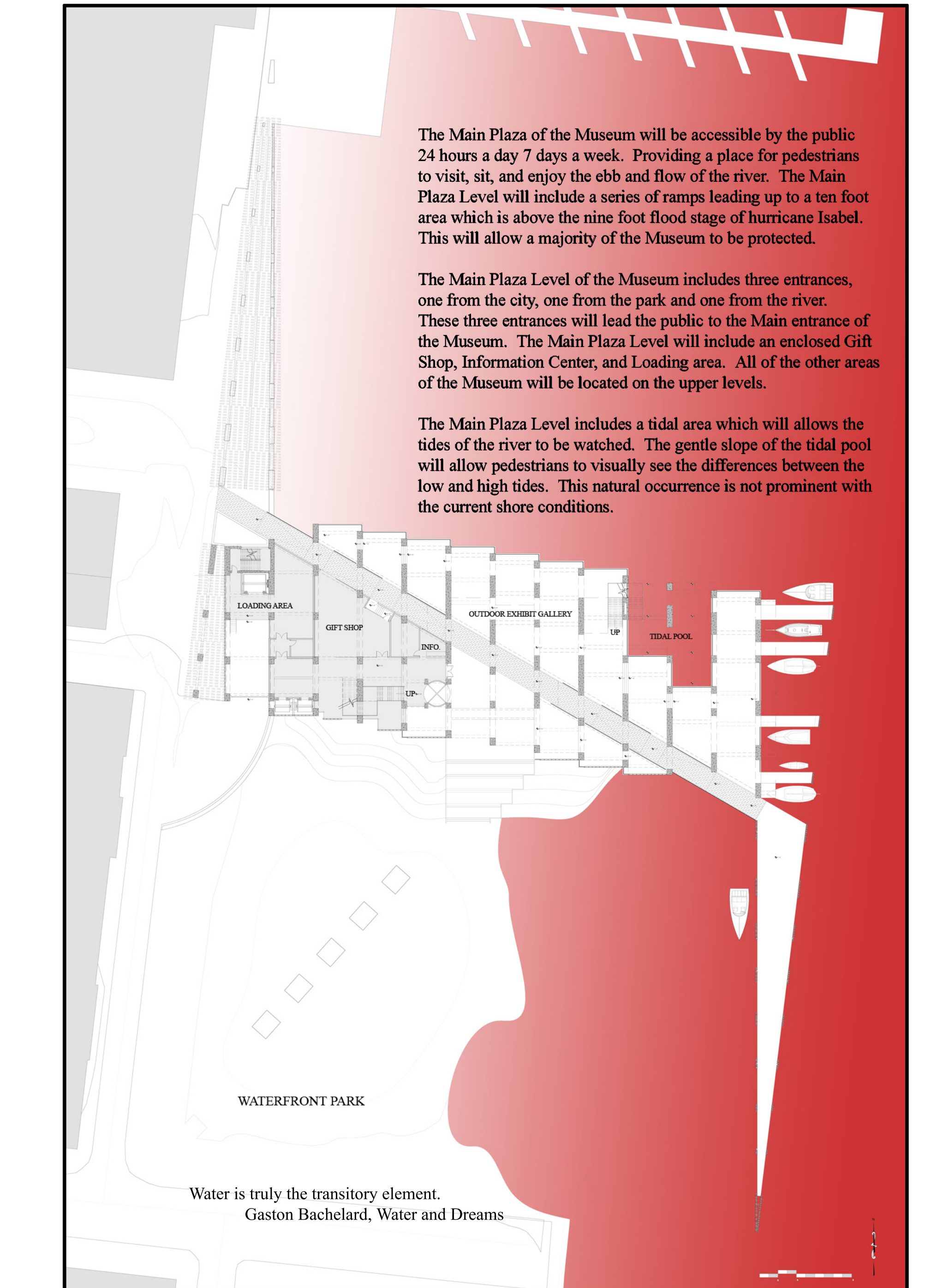
FINAL DESIGN





FOUNDATION/SEAWALL PLAN

ALEXANDRIA SCULPTURE MUSEUM



The Main Plaza of the Museum will be accessible by the public 24 hours a day 7 days a week. Providing a place for pedestrians to visit, sit, and enjoy the ebb and flow of the river. The Main Plaza Level will include a series of ramps leading up to a ten foot area which is above the nine foot flood stage of hurricane Isabel. This will allow a majority of the Museum to be protected.

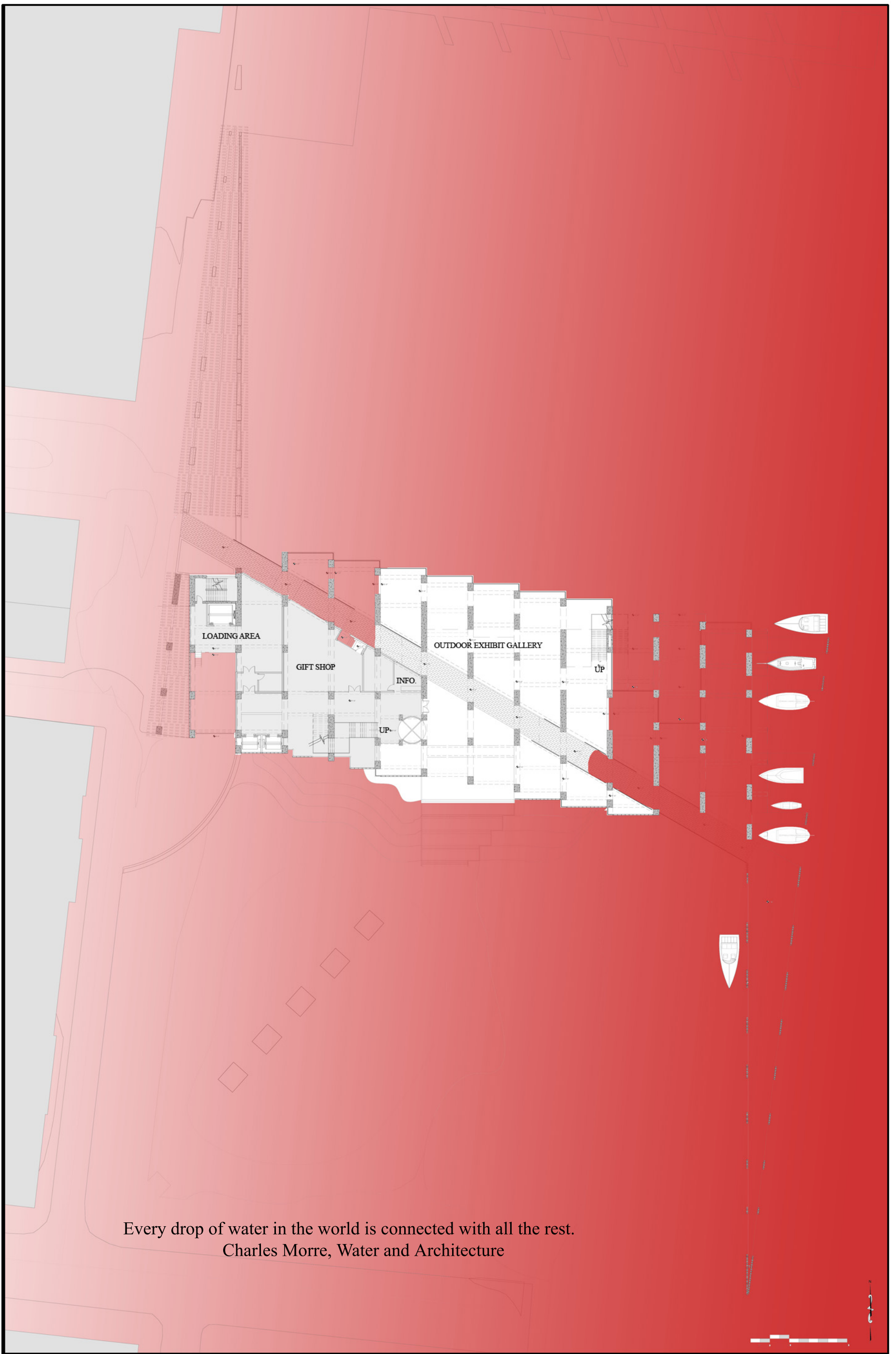
The Main Plaza Level of the Museum includes three entrances, one from the city, one from the park and one from the river. These three entrances will lead the public to the Main entrance of the Museum. The Main Plaza Level will include an enclosed Gift Shop, Information Center, and Loading area. All of the other areas of the Museum will be located on the upper levels.

The Main Plaza Level includes a tidal area which will allow the tides of the river to be watched. The gentle slope of the tidal pool will allow pedestrians to visually see the differences between the low and high tides. This natural occurrence is not prominent with the current shore conditions.

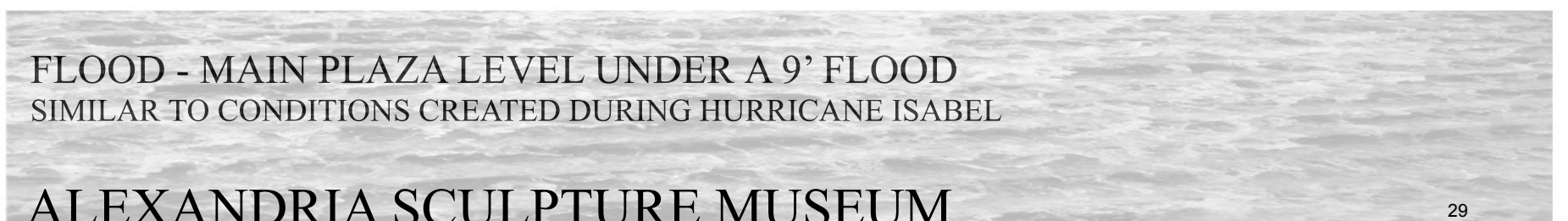
Water is truly the transitory element.
Gaston Bachelard, Water and Dreams

MAIN PLAZA LEVEL FLOORPLAN

ALEXANDRIA SCULPTURE MUSEUM

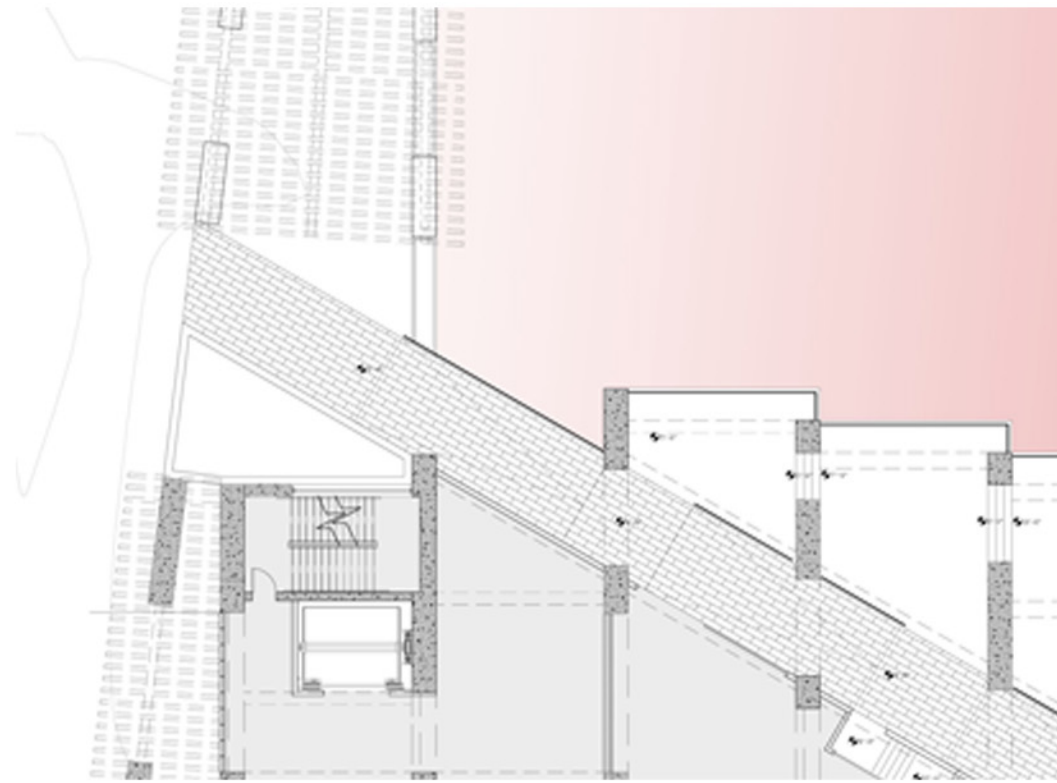
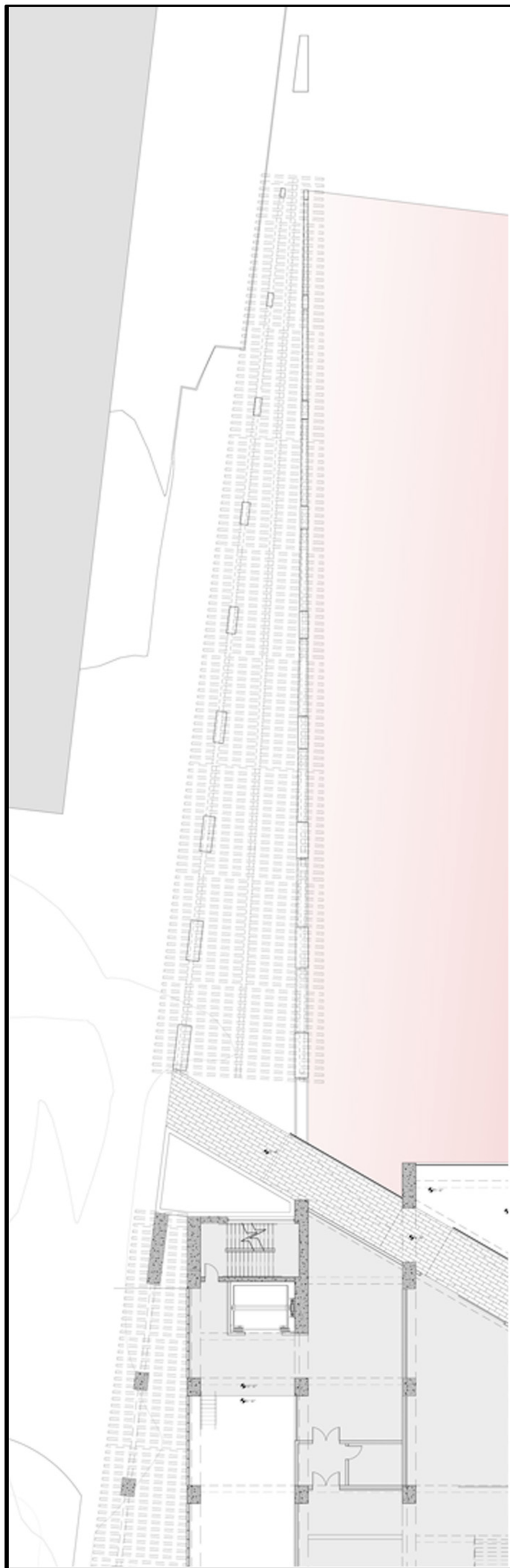


Every drop of water in the world is connected with all the rest.
Charles Morre, Water and Architecture

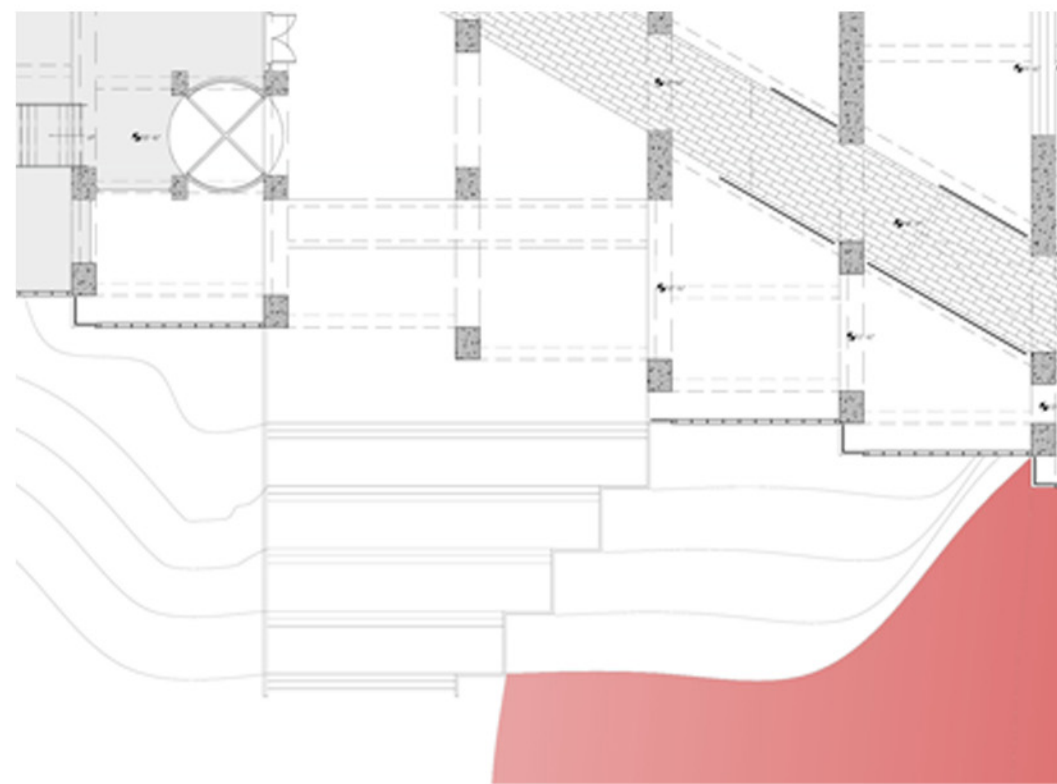


FLOOD - MAIN PLAZA LEVEL UNDER A 9' FLOOD
SIMILAR TO CONDITIONS CREATED DURING HURRICANE ISABEL

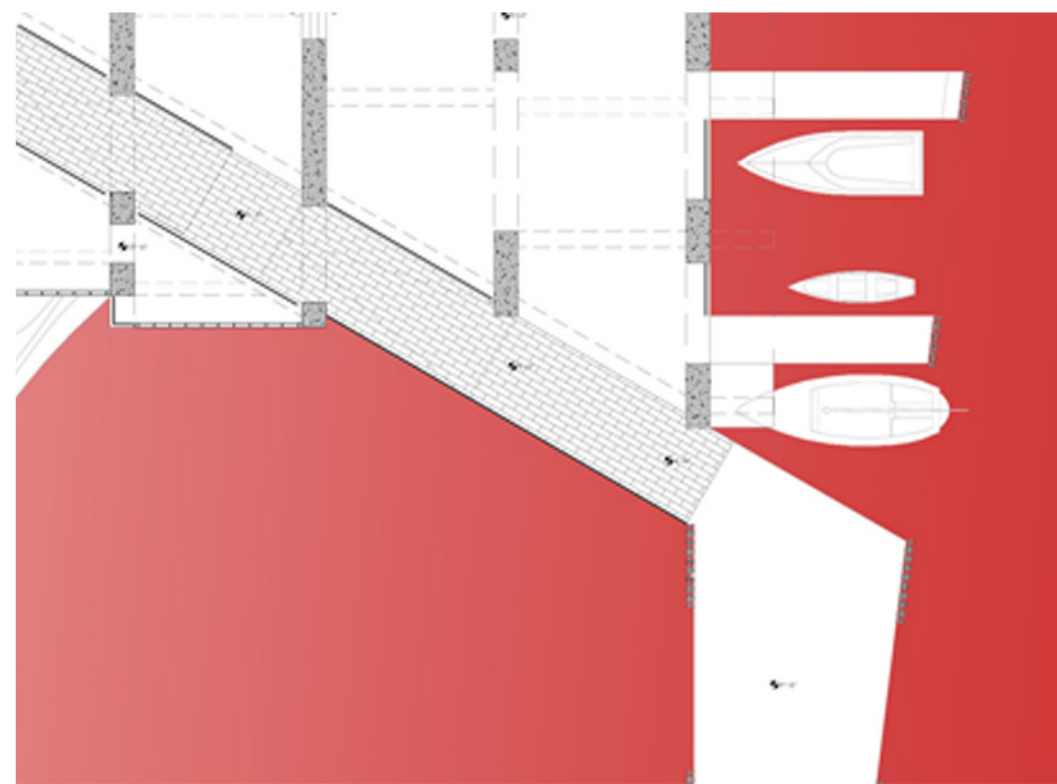
ALEXANDRIA SCULPTURE MUSEUM



CITY ENTRANCE FROM KING STREET

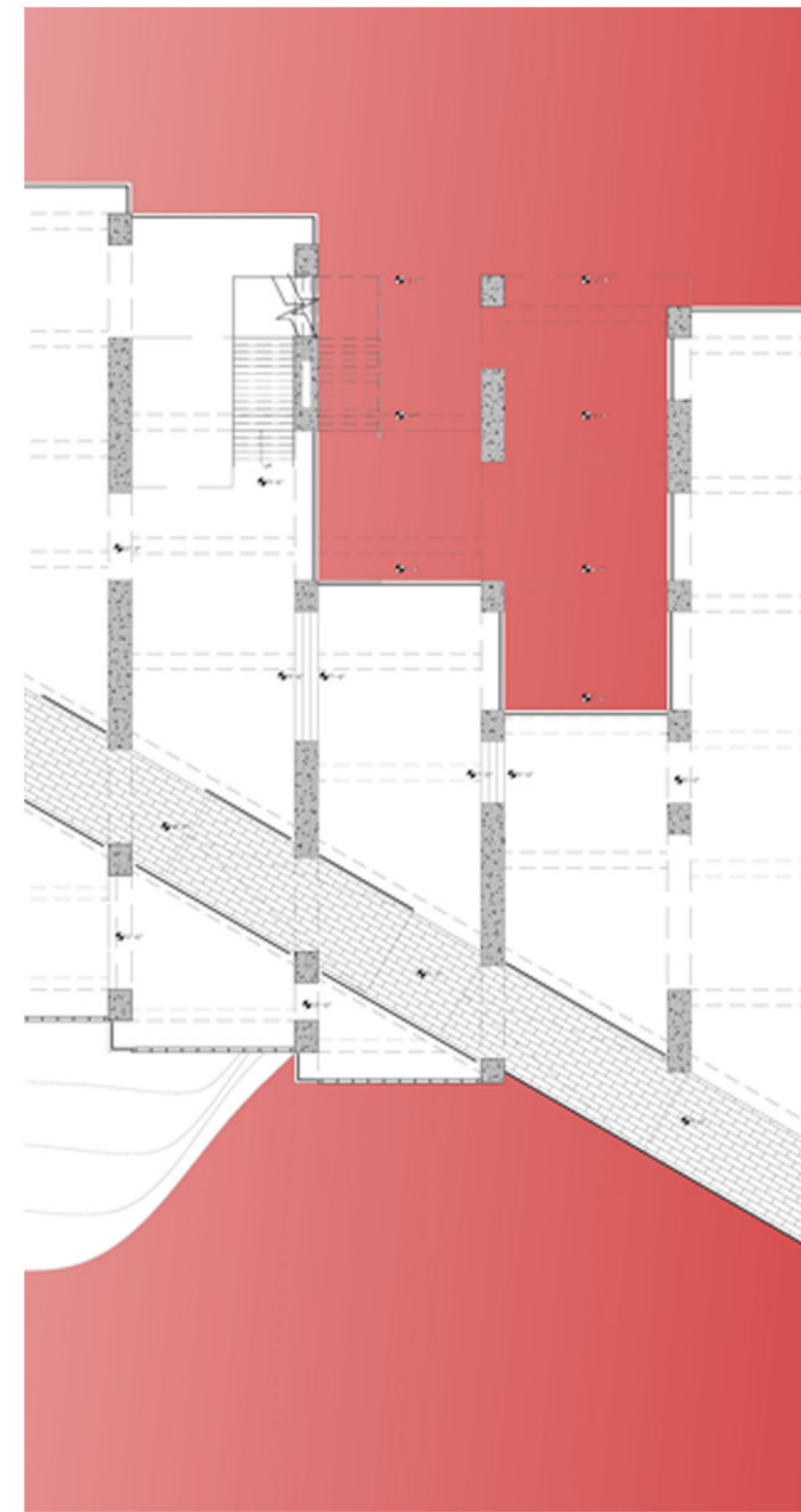


WATERFRONT PARK ENTRANCE



BOAT DOCK ENTRANCE

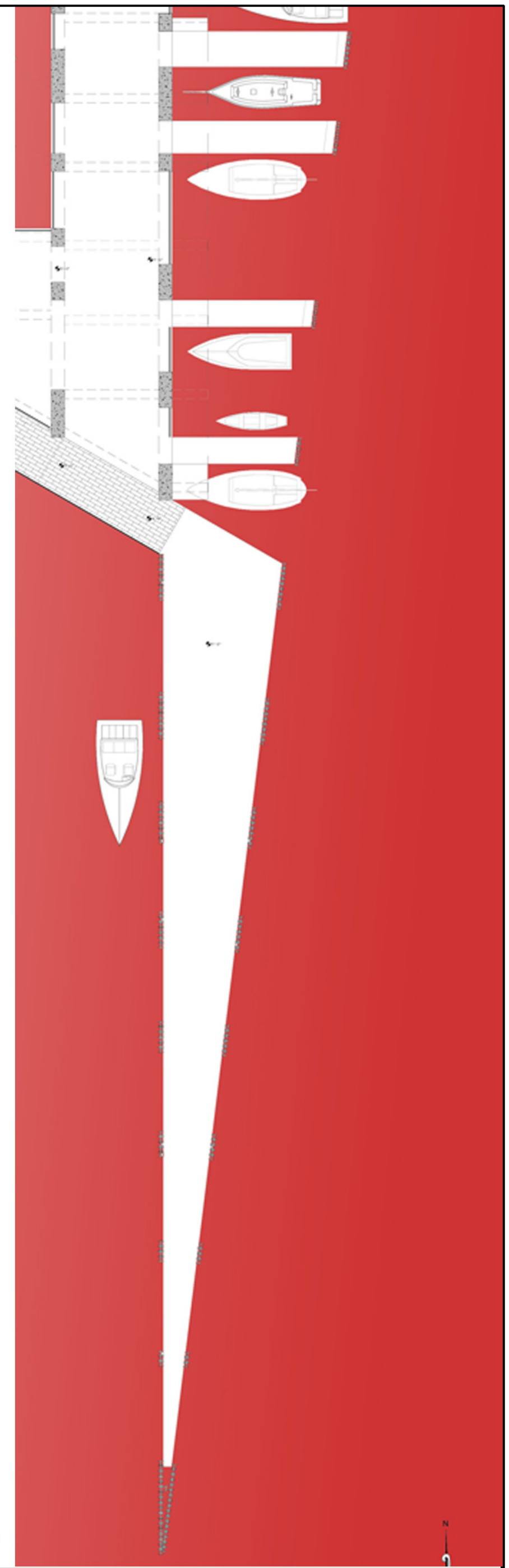
LEFT - COVERED WALKWAY FROM THE TORPEDO FACTORY DOCKS



TIDAL POOL

A pool contains a universe.
A fragment of a dream contains an entire soul.

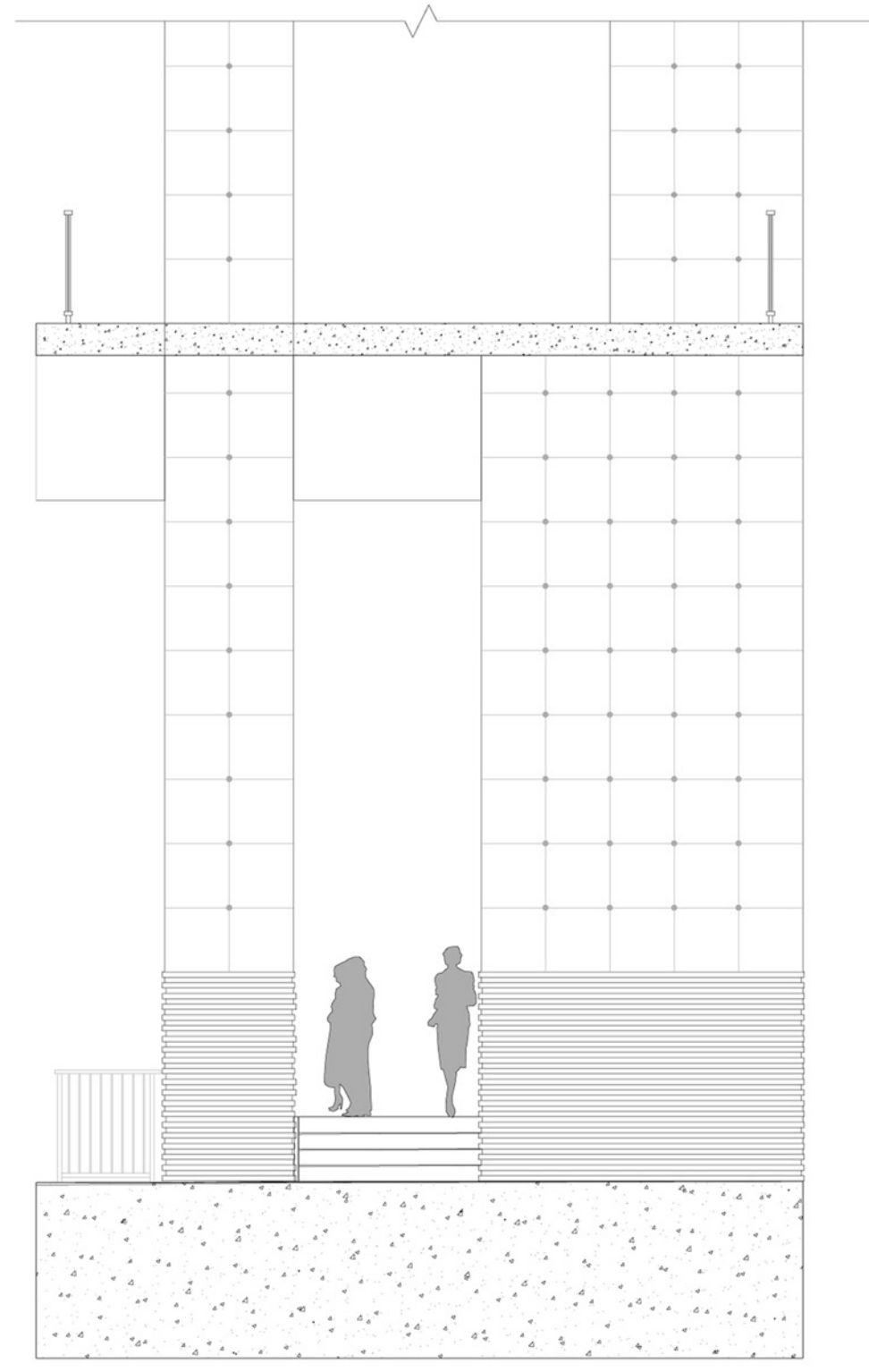
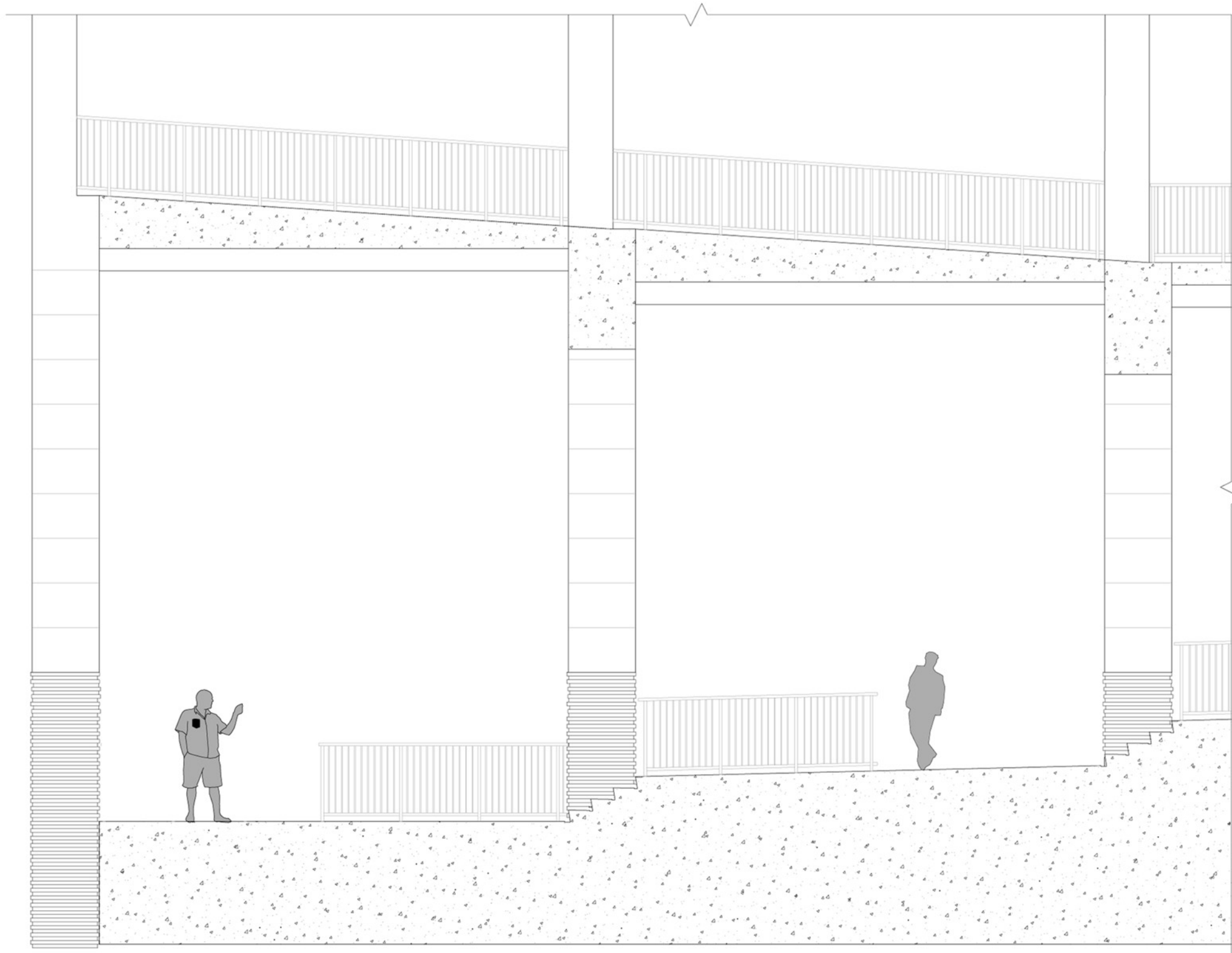
Gaston Bachelard, Water and Dreams



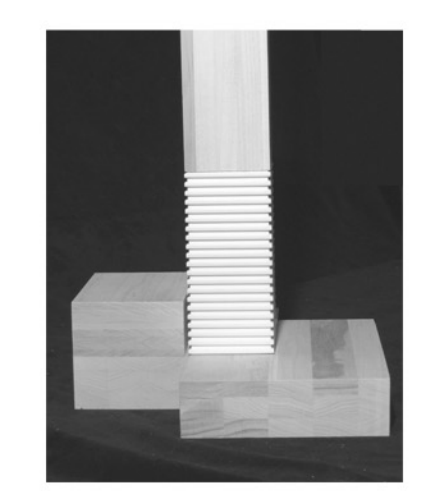
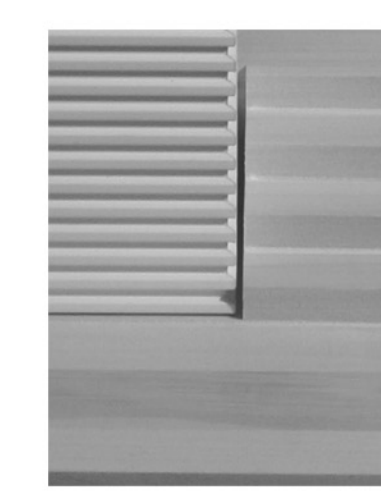
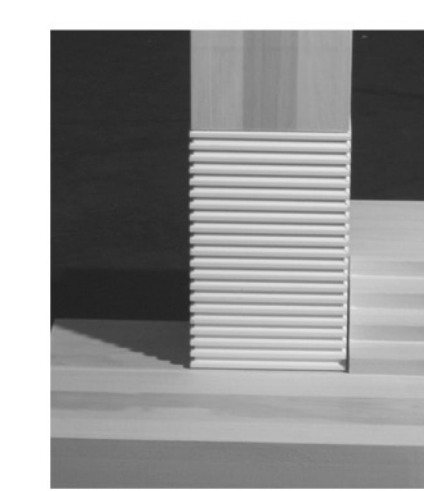
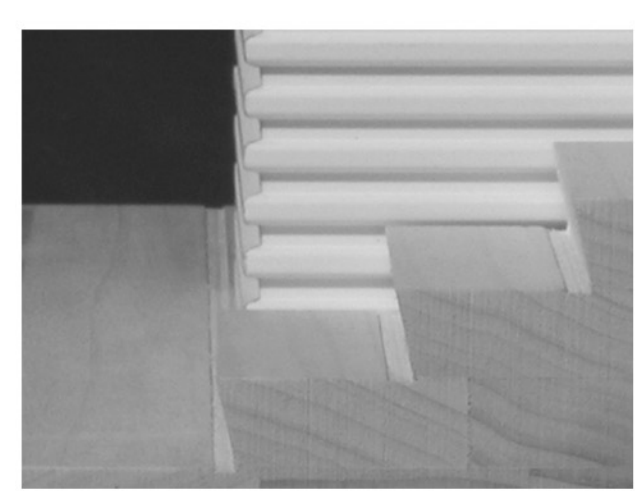
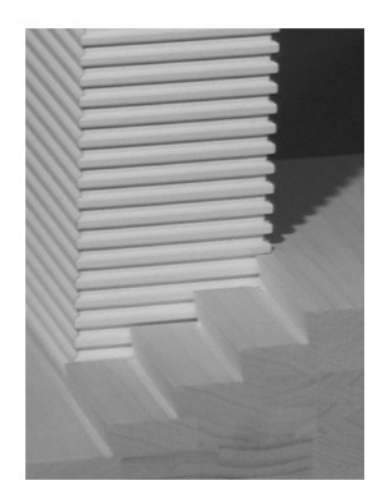
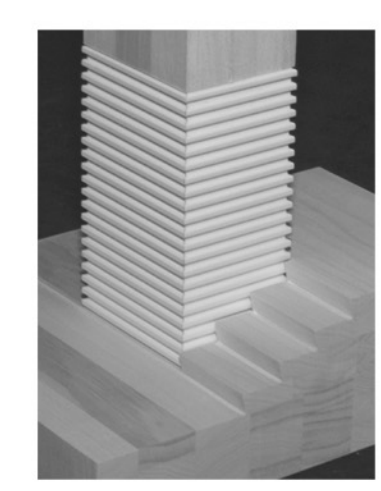
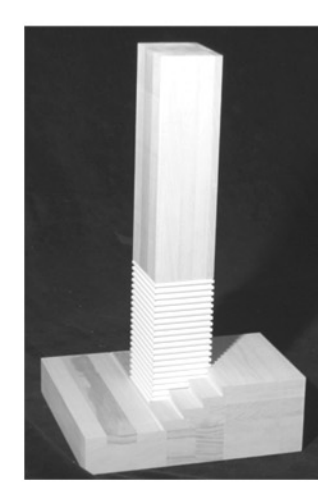
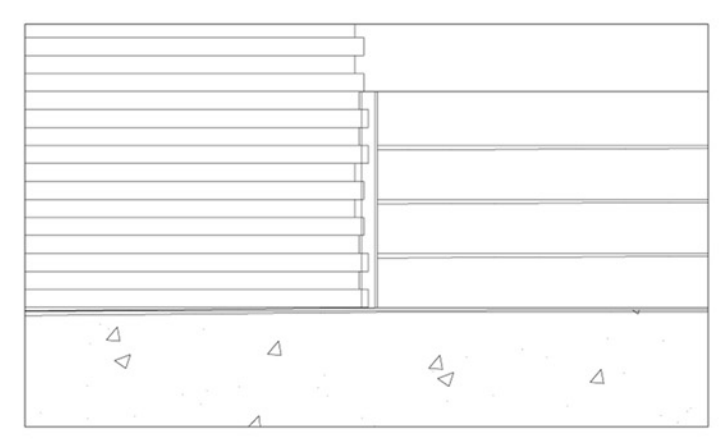
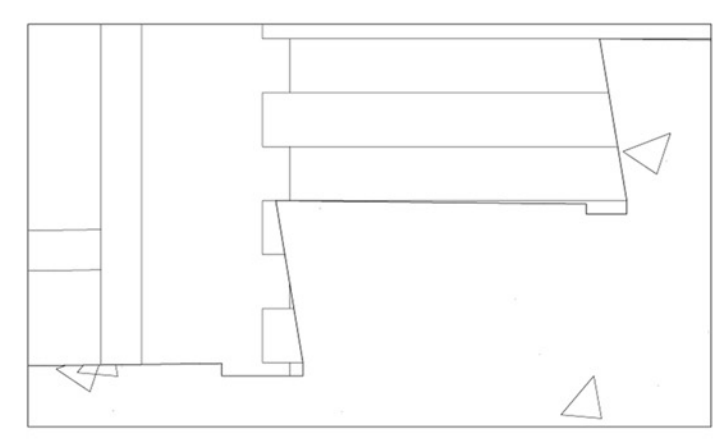
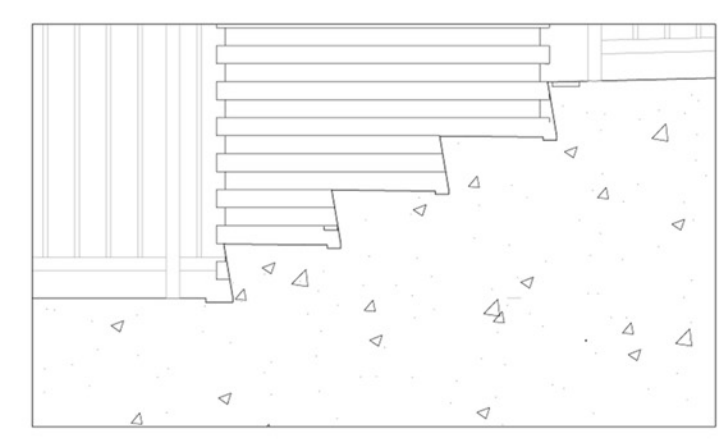
RIGHT - BOAT DOCK

MAIN PLAZA - ENLARGEMENTS

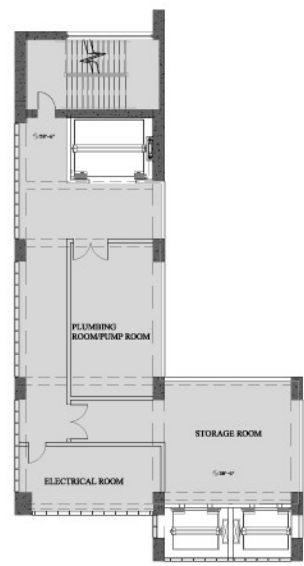
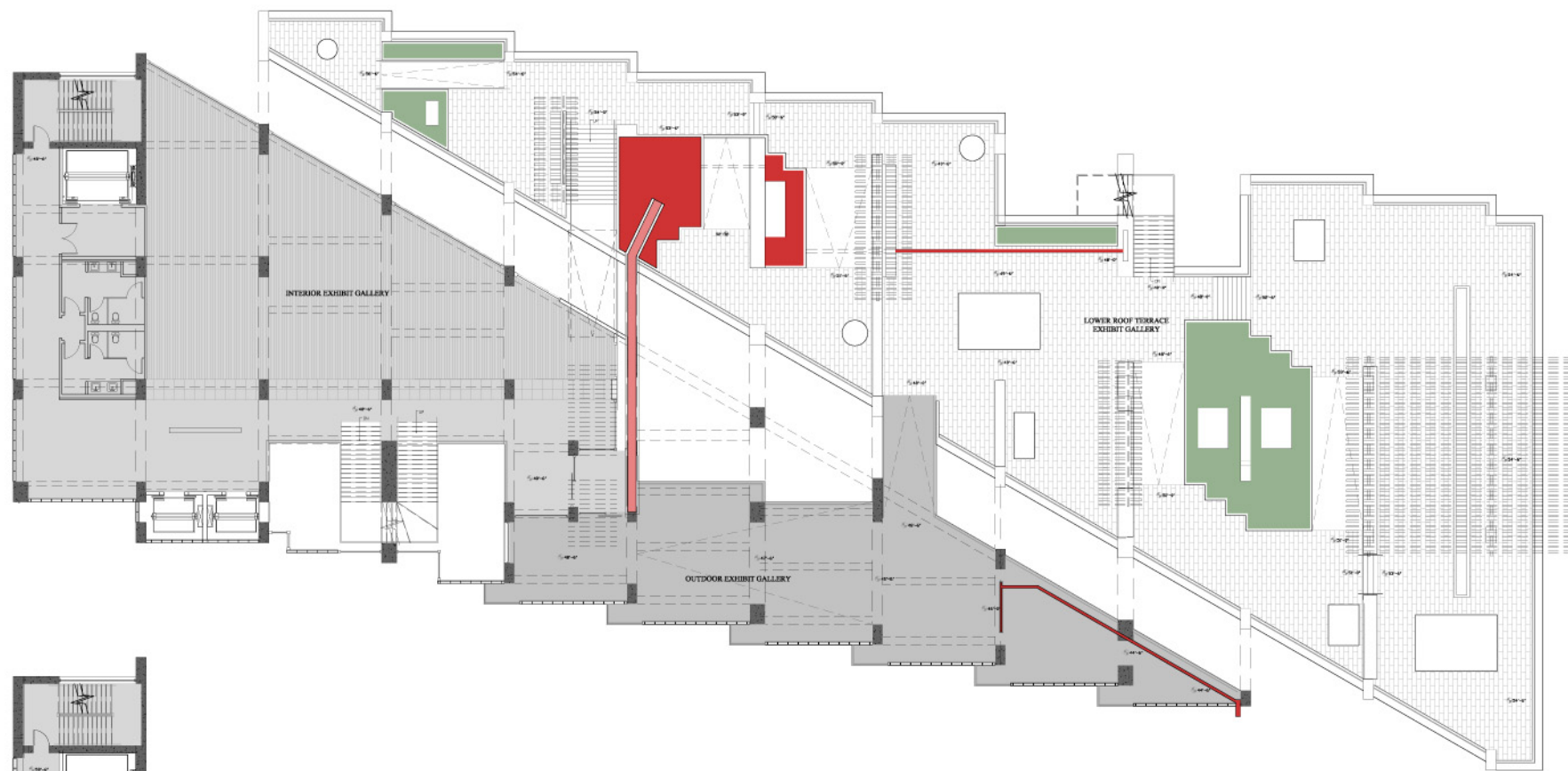
ALEXANDRIA SCULPTURE MUSEUM



The idea to have markers built-in to the character of the Main Plaza level came about through the photograph that I took above of the corner of the Torpedo Factory. The markers on the Torpedo Factory indicate the water level at the corner during a flood. In the Museum the Main Plaza Level columns would be constructed with the formwork of corrugated steel laid horizontally to create marks which could be used to indicate the water level during a flood. The horizontal marks would be up to twelve feet which is the projected maximum water level for the Potomac River. As the floors increase in height the horizontal marks decrease as shown in the enlarged sections.



MAIN PLAZA - ENLARGED SECTIONS, STAIR DETAILS, AND STAIR MODEL PHOTOGRAPHS



MEZZANINE LEVEL 2

TOPPING SLAB BRUSHED FINISH
BRASS TRANSITION STRIP
3/4" TRAVERTINE VEIN CUT
(FILLED AND HONED FINISH)
MORTAR SETTING BED



PLAN



INTERIOR EXHIBIT HALL FLOORING
AND STRUCTURE DETAIL

TEMPERED GLASS
BAMBOO FLOORING (SOLID VERTICAL LAY)
RESILIENT CUSHION
2 LAYERS OF 3/4" PLYWOOD
VAPOR BARRIER
2" TOPPING SLAB
4' COLUMN BEYOND
8" POURED IN PLACE CONCRETE
2" AIR SPACE
METAL STUD WITH INSULATION
2 LAYERS OF GYP BOARD



EXHIBIT HALL LEVEL

The Exhibit hall level provides an interior space for the display of sculpture which is not suitable for exterior conditions. This space provides 3,200 square feet of two story display area. The Exhibit Hall level also provides a smaller outdoor exhibit hall area suitable for sculpture which is more intimate in nature.

The exhibit hall level is also the first level which provides direct access to the lower roof terrace which can be accessed from the walkway from the outdoor exhibit hall area. The lower roof terrace area provides a multi-level exterior display area with portions which are covered with a cedar trellis to provide shaded areas for the patrons to sit and watch the river and city life roll by. The lower terrace area also includes the receiving pool for the rain water from the upper terrace level.

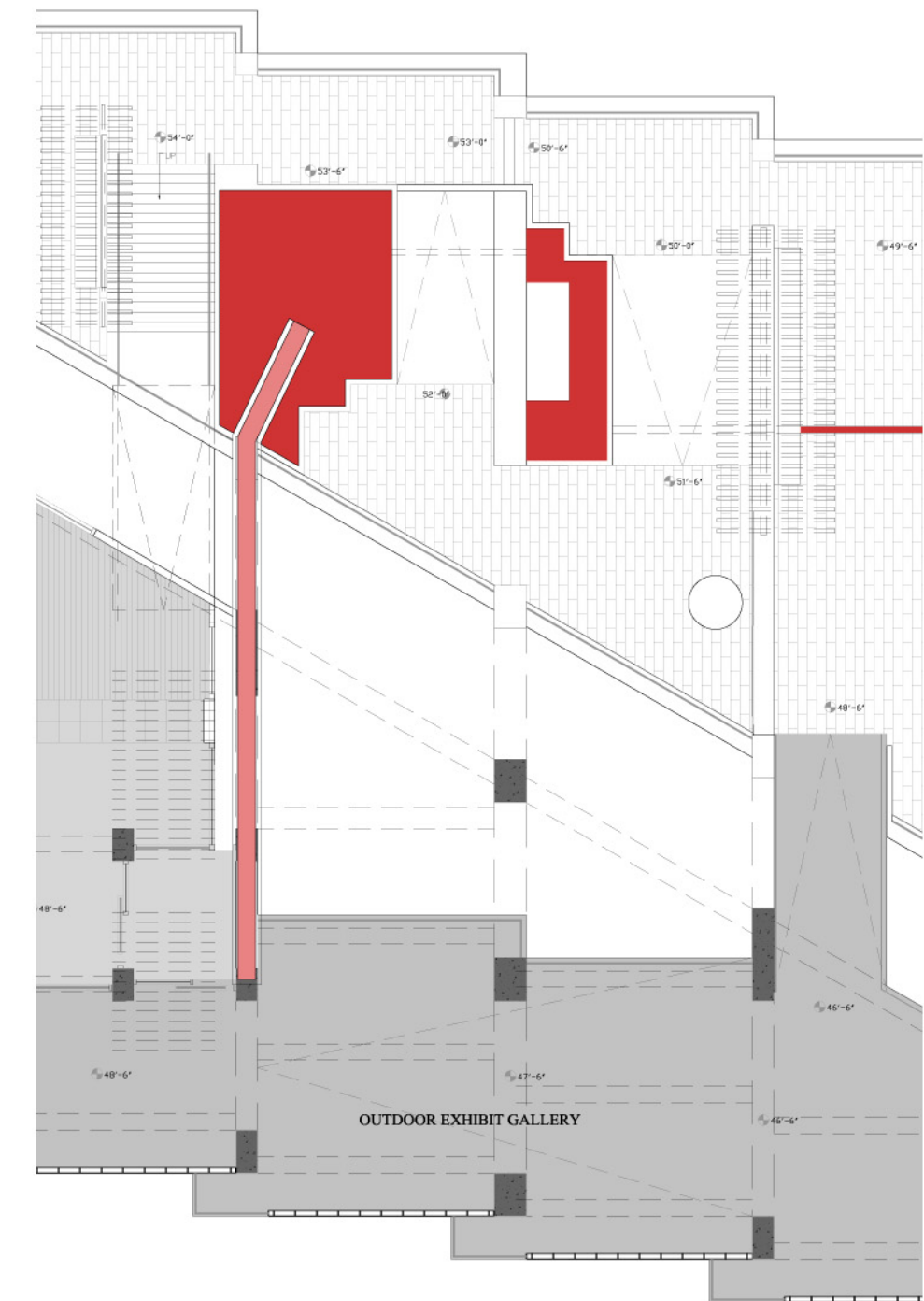
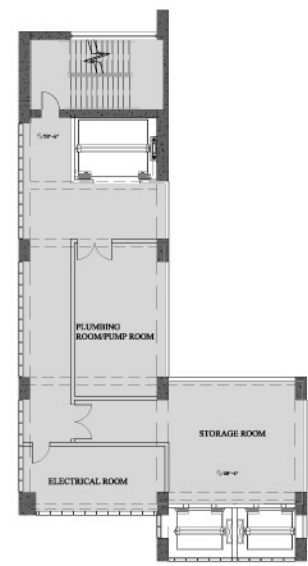
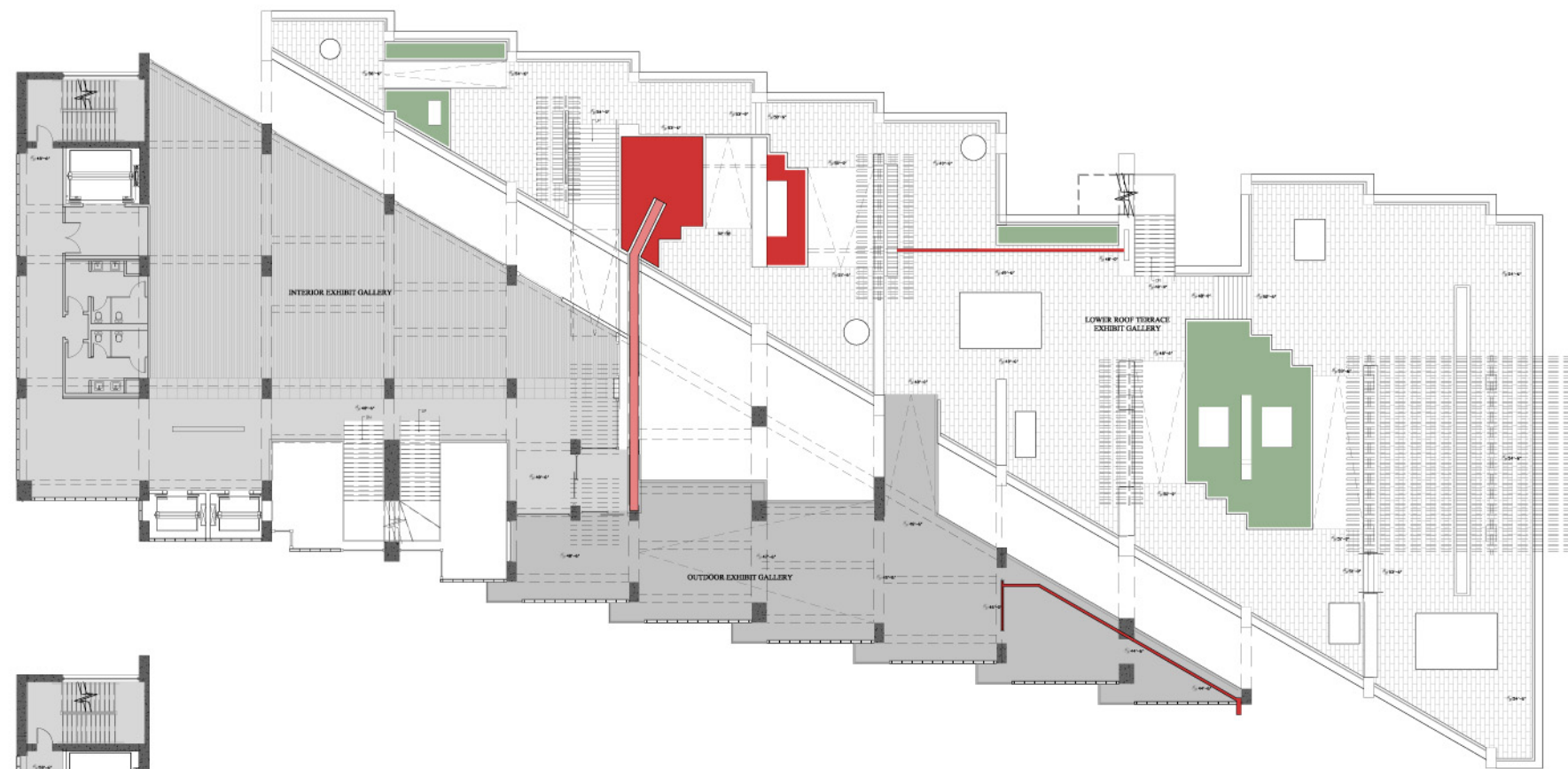


EXHIBIT HALL LEVEL AND LOWER ROOF TERRACE

ALEXANDRIA SCULPTURE MUSEUM



MEZZANINE LEVEL 2

TOPPING SLAB BRUSHED FINISH
BRASS TRANSITION STRIP
3/4" TRAVERTINE VEIN CUT
(FILLED AND HONED FINISH)
MORTAR SETTING BED



PLAN



INTERIOR EXHIBIT HALL FLOORING
AND STRUCTURE DETAIL

TEMPERED GLASS
BAMBOO FLOORING (SOLID VERTICAL LAY)
RESILIENT CUSHION
2 LAYERS OF 3/4" PLYWOOD
VAPOR BARRIER
2" TOPPING SLAB
4' COLUMN BEYOND
8" POURED IN PLACE CONCRETE
2" AIR SPACE
METAL STUD WITH INSULATION
2 LAYERS OF GYP BOARD



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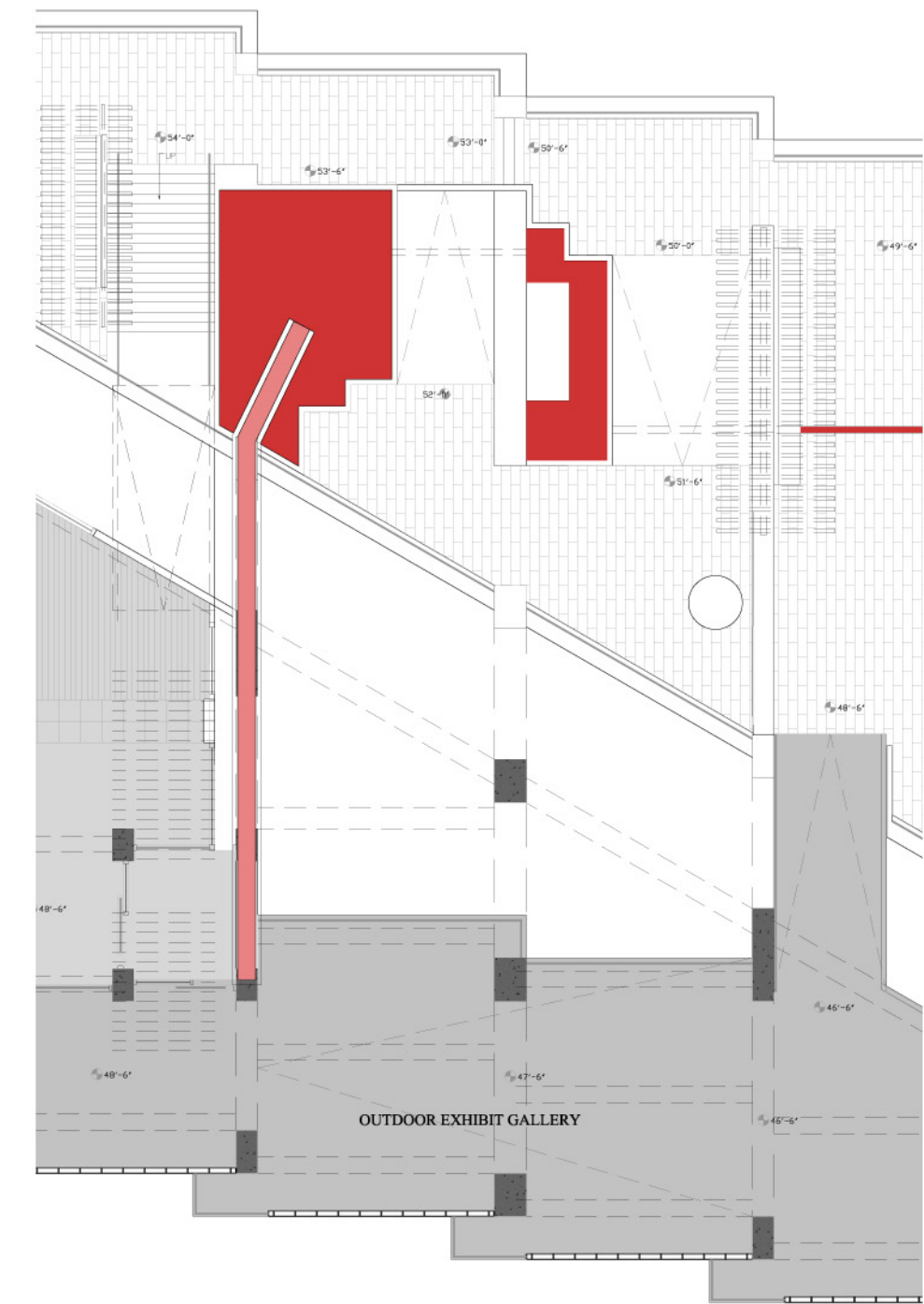


EXHIBIT HALL LEVEL AND LOWER ROOF TERRACE

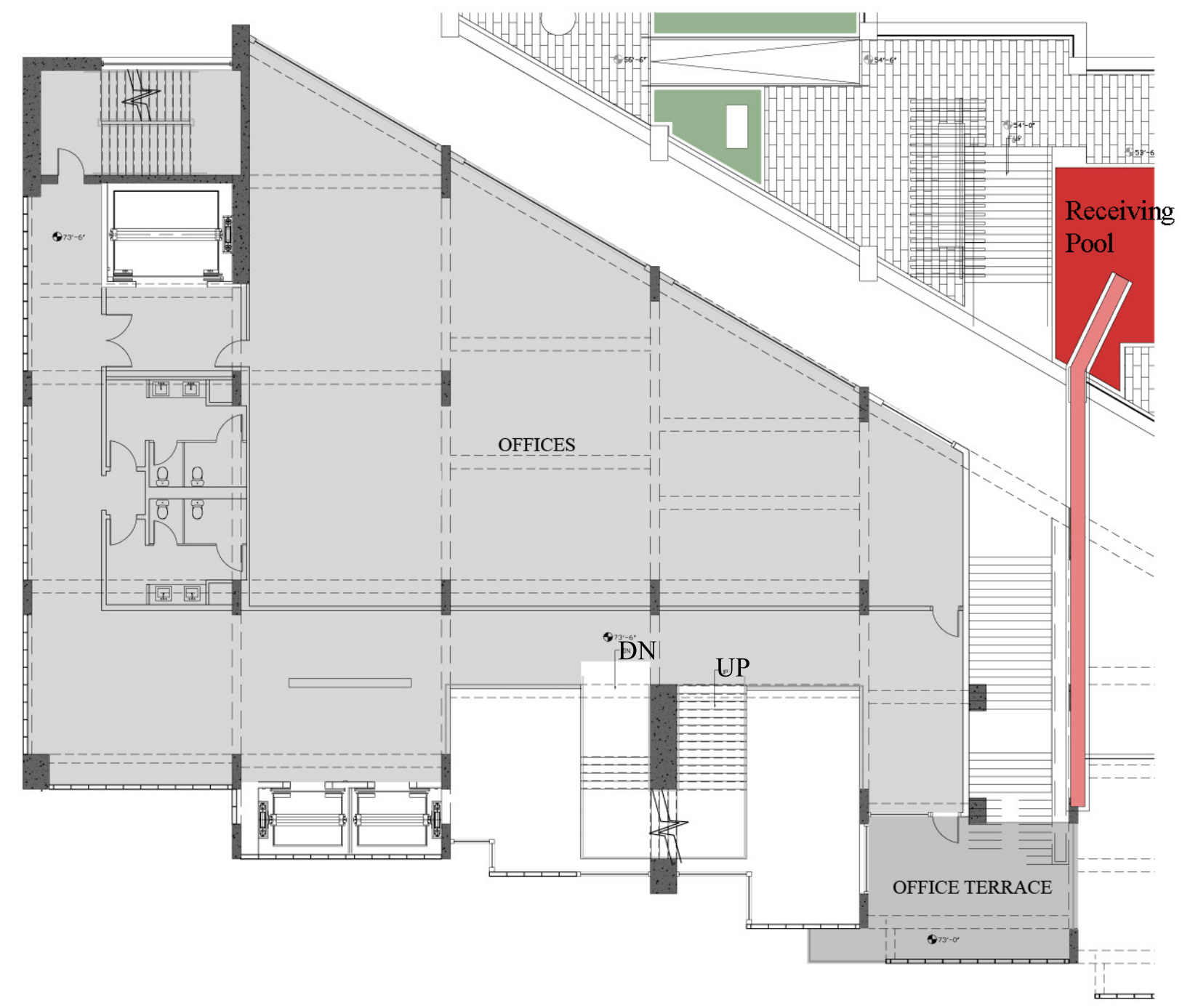
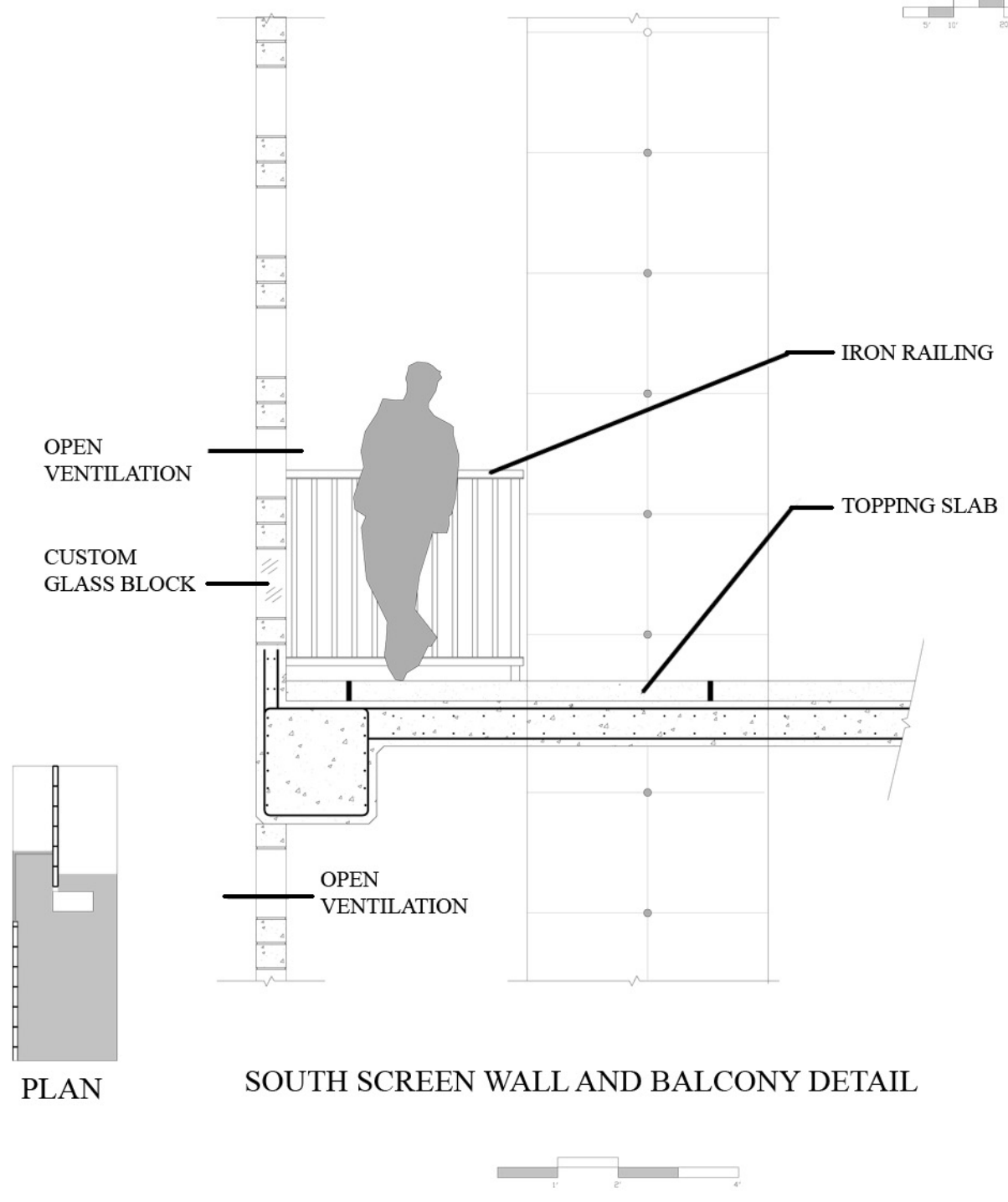
ALEXANDRIA SCULPTURE MUSEUM



ADMINISTRATIVE LEVEL AND LOWER OUTDOOR ROOF TERRACE

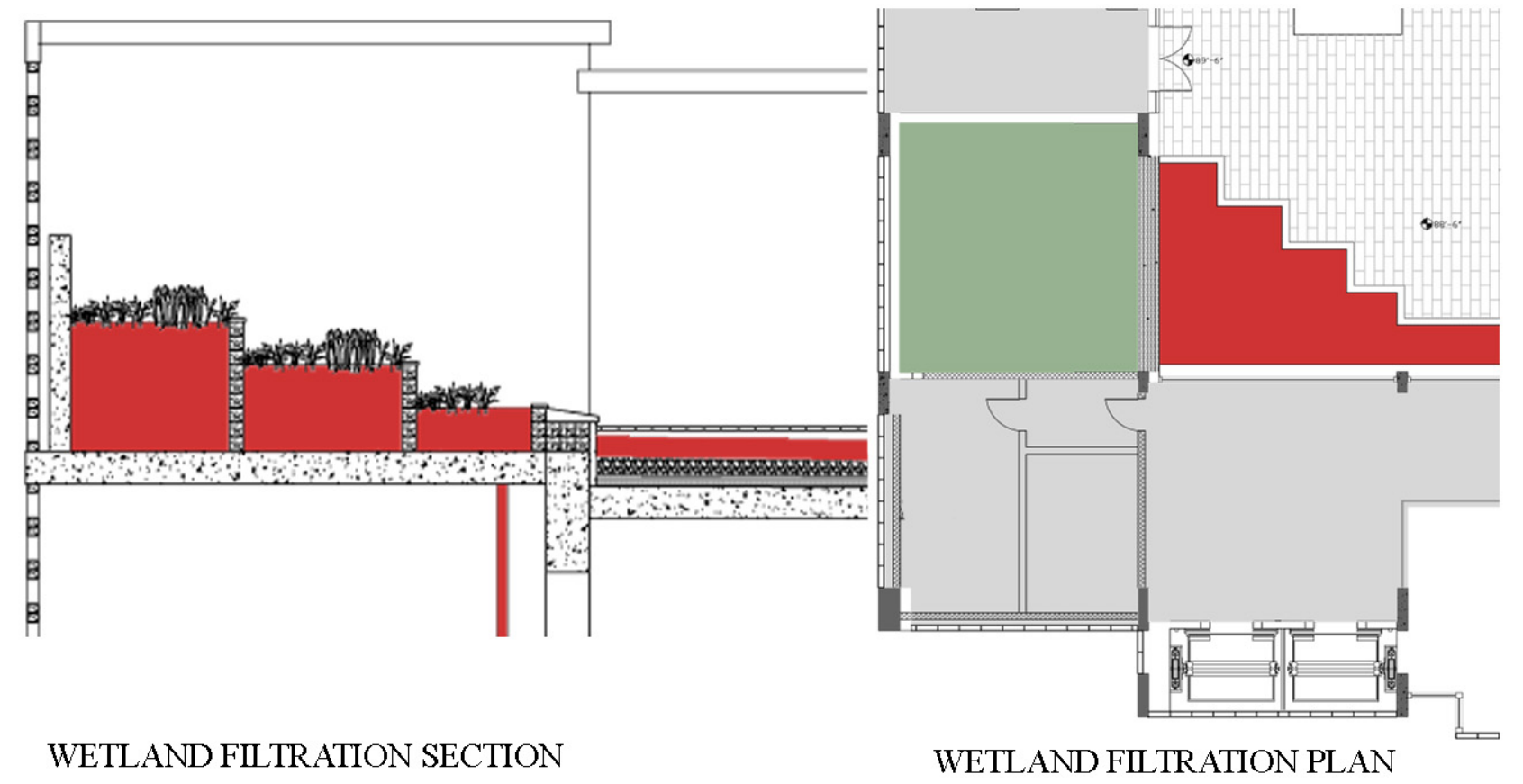
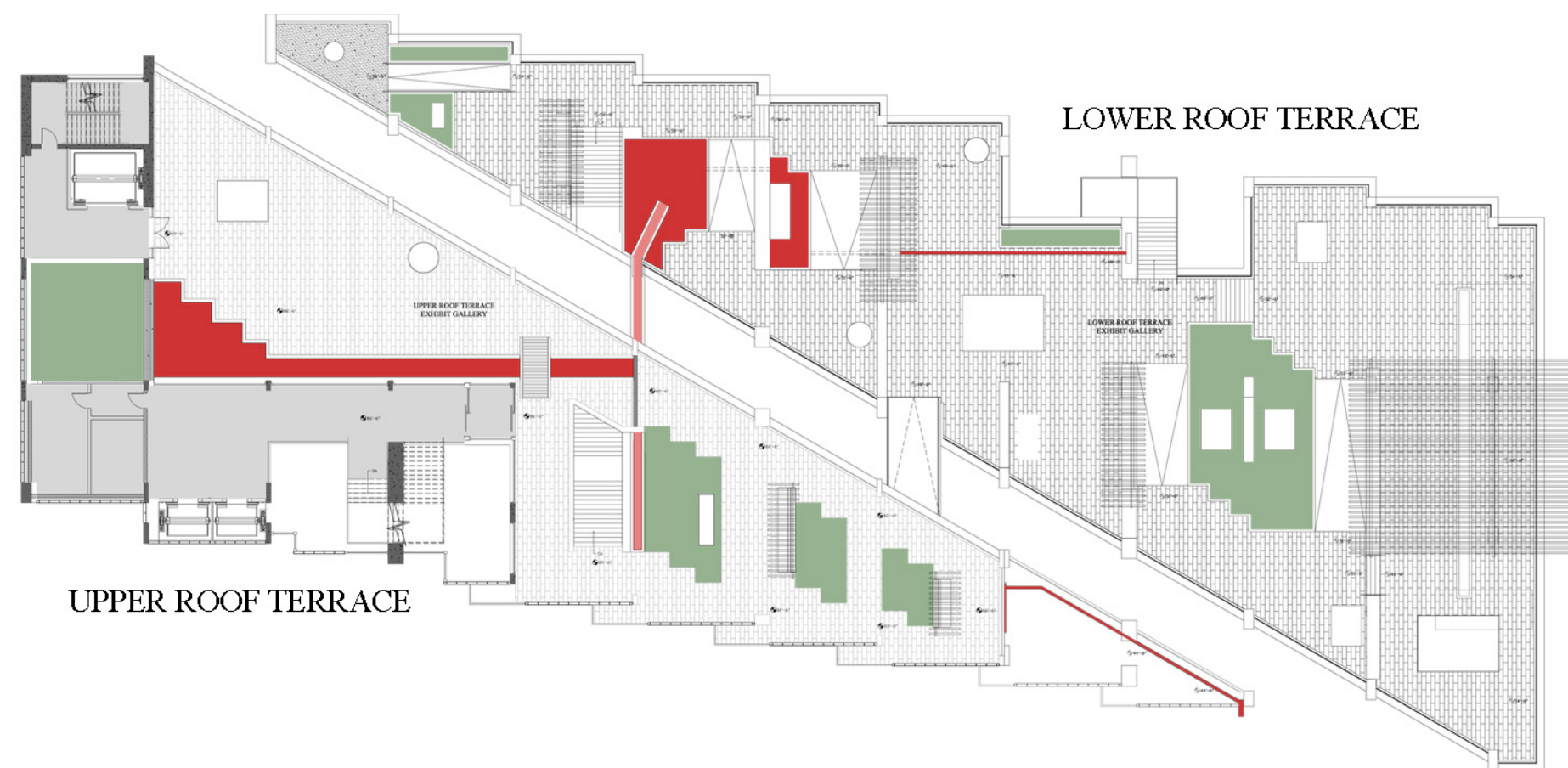
The enclosed office space provides 3,200 square feet for the Museum's needs. The Administrative Level includes a private outdoor terrace area for the employees of the Museum to enjoy a break without being interrupted by the Museum patrons.

The plan includes the overall look at the lower terrace area which is accessible from the Exhibit Hall Level, northeast stair, and interior south stair.

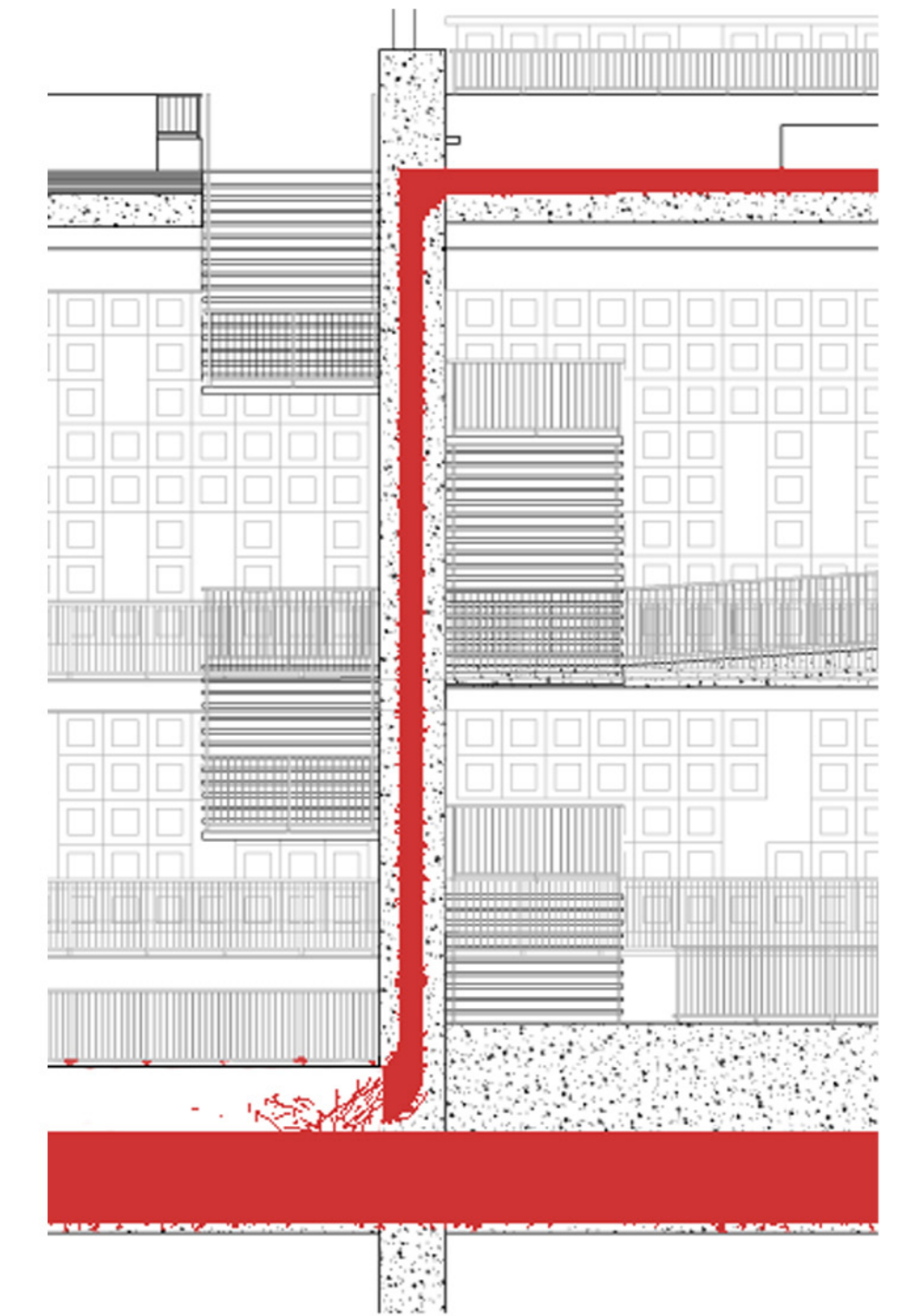
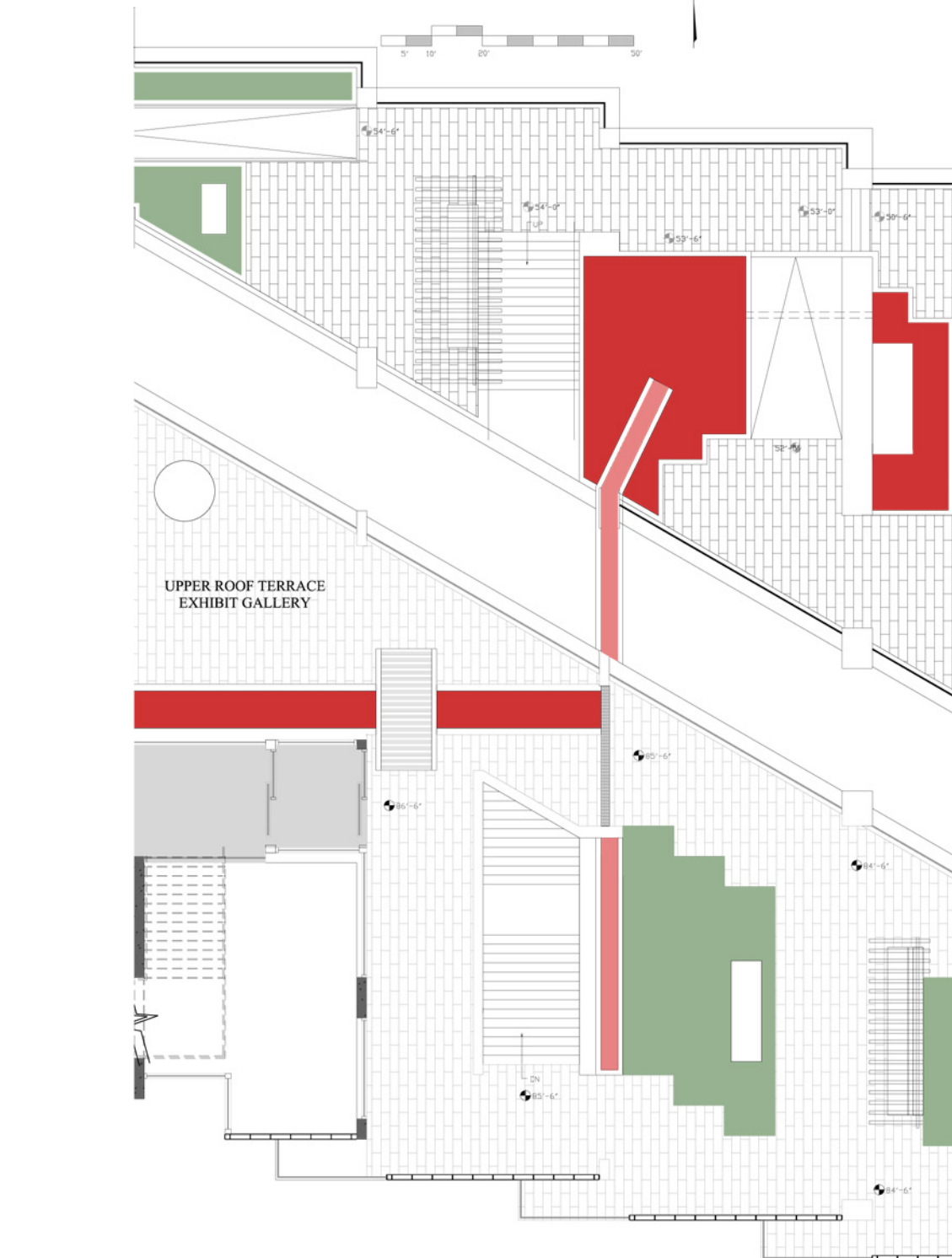
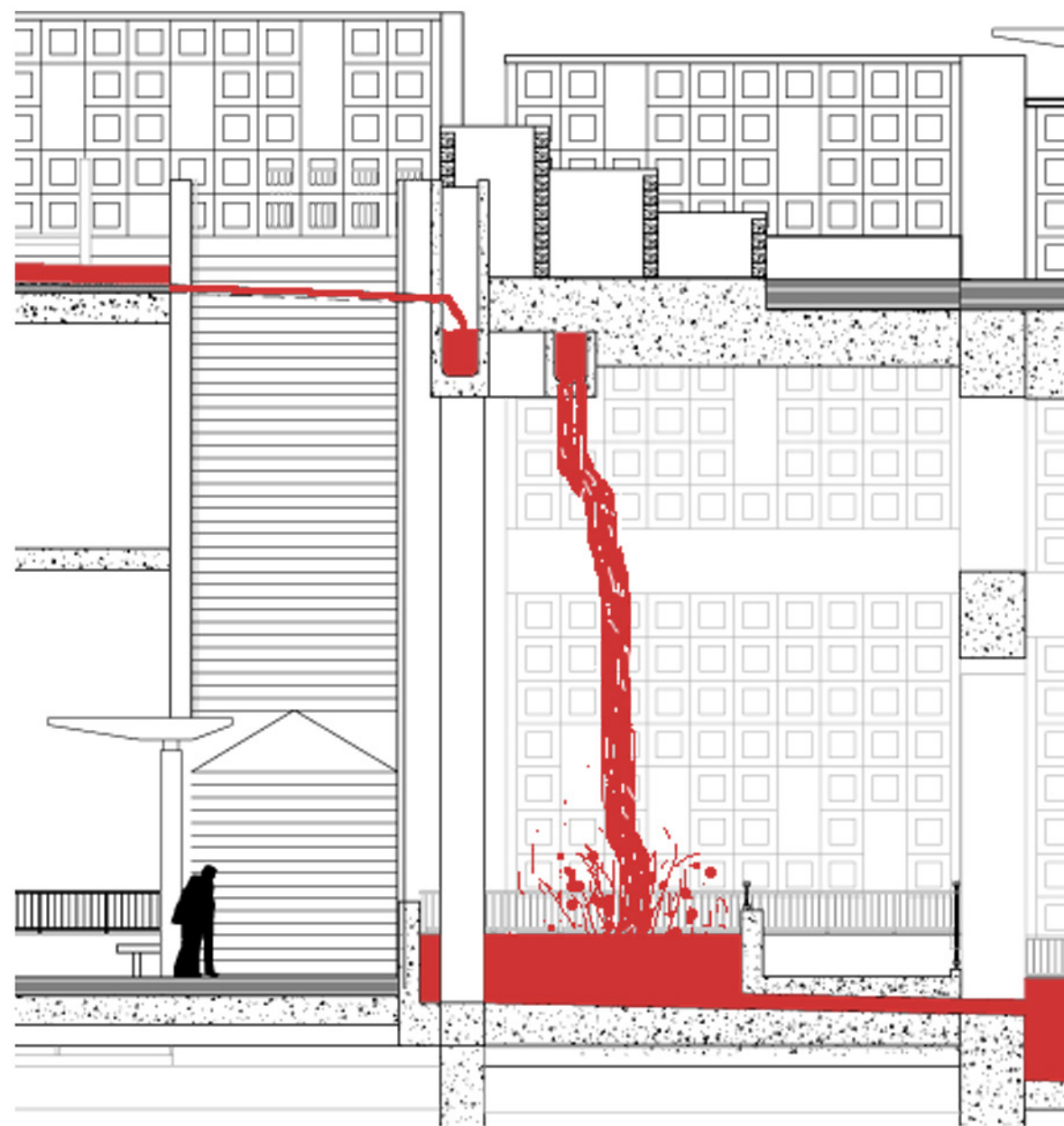


ADMINISTRATIVE LEVEL AND LOWER OUTDOOR ROOF TERRACE

ALEXANDRIA SCULPTURE MUSEUM



Water is the most perfect liquid it is the one from which all other solutions get their fluidity.
Gaston Bachelard, Water and Dreams



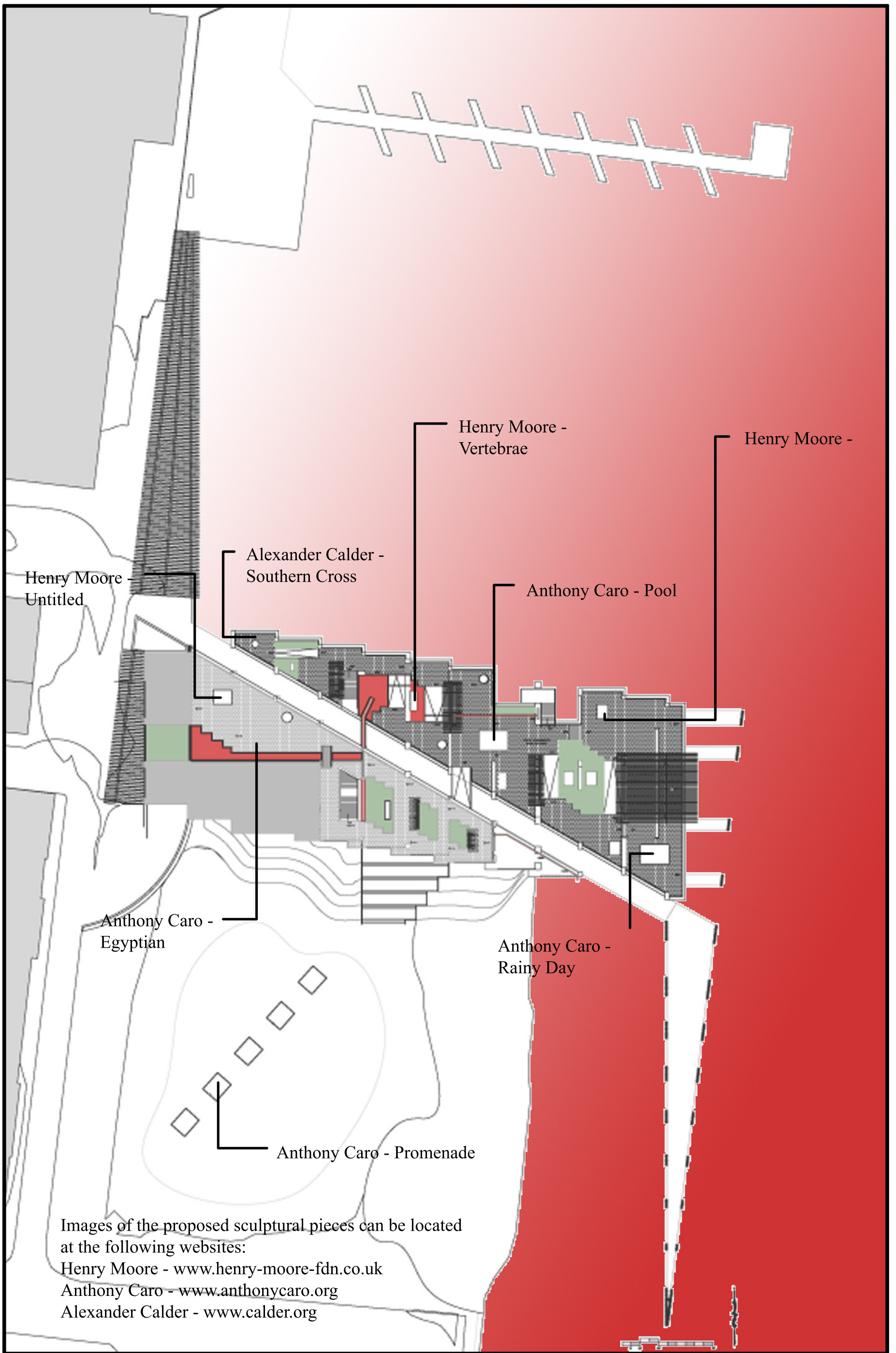
WATER FALLING FROM UPPER TERRACE INTO THE LOWER TERRACE RECEIVING POND SECTION

WATER FALLING FROM UPPER TERRACE INTO THE LOWER TERRACE PLAN

WATER FALLING FROM LOWER TERRACE INTO THE TIDAL POOL

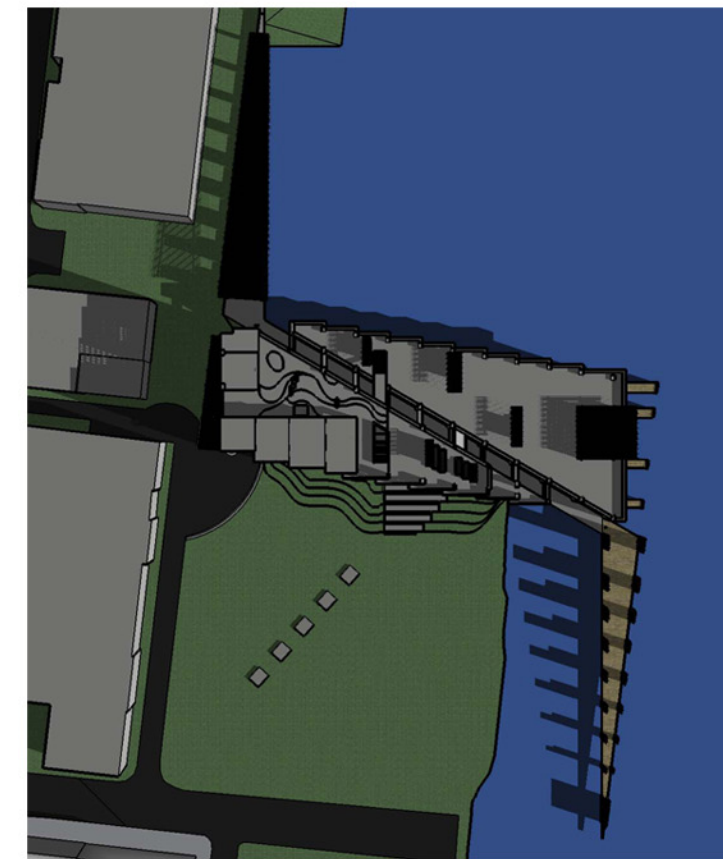
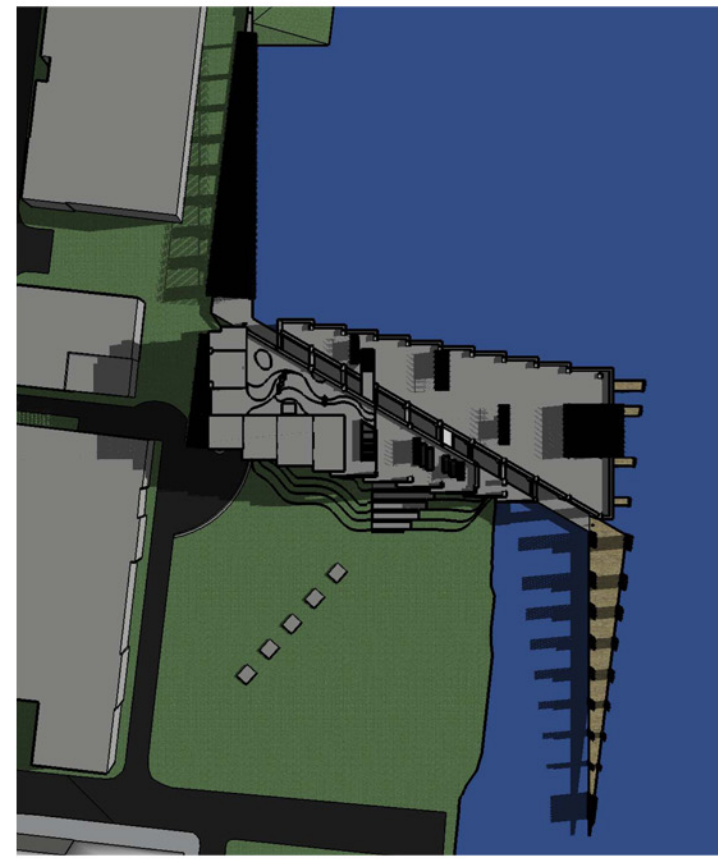
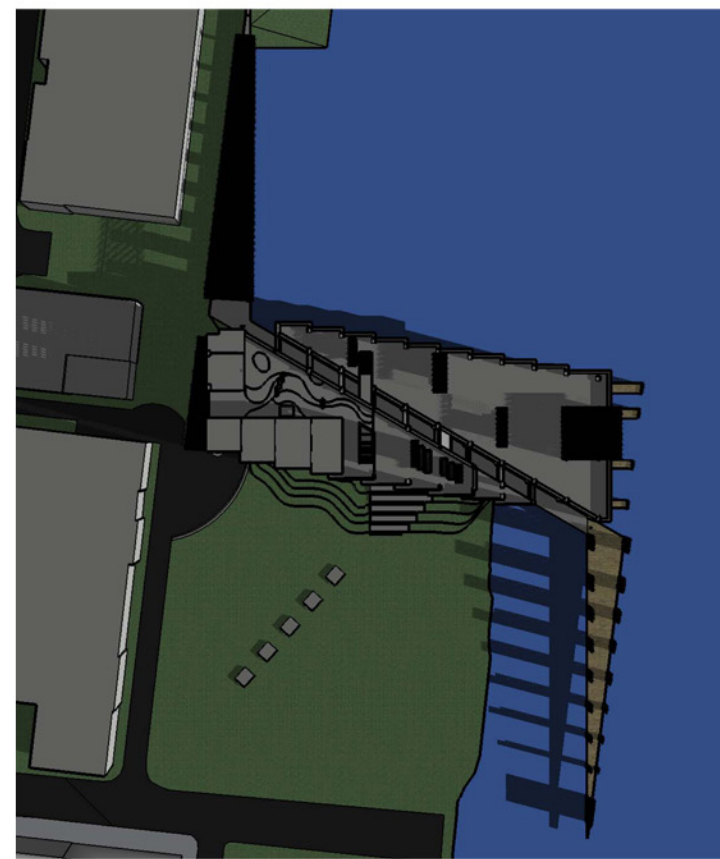
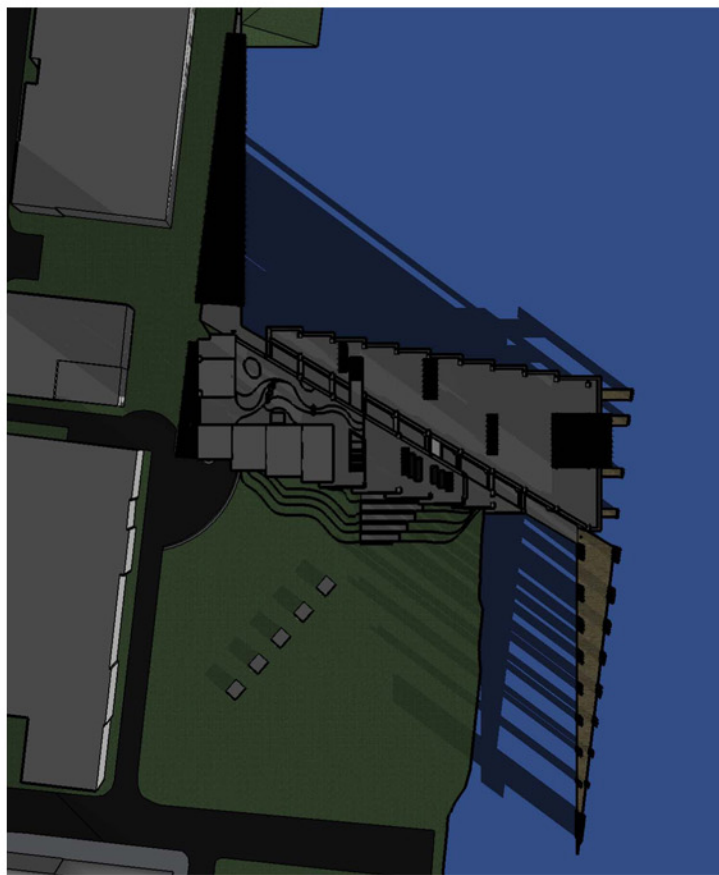
UPPER AND LOWER ROOF TERRACE
PLAN AND SECTIONS

ALEXANDRIA SCULPTURE MUSEUM

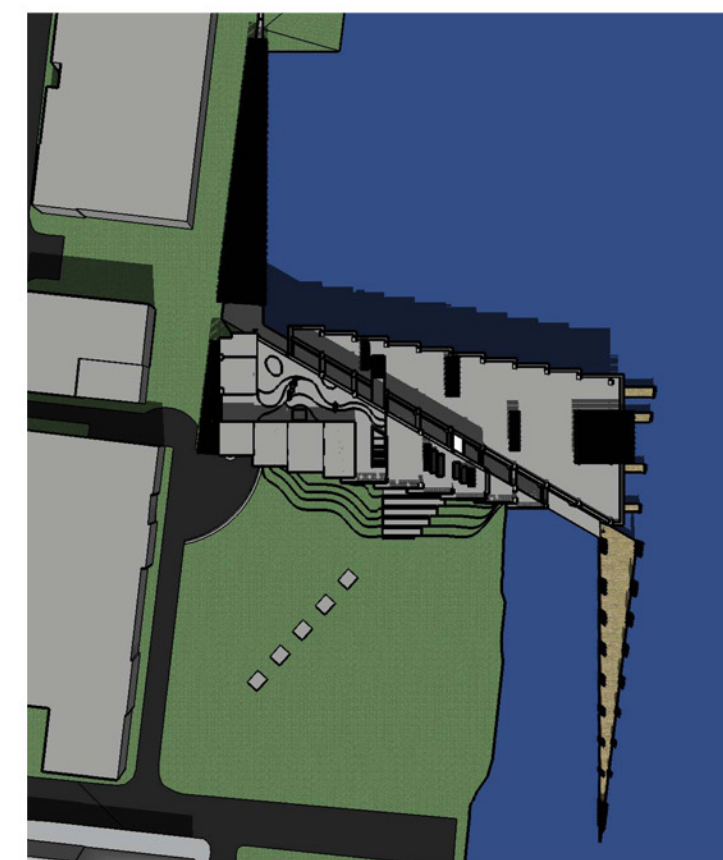
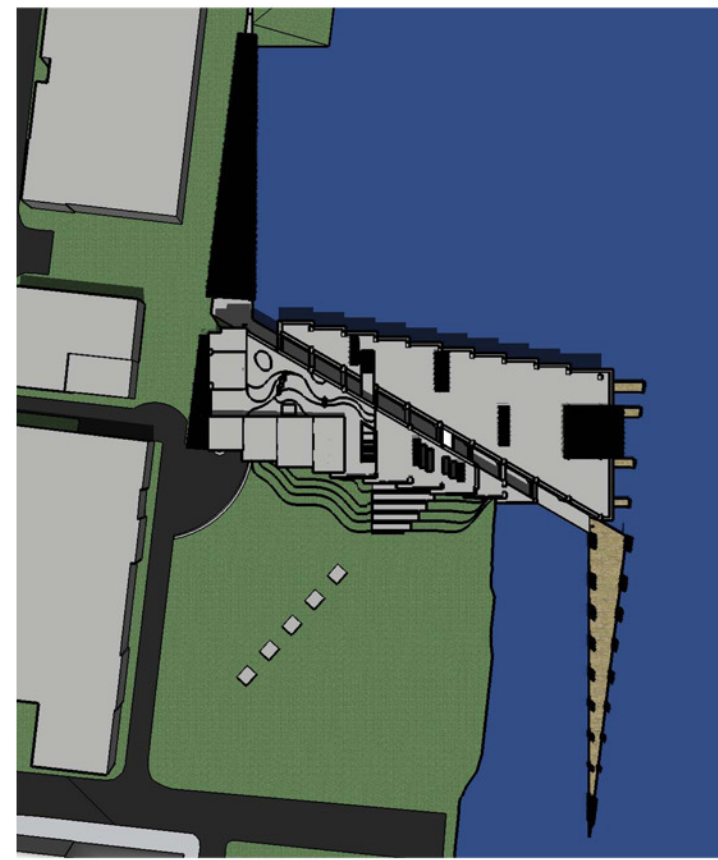
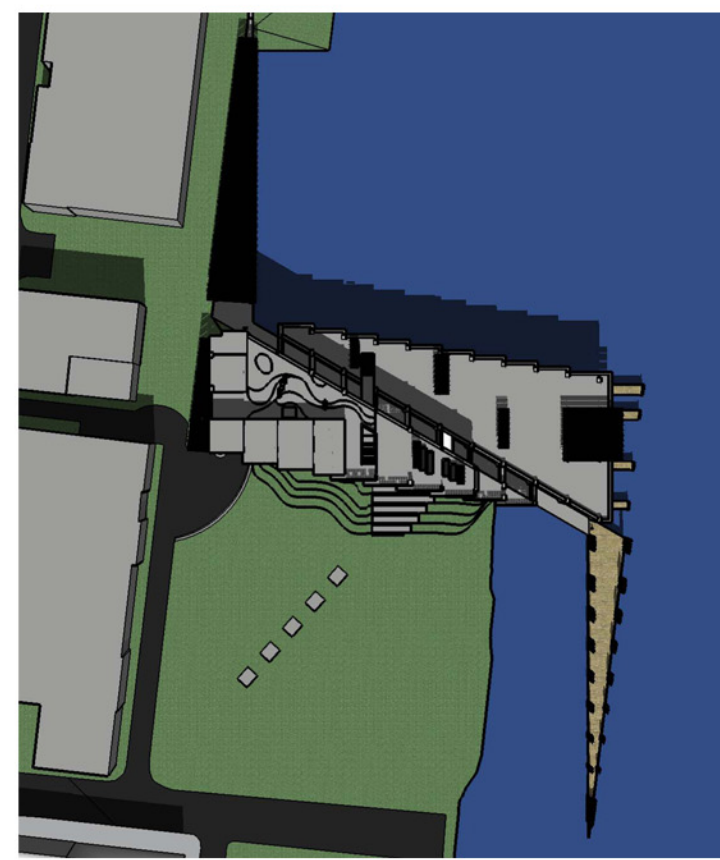


OVERALL ENLARGED SITE PLAN INCLUDING COMPLETE ROOF LAYOUT

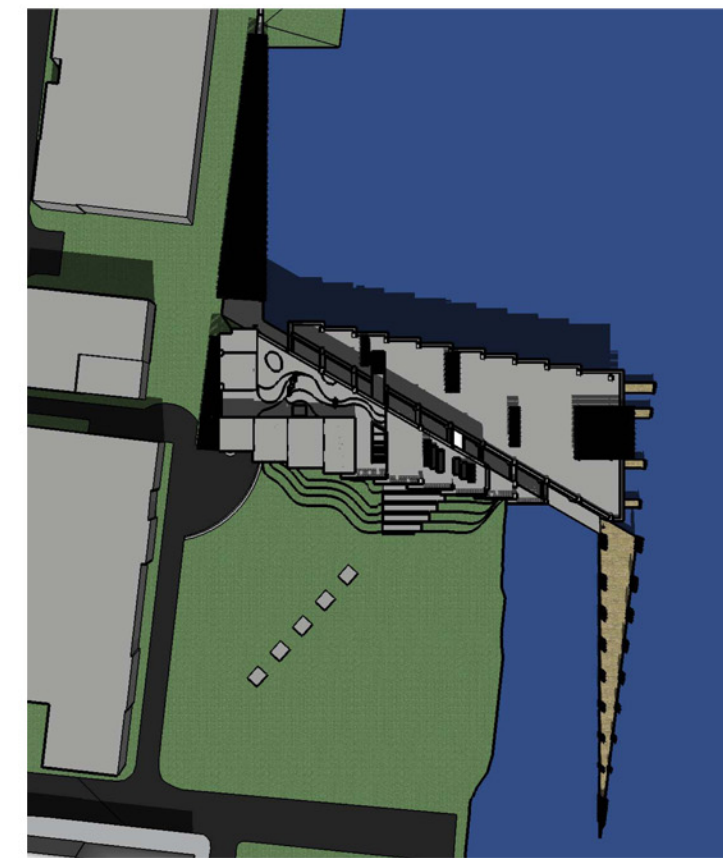
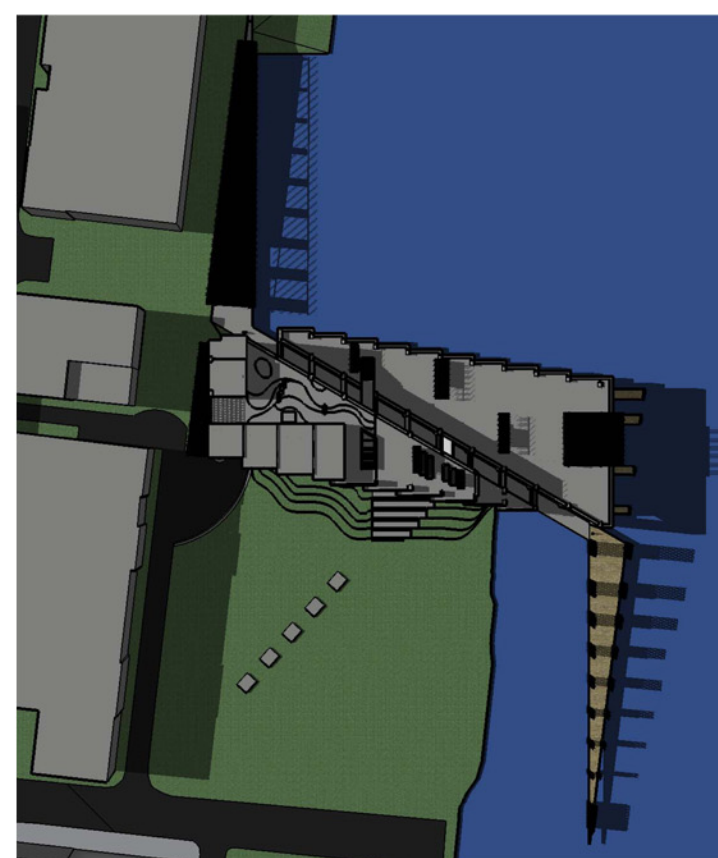
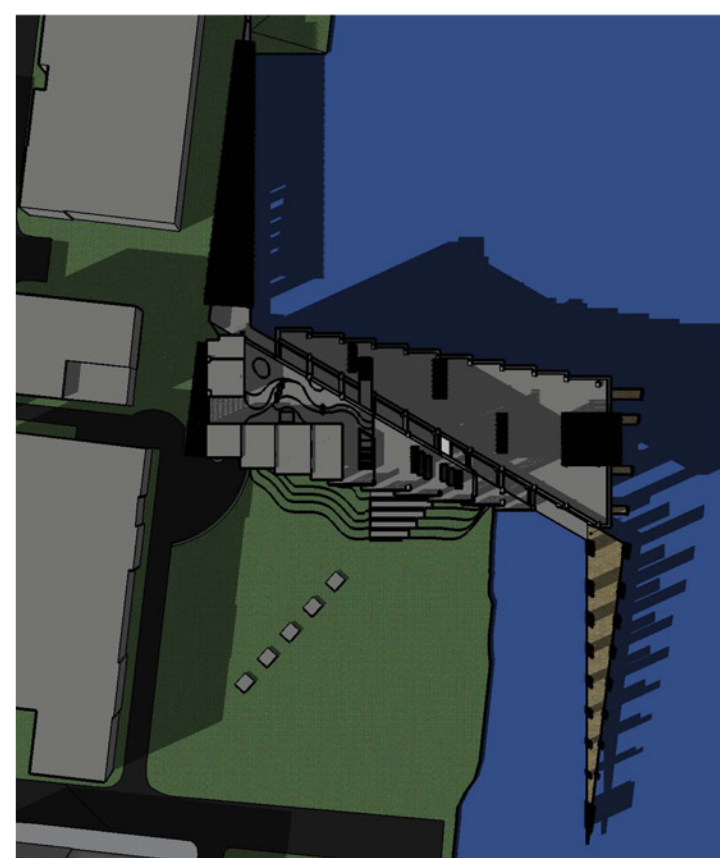
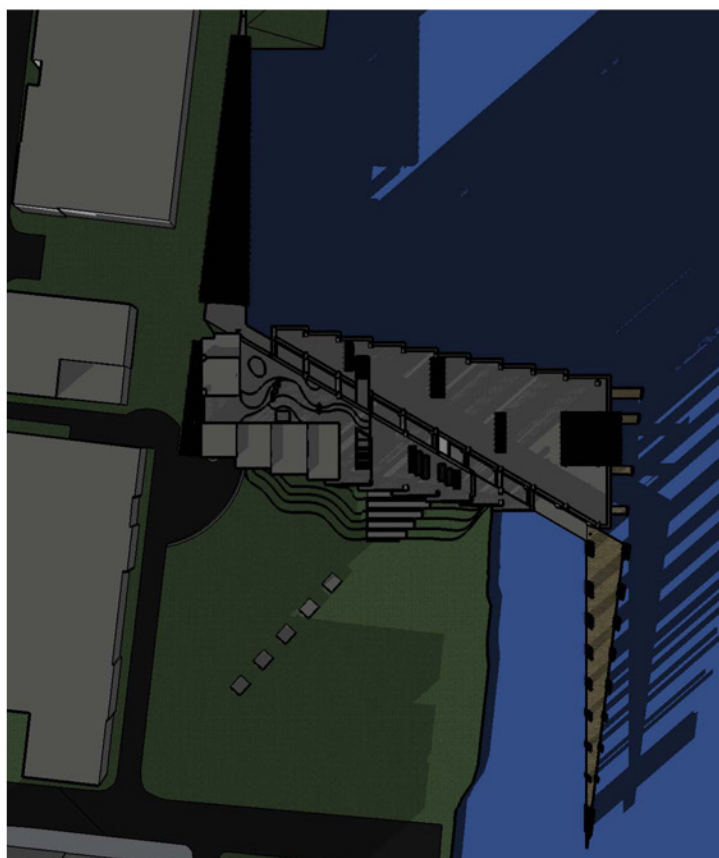
ALEXANDRIA SCULPTURE MUSEUM



MORNING
8:00 AM



NOON
12:00 PM



EVENING
5:00 PM

DECEMBER 21

MARCH 21

JUNE 21

SEPTEMBER 21

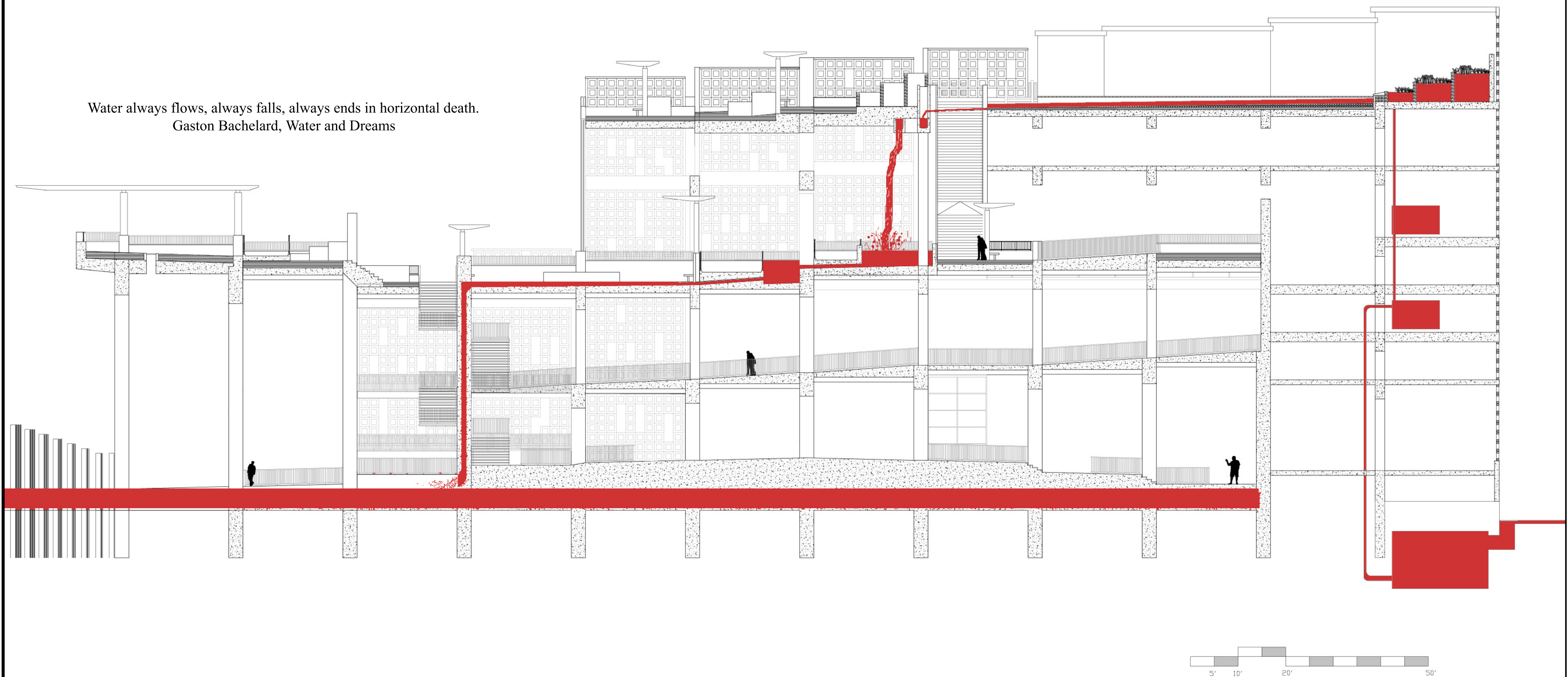
SHADOW STUDY OF FINAL BUILDING CONCEPT

ALEXANDRIA SCULPTURE MUSEUM



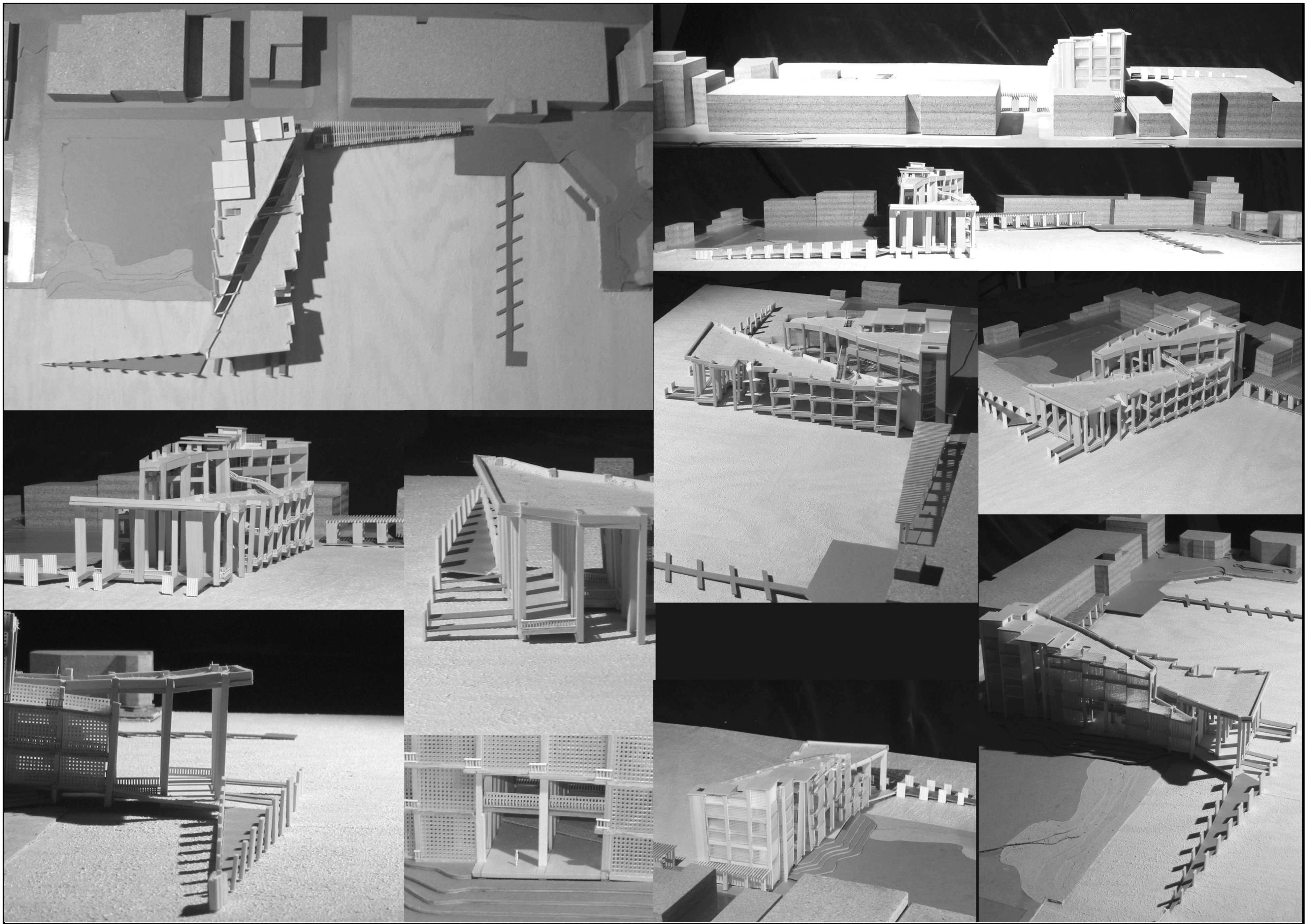
The main sections and key floorplan shows the path of the water from the street to the river. The water is captured in an underground storage tank and is pumped up to the roof through a series of smaller containers. Once the water reaches the roof it is filtered through a series of wetland terrace pools and begins to flow downwards back to the river. The water is captured and held in a series of pools before falling into the tidal pool and returning back to the river. This process allows the water to be returned to the river slower and cleaner than it would if it was just dumped back into the river through the storm drain system. In addition, some of the water is stored in order to maintain all of the plants on the roof and grounds of the project.

Water always flows, always falls, always ends in horizontal death.
Gaston Bachelard, Water and Dreams



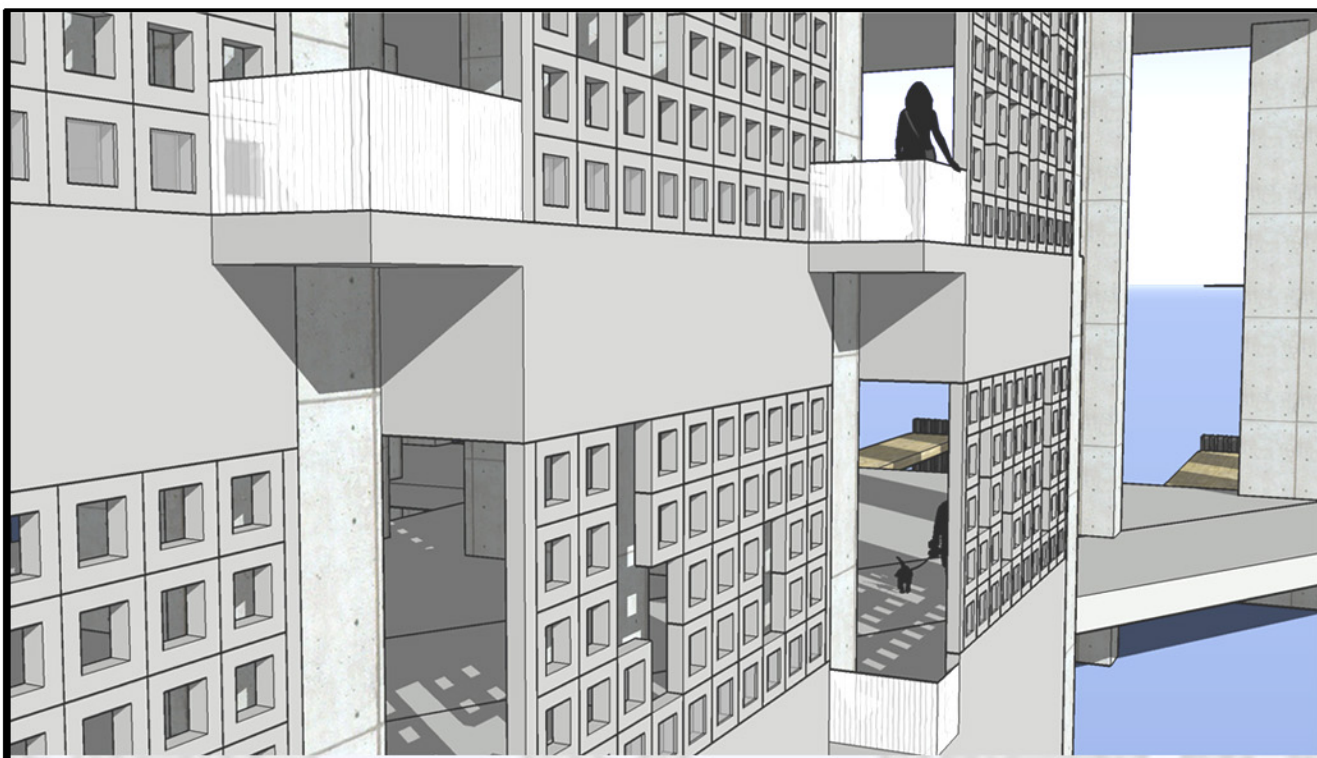
BUILDING SECTION - THE PATH OF THE WATER

ALEXANDRIA SCULPTURE MUSEUM



FINAL MODEL PHOTOGRAPHS

ALEXANDRIA SCULPTURE MUSEUM



EXTERIOR
PERSPECTIVE OF
BALCONIES

INTERIOR PERSPECTIVE
FROM LECTURE HALL
LEVEL OF OUTDOOR
SCULPTURE AREA



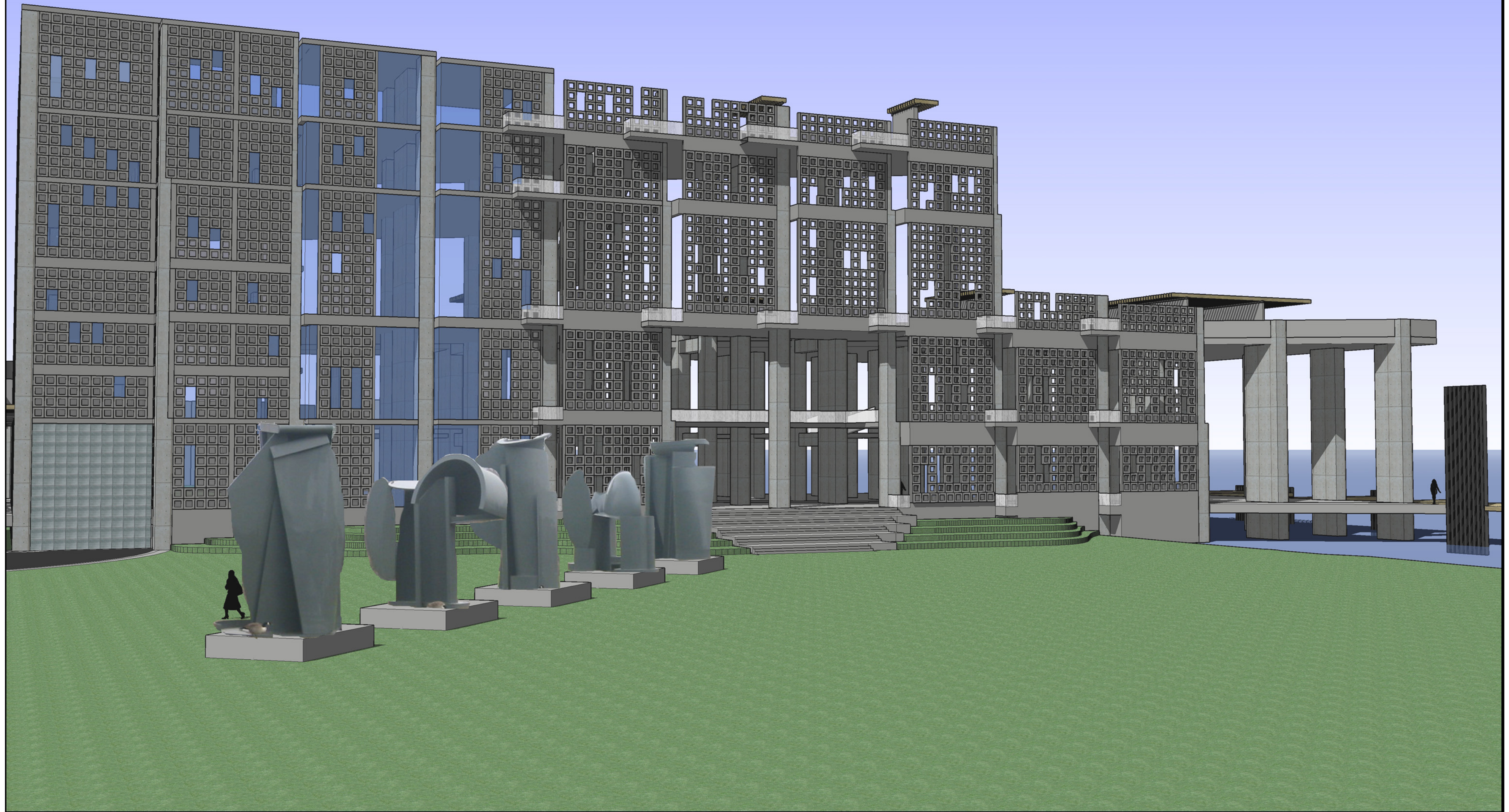
INTERIOR PERSPECTIVE
FROM EXHIBIT HALL
LEVEL OF OUTDOOR
SCULPTURE AREA

INTERIOR PERSPECTIVE FROM
MAIN PLAZA LEVEL ALONG
THE DIAGONAL AXIS



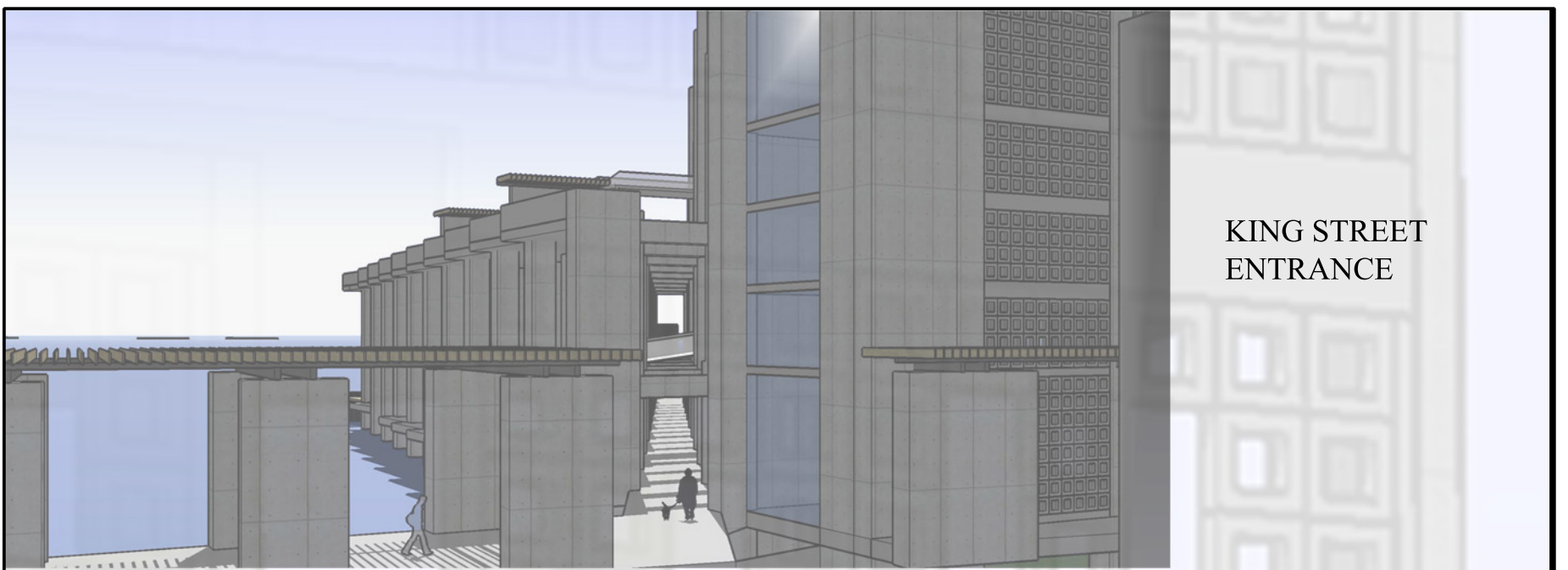
COMPUTER GENERATED PERSPECTIVES

ALEXANDRIA SCULPTURE MUSEUM

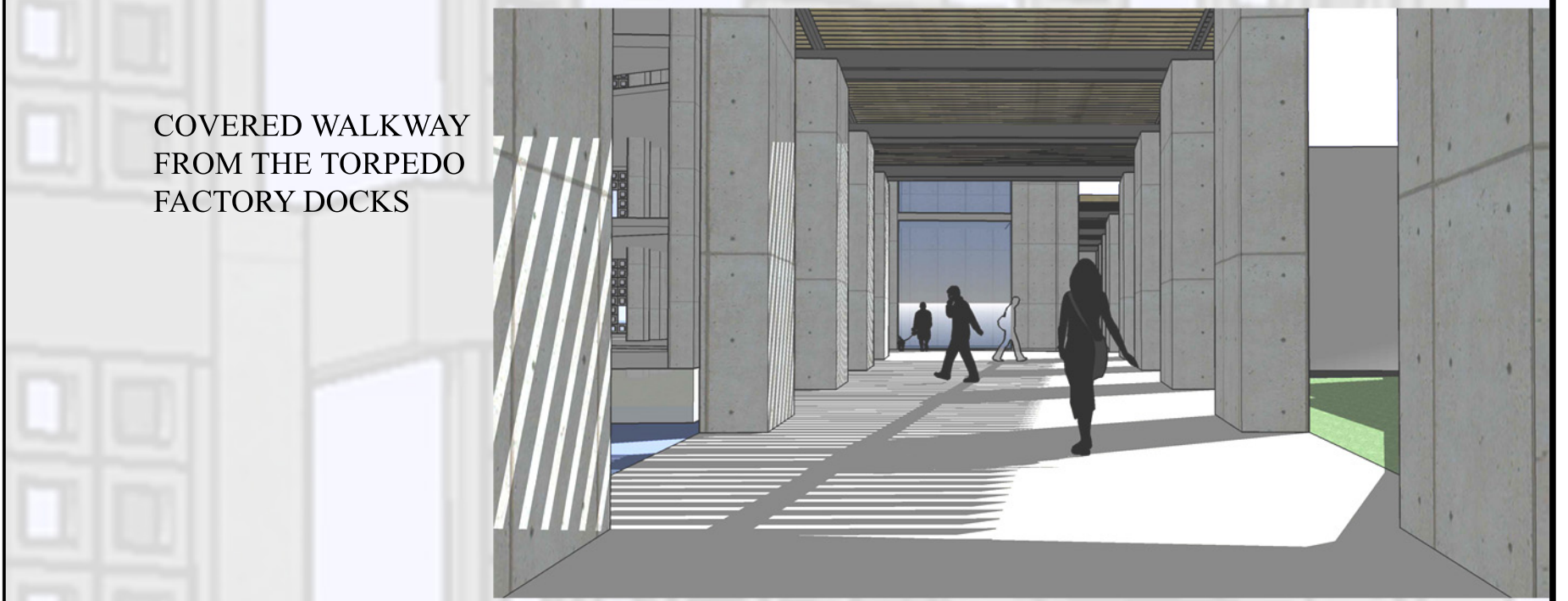


EXTERIOR COMPUTER GENERATED PERSPECTIVE SHOWING THE SOUTH SIDE OF THE BUILDING AND THE WATERFRONT PARK ENTRANCE
ANTHONY CARO SCULPTURES FROM THE PROMENADE COLLECTION IS SHOWN HERE

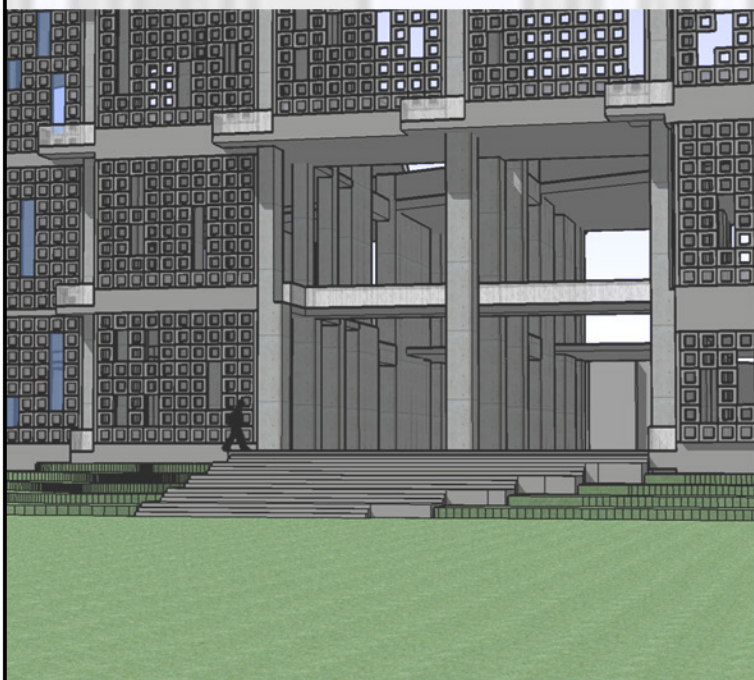
ALEXANDRIA SCULPTURE MUSEUM



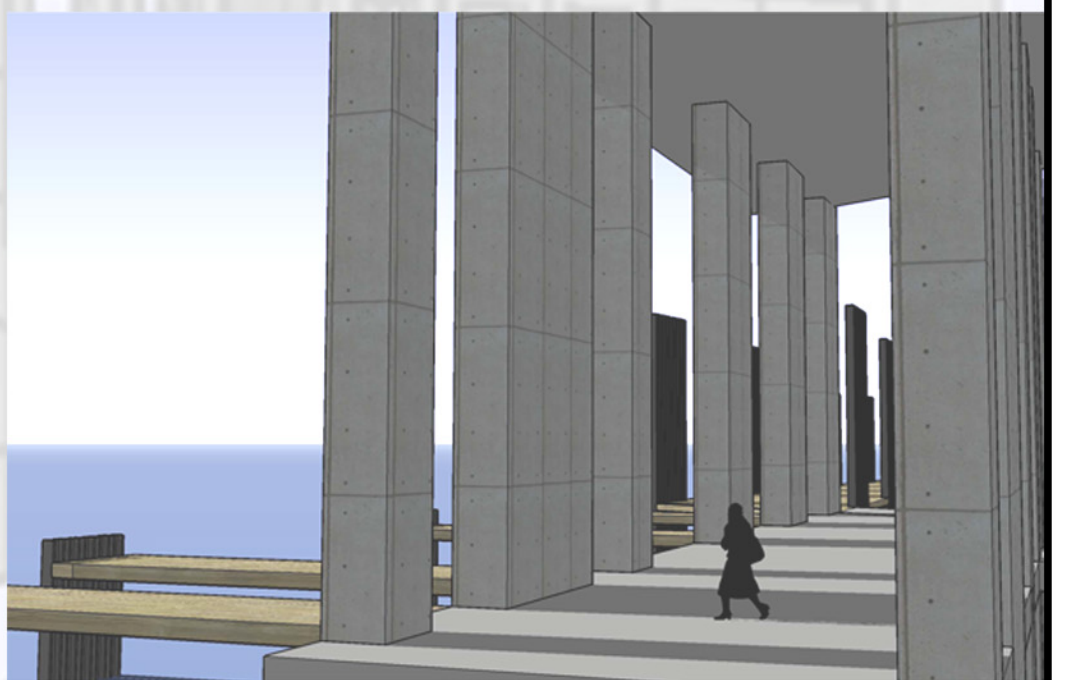
KING STREET
ENTRANCE



COVERED WALKWAY
FROM THE TORPEDO
FACTORY DOCKS



ENTRANCE FROM
WATERFRONT PARK

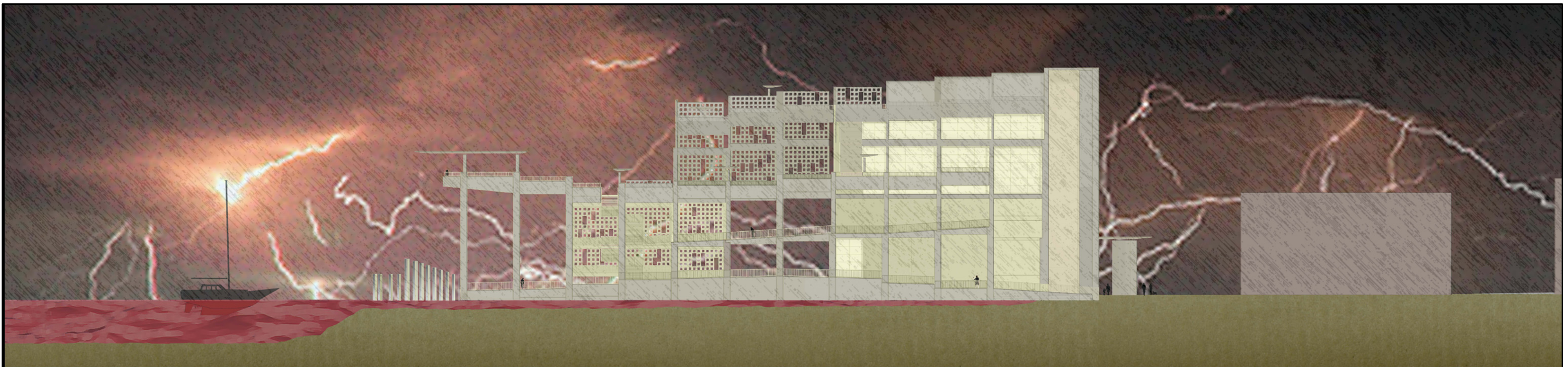


ABOVE IS A
VIEW OF THE
BOAT DOCKS
FROM THE
NORTH SIDE

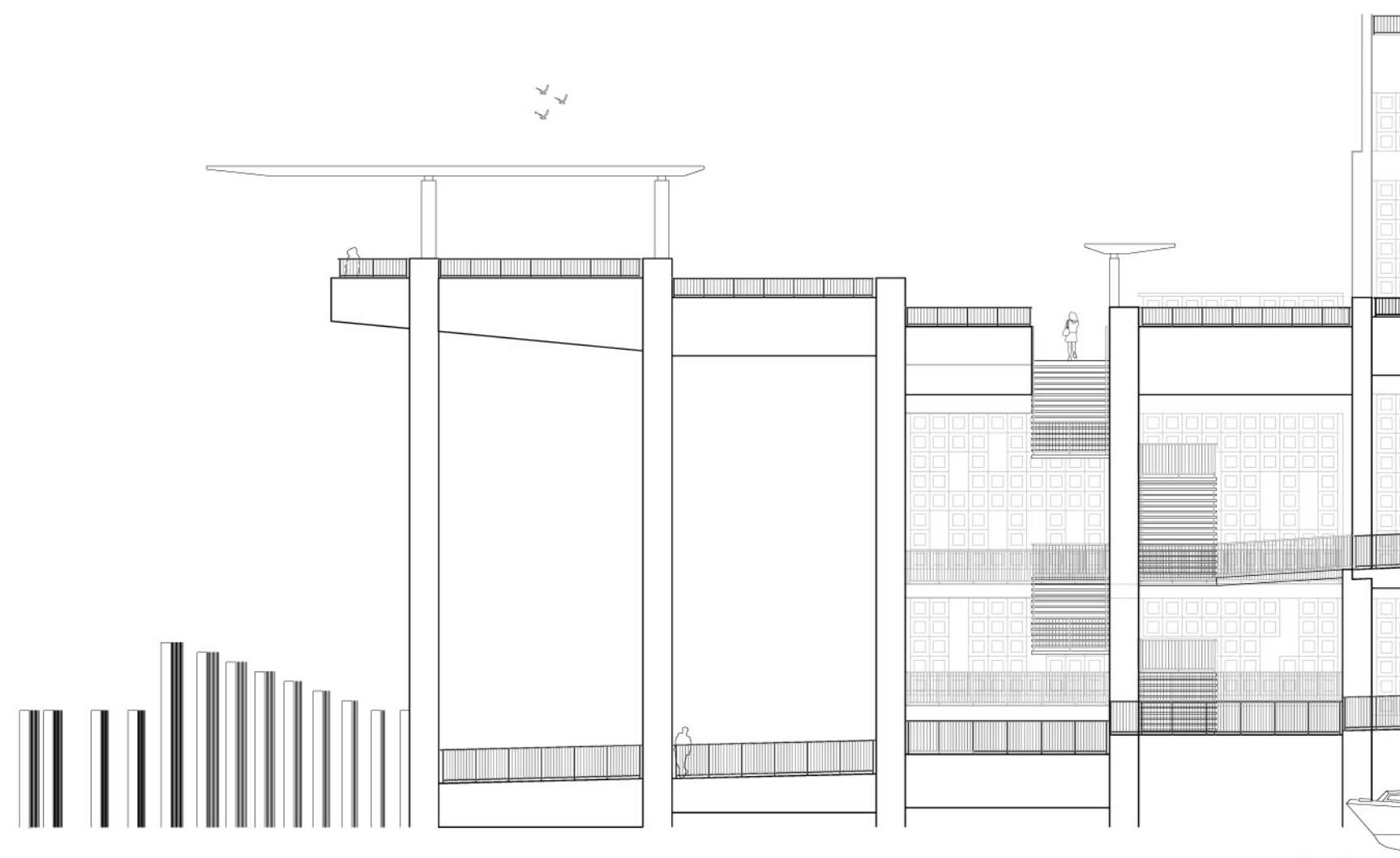


ENTRANCE FROM
THE BOAT DOCKS

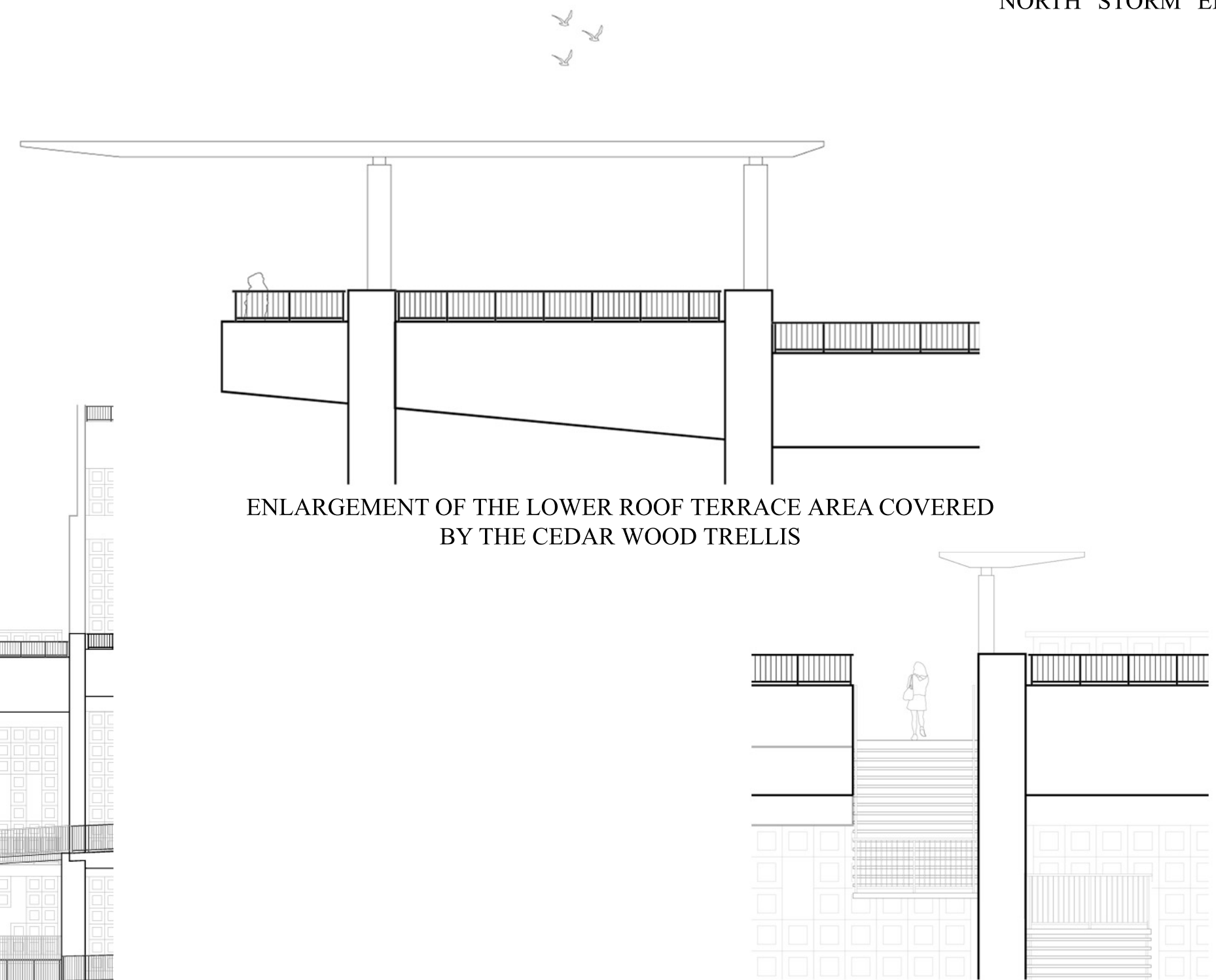
COMPUTER GENERATED EXTERIOR PERSPECTIVES
VIEW OF THE EXTERIOR ENTRANCES
ALEXANDRIA SCULPTURE MUSEUM



NORTH "STORM" ELEVATION



ENLARGEMENT OF THE NORTHEAST SIDE

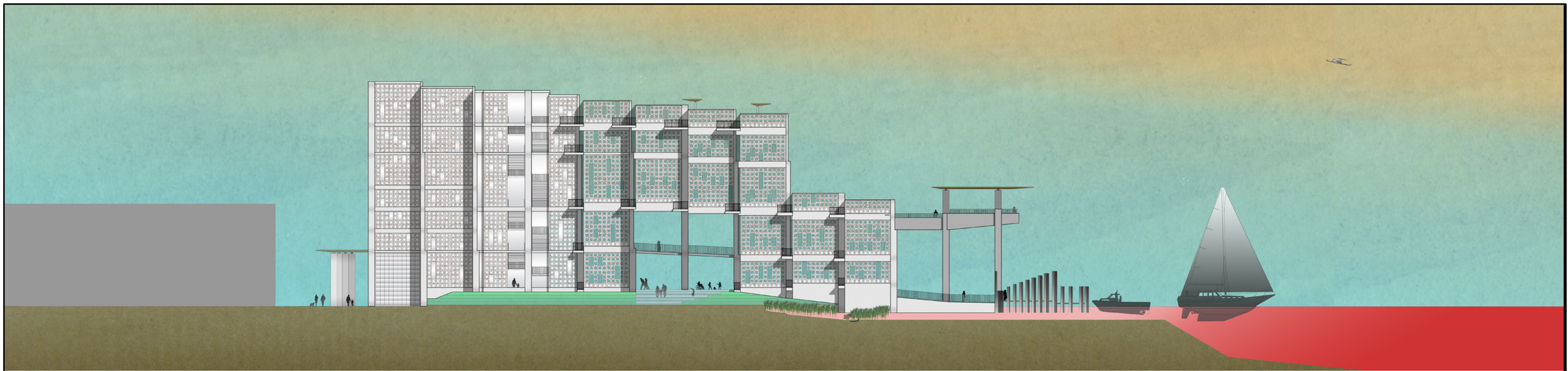


ENLARGEMENT OF THE LOWER ROOF TERRACE AREA COVERED BY THE CEDAR WOOD TRELLIS

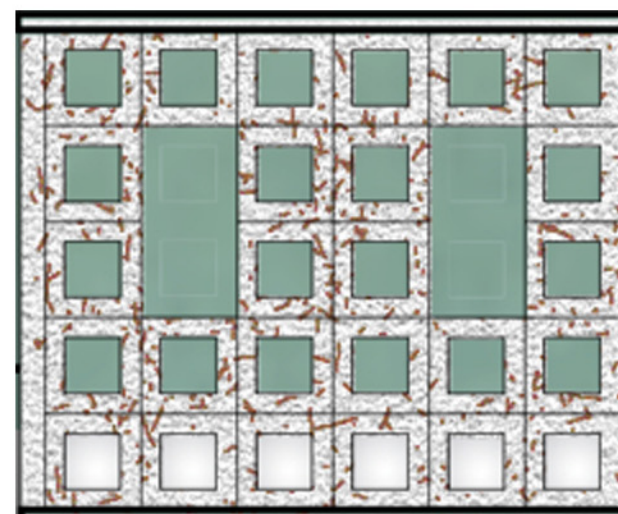
ENLARGEMENT OF THE EAST STAIRS ABOVE THE TIDAL POOL

NORTH ELEVATION

ALEXANDRIA SCULPTURE MUSEUM



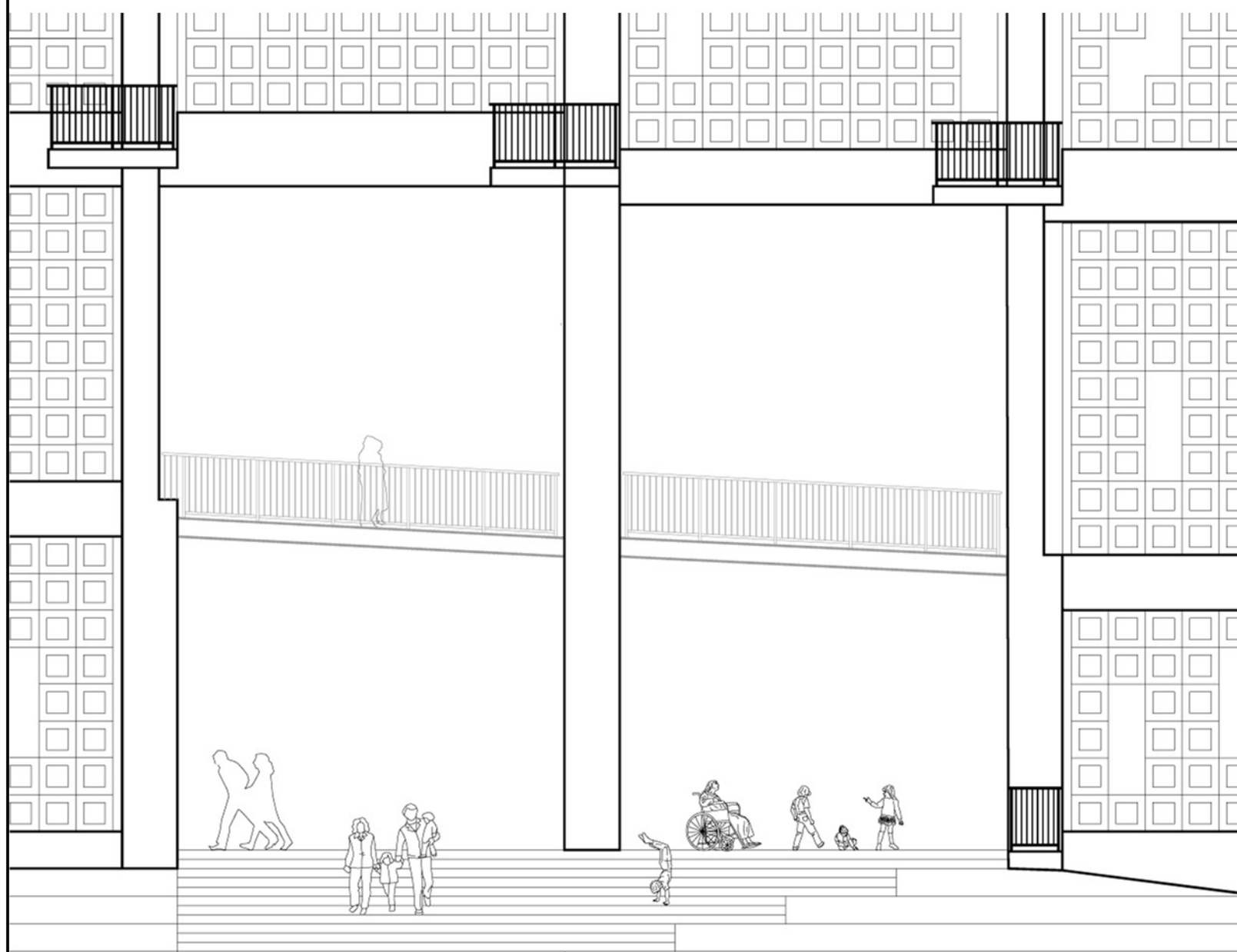
SOUTH ELEVATION



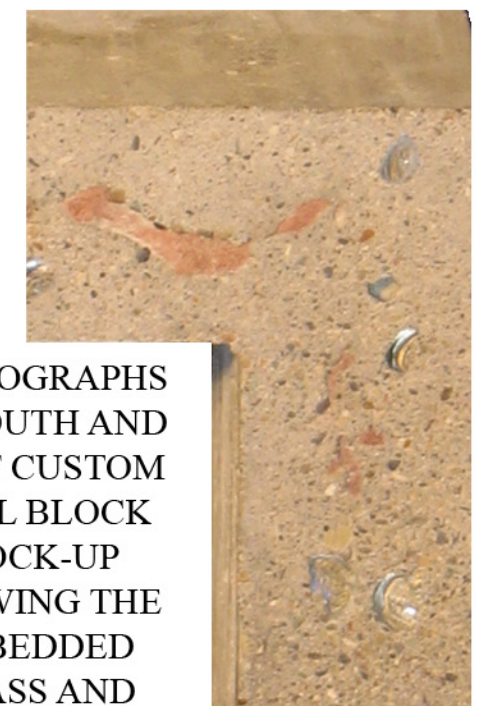
ENLARGEMENT OF THE OPEN VERSE GLASS FILLED BLOCKS. THE OPENED BLOCKS PROVIDE VENTILATION WHILE THE GLASS INFILLED BLOCKS PROTECTED THE ENCLOSED AREAS OF THE MUSEUM OF ACT AS WELL AS ACT AS THE BARRIER IN THE OPEN AREAS OF THE MUSEUM.



ENLARGEMENT OF UPPER BALCONY



ENLARGEMENT OF THE WATERFRONT ENTRANCE

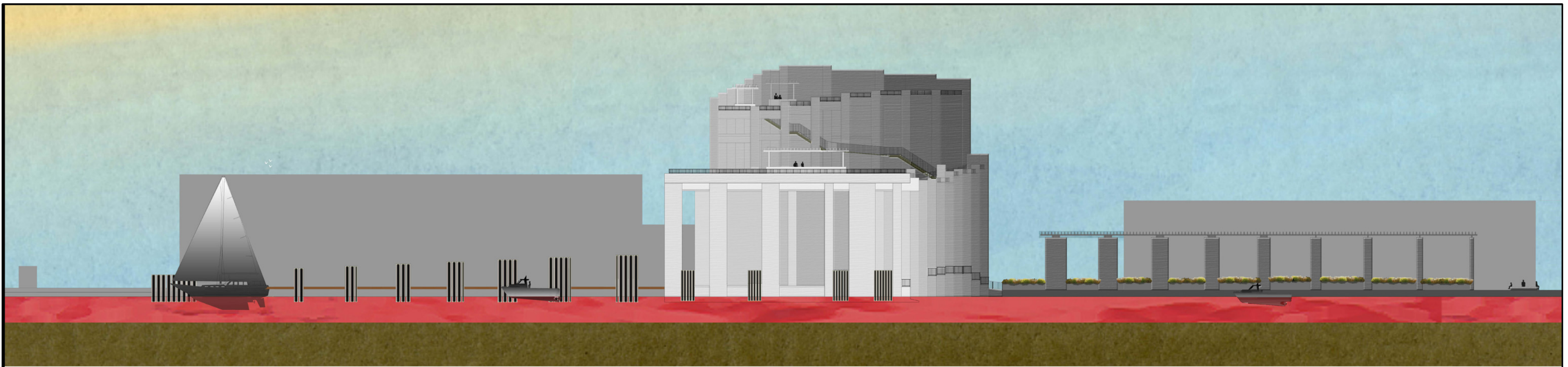


PHOTOGRAPHS OF SOUTH AND WEST CUSTOM WALL BLOCK MOCK-UP SHOWING THE IN-BEDDED GLASS AND RED LAVA ROCK

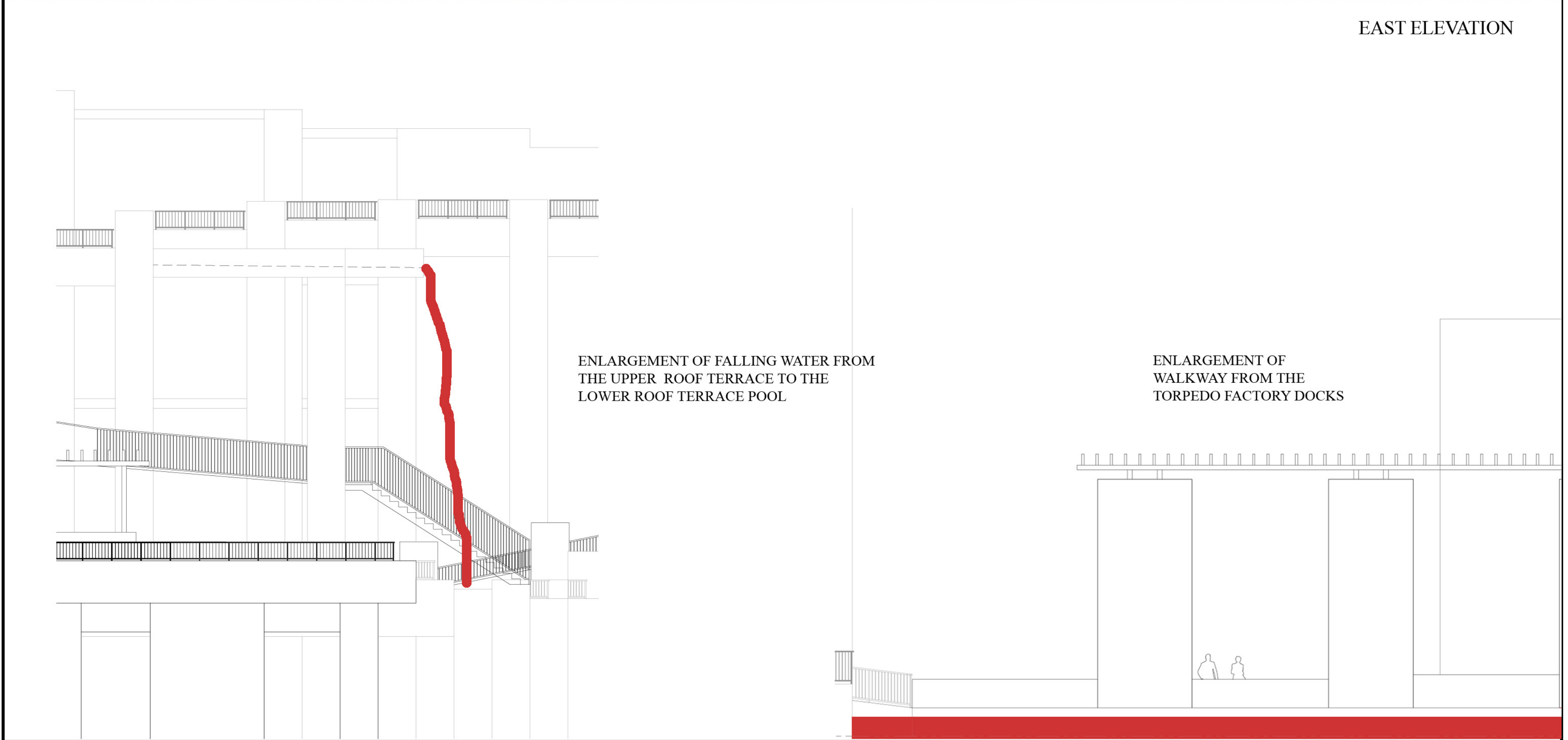


SOUTH ELEVATION

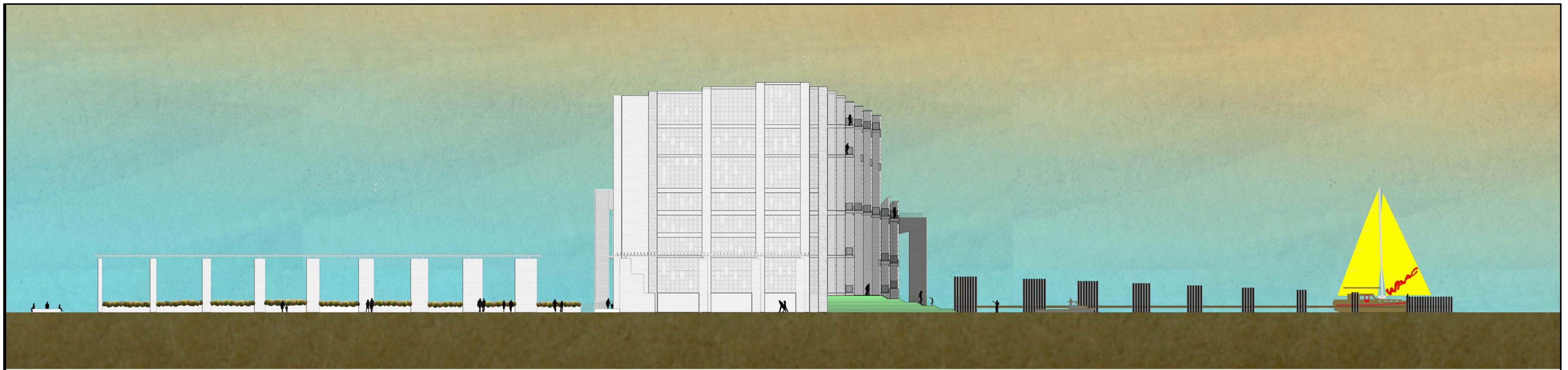
ALEXANDRIA SCULPTURE MUSEUM



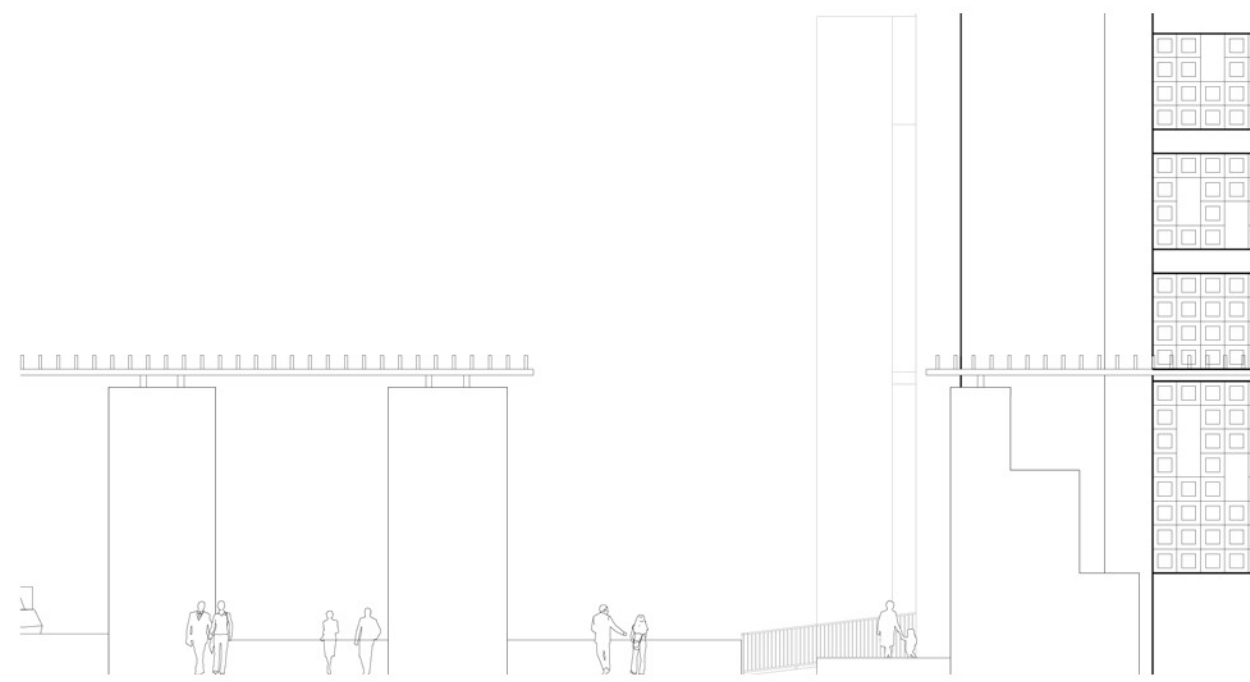
EAST ELEVATION



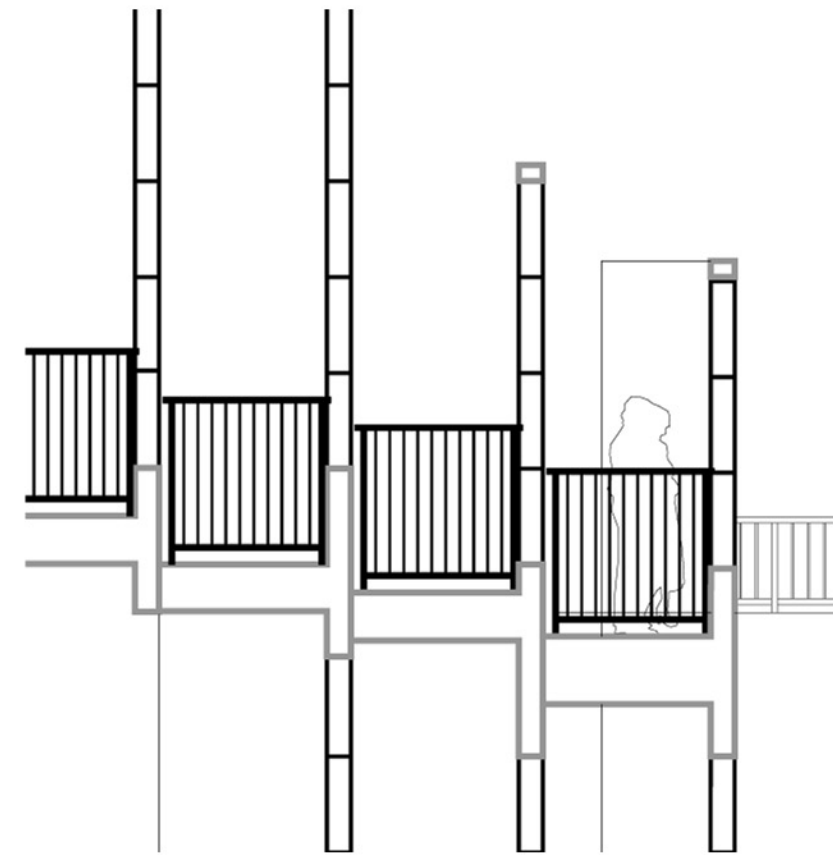
EAST ELEVATION



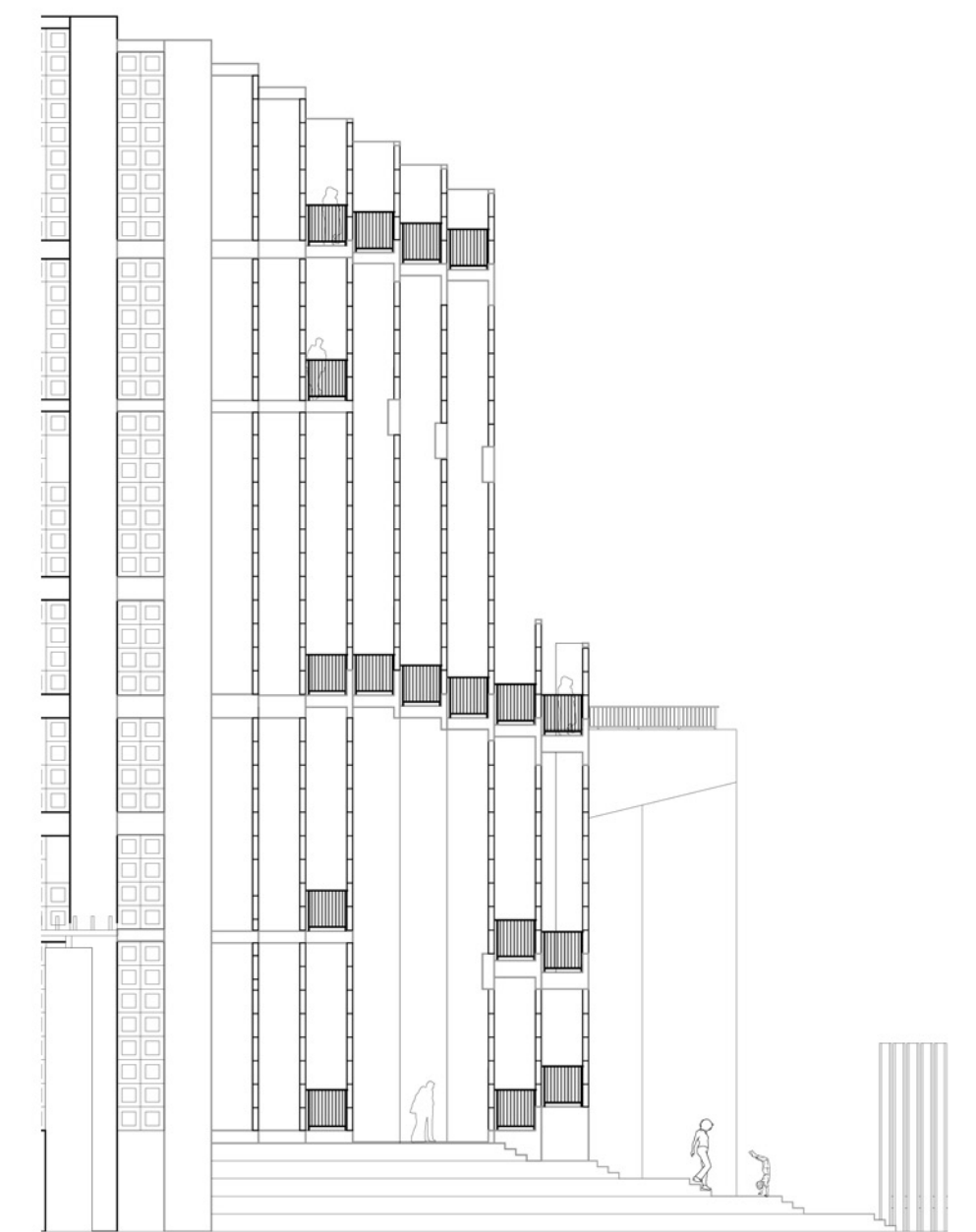
WEST ELEVATION



ENLARGEMENT OF KING STREET ENTRANCE



ENLARGEMENT OF BALCONIES



ENLARGEMENT OF SOUTHWEST SIDE

WEST ELEVATION

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I LOVE YOU ALL. THANK YOU FROM
THE DEPTHS OF MY HEART

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Photographs not noted are photographed by Joanne A Trumbo

