

AGENDA

THESIS - RESEARCH SUMMARY (APPROX. 5 MINS)

THESIS STATEMENT

UNDERSTANDING ADAPTIVE REUSE

HISTORY

SITE ANALYSIS

PRECEDENT STUDY

COMMUNITY ENGAGEMENT

MASTER PROGRAM AND MASTER PLAN

THESIS - DESIGN PROJECT (APPROX. 10 MINS)

BUBBLE DIAGRAM

PROGRAM

INSPIRATION AND CONCEPT

TEST FIT

SITE PLAN

FLOOR PLANS

SECTIONS

ELEVATIONS

DETAILS

PERSPECTIVES

CONTEXT

Kingston Penitentiary (KP) is a complex of building of significance for Canada, Ontario and the City of Kingston. After 178 years of operations, KP closed its doors in 2013.

THESIS STATEMENT

How can architecture transform while maintaining the significance of Kingston Penitentiary to the benefit Kingston and neighbourhouring communities?

THESIS OBJECTIVE

Through the adaptive reuse of KP, the intent is to propose a site development at a planning level (conclusion of research) and an adaptive reuse of one or more buildings at a schematic level.











UNDERSTANDING ADAPTIVE REUSE



JUXTAPOSITIONS

- 1. Preservation
- 2. Restauration
- 3. Rehabilitation



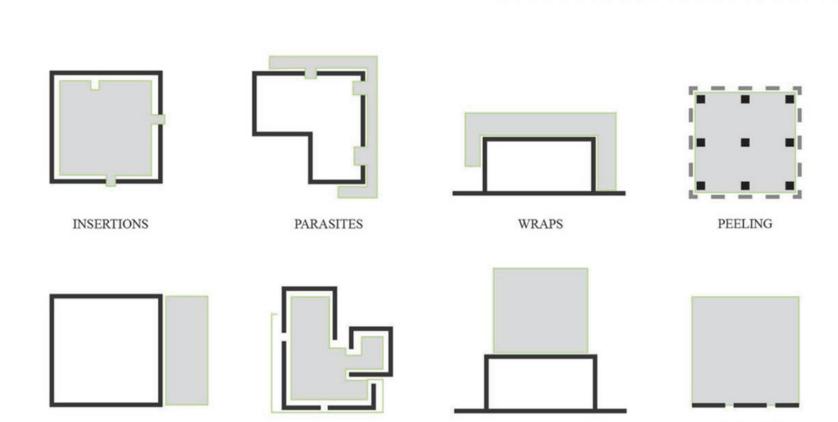
- a. Technical Approach
- b. Typological Approach

TRANSPLANTING

c. Strategic Approach

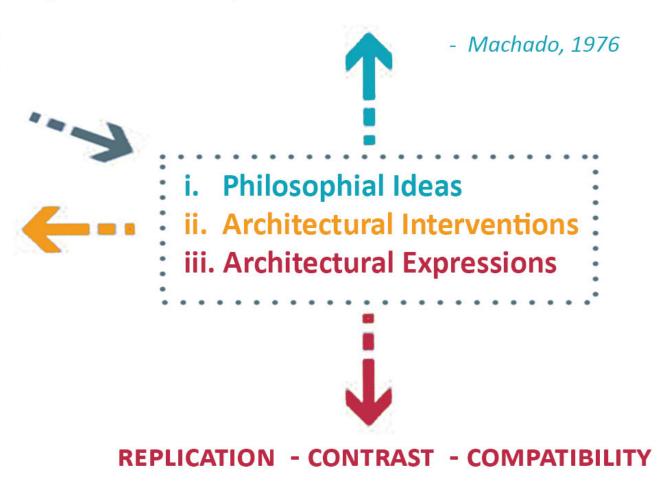
"In the process of remodelling, the past takes on a greater significances because, it, itself, is the material to be altered and reshaped. The past provides the already-written, the marked canvas on which each successive remodeling will find it's own place. Thus, the past becomes a package of sense, of built-up meaning to be accepted, trnasformed, or suppressed.

When the alterations in the building's content are of such a type that the building original or latest function is changed; then te building is refunctionalized, a different story is born, a new plot is composed out of the old words, a new interpretatio has taken place."



WEAVINGS

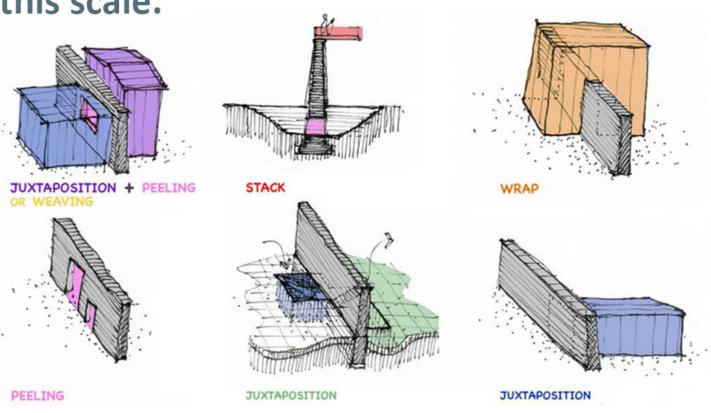
PARASITES-STACKS

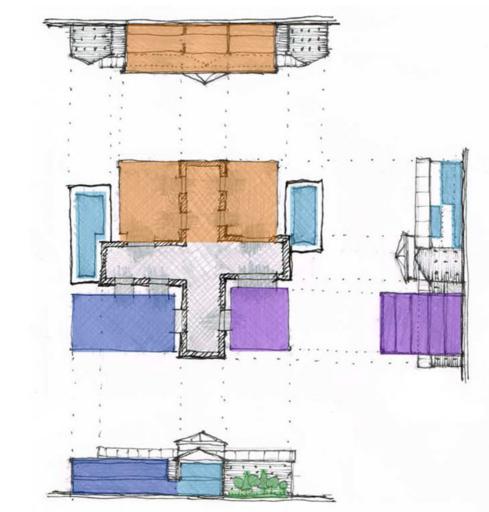


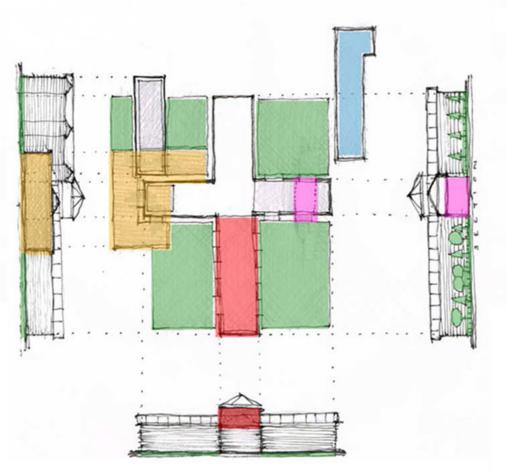
SUMMARY OF THESIS RESEARCH UNDERSTANDING ADAPTIVE REUSE Conclusion:

- KP, the host site, is composed of many heritage buildings which are at different stages of decay. The condition of each building as well as the group is to be considered as part of the adptive reuse.

- Many architectural interventions and expressions can be used within a project of this scale.







INSERTION + WRAP
INTERIOR RENOVATION,
NEW BUILD WRAPPING AROUND EXISTING WING.

INSERTION ONLY
INTERIOR RENOVATION,
BUILDING ENVELOPE REMAIN INTACT.

JUXTAPOSITION

NEW BUILDING,

HEIGHT GREATER THAN EXISTING;

INTERCONNECTION VIA ONE FLOOR, MANY FLOORS
OR EXTERIOR ONLY.

JUXTAPOSITION

NEW BUILDING,

HEIGHT BELOW EXISTING ROOF LINE,

INTERCONNECTION VIA ONE FLOOR, MANY FLOORS,

OR EXTERIOR ONLY.

JUXTAPOSITION

EXTERIOR DEVELOPMENT,

NEW OUTDOOR PROGRAMMING,

MAY INCLUDE TEMPORARY STRUCTURES.

WEAVING

INTEGRATING NEW BUILDING WITH EXISTING, INTERIOR RENOVATION, WEAVING INSIDE AND OUTSIDE WITH NEW.

PEELING

REMOVING ENVELOPE TO EXOPSE THE INSIDE, SIGNIFICANTLY PENATRATING THE ENVELOPE.

STACK

ADDING NEW FLOORS ONTO EXISTING WINGS.

STATUS QUO LEAVING BUILDING OR WINGS IN THEIR CURRENT STATE.

HISTORY

This section studied KP's history, starting from 1779, when the Britain passed the Penitentiary Act to today.

Conclusion:

- Water played an integral role in KP's history:
 - it allowed for construction: quarry, transport
 - it was essential for health: agriculture, drinking water
 - it served as a natural defense

- KP was built over time by many architects and builders, and had multiple changes of use within the correctinal realm, which demonstrates the ability of KP to be the subject of transformation.



SITE ANALYSIS

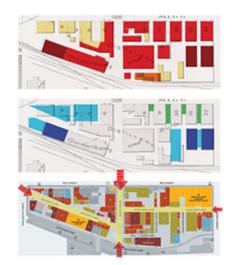
This section included the study of KP's geography, demography, zoning and neighbouring context, topography, site development and circulation, buildings and walls architectural analysis.



Conclusion:

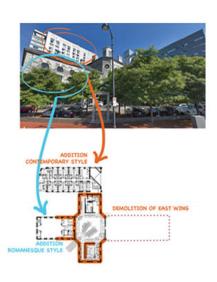
- The adaptive reuse of KP will provide an opportunity to better connect and enjoy the waterfront.
- The number of buildings can be reduced only retaining buildings with heritage value, improving site circulation and increase landscaped and planted area.
- The relationship between existing buildings, the perimeter walls and the spaces outside the wall (waterfront) become of interest as it offers tremendous potential in architectural interventions.

PRECEDENT STUDY



1. Distillery District, Toronto, Canada

The concept of a programmatic theme, considering past and current uses bring economic viability and increase the chance of success for the adaptive reuse of a specific site.



2. Liberty Hotel, Boston, USA

Within one adaptavie reuse project, different approaches can be take such as replicating and constrating with the original.





3. Maritime Museum, Helsingor, Denmark

The marimite history of Kingston and Helsingor castle and shipyard are of similar nature. The adaptive reuse into a maritime musuem explores the subject of water and shipyard past history.

COMMUNITY ENGAGEMENT AND VISIONING

This section looked into the community engagement and visioning exercises led by the City of Kingston and Canada Land Company.



Conclusion:

- Reoccurring themes from surveys: water, culture and arts, restaurants and shops, nature.
- Reoccuring elements from the four visioning master plans:
 - 1. continuous water's edge promenade;
 - 2. range of uses including tourism, culture, commercial and institutional;
 - 3. passive and active recreational uses;
 - 4. green spaces;
 - 5. maritime amenities to be maintained or enhanced;
 - 6. Search and Rescue to remain on site.









CONCLUSION OF THESIS RESEARCH

MASTER PROGRAM AND MASTER PLAN

Based on all the studies done during the research, a reoccurring theme surfaced: WATER, which will be the theme and interconnecting element of the adaptive reuse.

The master program was informed by the findings of the community engagement, embracing the idea of self-sufficiency (as KP was through its history) and the idea of having one developper managing the site: the International Joint Commission.

- INTERPRETATION / INFORMATION CENTRE
- EVENT FACILY, GROUNDS FACILITY
- EVENT SPACES, PARK
- GARDENS AND ARBORETUM
- 6 HOTEL / CONVENTION CENTRE
- OUTDOOR RECEPTION AREA
 POTENTIAL AREA FOR NEW BUILT
- 6 FOOD AND DRINKS, SHOPS AND BOUTIQUES
- ENTREPREUNEURIAL / INCUBATOR SPACES

- 8 BOAT REPAIR SHOP
- 9 RESEARCH LABS (IJC)
- INTERNATIONAL JOINT COMMISSION OFFICES
- DICOVERY CENTRE AND MUSEUM OF THE ST.
- OUTDOOR CENTRE / MUSEAL SPACE
- SEARCH AND RESCUE KINGSTON, COAST GUARD
- VESSELS DOCKING
 RESEARCH AND COAST GUA
- 14 SAILING TRAINING FACILITY

- TRANSIT STATION
- 16 PUBLIC PARKING
- PARKING HOTEL
- 18 OUTDOOR RECREATION SHOP
- WATERFRONT PATH





















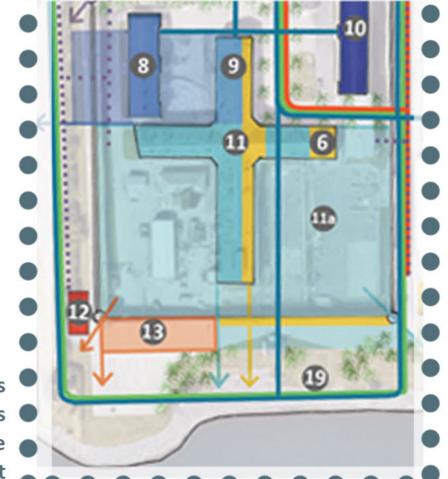
ADAPTIVE REUSE OF THE MAIN WORKSHOP AREA

As mentioned in the research, the design of this project will focus on one part of the site due to its size.

The area chosen is the southernmost part of the site: from the main workshop building to the water edge.

The design of the discovery centre, including other adjacent program elements will address the relationship between the lake, the shore, the wall and the heritage buildings.

As water is a core link between the site, the city, the history, the concept of permeance will inform the design and is of interest for the program and design of the discovery centre.



6 - Restaurants/shops 9 - IJC Research Labs 11 - Discovery Centre 19 - Waterfront

THESIS DESIGN PROJECT PROGRAM

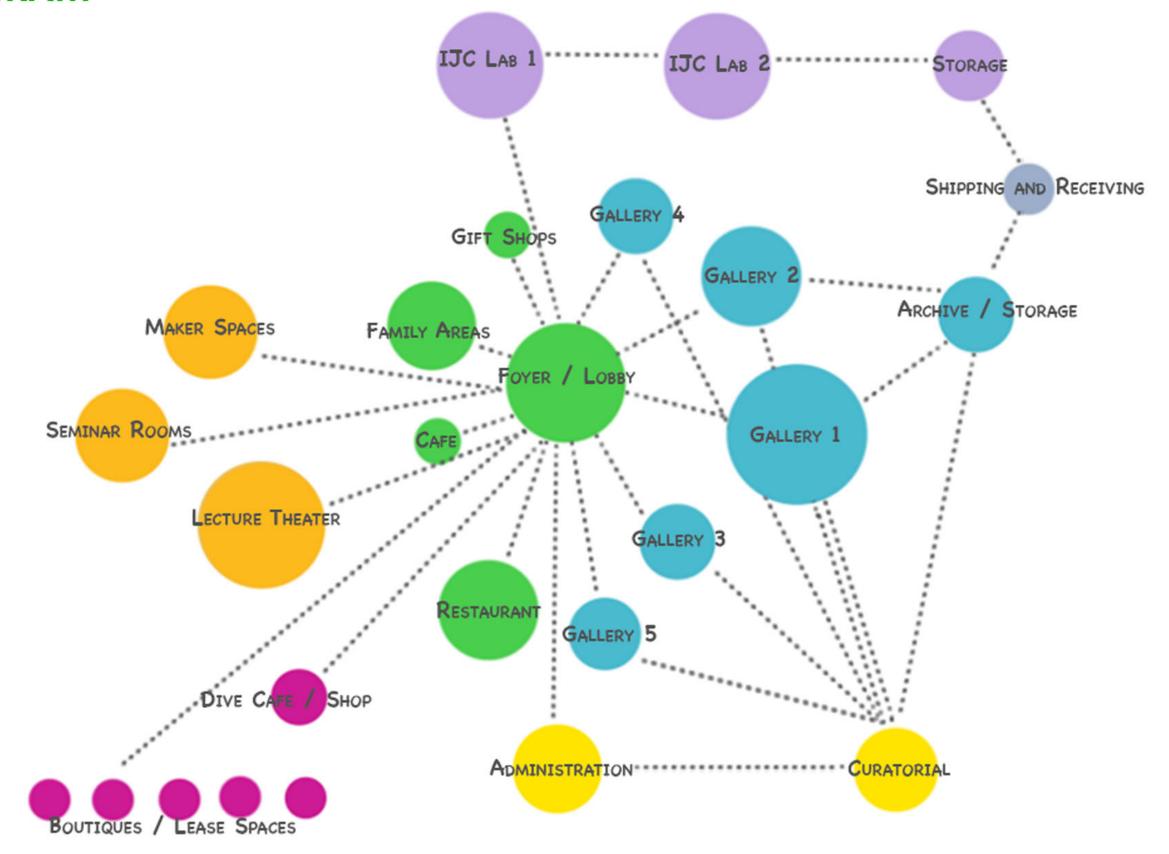
			Interior Program Exterior Pro	gram
Department	Program #	Space Name	Area (m2) Area (m2)	Comments
A - Visitor Experience				
1. Lobby	A.1.1	Foyer	300	
	A.1.2	Reception/Information Counter	40	
	A.1.3	Visitor/Service Office	60	
	A.1.4	Family/Kid Area	100	
2. Public Amenities	A.2.1	Restrooms		in gross up factor
	A.2.2	Cloak Room	25	
3. Discovery Center Retail	A.3.1	Gift Shops	150	
	A.3.2	Storage	50	
	A.3.3	Store office (manager)	20	
4. Food and Beverages	A.4.1	Café bar with a few tables	120	
	A.4.2	Café/office	10	
	A.4.3	Restaurant/seating	180	72 capacity: 100 + 40; at 1.8 m2 /person for dining setting
	A.4.4	Restaurant/kitchen	100	72 capacity. 100 : 40, at 1.0 mz / person for anning setting
	A.4.5	Restaurant/office	15	
	A.4.6	Restaurant Staff Room	30	
		Restaurant Restrooms	30	in grace up factor
	A.4.7			in gross up factor
D. E. Hilbinson		subtot	al 1200	Coloure and Countries
B - Exhibition		C-111	500	St.Lawrence and Great Lakes
Permanent Galleries	B.1.1	Gallery 1	600	2000 Vessels and underwater archaeology
	B.1.2	Gallery 2	350	Fish, animal and bird
	B.1.3	Gallery 3 (experimental)	350	Water cycle and energy generation
	B.1.4	Gallery 4	200	Maps + kid map making area
	B.1.5	Gallery 5	200	
	B.1.6	Archive	100	
	B.1.7	Shop	200	
2. Public Amenities	B.2.1	Restrooms		in gross up factor
		subtot	al 2000	
C - Research				
1. IJC Laboratories	C.1.1	Lab 1	200	
	C.1.2	Lab 2	200	
	C.1.3	Catwalk (public)		
	C.1.4	Offices (x3)	30	
	C.1.5	Meeting Room (10 people)	20	
	C1.6	Storage/Support	50	
2. Private Amenities	C.2.1	Restrooms		
2. Filvate Amenities	C.Z.I	subtot		
D - Education		Subtot	300	
Lecture Theater	D.1.1	Seating Area	180	
	D.1.1 D.1.2	Seating Area	50	
		Main Stage		
	D.1.3	Vestibule	15	
2. Multi-Purpose Room	D.2.1	Seminar room - 40 people	80	
	D.2.2	Seminar room - 40 people	80	
	D.2.3	Seminar room - 20 people	40	
3. Innovation Space	D.3.1	Maker space 1 (adults)	100	

			Interior Program	Exterior Program	
Department	Program #	Space Name	Area (m2)	Area (m2)	Comments
Separament	D.3.2	Maker space 2 (kids)	100		Commence
4. Sailing School	D.4.1	Sailing space	150		use of watch tower + bleachers on wave
. Saming School	0.4.1	subtotal			use of watch tower + bleachers on wave
- Administration		Subtotal	755		
L. Administration	E.1.1	Dir. Office - CEO	15		
. Administration	E.1.2	Dir. Office - CFO	15		
	E.1.3	Office 1	10		
	E.1.4	Office 2	10		
	E.1.5	Office 3	10		
	E.1.6	Admin Assistant	8		
2 Curatorial	E.2.1	Curator office 1	10		
2. Curatorial	E.2.2	Curator office 2	10		
	E.2.3	Technician office 1	10		
Cupport	E.2.4 E.3.1	Technican office 2 Boardroom (12 people)	10 24		
3. Support					
	E.3.1	Staff Lounge, kitchennette	30		
Pautigus / Leass spaces		subtotal	162		
- Boutique / Lease spaces	5.4.4	Direction of the second	120	and the stand	
. Dive Shop and café	F.1.1	Dive Shop	120		under water museum
	F.1.2	Café / underwater viewing	120		
	F.1.3	Office	10		
	F.1.4	Restroom			in gross up factor
2. Boutique / lease spaces	F.2.1	block 1	100		
	F.2.2	block 2	100		
	F.2.3	block 3	100		
	F.2.4	block 4	150		
	F.2.5	block 5	150		
		subtotal	850	i.	
6 - Operation / Building Support	and the same				
1. Offices	G.1.1	Dir. Facilities Office	15		
	G.1.2	Technical staff office (for 2)	20		
	G.1.3	Security Office	20		
2. Services	G.2.1	AV workrooms/storage	30		
	G.2.2	IT rooms	12		
	G.2.3	Sprinkler Room	6		
	G.2.4	Electrical Room			in gross up factor
	G.2.5	Mechanical Room			in gross up factor
	G.2.6	Loading, Shipping and Receiving	30		
	G.2.7	Waste Collection Room	30		
		subtotal	108		
		net area	11285	m ²	
		gross factor			
		gross factor	1.4		

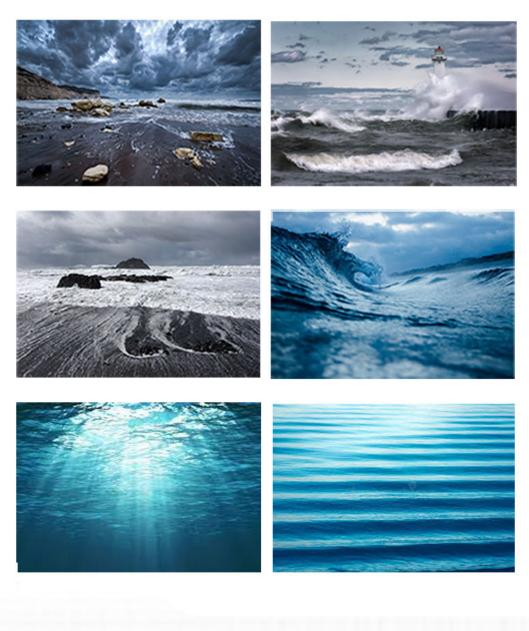
15799 m2

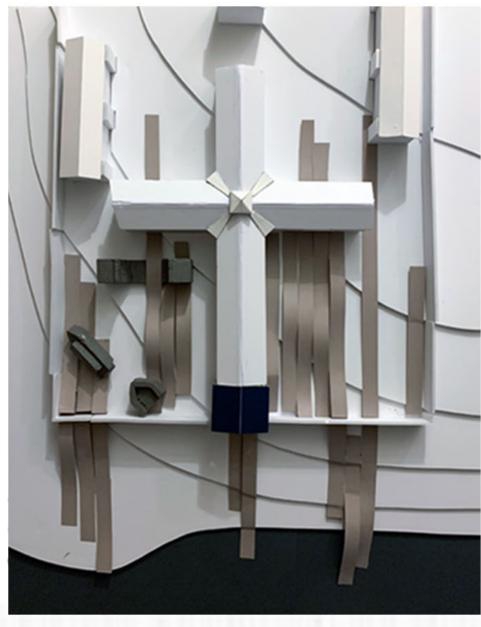
gross area

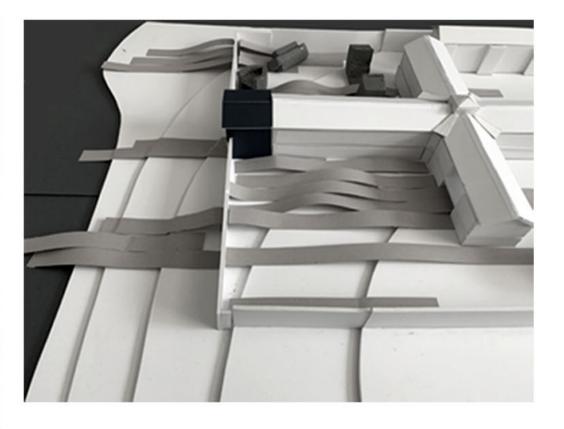
BUBBLE DIAGRAM



INSPIRATION AND CONCEPT IDEA

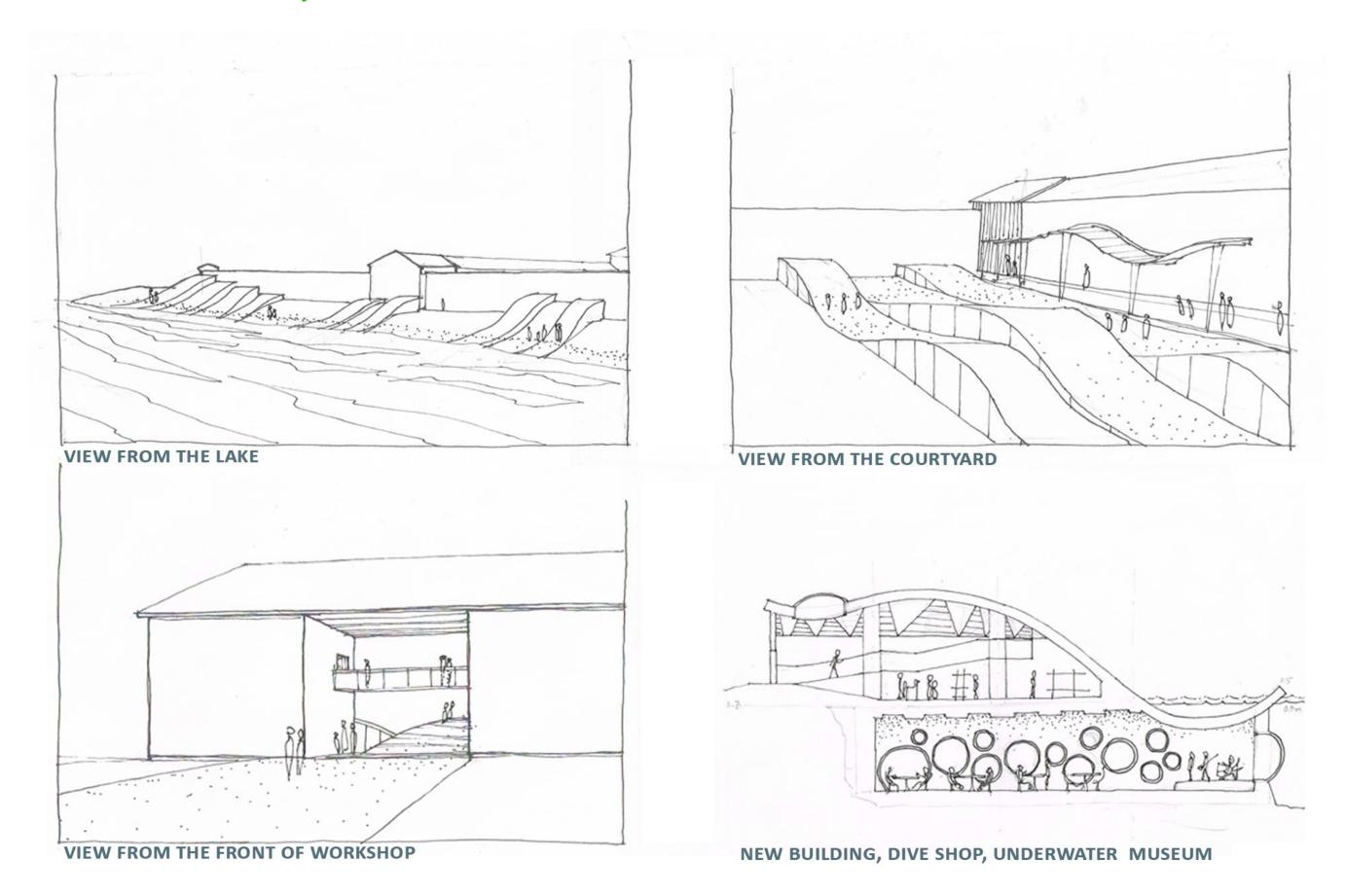




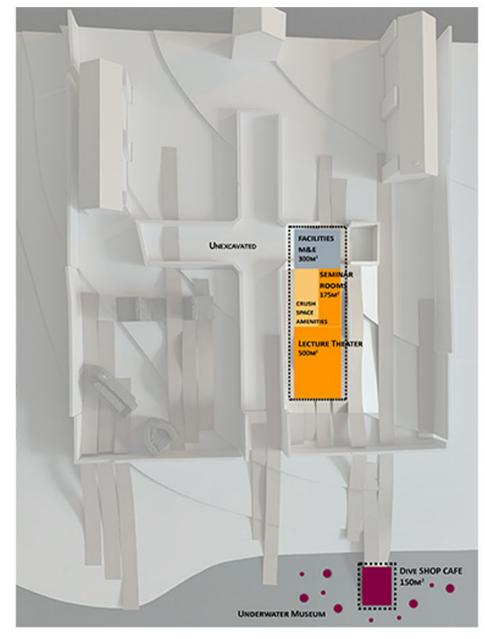




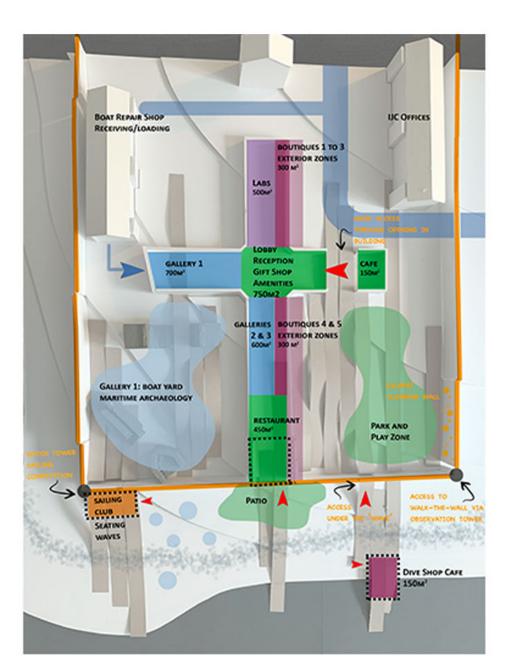
CONCEPT IDEA, PRELIMINARY SKETCHES



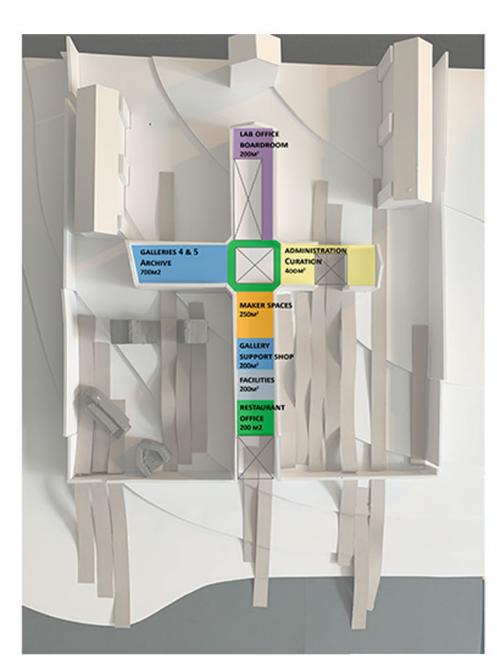
PROGRAM - TEST FIT







LEVEL L1

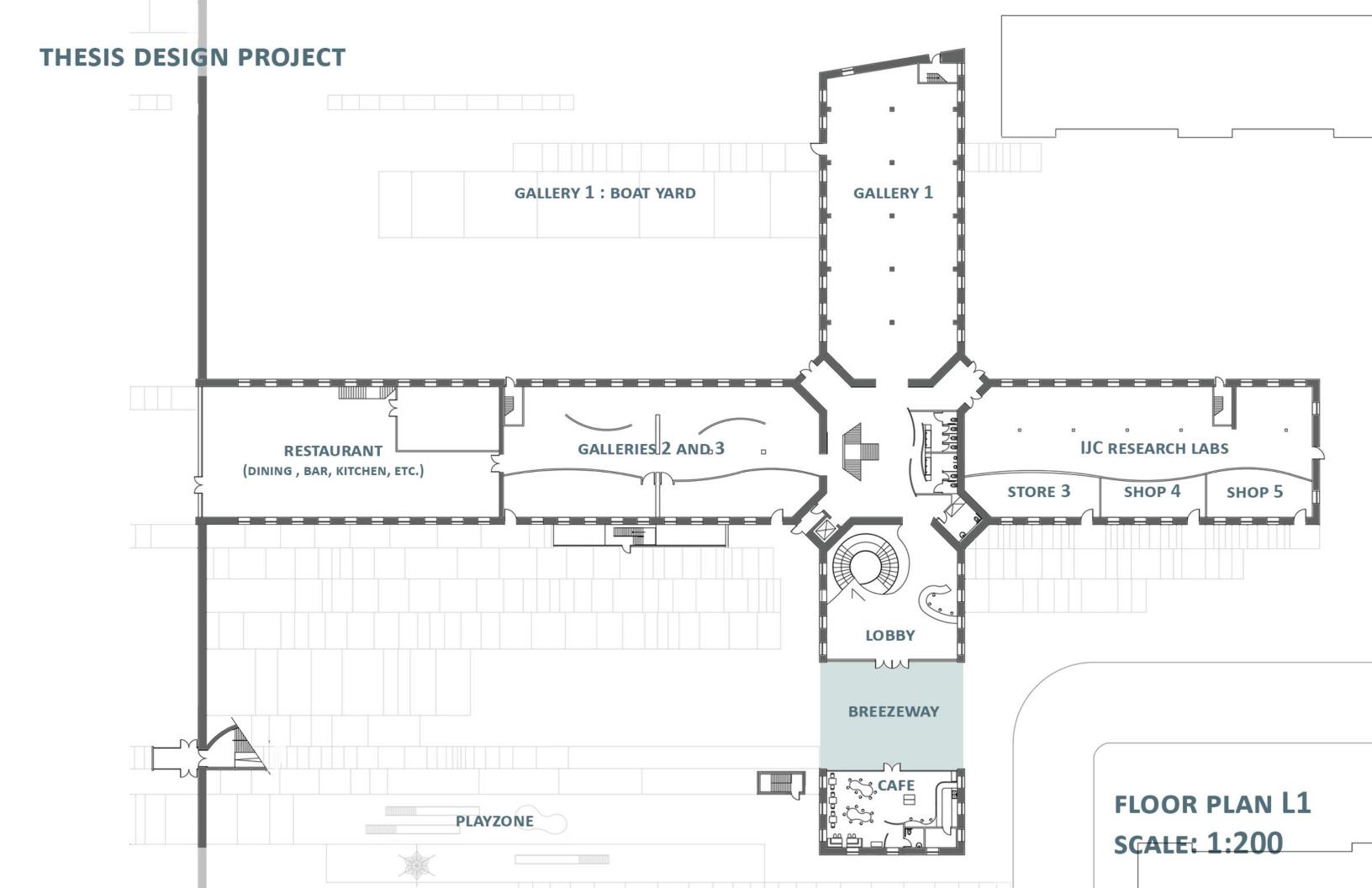


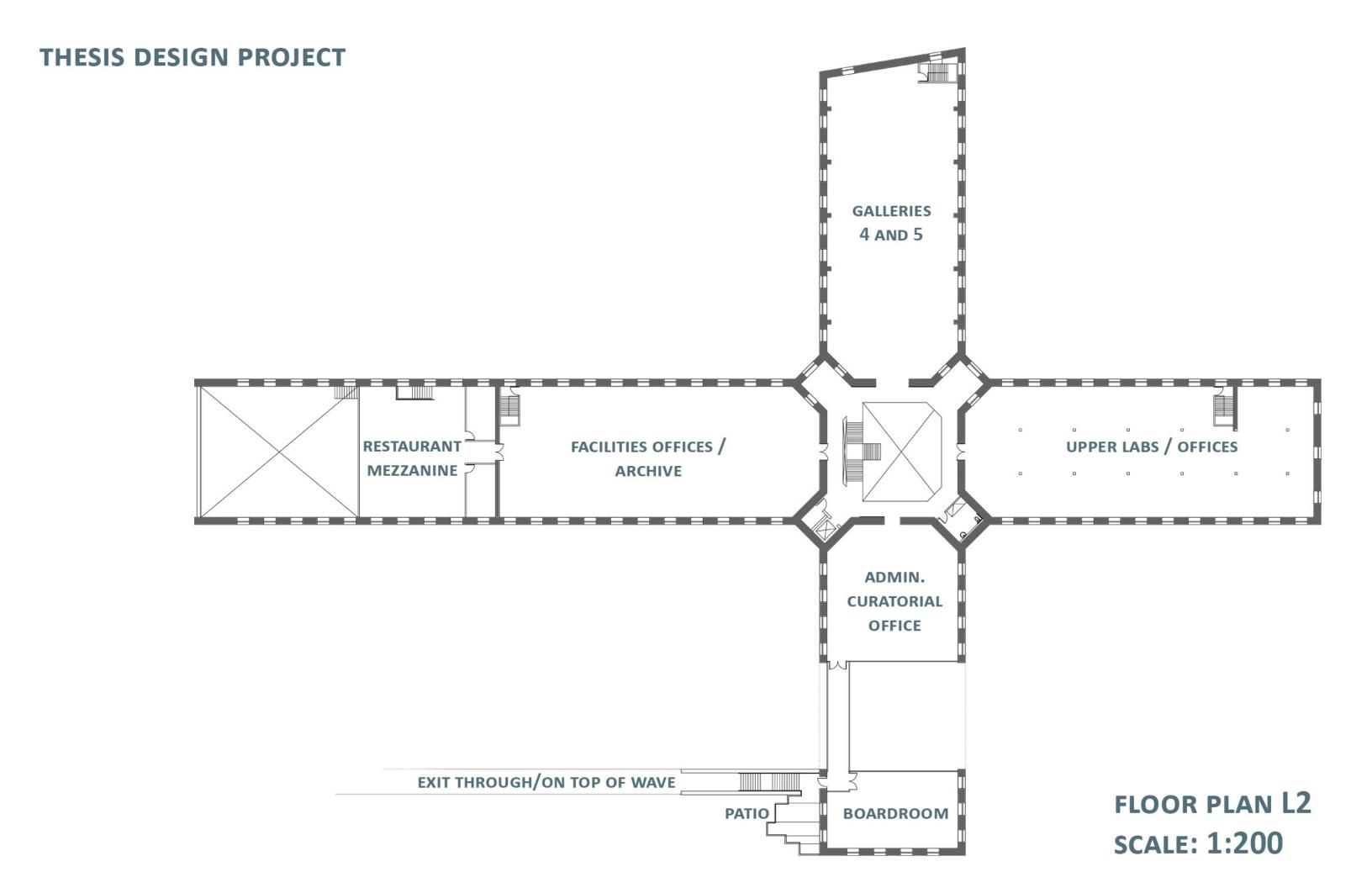
LEVEL L2



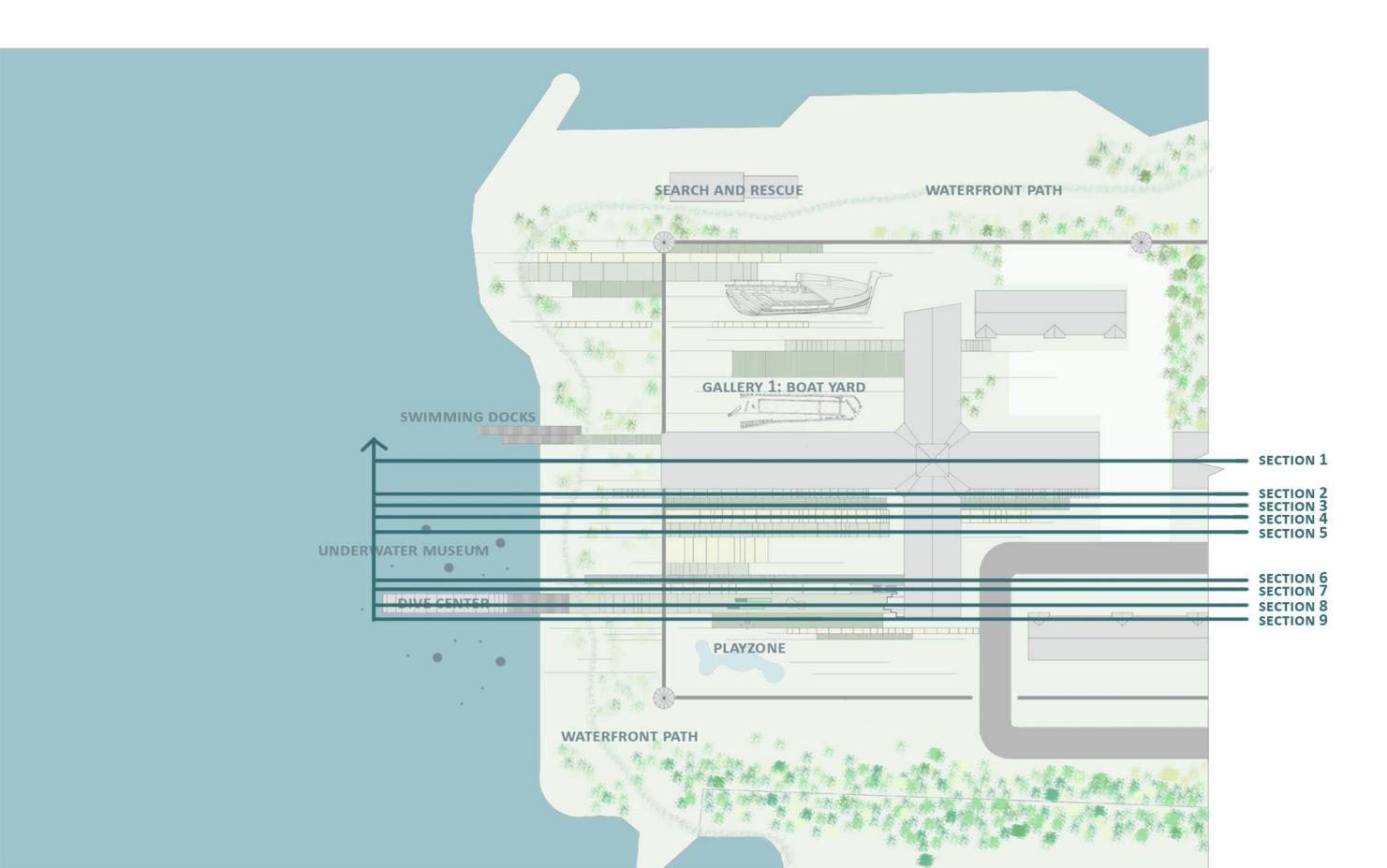
THESIS DESIGN PROJECT SEARCH AND RESCUE WATERFRONT PATH GALLERY 1: BOAT YARD **SWIMMING DOCKS UNDERWATER MUSEUM** DIVE CENTER **PLAYZONE SITE PLAN SCALE: 1:500**

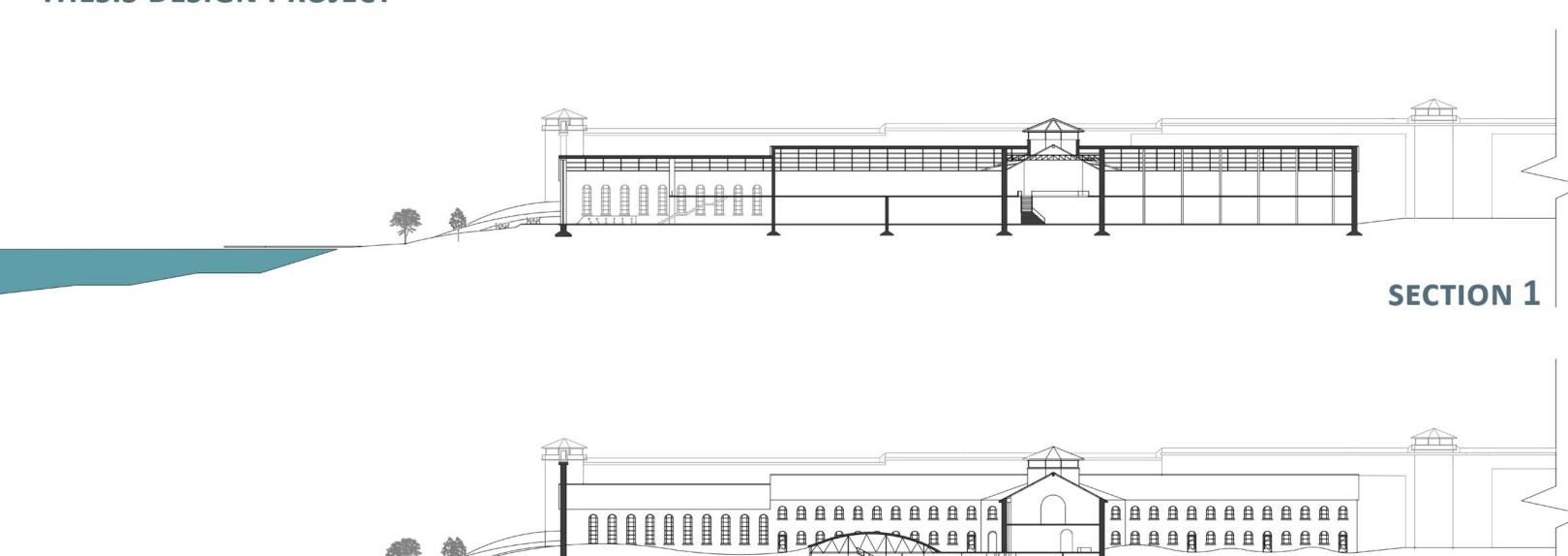
THESIS DESIGN PROJECT **OUTLINE OF BUILDING ABOVE** CRUSH / **GATHERING SPACE** TEMP. SEMINAR MECH. WATERFRONT **EXHIBIT** ROOMS ELEC. **FLOOR PLAN LL1 SCALE: 1:200**



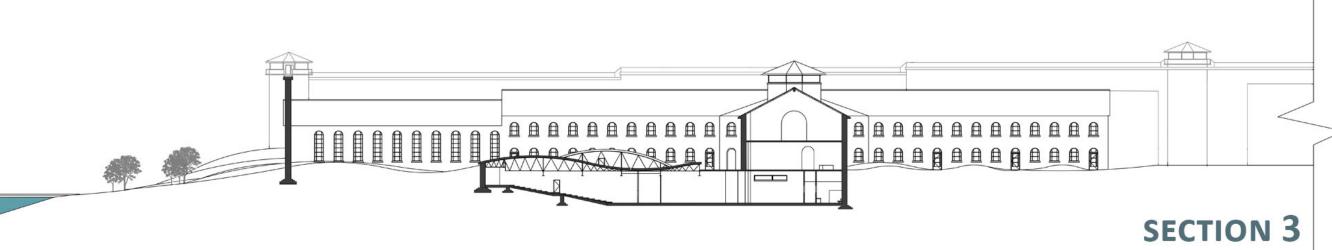


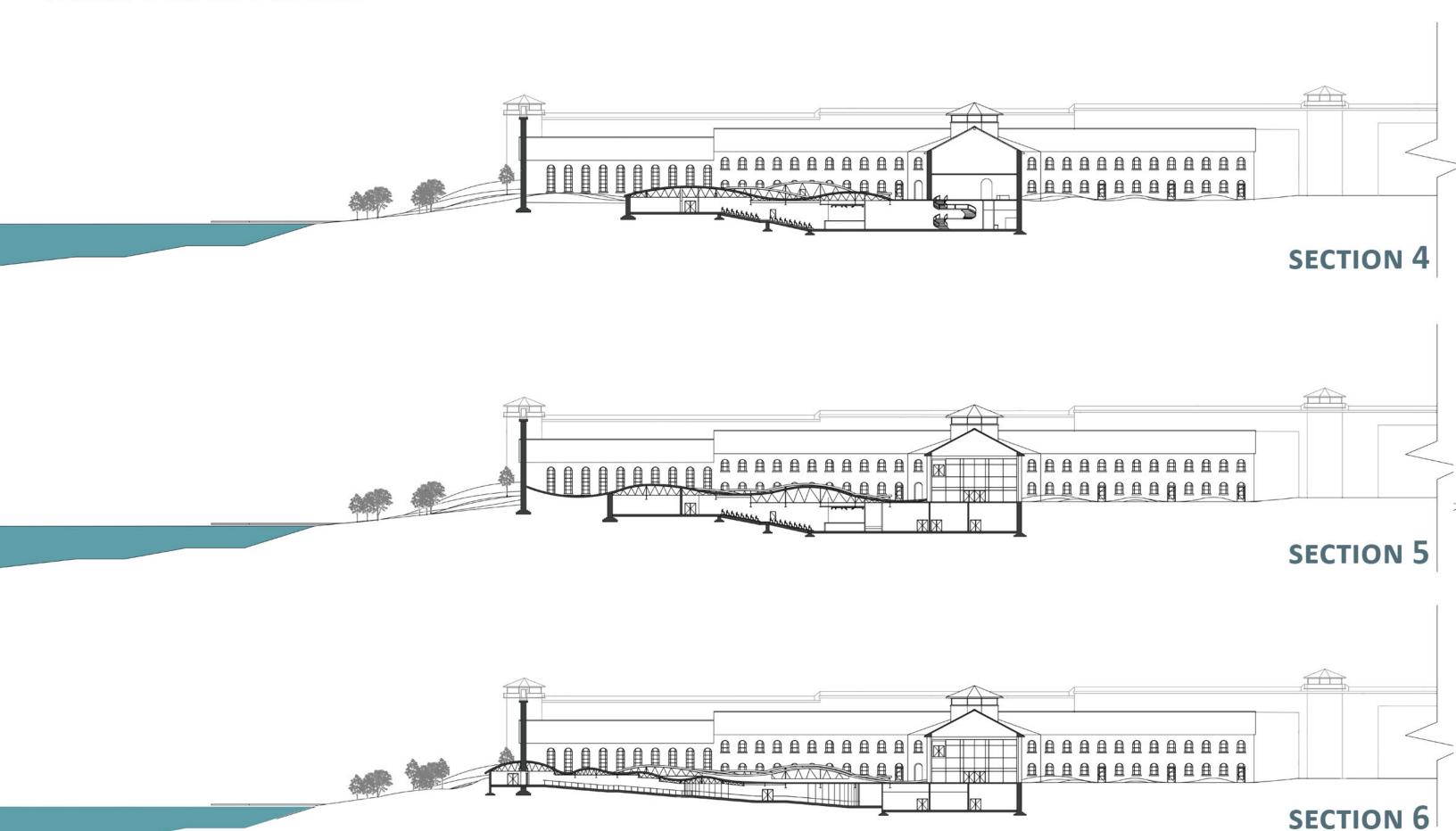
THESIS DESIGN PROJECT SECTIONS - KEY PLAN

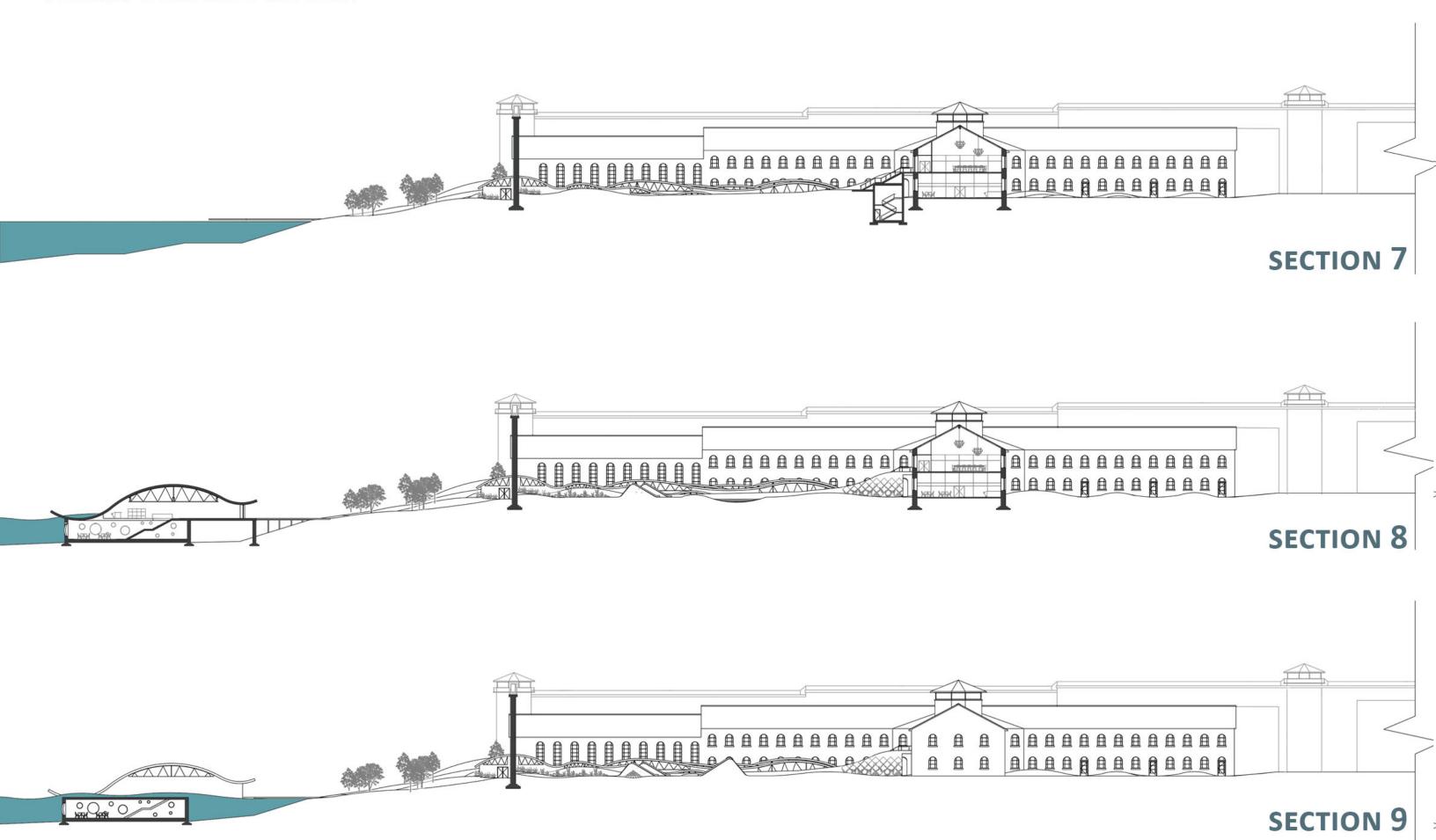


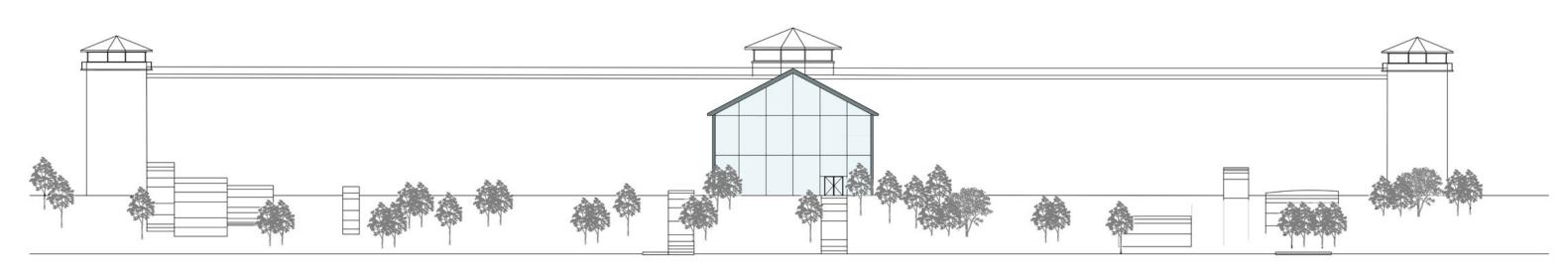


SECTION 2







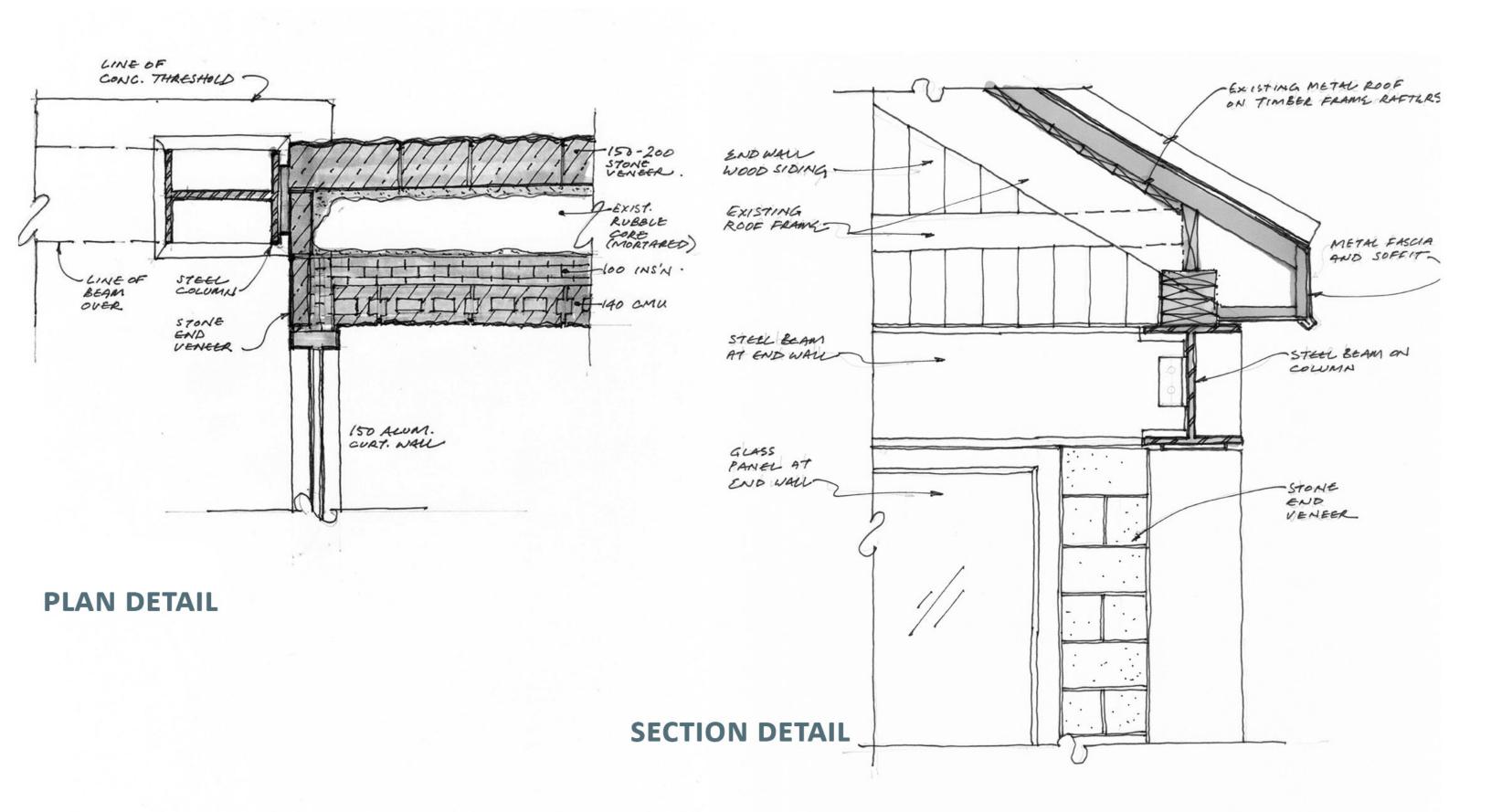


SOUTH ELEVATION

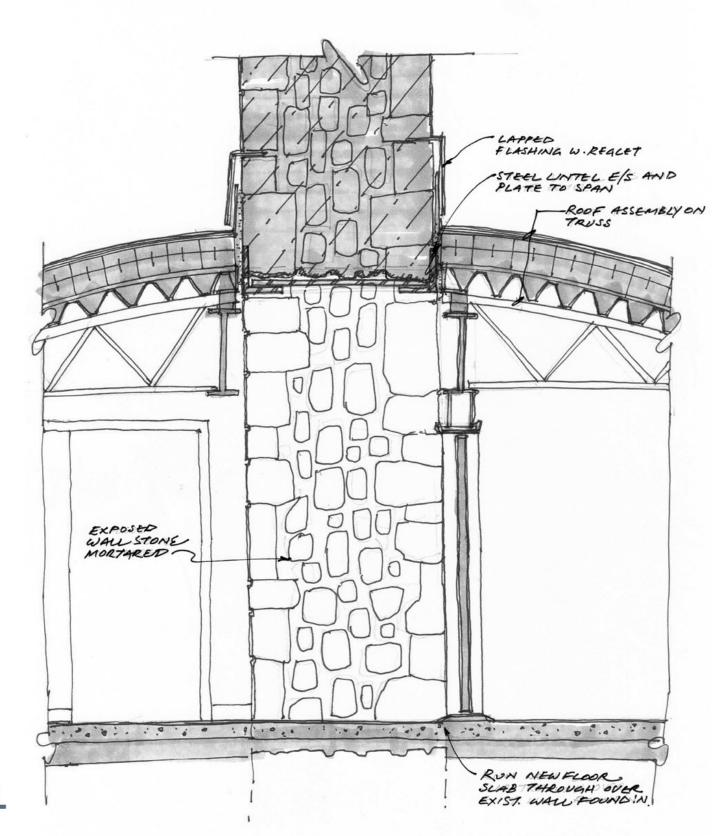


NORTH ELEVATION

DETAILS AT BREEZEWAY

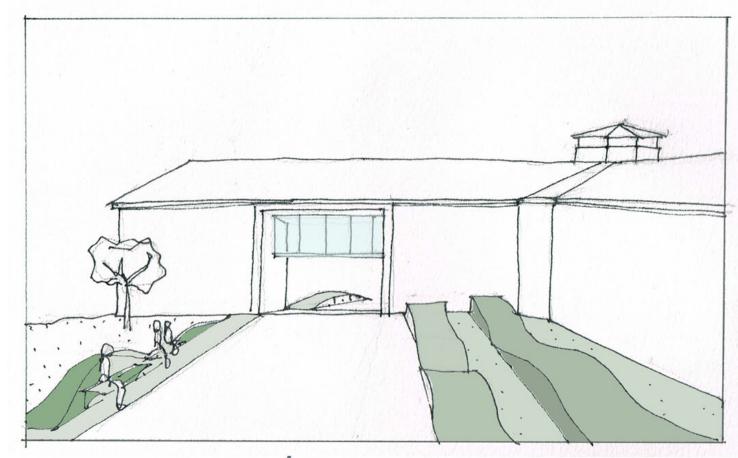


DETAILS AT PENETRATION THROUGH PERIMETER WALL



SECTION DETAIL

PERSPECTIVES



VIEW OF APPROACH / ENTRANCE

VIEW OF LOBBY

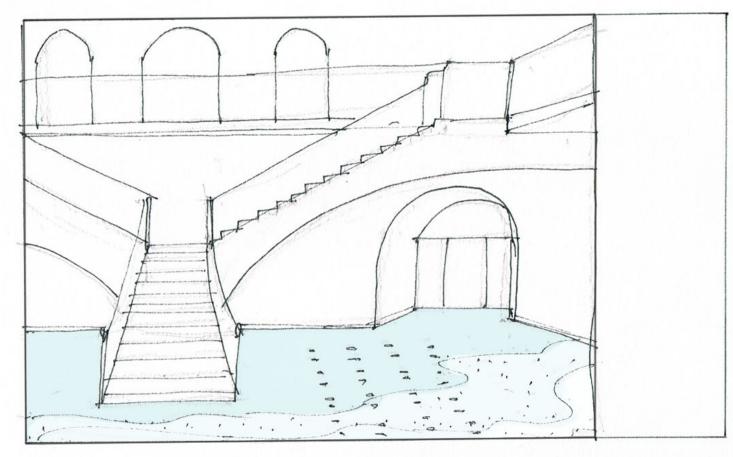






THE LANDSCAPE WAVES ARE TO BE OF DIFFERENT MATERIAL AND TEXTURES.

THESIS DESIGN PROJECT **PERSPECTIVES**



VIEW OF CENTRE STAIRS



VIEW OF GALLERY ONE, BOAT EXHIBIT

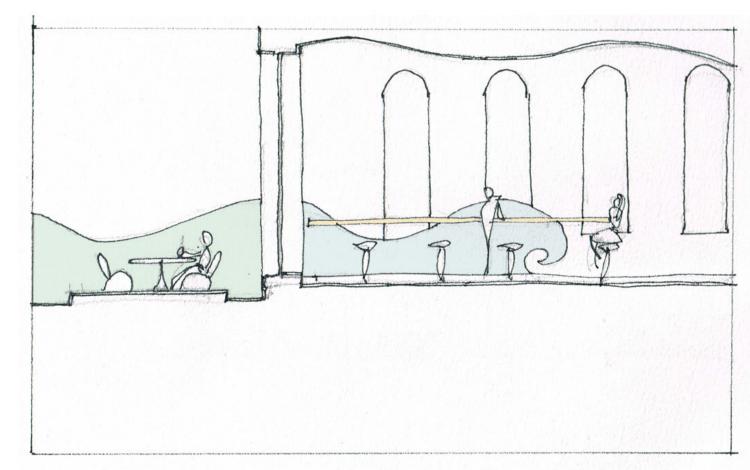








PERSPECTIVES



VIEW OF RESTAURANT AND PATIO

VIEW OF WATERFRONT AND DIVE CENTER

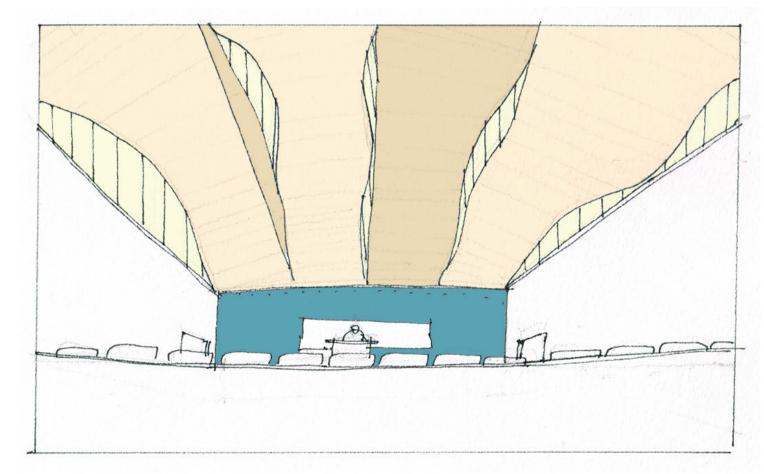


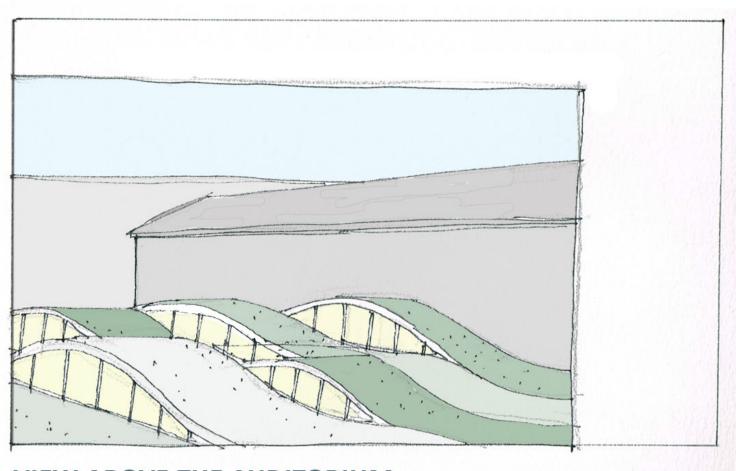






PERSPECTIVES





VIEW INSIDE THE AUDITORIUM

VIEW ABOVE THE AUDITORIUM







