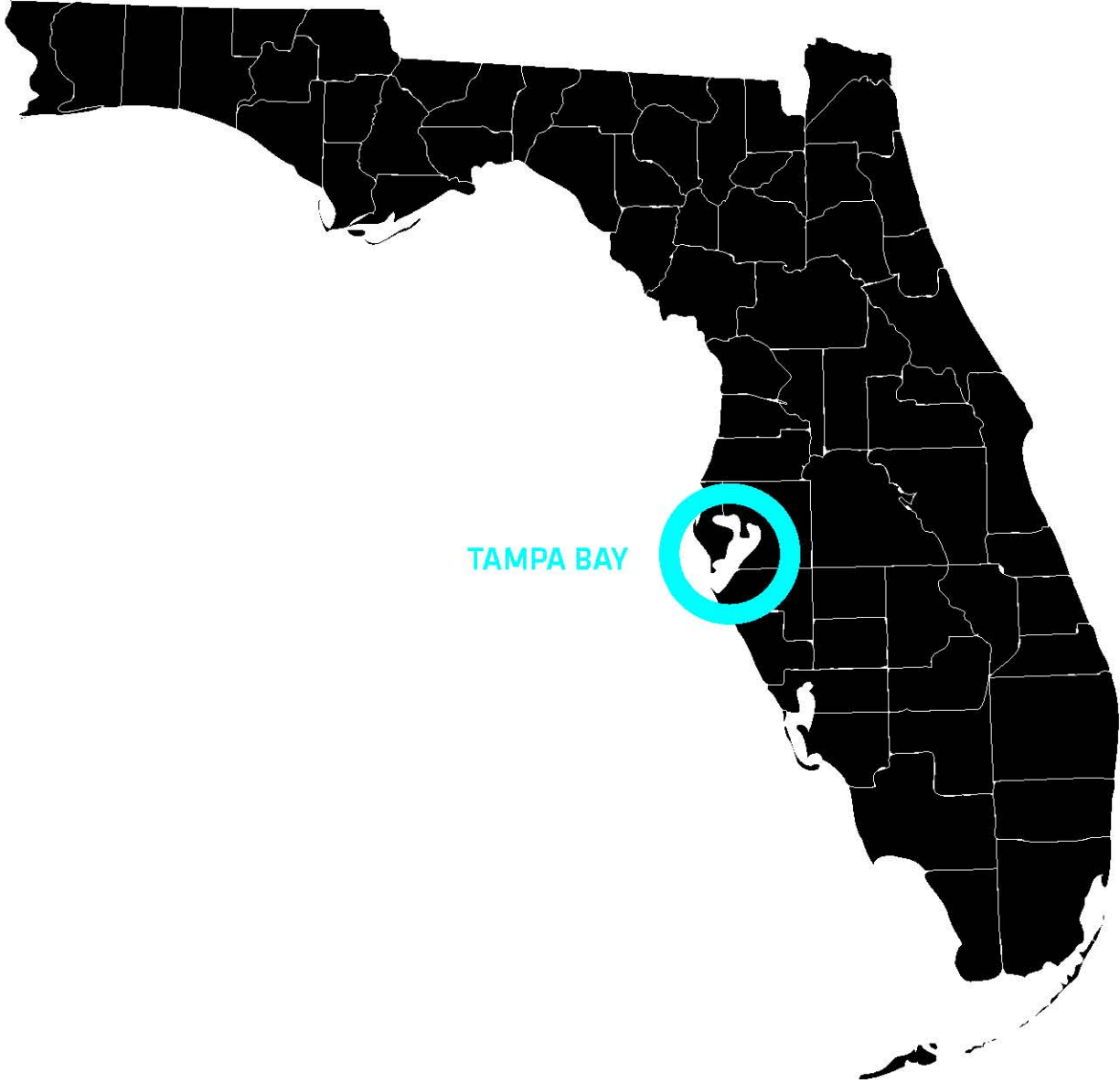


St. Petersburg Pier





TAMPA BAY



CLEARWATER
108,000



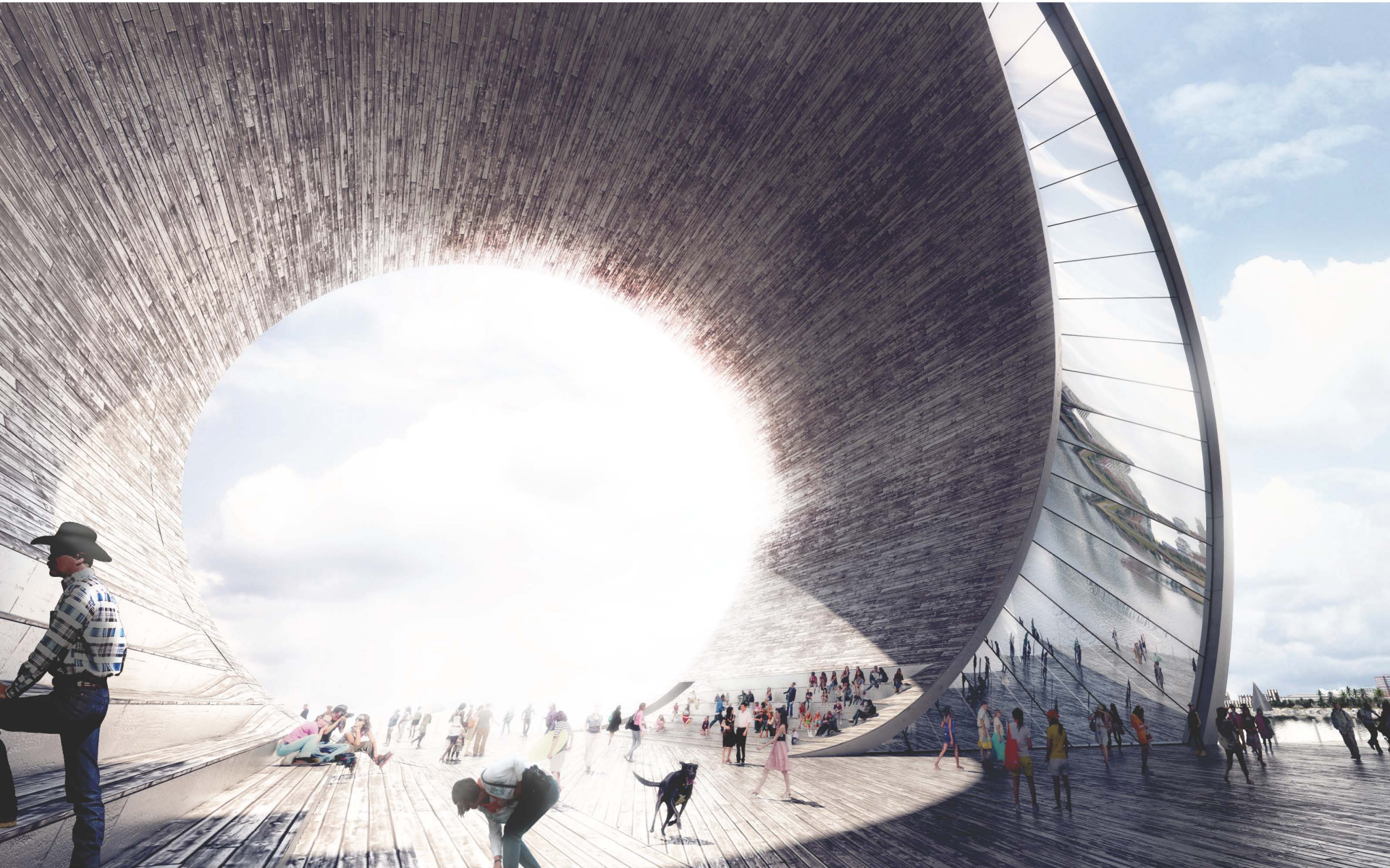
LARGO
74,000

ST. PETERSBURG
245,000



TAMPA
336,000







St. Pete Pier

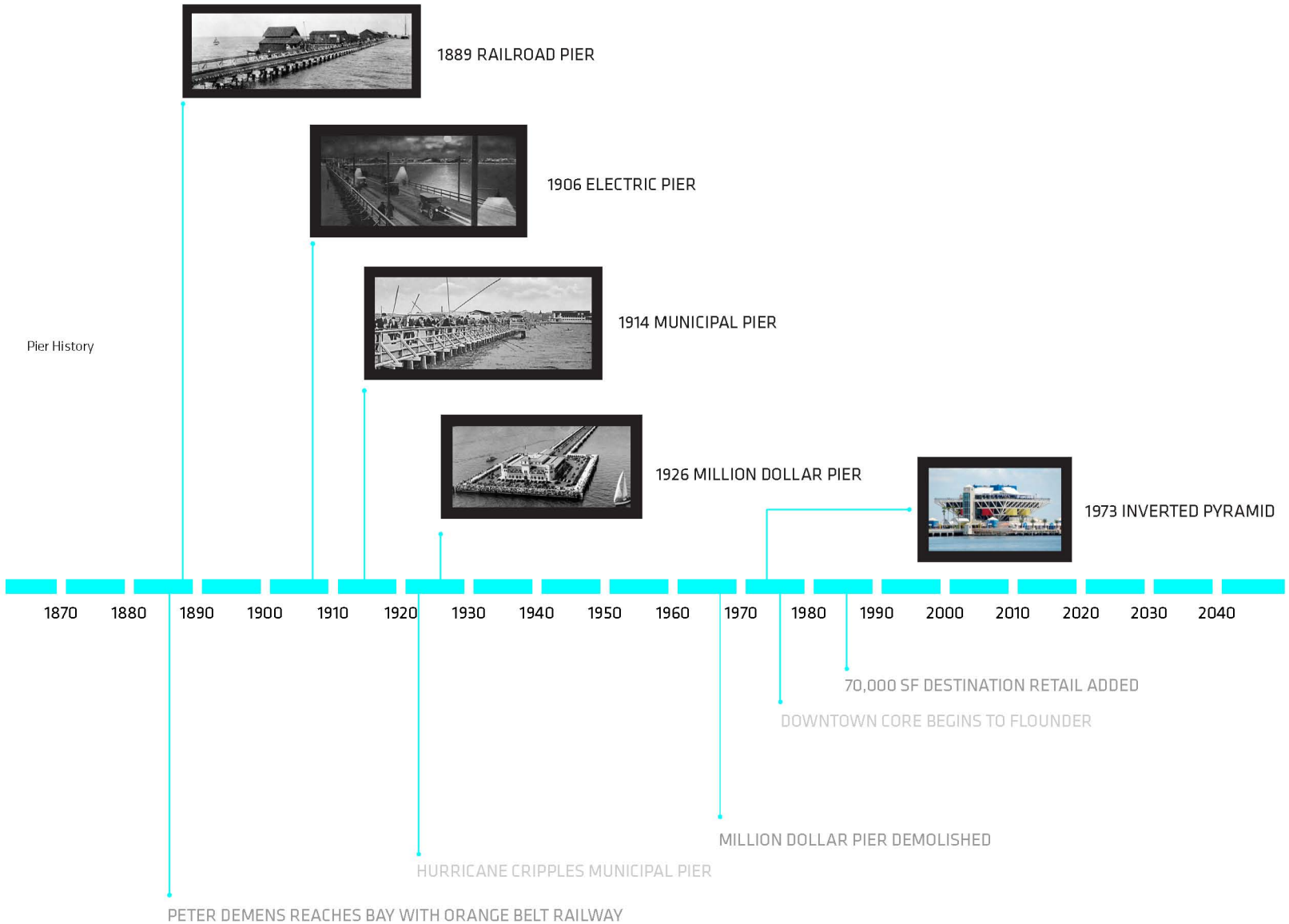


-"The sunshine city": 361 DAYS OF SUN EVERY YEAR...

HISTORY

The Public Pier of St Petersburg has grown to be an integral part of the city's public space, its social life and an icon of its civic identity. With its continuous presence over the last many decades it has evolved and transformed from the first pier, to the Million Dollar Pier to the Inverted Pyramid that stands today. Our challenge has been to imagine a new pier that would appear a seamless continuation of the past into the future - an effortless extension of the public life in to the water - and a natural transition from the pockets of urban life in the city to the public attraction in the open water.

Pier History





1889, Railroad Pier

The original railroad pier was an instant failure. As a piece of infrastructure it could not compete with the deeper waters and larger freight capacity of the Tampa City side of the bay.



1906, The Electric Pier

While not its original purpose, the pier soon became a hugely popular leisure destination for St. Pete residents. It is considered one of the first post-industrial piers in the world. The pier was donned with electric lights, allowing them to enjoy the waterfront day and night.



1926, The Million Dollar Pier

The 1920's introduced an explosion of pier program, complete with a casino, restaurants, shopping, and an extended platform for parking. The pier boardwalk is fully transformed into a "building on the water."



1973, The Million Dollar Pier

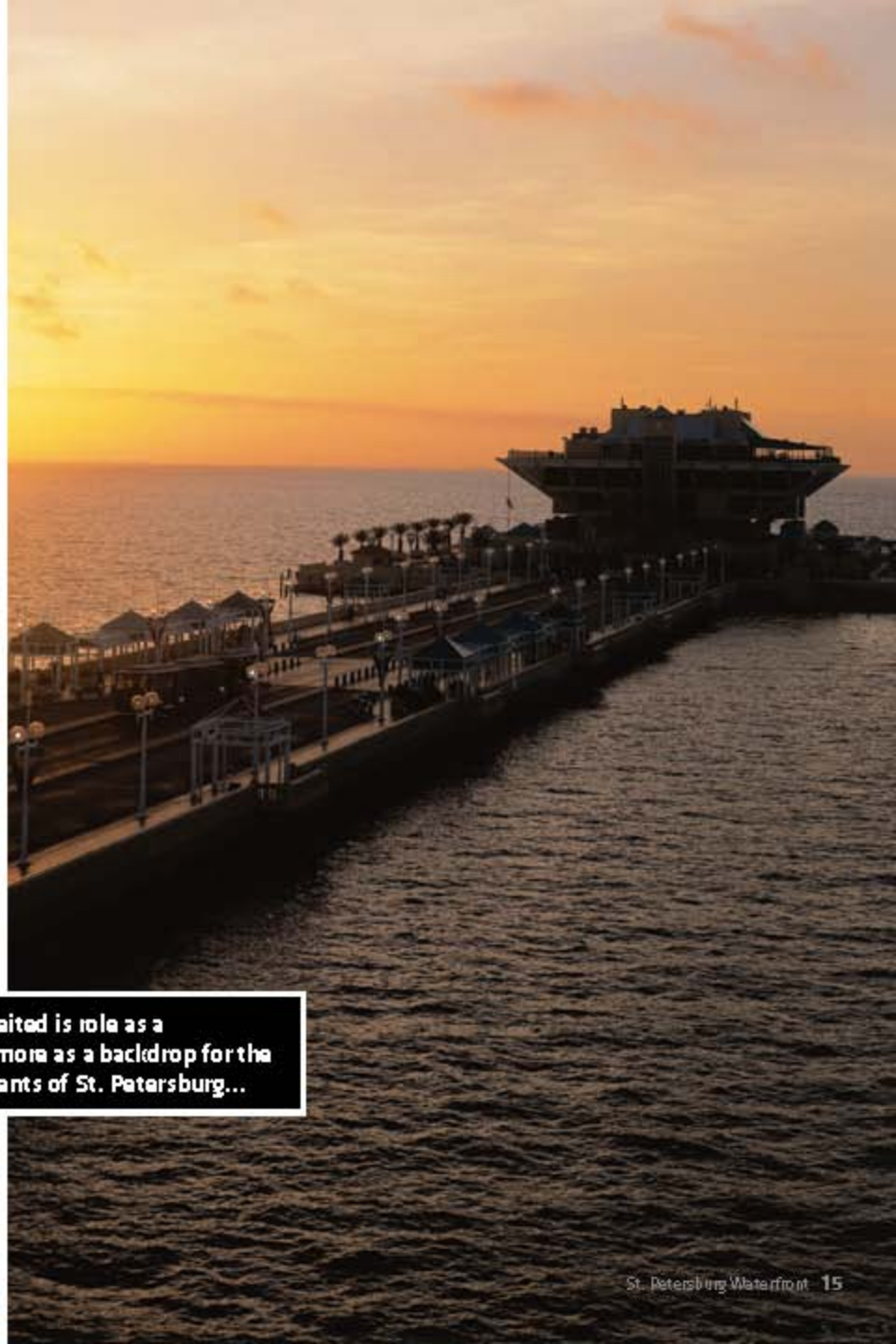
The 1970's reinvented this building-on-the-water typology with the iconic inverted pyramid, and an added 70,000 square feet of destination retail



While the image of the current pier is important to the identity of the city, it is a place where few locals visit. St. Pete's once intimate connection to the water has been replaced by a failed shopping mall

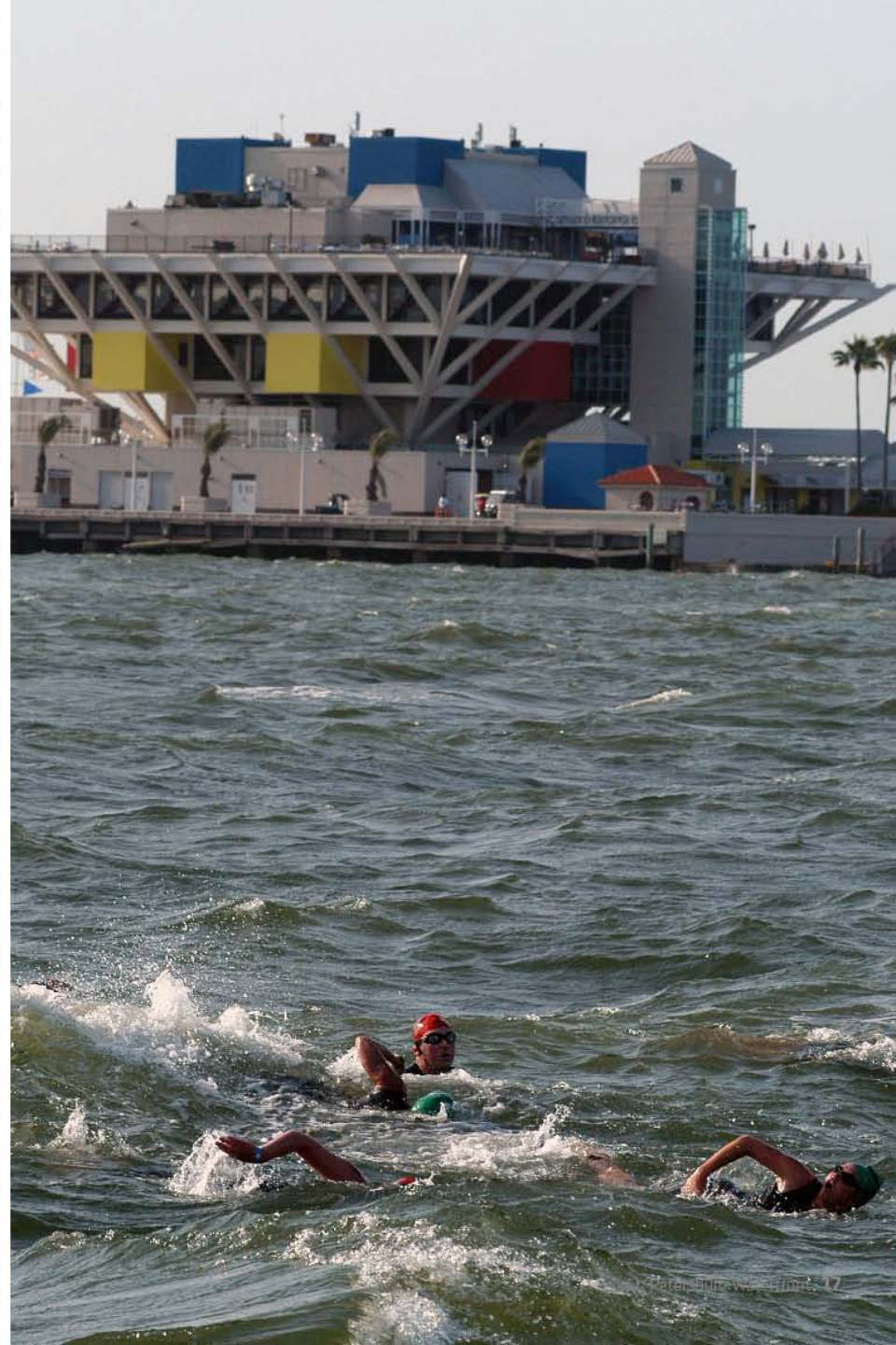


Tragically, the pier has forfeited its role as a destination. It now serves more as a backdrop for the day-to-day life of the residents of St. Petersburg...

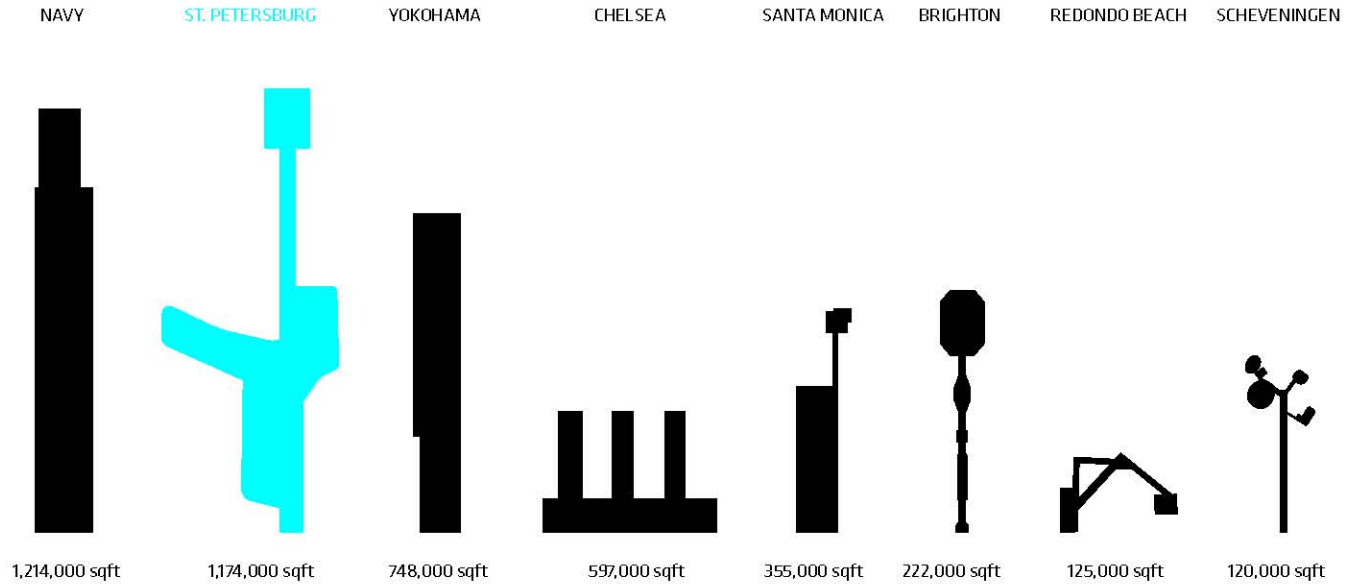




**ST. ANTHONY TRIATHLON STARTING
FROM THE BASE OF THE PIER**

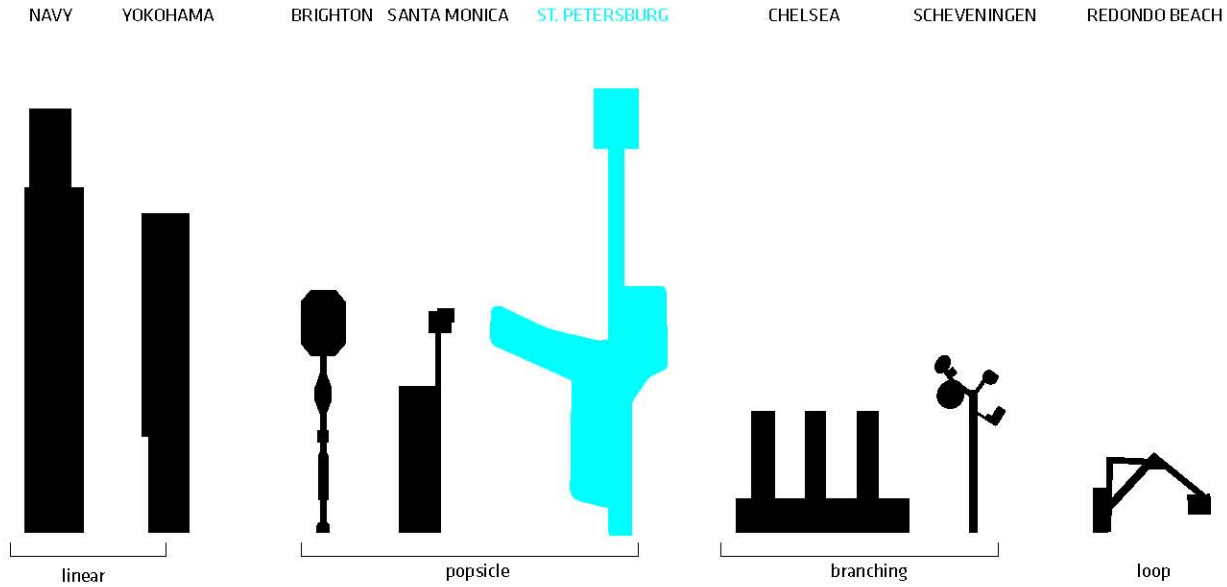


BY SIZE



The St. Petersburg Pier combined with the uplands is one of the largest in the world by area. It has the potential to be a truly unique destination...

BY TYPE



Yet now it is not a very unique pier type...




...a popsicle-shaped destination pier with generic retail and dining at its end.



Is there a way to promote tourism without ignoring the citizens of St. Pete?



...It should celebrate St. Pete's
deep connection with water



...and allow ways to interact with water, ranging from physical touch...



...To small boats and
paddleboards...



...and larger boats



Flow of water = Flow of people

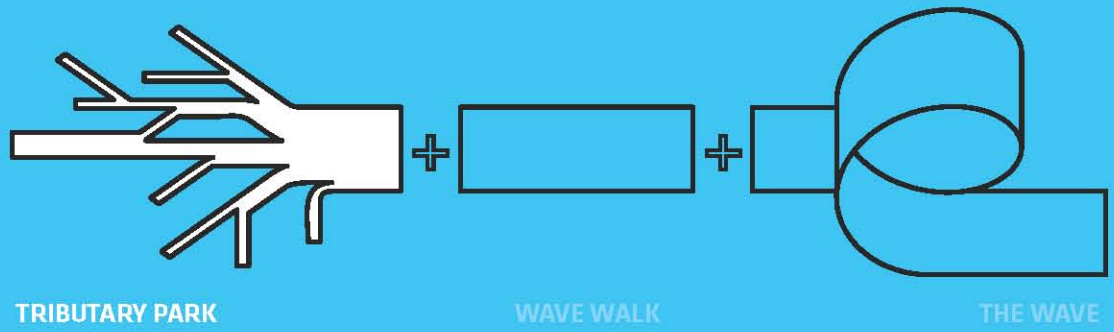
Water flows from multiple tributaries in to a single river that eventually reaches the waves of the sea.



Betsiboka Delta, Madagascar

Three part strategy:

Paths in the park- A tributary of individuals. We propose to anchor the pier in a multitude of individual events across the pier, the park and the city. From these individual events that can be realized at once or over time a network of paths form a tributary of public life that gradually flows together to form the pier as the paths flow into the bay.

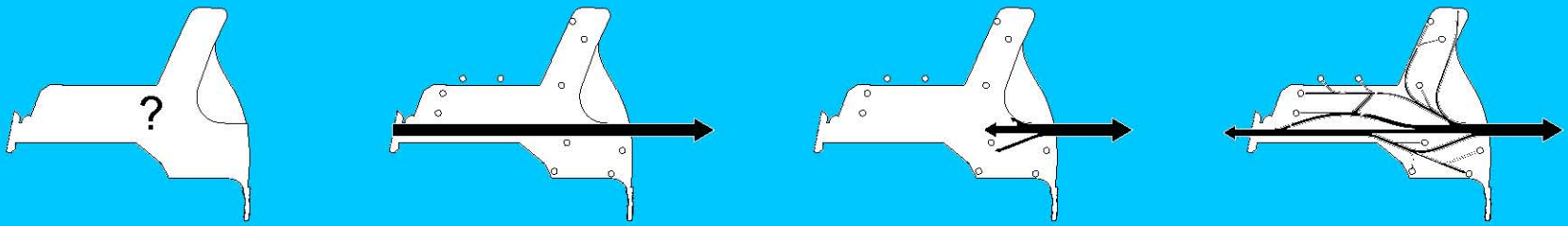


TRIBUTARY PARK

WAVE WALK

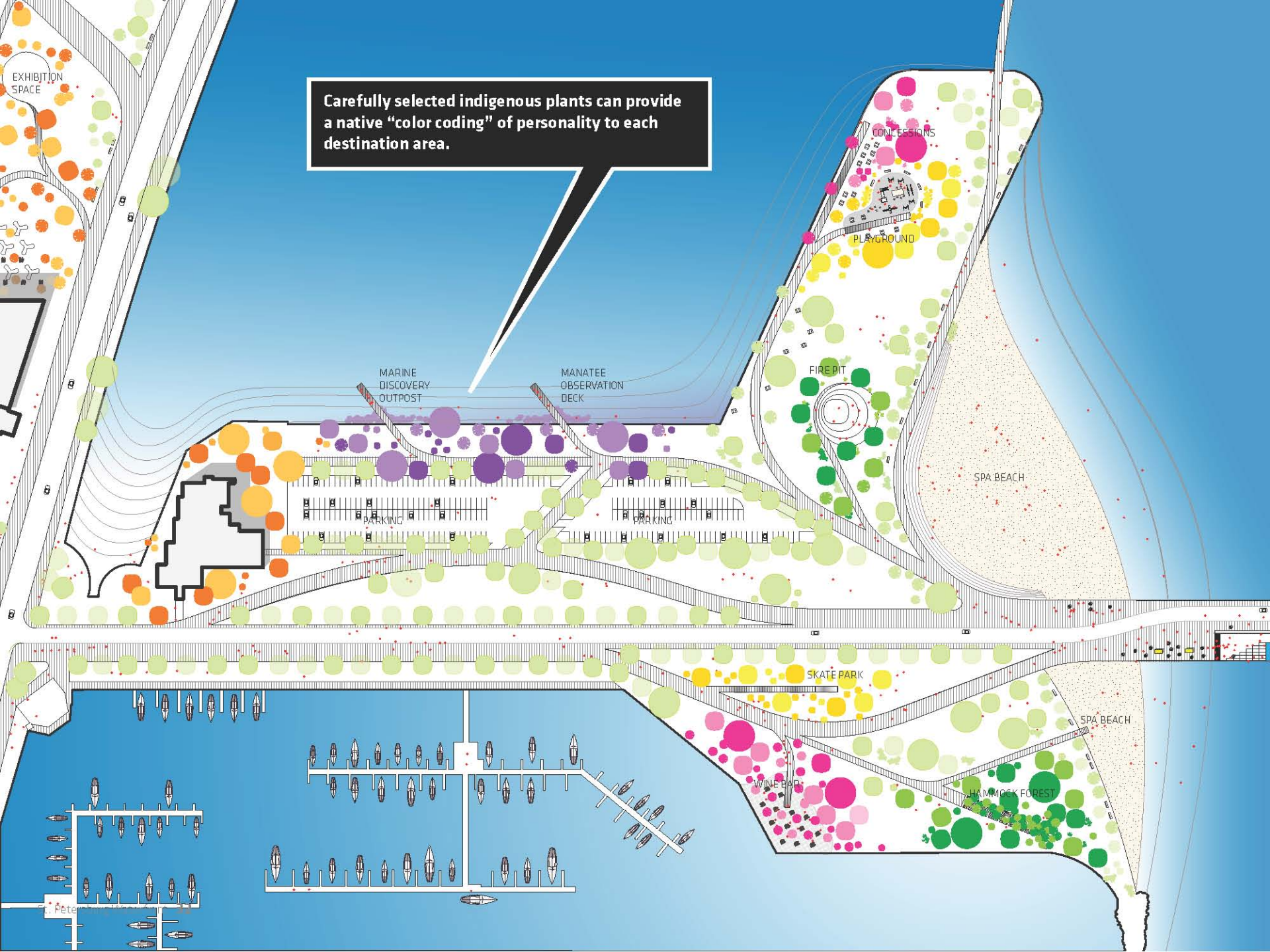
THE WAVE

SPA PARK
"TRIBUTARY PARK"



The approach to the pier allows public life to saturate the entire park. Activities spring from multiple destinations and diverges into smaller branches of pathways.





Carefully selected indigenous plants can provide a native "color coding" of personality to each destination area.

EXHIBITION SPACE

MARINE DISCOVERY OUTPOST

MANATEE OBSERVATION DECK

CONFESSIONS

PLAYGROUND

FIRE PIT

SPA BEACH

PARKING

PARKING

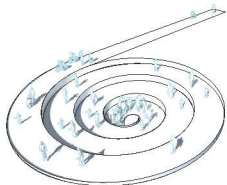
SKATE PARK

WINE BAR

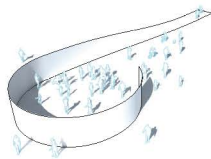
SPA BEACH

HAMMOCK FOREST

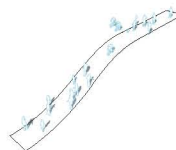
Pete



FIRE PIT SPIRAL



PICNIC LOOP



CANOE RENTAL



TROLLEY STOP



KIDDIE SLIDE



OBSERVATION DECK



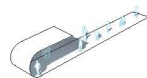
HOT DOG STAND



TICKET BOOTH



PARK SIGNS



SHOWERS

By simple manipulations to the branches there can be a variety of destinations with unique purposes.

Mangrove Ecosystem



Rhizophora mangle (Red mangrove)



Avicennia germinans (Black mangrove)



Conocarpus erectus (Florida buttonwood)



Batis maritima



Salicornia virginica



Lycium carolinianum



Suaeda linearis

Wetland Plants



Spartina alterniflora (salt marsh cord grass)



Juncus roemerianus



Acrostichum aureum

Dune Plants



Muhlenbergia capillaris



Yelp beds



Helianthus debilis



Suriana maritima

Salt Resistant Trees



Bucida buceras



Batis maritima



Washingtonia spp.



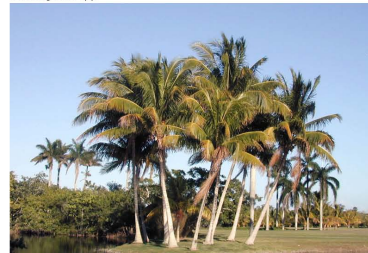
Nerium oleander



Plumeria spp.



Swietenia mahogani



Cocos nucifera



Suriana maritima



Cordia sebestena



Conocarpus erectus



Carpobrotus edulis



Euphorbia milii



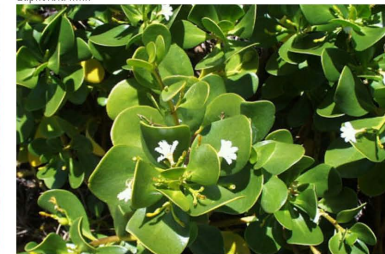
Sophora japonica



Chrysophyllum oliviforme

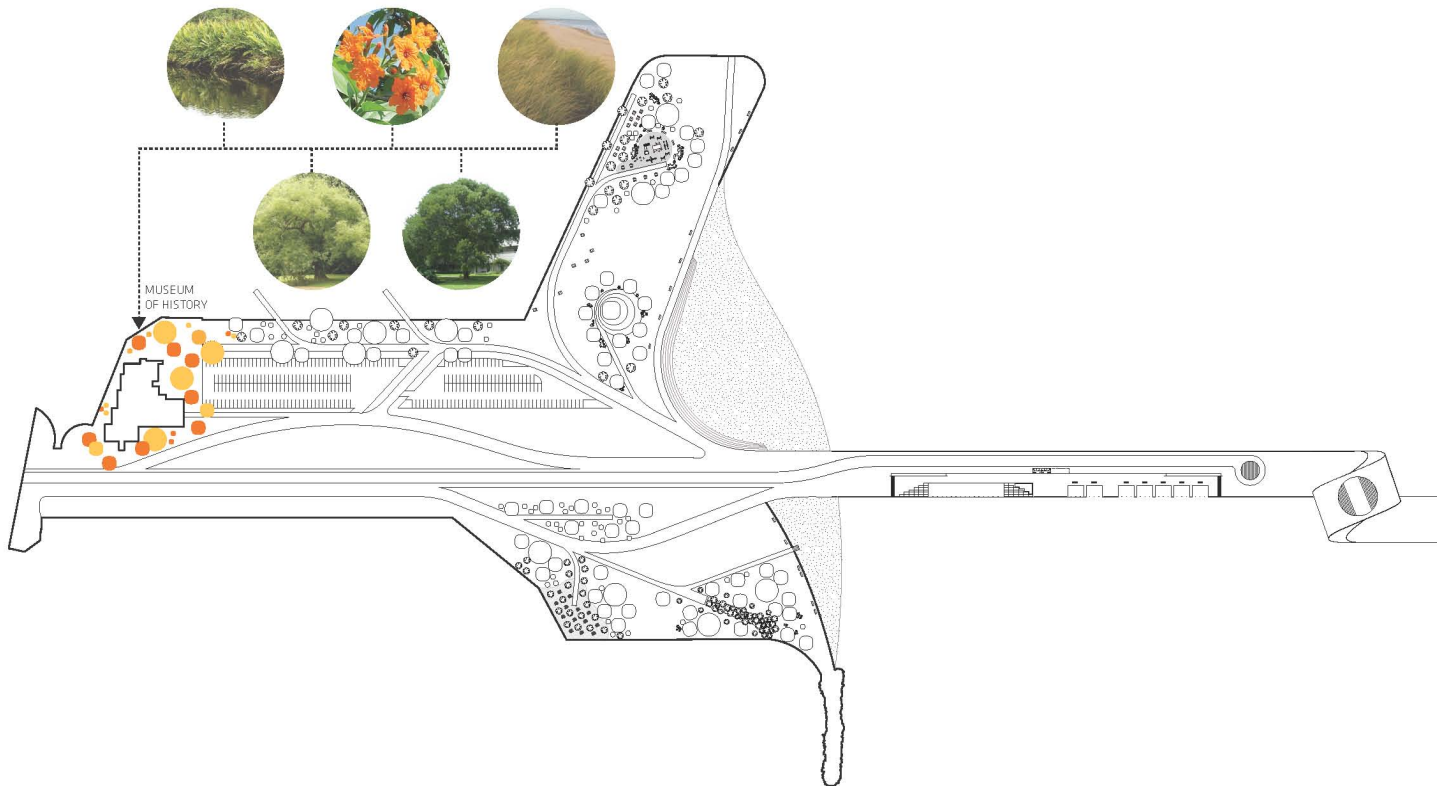


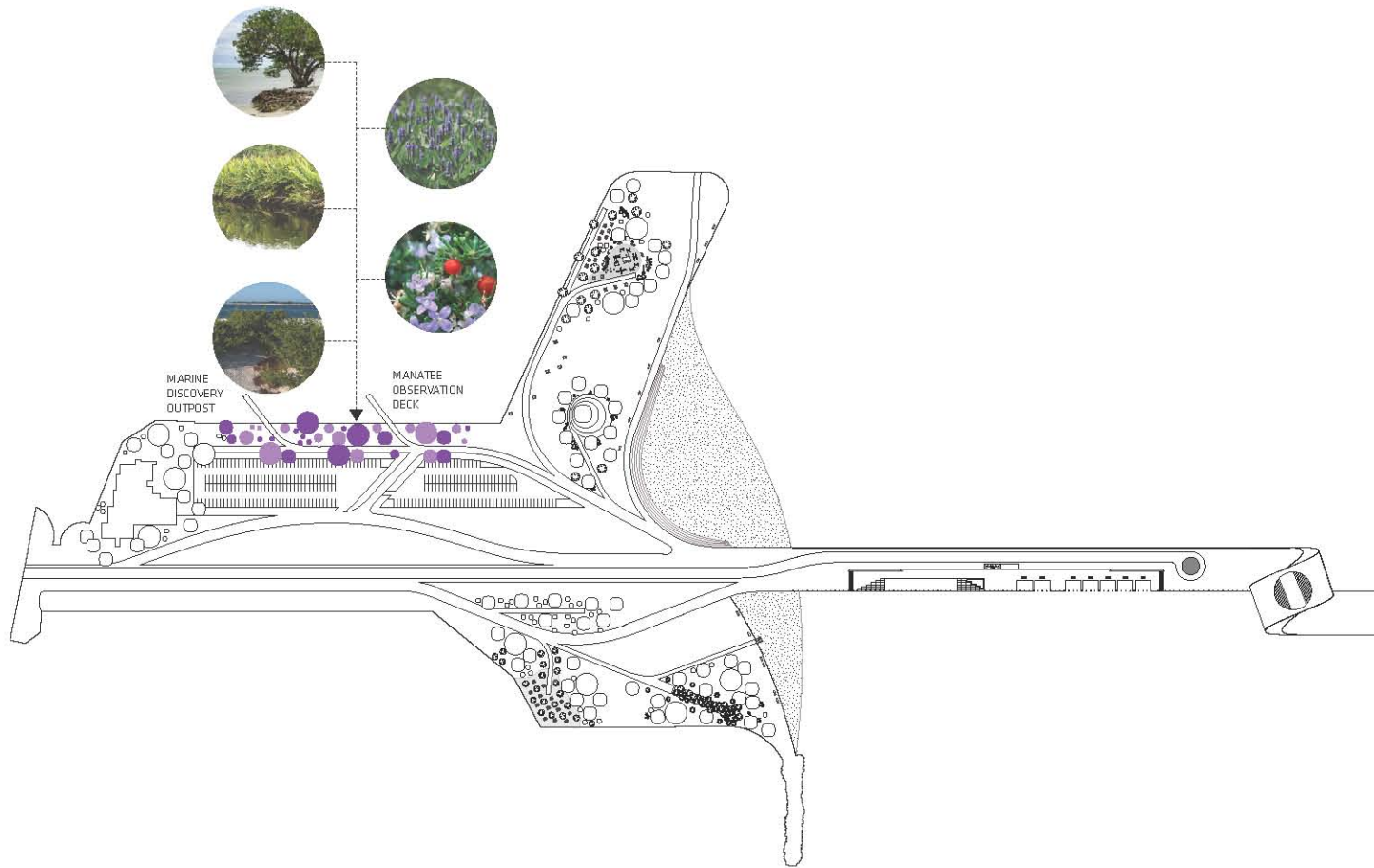
Carpobrotus edulis

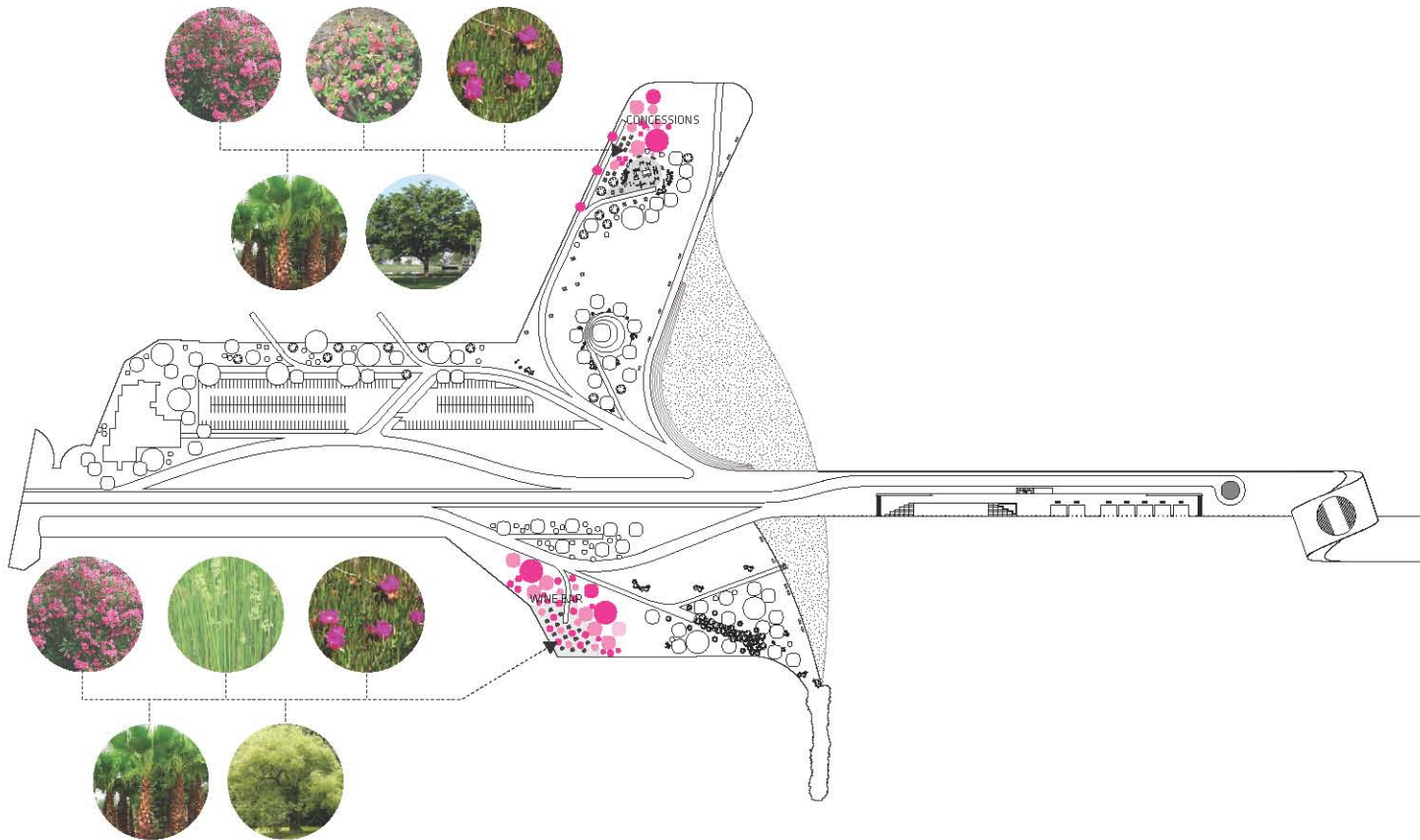


Euphorbia milii

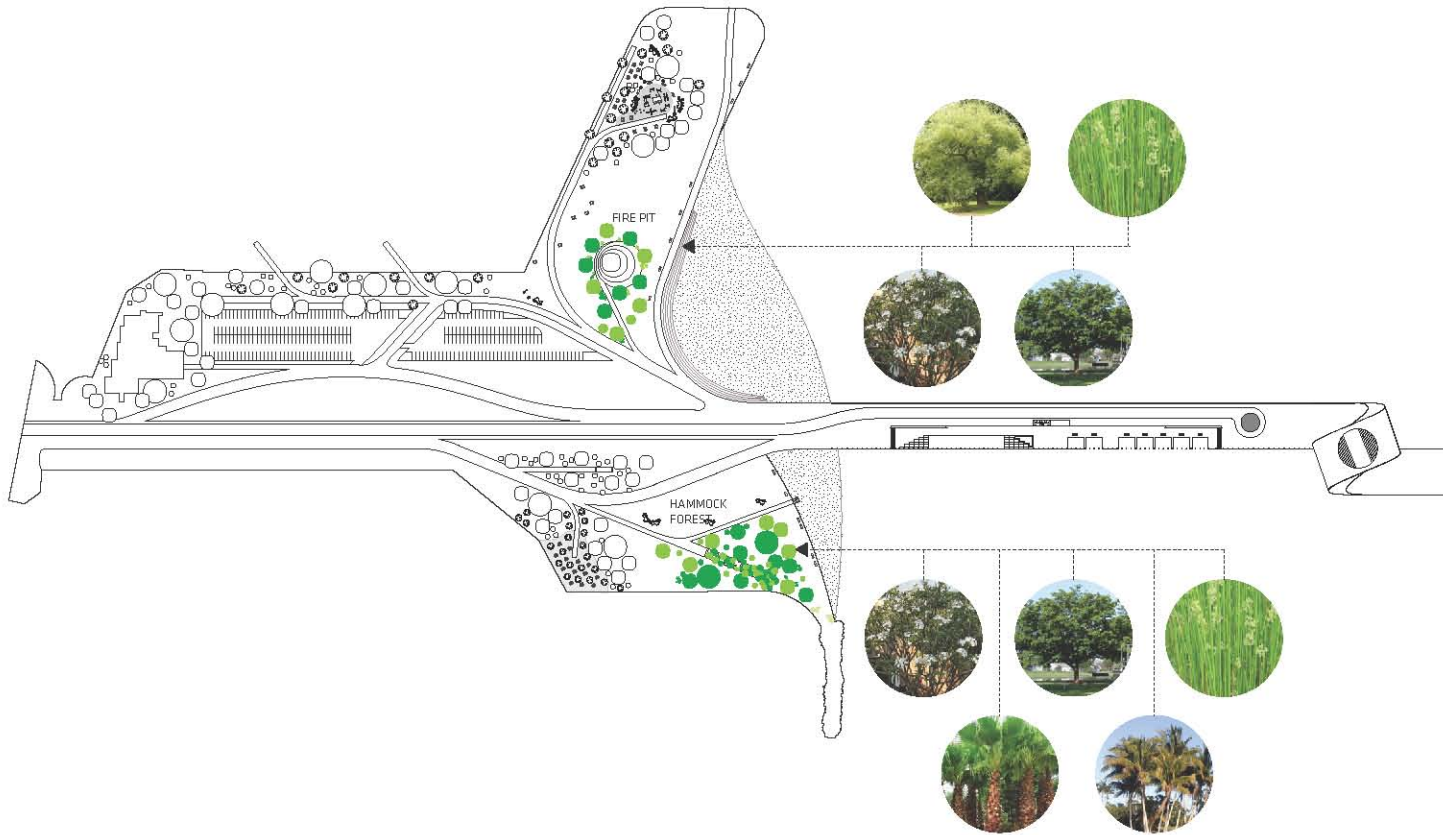








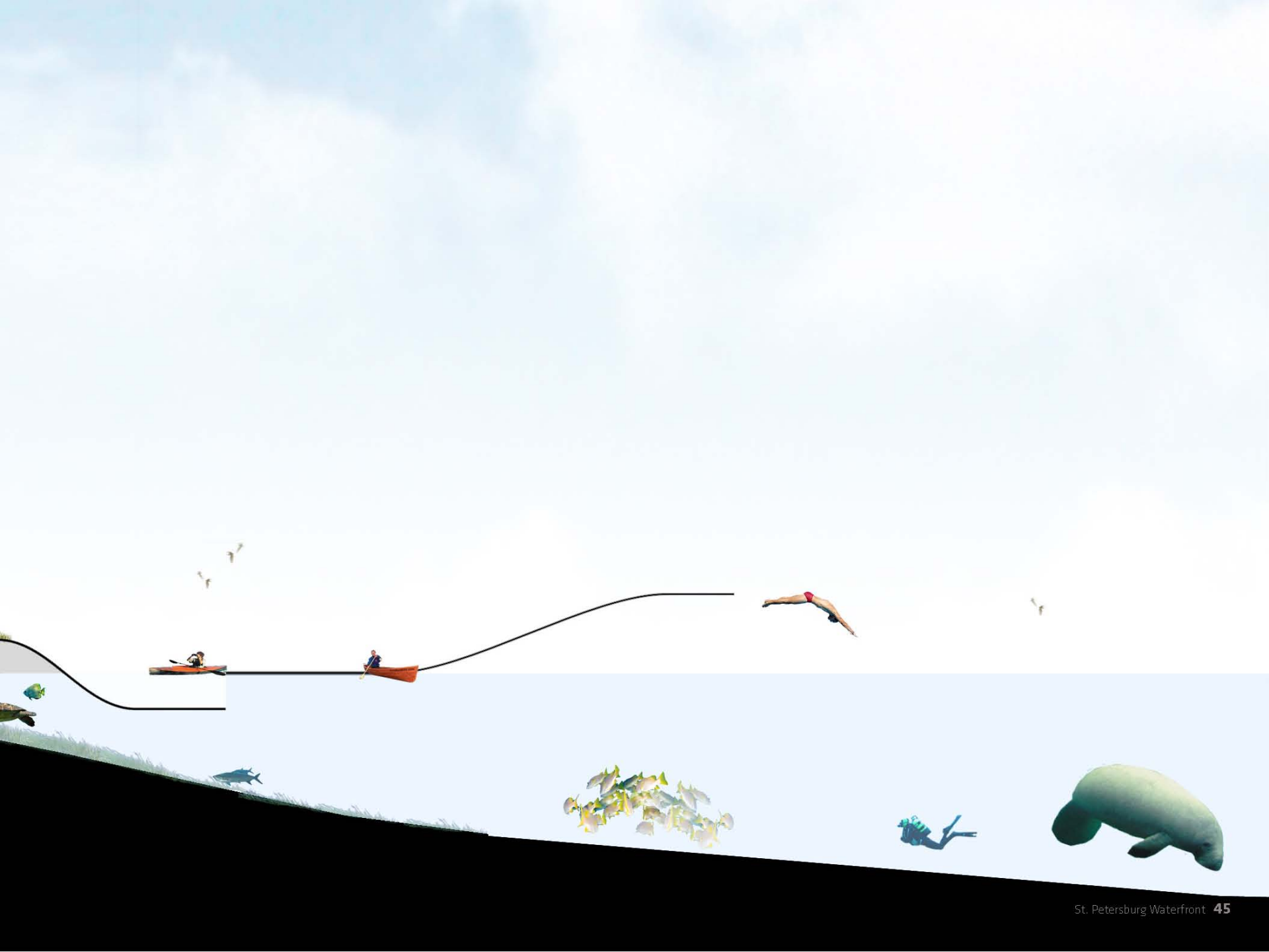








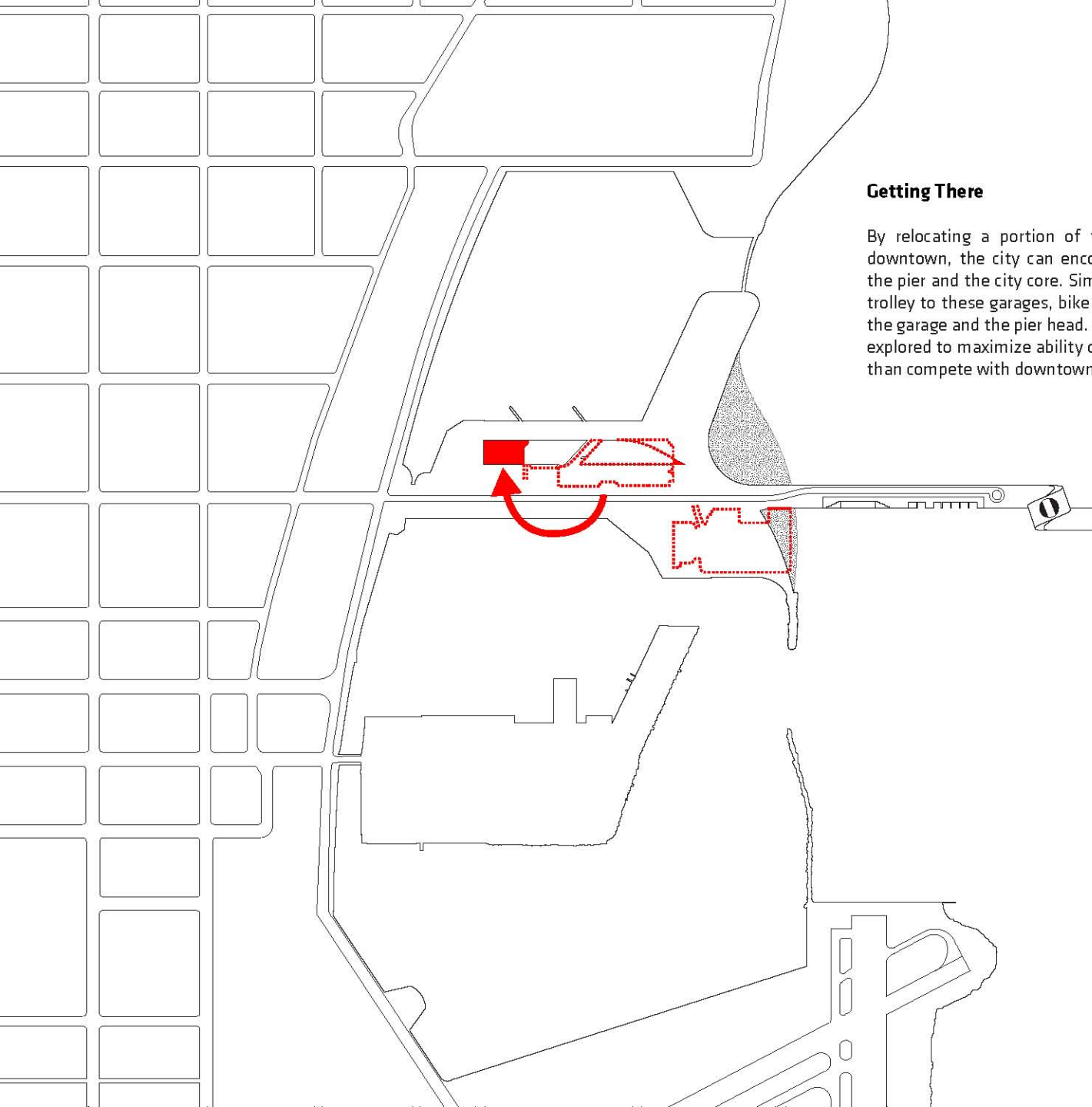


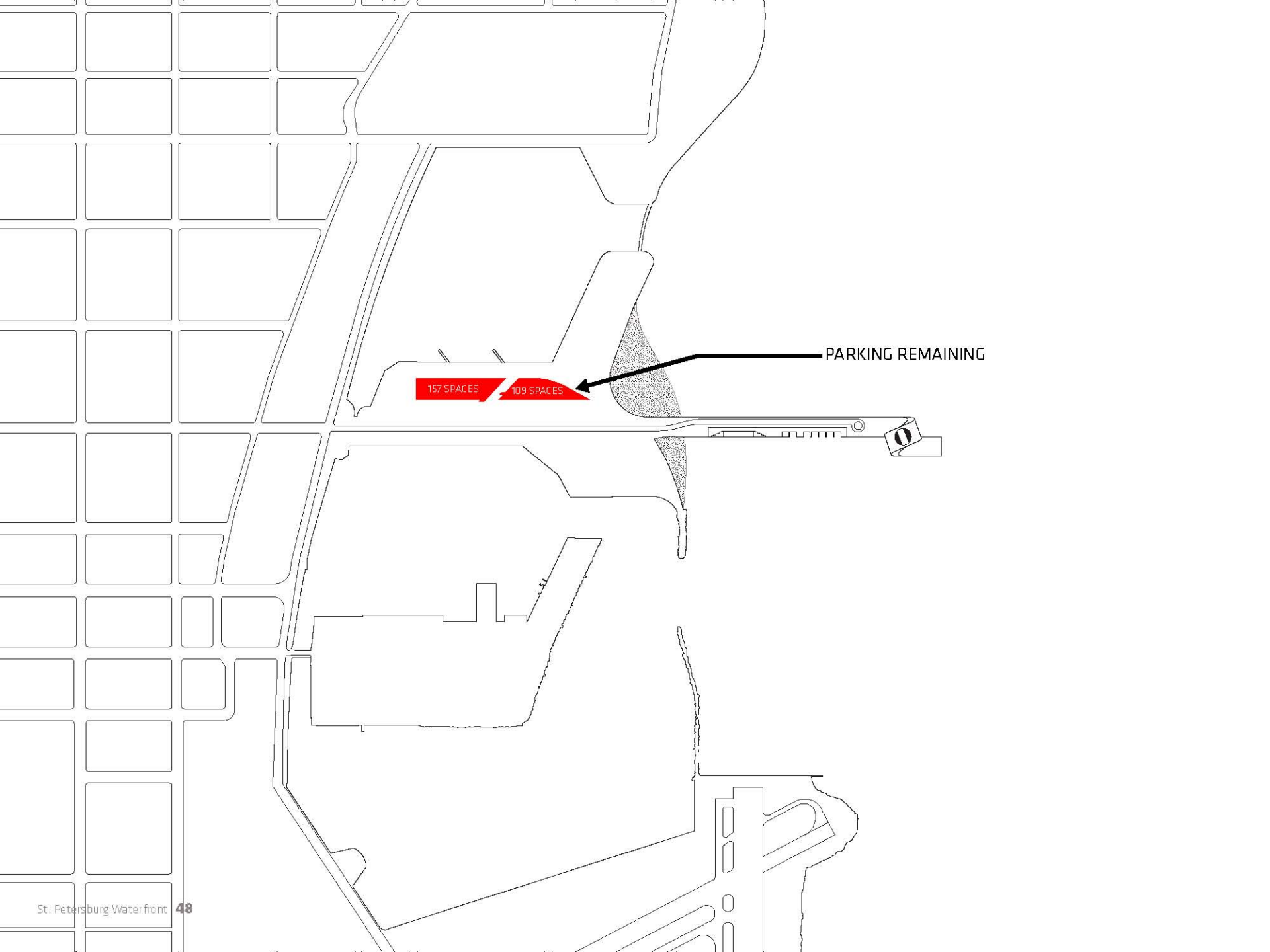




Getting There

By relocating a portion of the parking a few blocks into downtown, the city can encourage more exchange between the pier and the city core. Simple strategies like rerouting the trolley to these garages, bike share systems that go between the garage and the pier head. These and other ideas should be explored to maximize ability of the pier to compliment, rather than compete with downtown St. Petersburg.

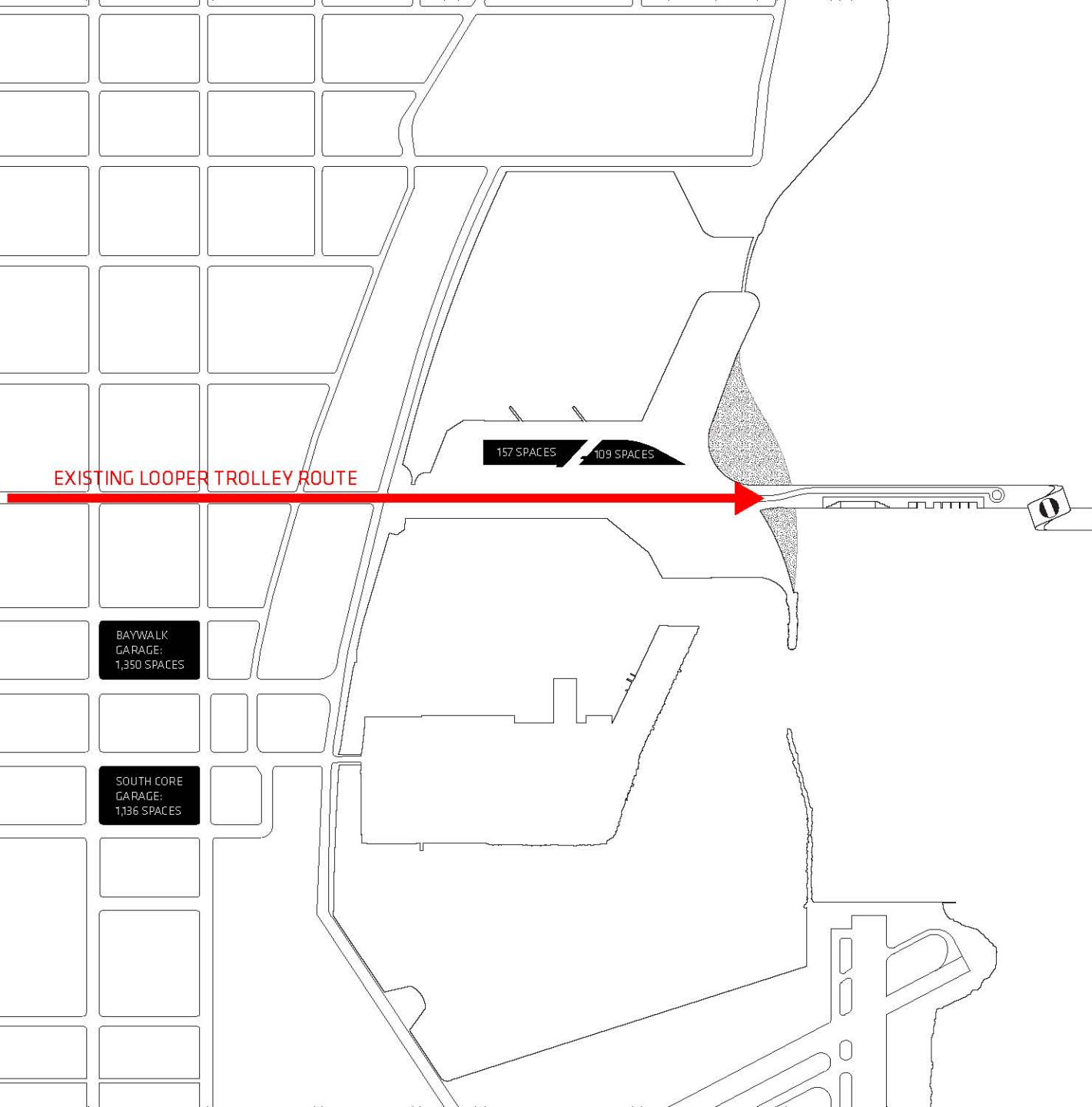




157 SPACES

109 SPACES

PARKING REMAINING



EXISTING LOOPER TROLLEY ROUTE

157 SPACES 109 SPACES

BAYWALK GARAGE: 1,350 SPACES

SOUTH CORE GARAGE: 1,136 SPACES

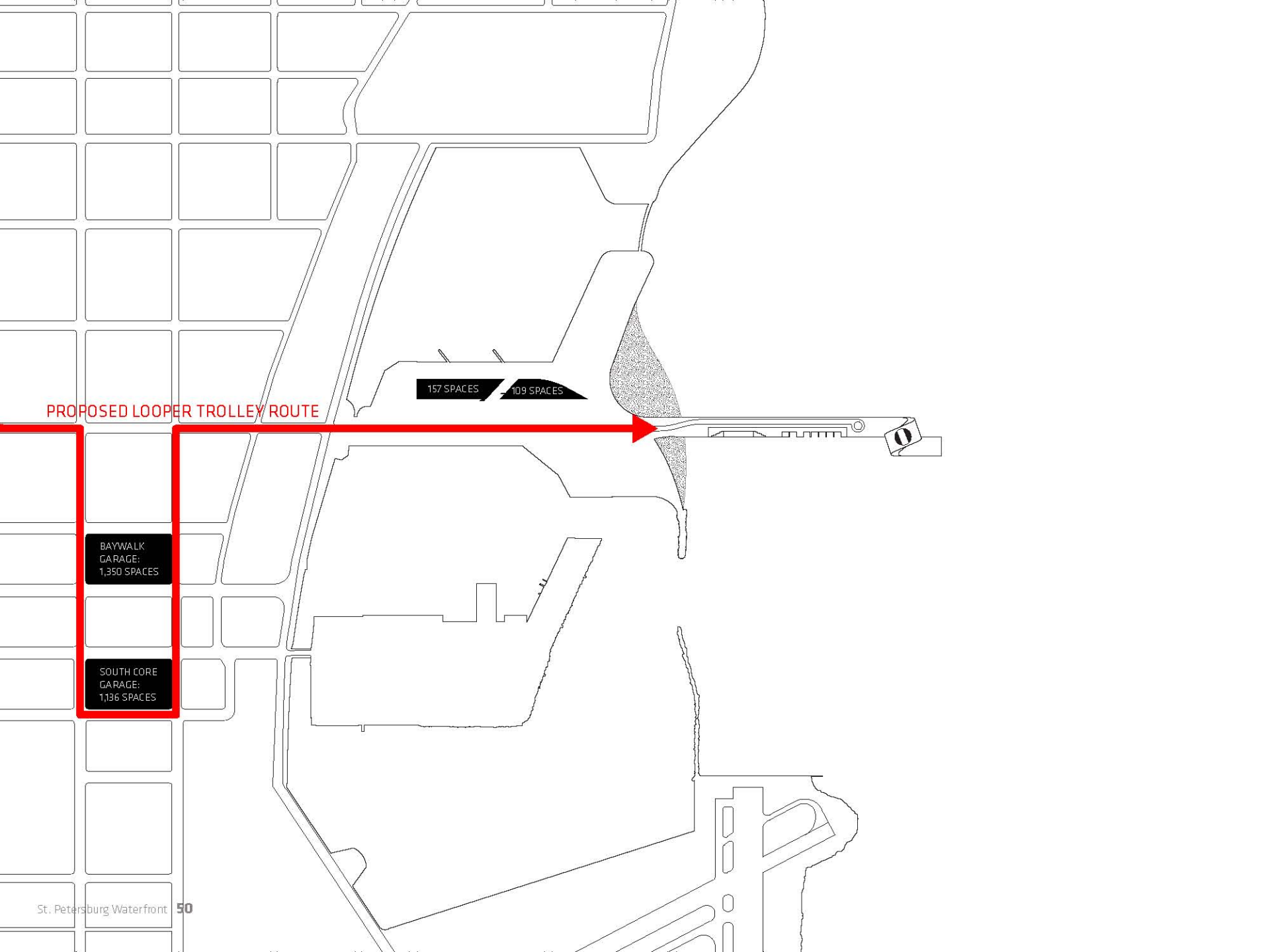
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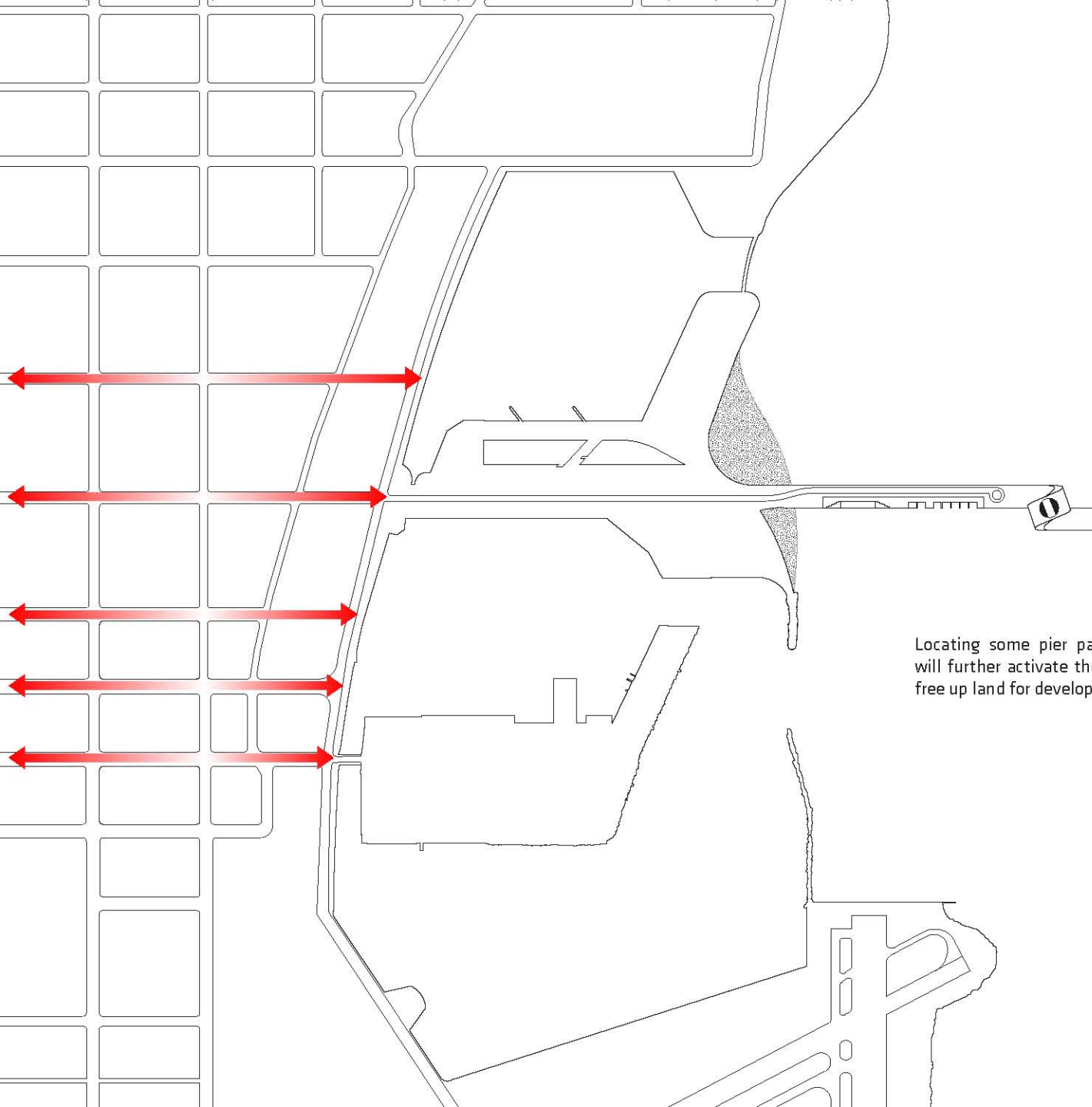
PROPOSED LOOPER TROLLEY ROUTE

BAYWALK GARAGE:
1,350 SPACES

SOUTH CORE GARAGE:
1,136 SPACES

157 SPACES 109 SPACES

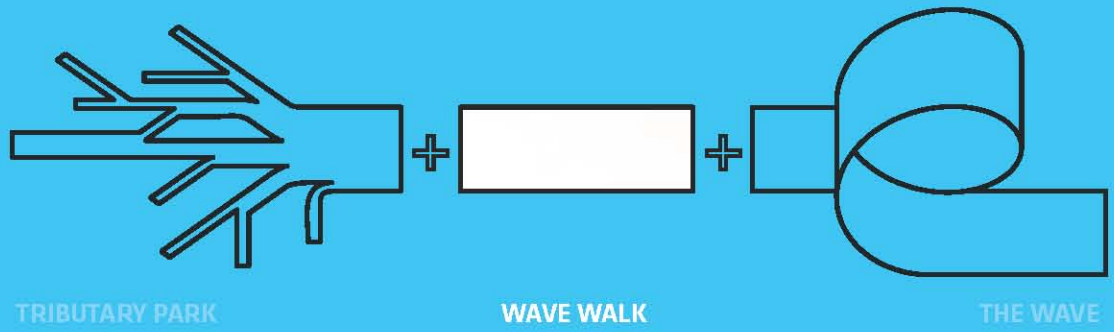




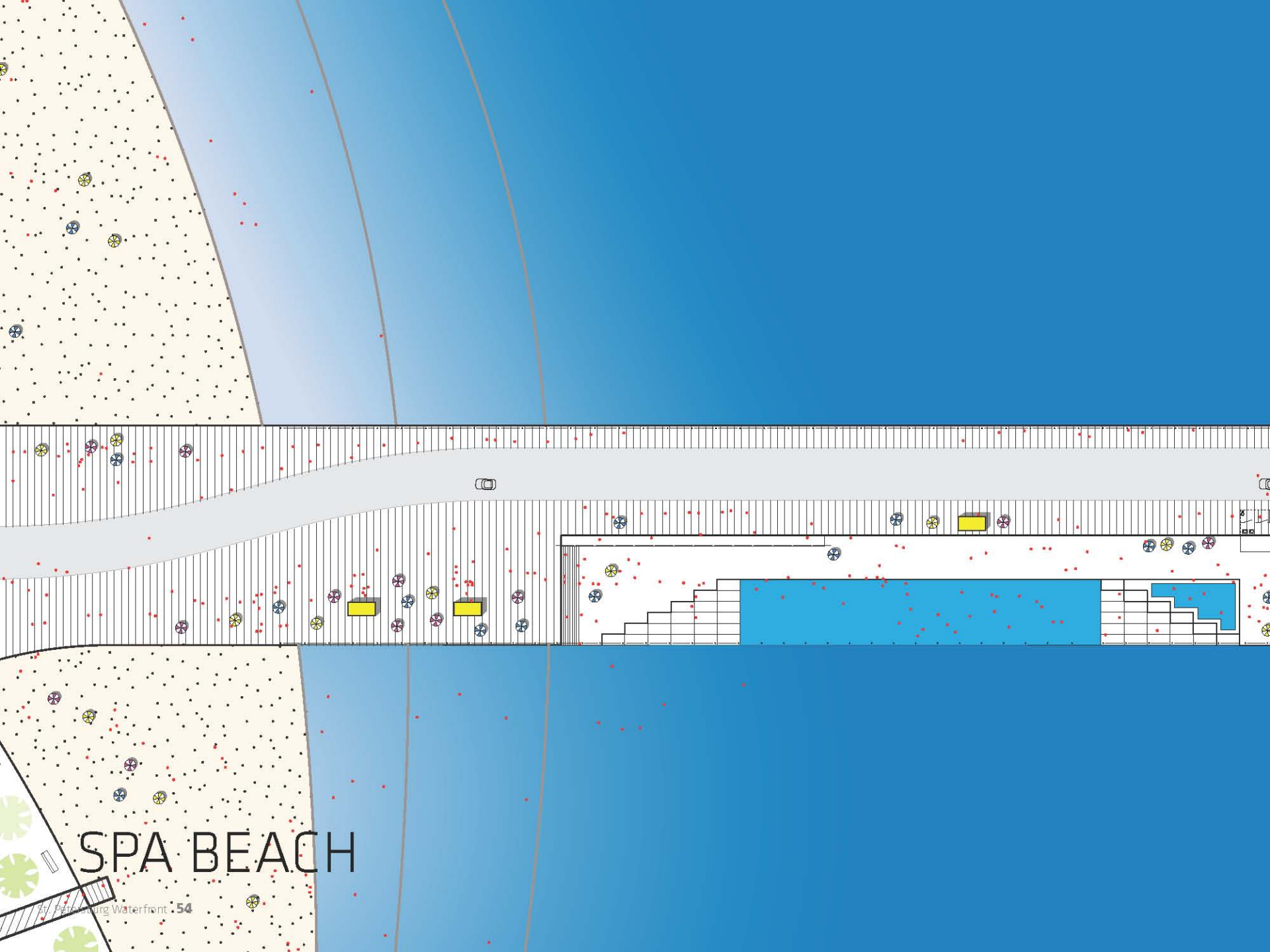
Locating some pier parking downtown will further activate the city center and free up land for development.

WAVE Walk – A river of people

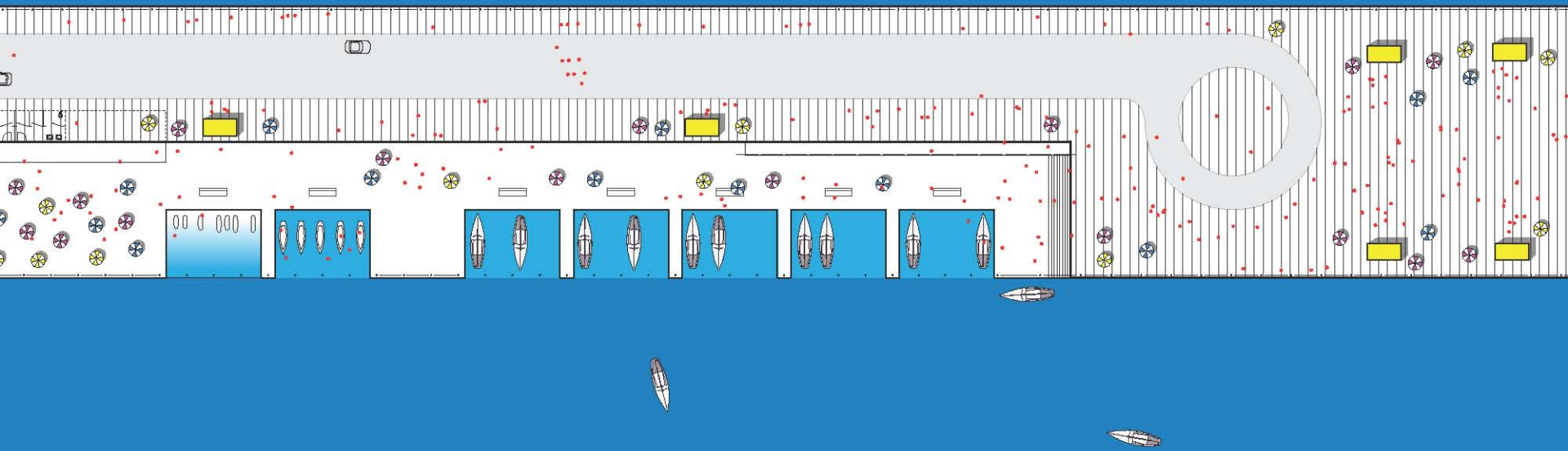
As the paths merge to form the pier the pier transforms to accommodate a series of water related activities. It steps up and down to bring life to the waters edge. It dives in to the water to frame a swimming pool for athletes and a mini port for kayaks, canoes and smaller boats.

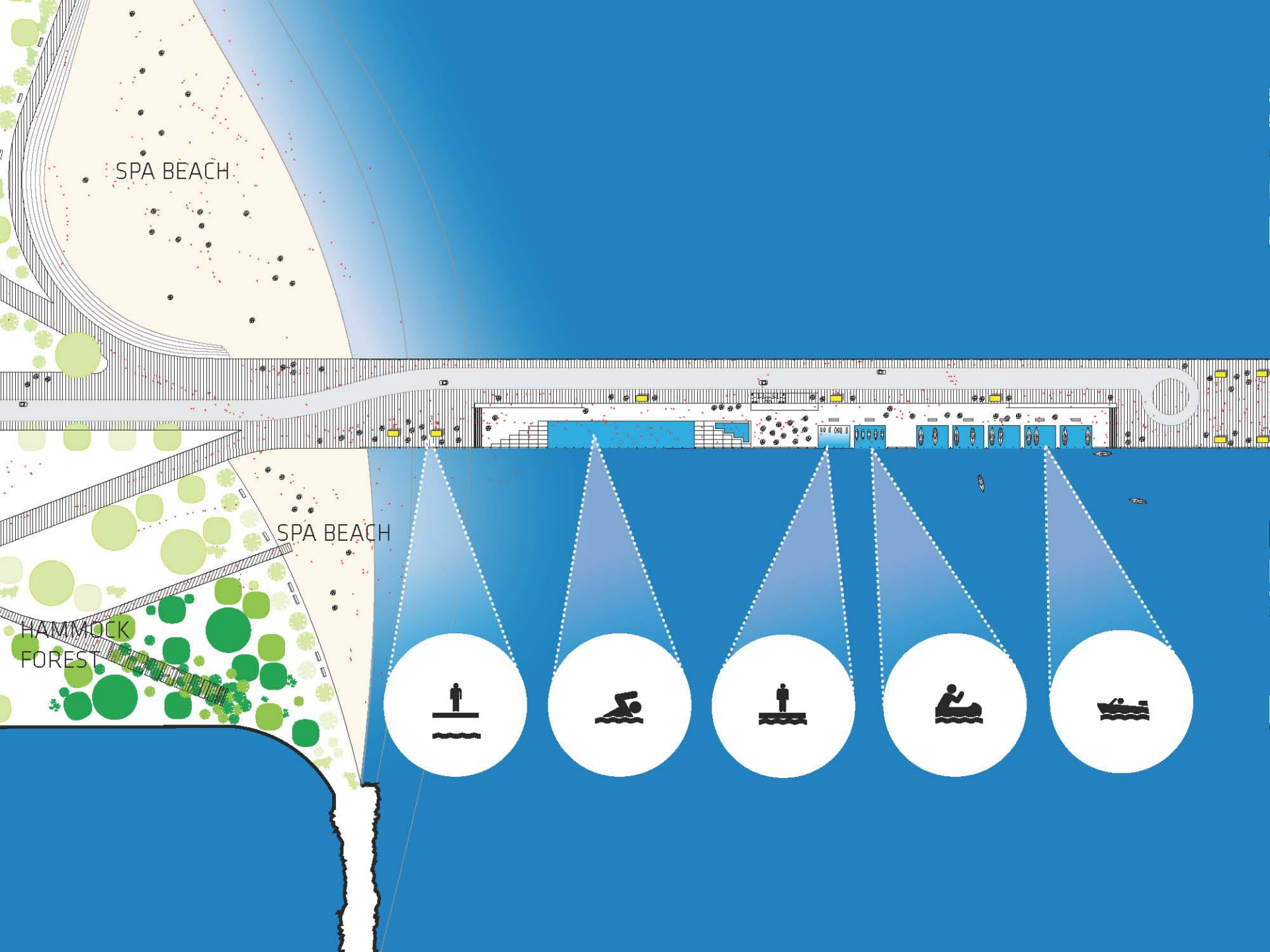


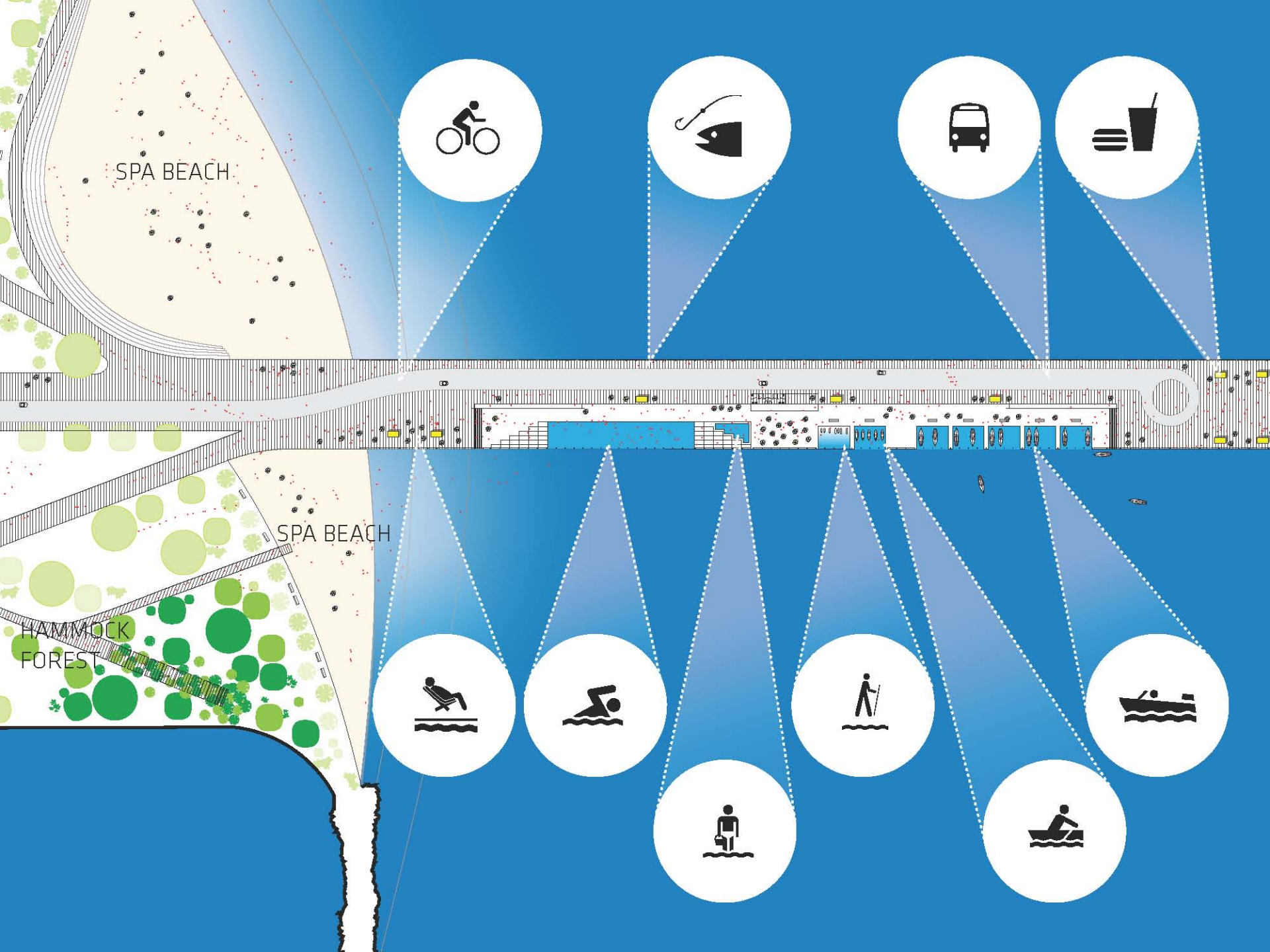
WAVE WALK



SPA BEACH



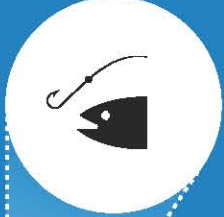


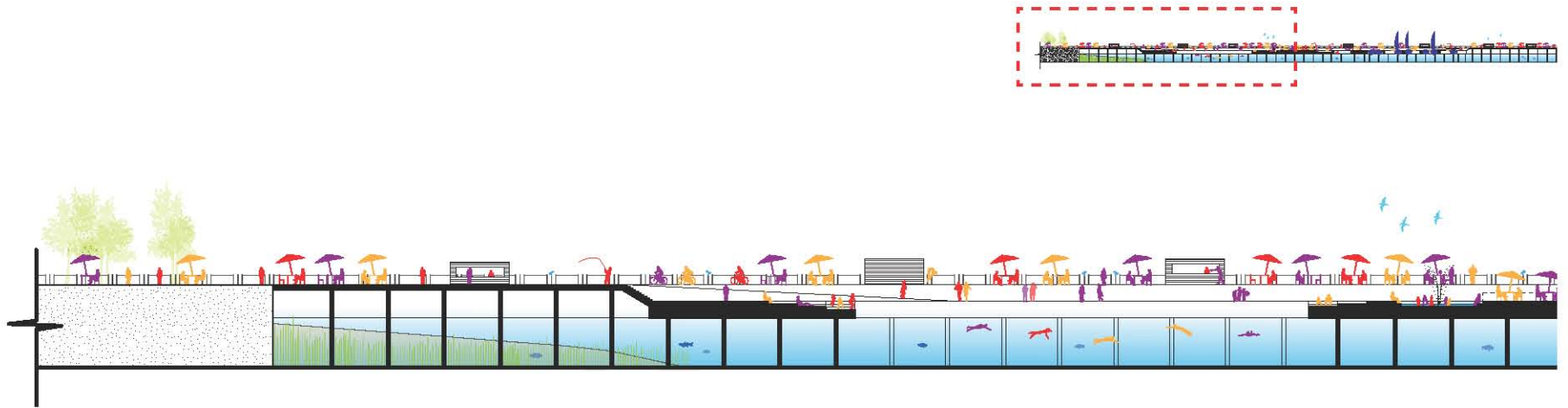


SPA BEACH

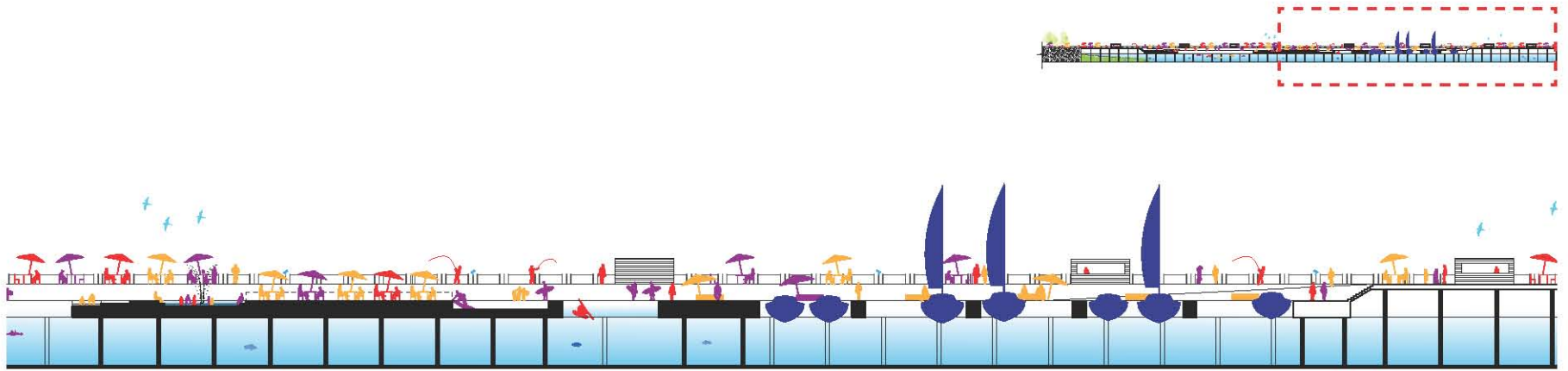
SPA BEACH

HAMMOCK FOREST





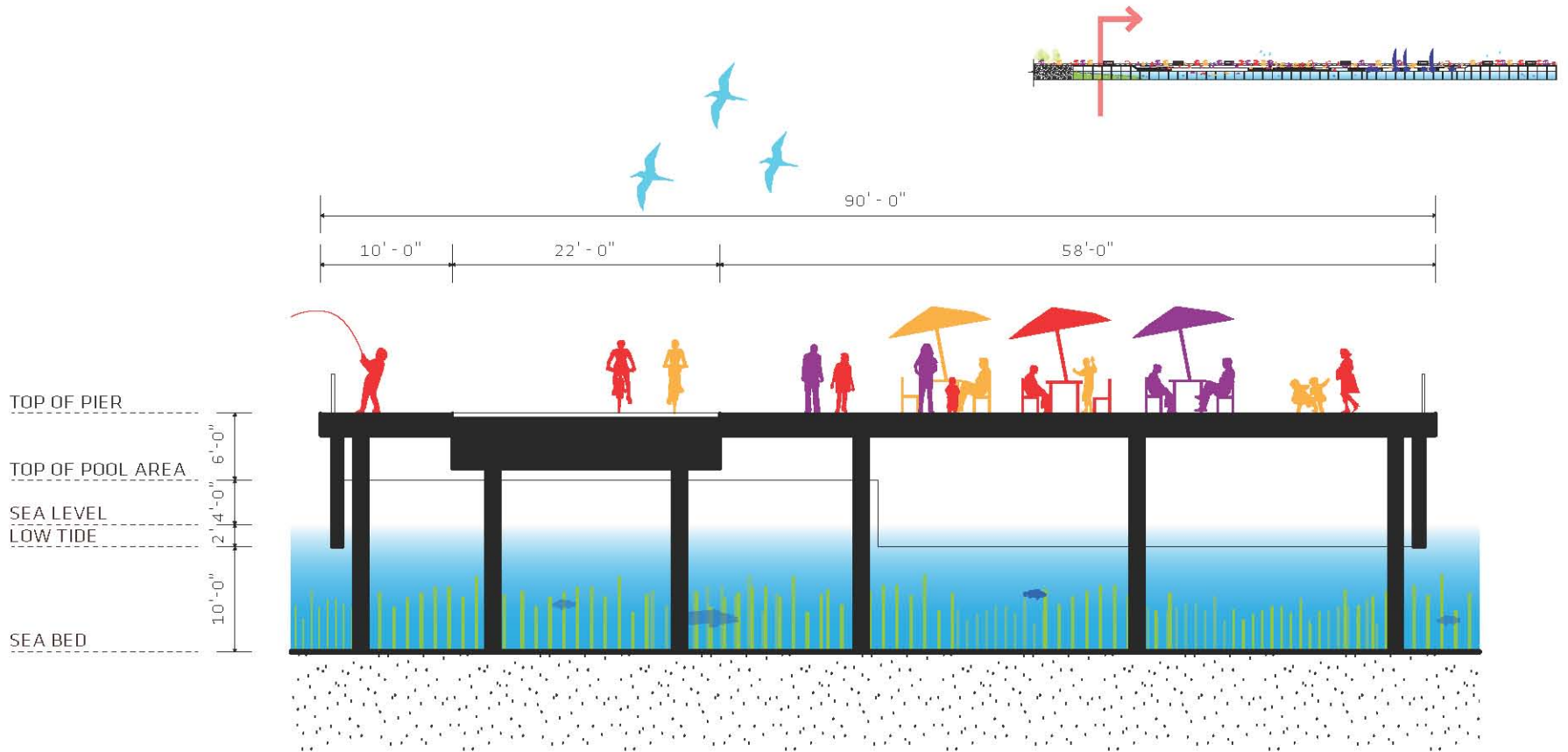
WAVE WALK Section



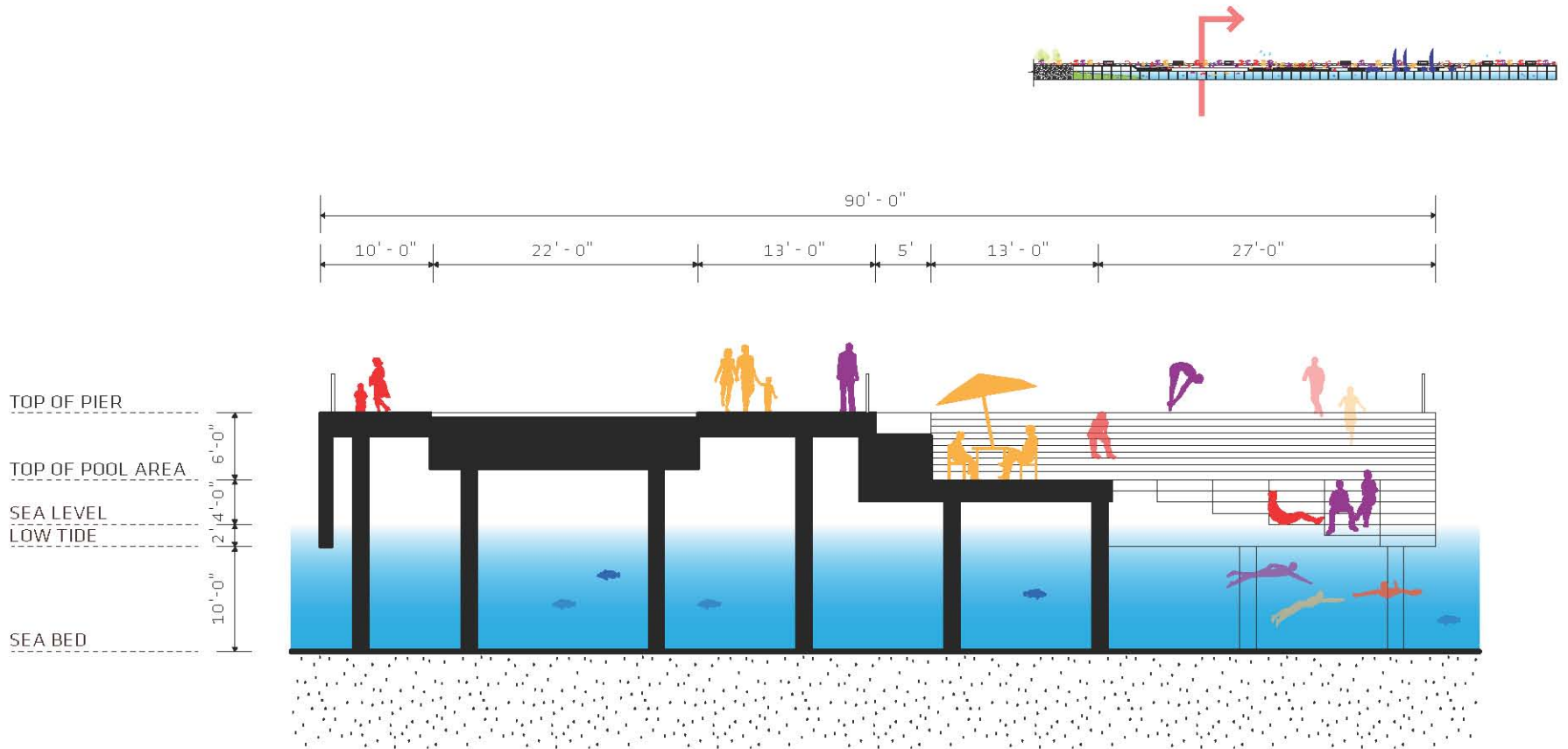
WAVE WALK Section



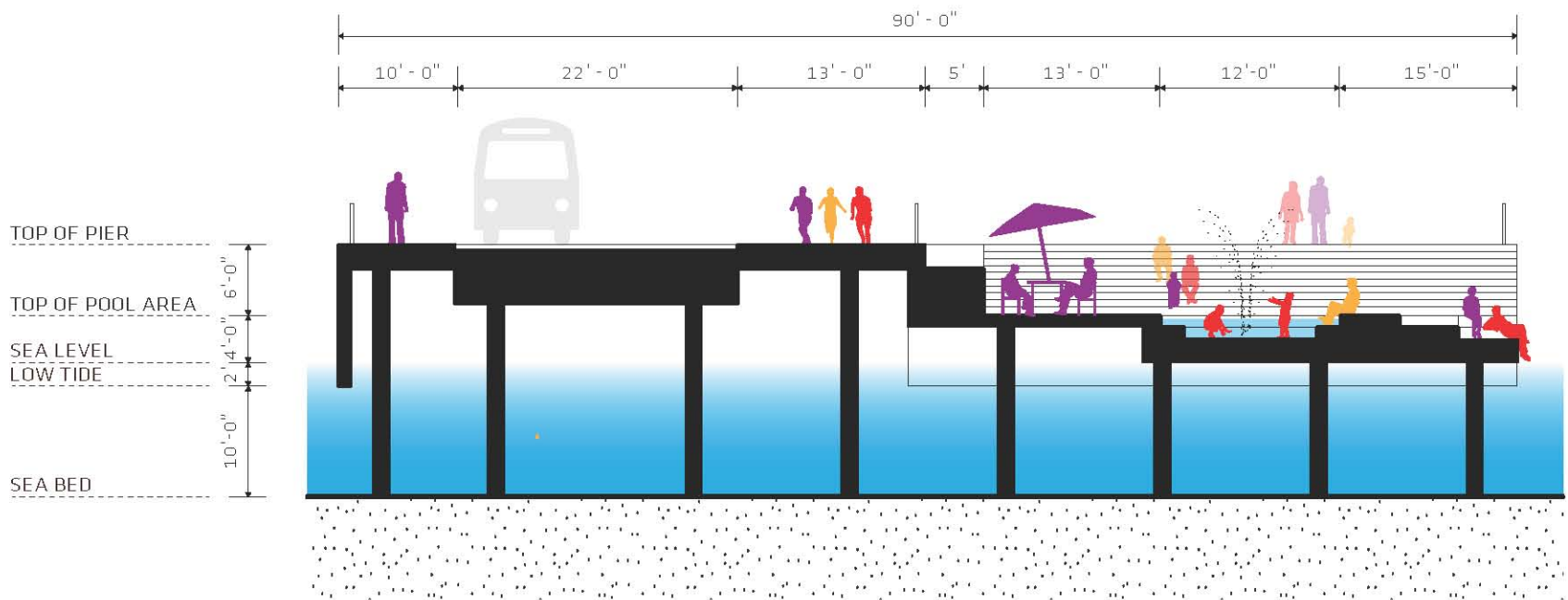
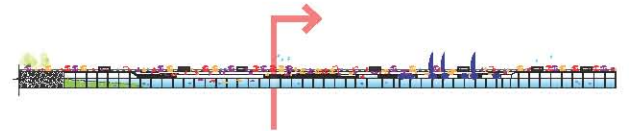
TYPICAL PIER SECTION



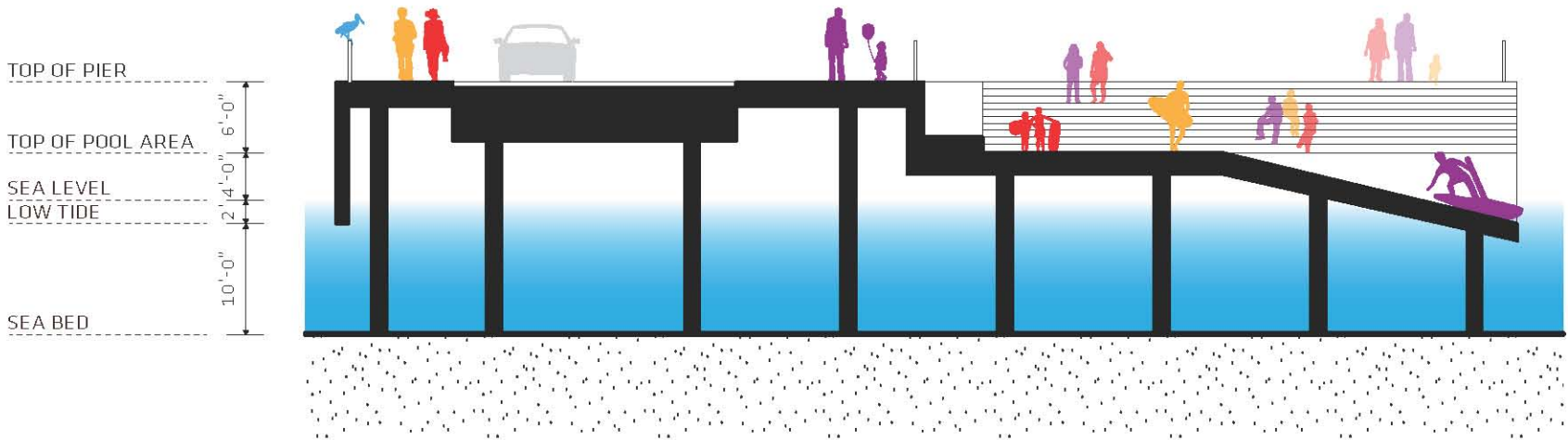
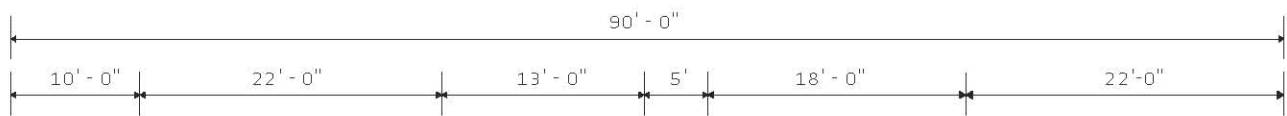
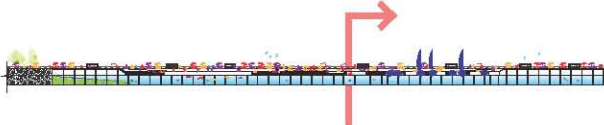
50 METER POOL PIER SECTION



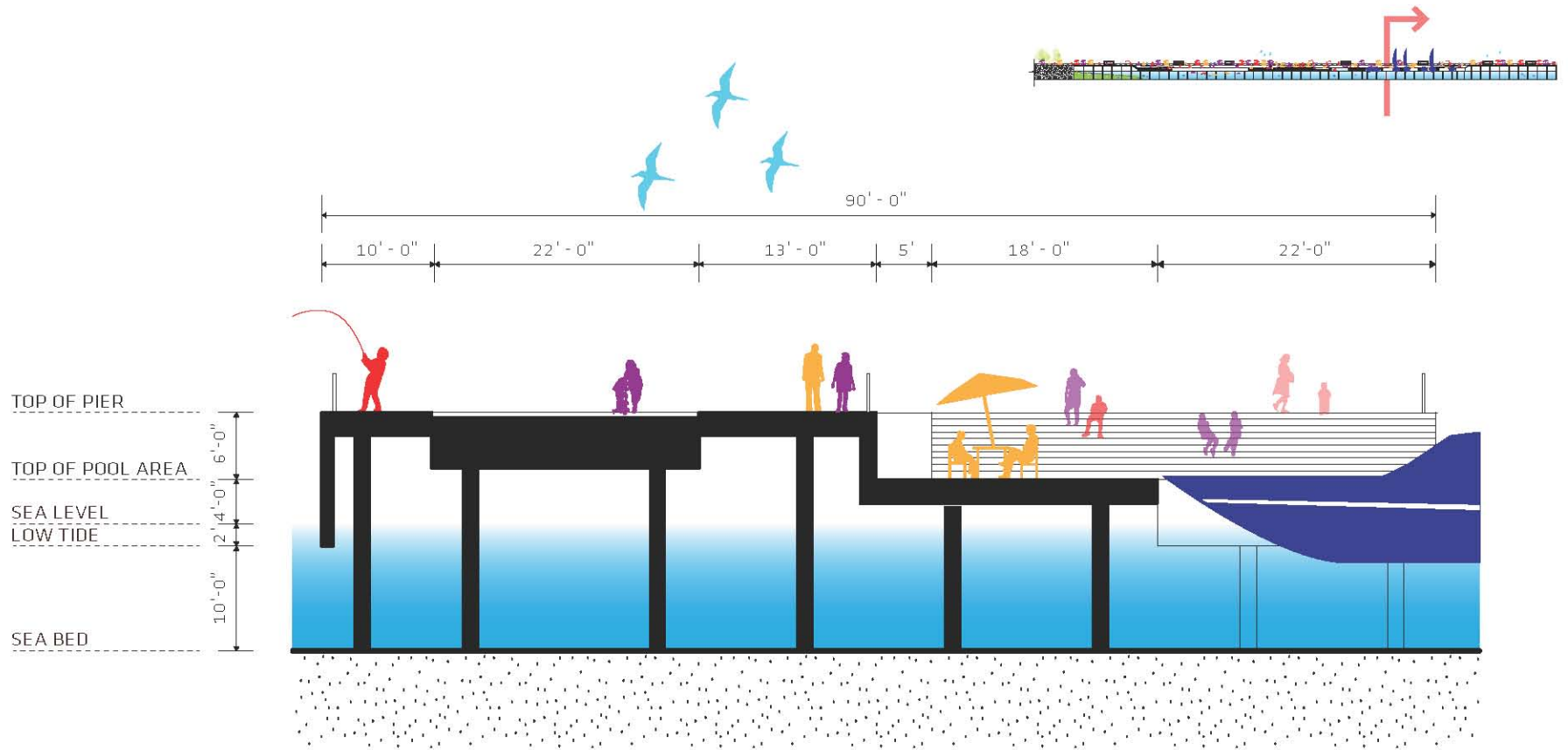
KIDDIE POOL PIER SECTION



PADDLE BOARD PIER SECTION

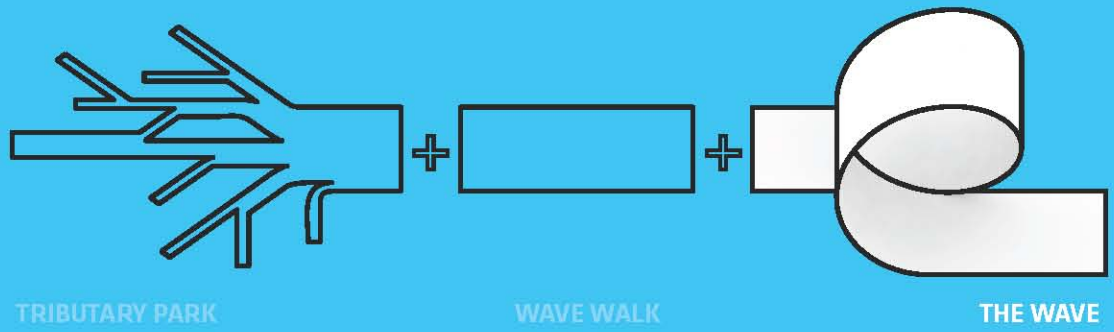


MARINA PIER SECTION



The Wave

We propose a single intervention that springs from multiple points in the city, on the waterfront, in the marina and parks – gathers momentum as it enters the bay and finally climaxes in a big wave of public life – populated beneath and on top – within and around. We propose a public space that is pliable and scalable, that takes root in multiple points of departure on land, extends across bay creating a series of water related activities. The finale merges together in the open water of the bay and turns around (literally) to allow citizens and visitors to admire the city as well as the water from above, below and within the water.

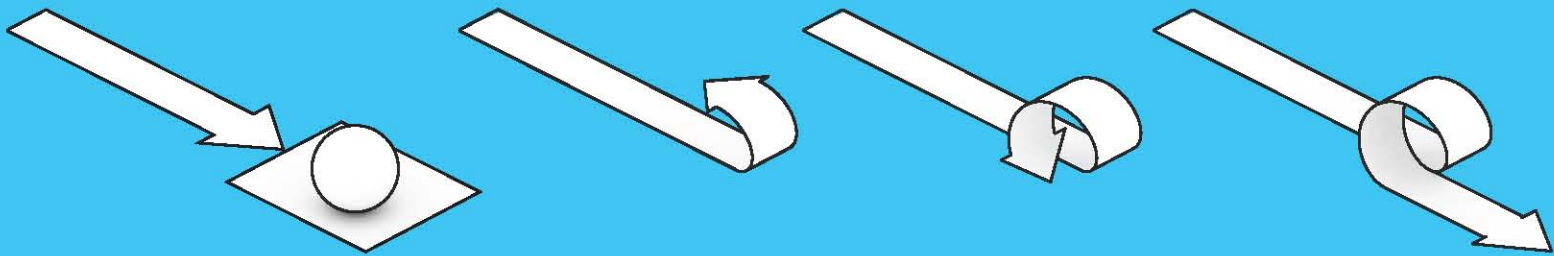


TRIBUTARY PARK

WAVE WALK

THE WAVE

THE WAVE



Rather than creating an isolated object at the end of the pier approach The pier itself begins to curl in on itself creating a wave of social activity







Like a surreal moment of bending gravity or warped reality – the pavement of the pier rises forming a curved horizon like a breaking wave only to form a roof and loop before it returns to create a man-made beach and sun deck overlooking the bay.

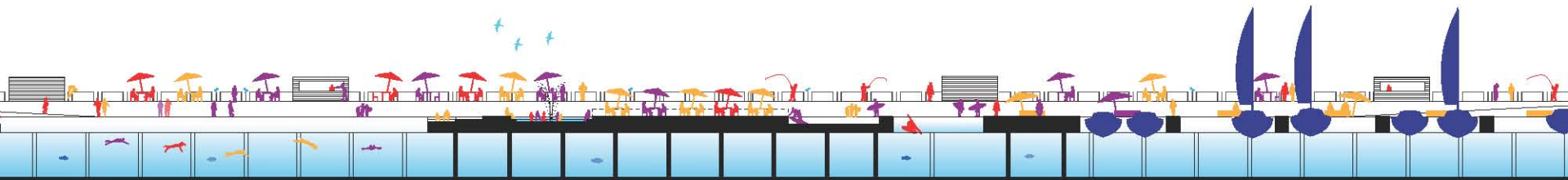
Watermark

The Wave is conceived as a strong character on the skyline and waterline of St Petersburg and Tampa Bay. Its characteristic waves and curves lend themselves to an array of activities around and within them: a view point, a pavilion, a band shell, a boat pier, a market place, a banquet hall, an exhibition space, a beach, a boardwalk, a stage and an audience. But most importantly – Like water it rests on – the Wave pier is shaped by the life within and around it, and is flexible and open to change. As life in the city evolves – so will the pier evolve with it. Its strong form and generous spaces can accommodate a multitude of programs – either one single destination or multiple individual activities or tenants. Its sculptural exterior creates a series of public spaces – the rooftop outlook on the break of the wave, the spectator stands in the curl of the wave, the covered stage under the arch of the loop and the beach as the pier dives into the water. Within the thickness of the wave a cascade of programmable spaces form a single loop. As times change this spaces can be joined or parted to suit the needs and opportunities of the city and its citizens.

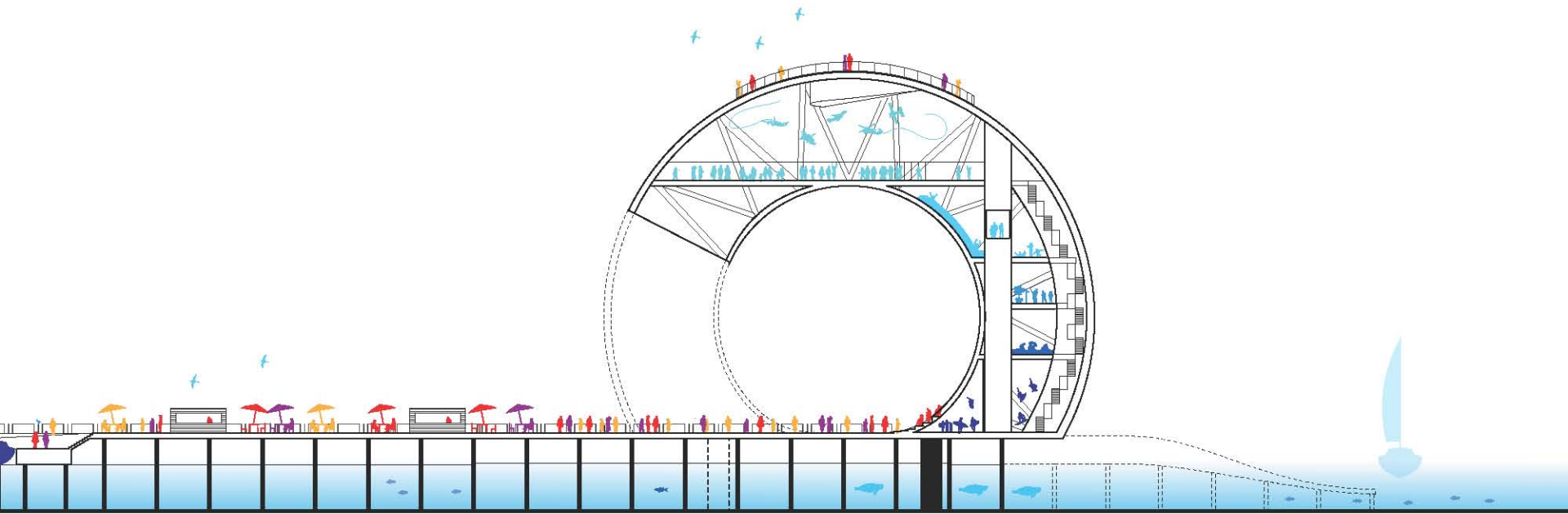


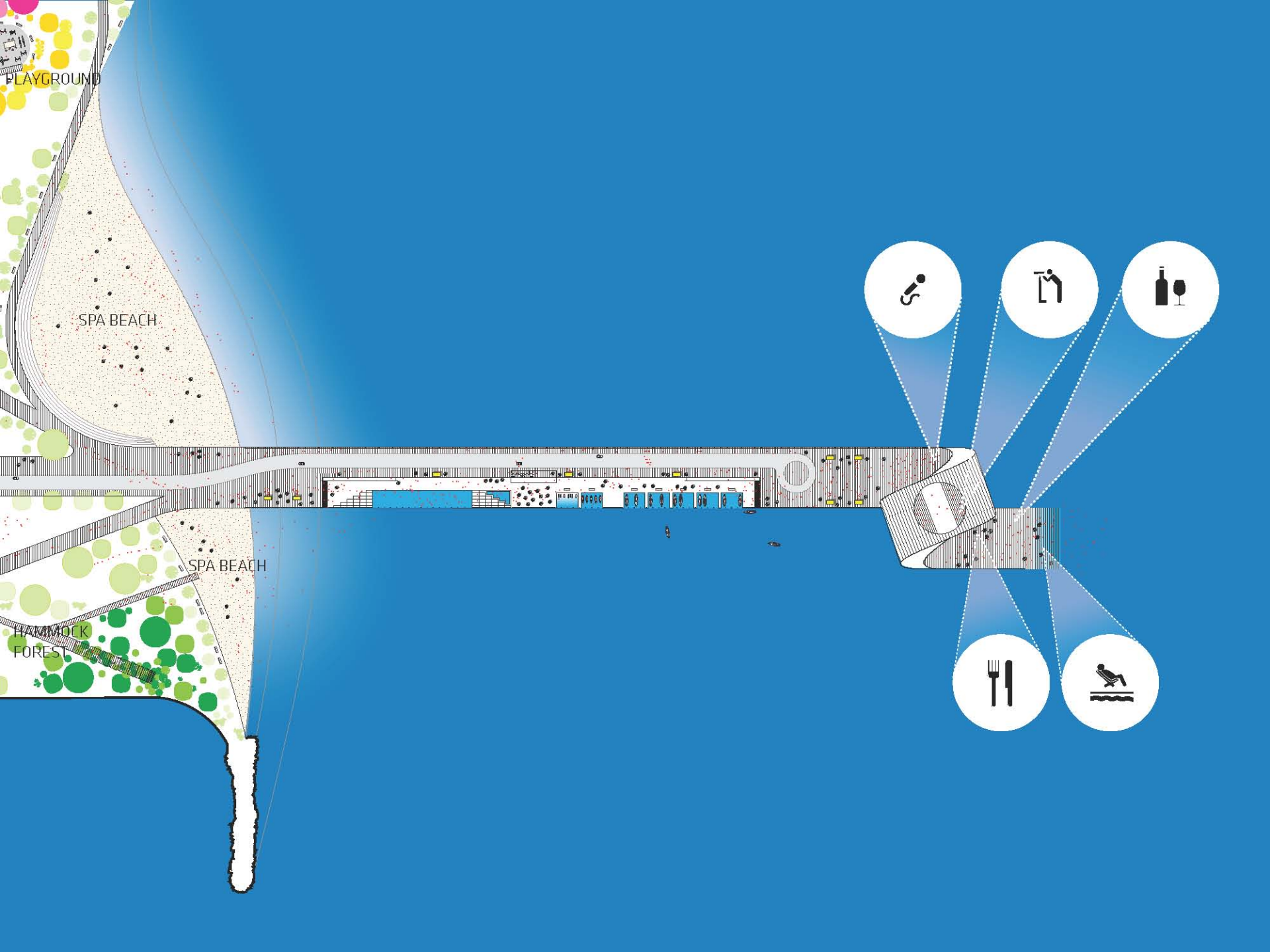
Pavilion – The Wave of St Petersburg

As people approach the end of the pier the WAVE WALK folds to form a wave looping 360 degrees creating a band shell, spectator stands, a look out and a beach before it disappears in to the water. From the individual attractions on land to the collective destination in the water – the pier branches out to reach multiple points in the city – and consolidates to create a public node in the water. A continuous flow of people and public life will ensure a variety of experiences throughout the waterfront. The new St Petersburg Pier is rooted in the life of the city - coming together on the water forming a collective destination at the Wave.



PIER SECTION





PLAYGROUND

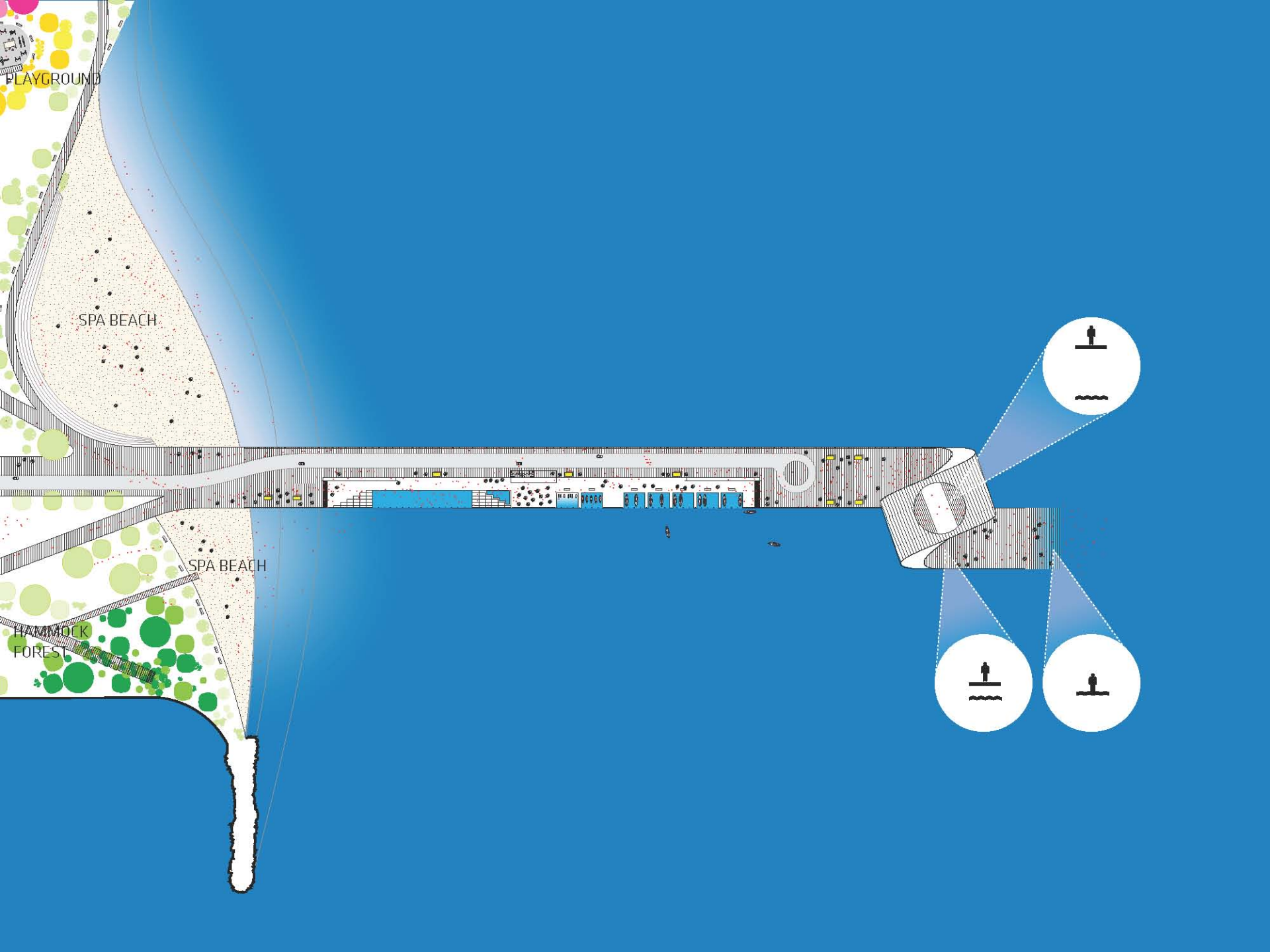
SPA BEACH

SPA BEACH

HAMMOCK FOREST







PLAYGROUND

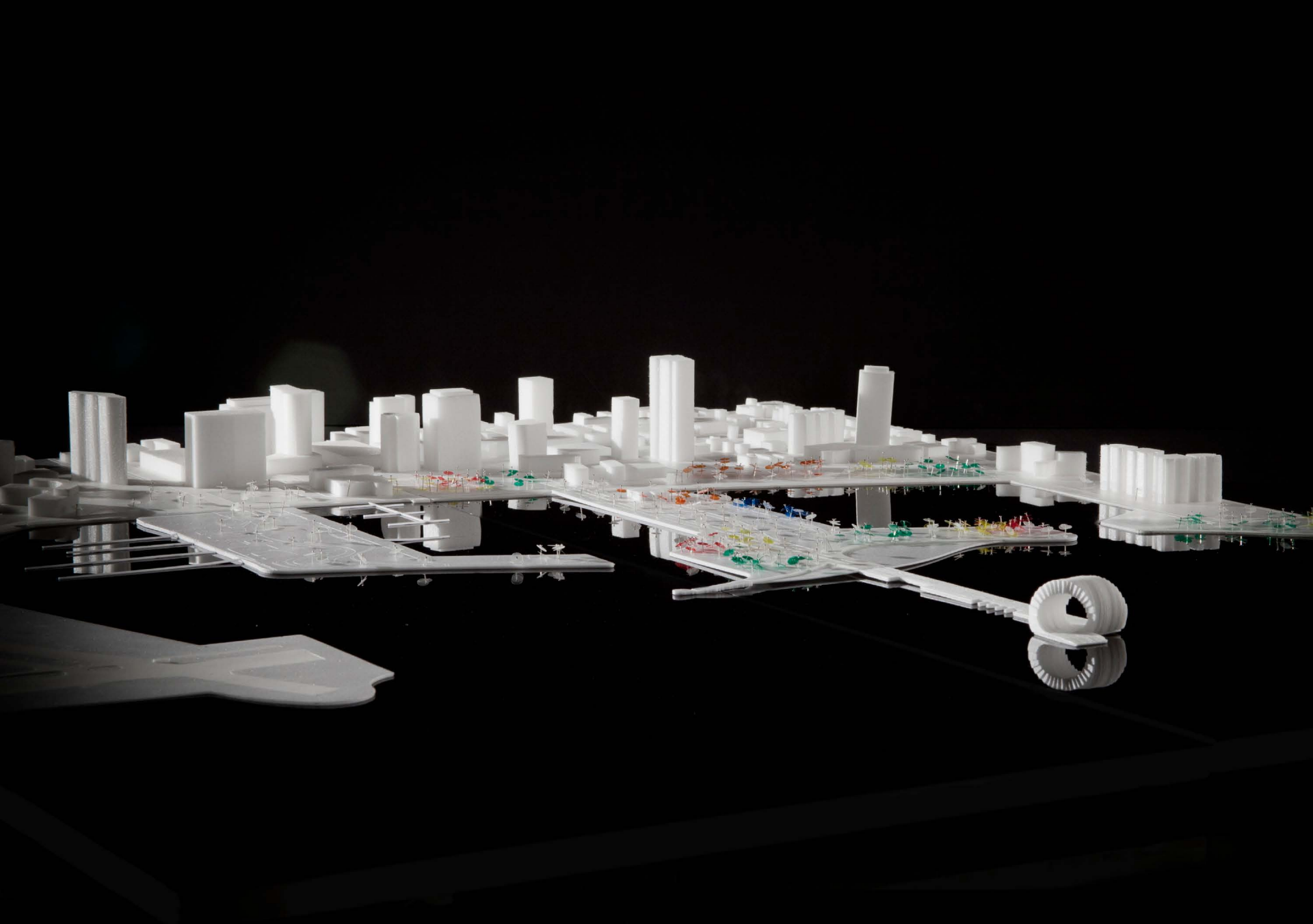
SPA BEACH

SPA BEACH

HAMMOCK FOREST



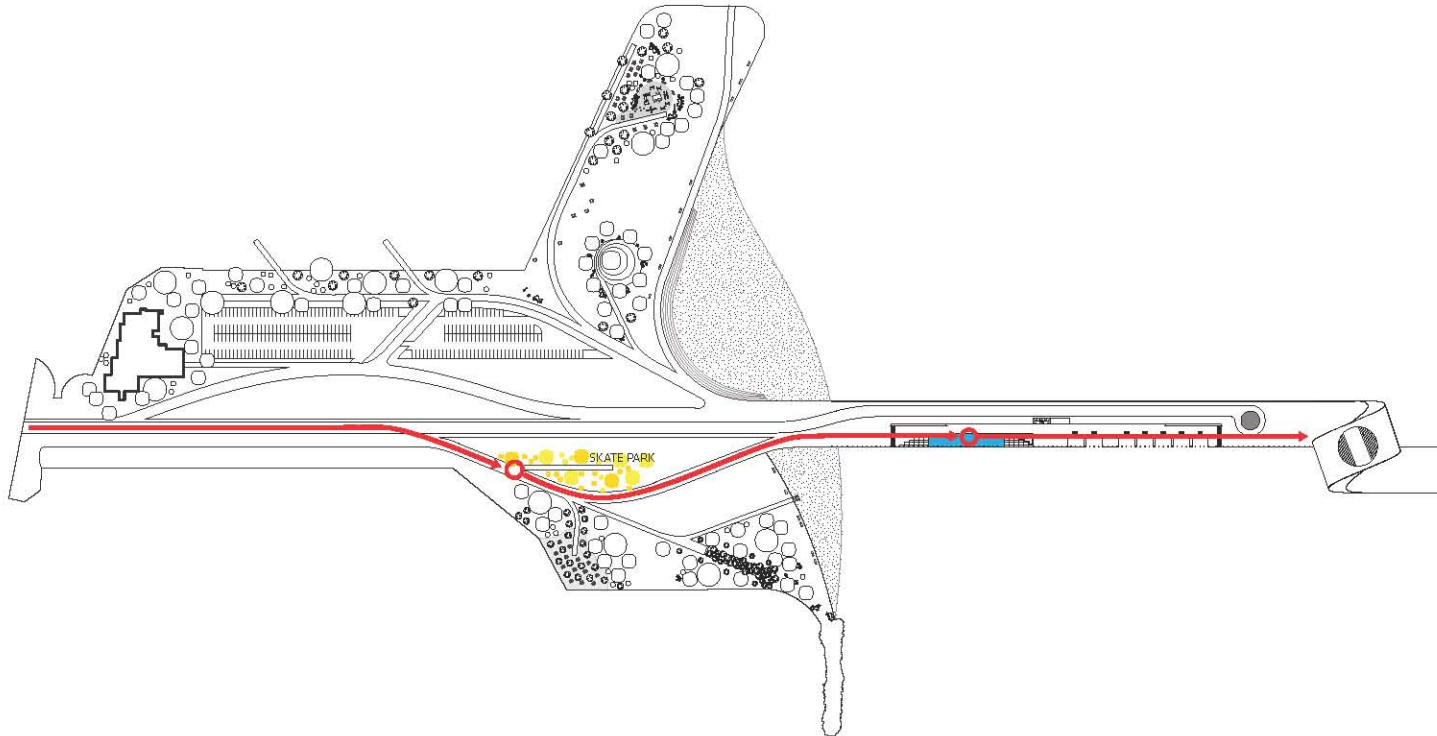


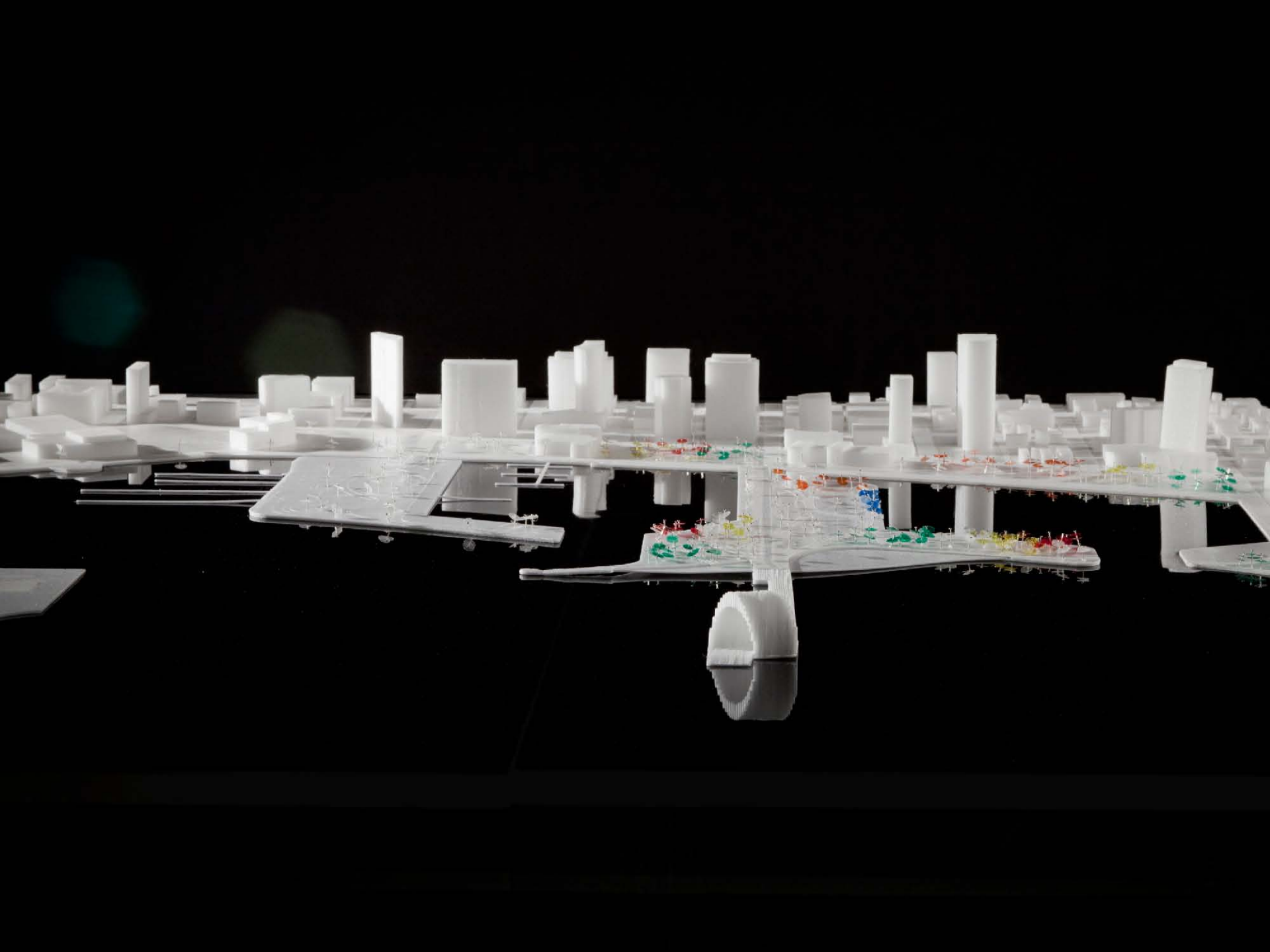




TEEN USER:

- 1) SKATE PARK
- 2) PIER POOL
- 3) LOOP WATER CYCLE ACTIVITIES

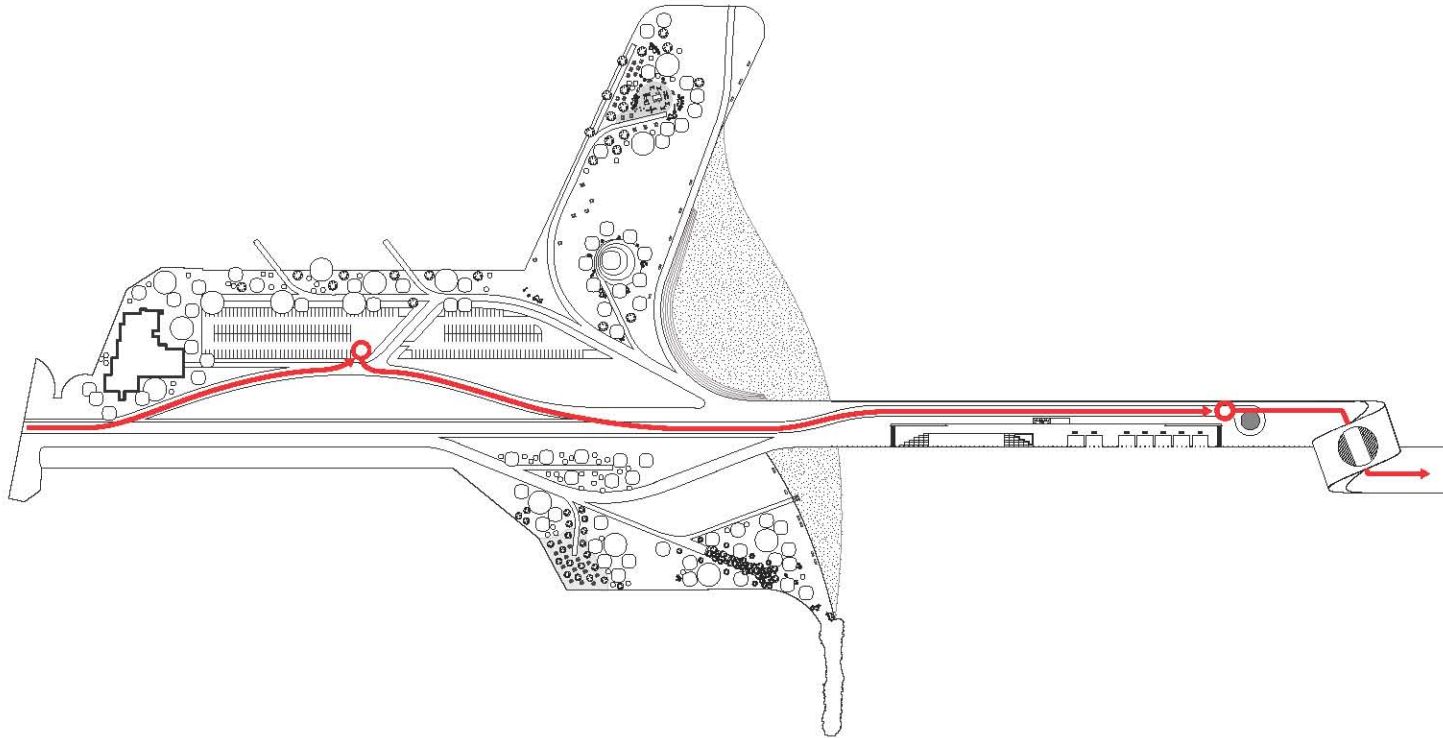






SENIOR USER:

- 1) PARKS CAR
- 2) RIDES TROLLEY TO LOOP
- 3) SUNRISE AT LOOP







FAMILY:

- 1) ECOLOGICAL PROGRAM
- 2) PLAYGROUND
- 3) KIDDIE POOL

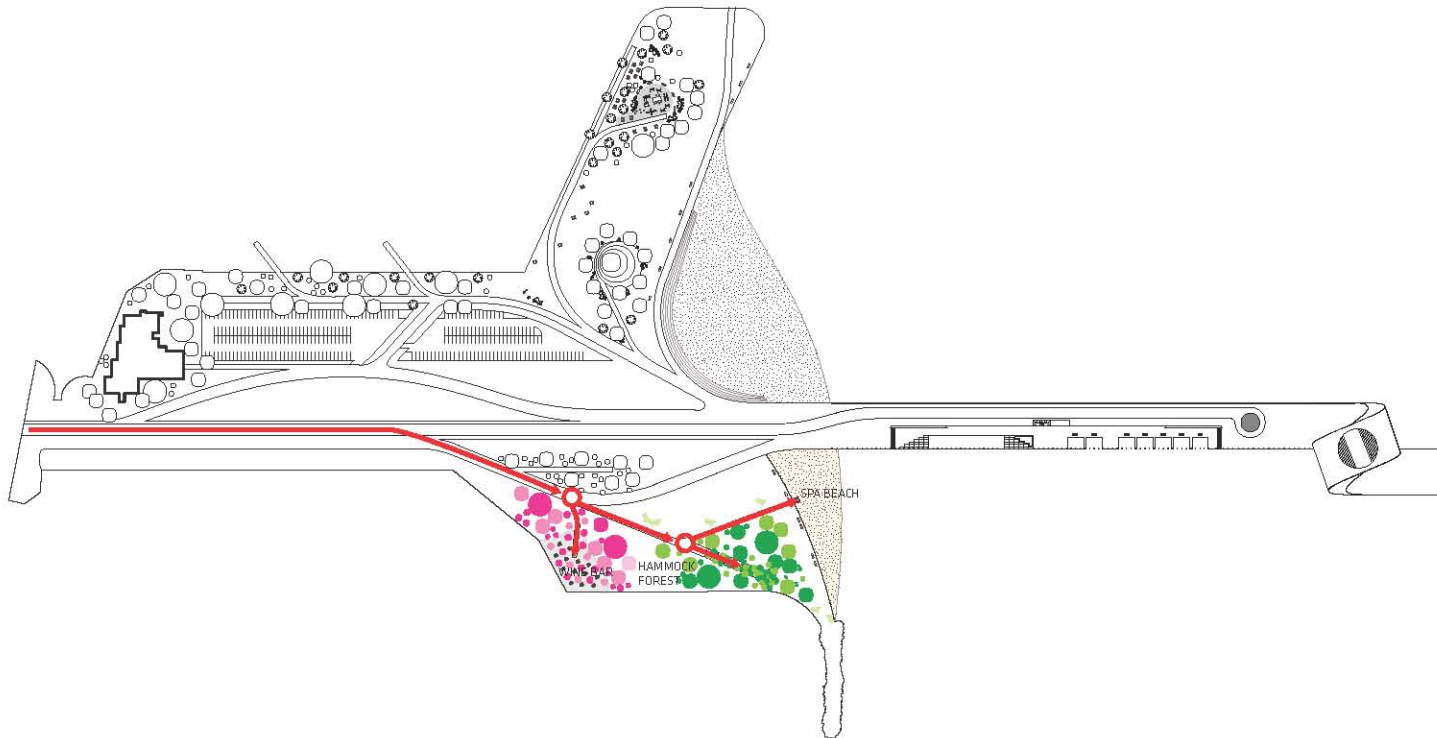






LEISURE USER:

- 1) WINE BAR
- 2) HAMMOCK FOREST
- 3) SPA BEACH SUNSET







SPORT ENTHUSIAST:

- 1) BIKE PATH TO SPA BEACH
- 2) PIER PADDLE BOATS/CANOES
- 3) LOOP ROCK CLIMBING WALL

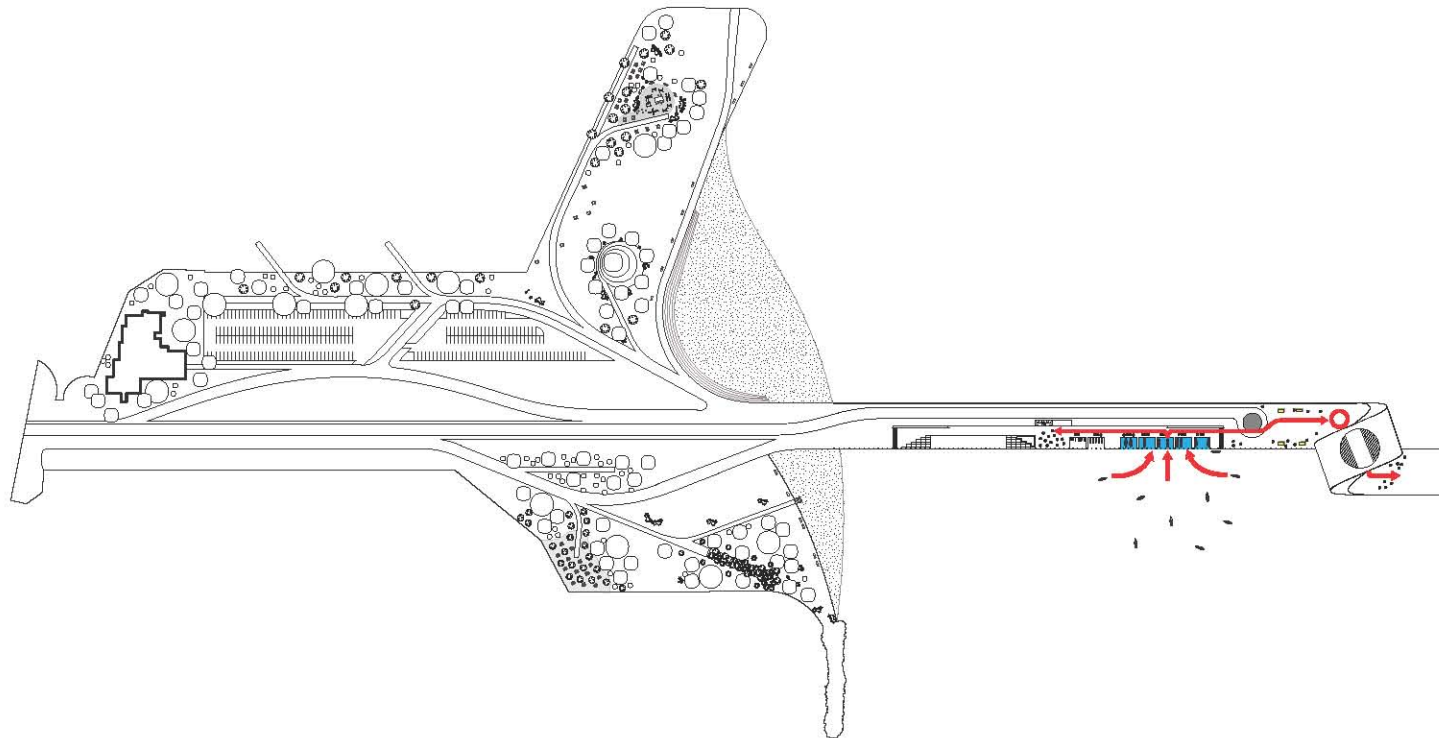






BOAT ENTHUSIAST:

- 1) ATTEND LOOP EVENT
- 2) LOOP RESTAURANT/BAR
- 3) RELAX ON SUN DECK



1920's



1970's



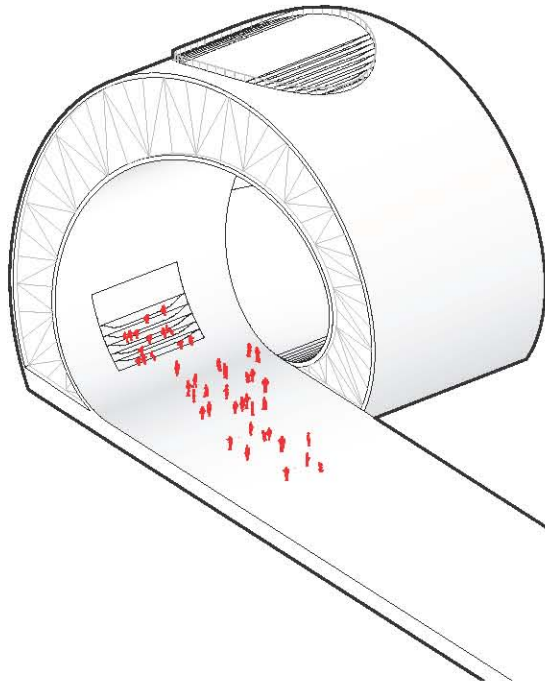
PIR

STOP

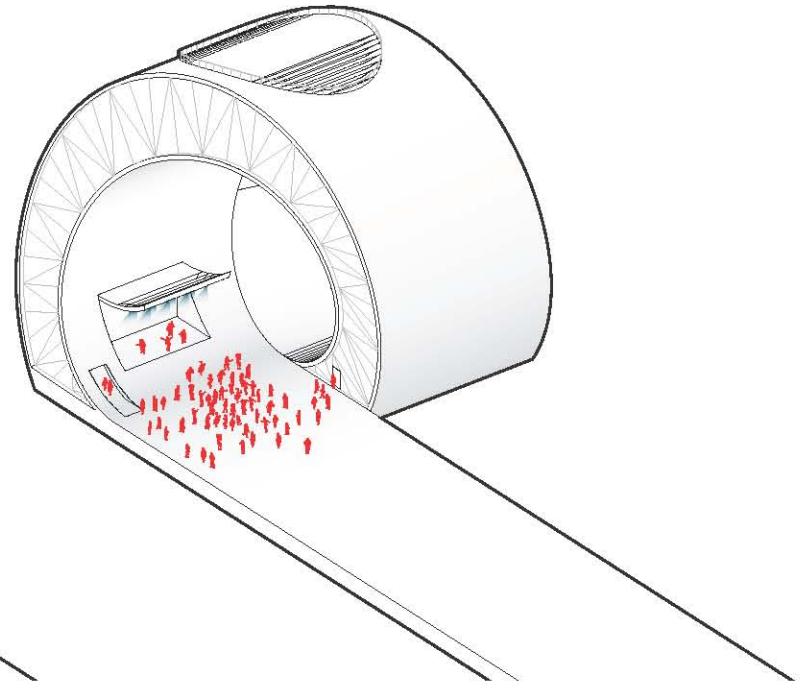
VALET PARKING
MERGE RIGHT
DO NOT BLOCK ROADWAY

2010's



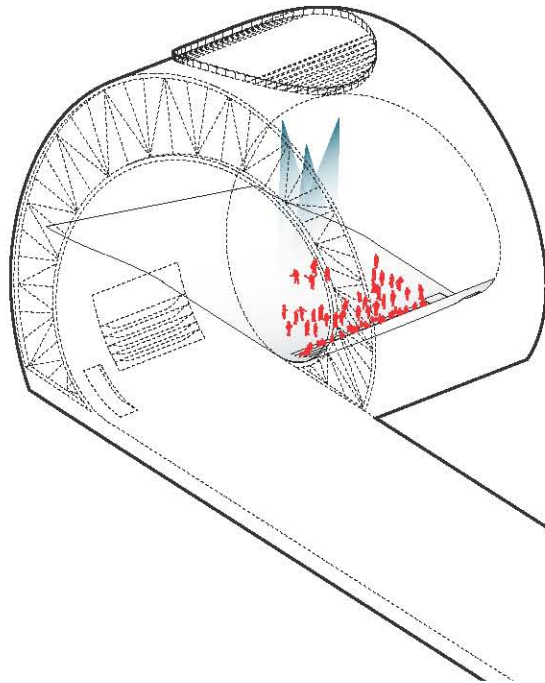


Seating facing the city

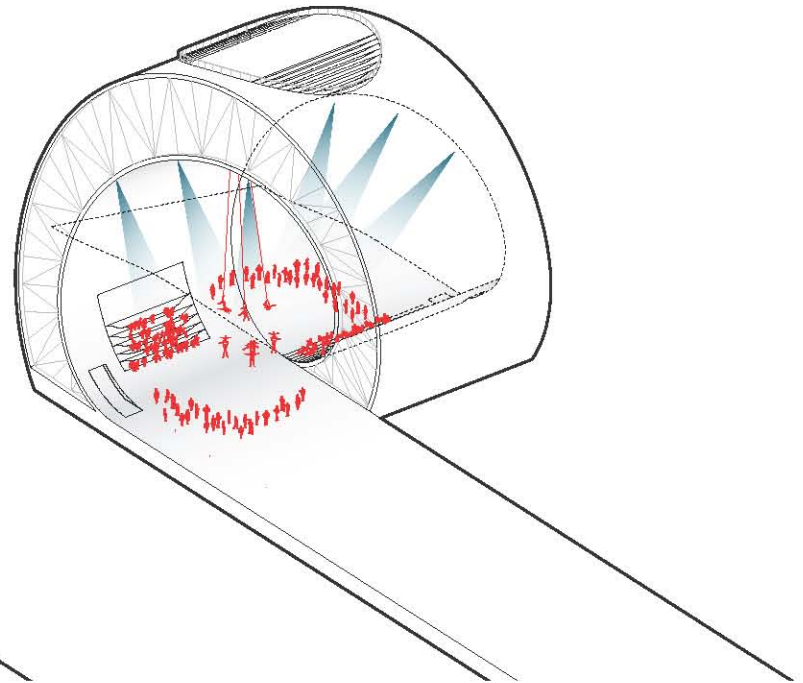


Concert City side





Concert Waterside



Both sides for central Event



The Wave Pier will foster the legacy of many of the events that currently happen on and around the current pier as well as new opportunities amplifying public life out on the waterline.



FIRST ANNUAL BAIT AND YAZ WING FEST

CAJUN ZYDECO CRAWFISH FESTIVAL AT VINOY PARK



BACK TO SCHOOL BASH AT THE PIER



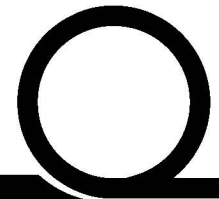
Jingle Bell Run at the Pier



SATURDAY SALSA AT THE PIER



4TH OF JULY FIREWORKS



JAN FEB MAR APR MAY JUNE JULY AUG SEPT OCT NOV DEC

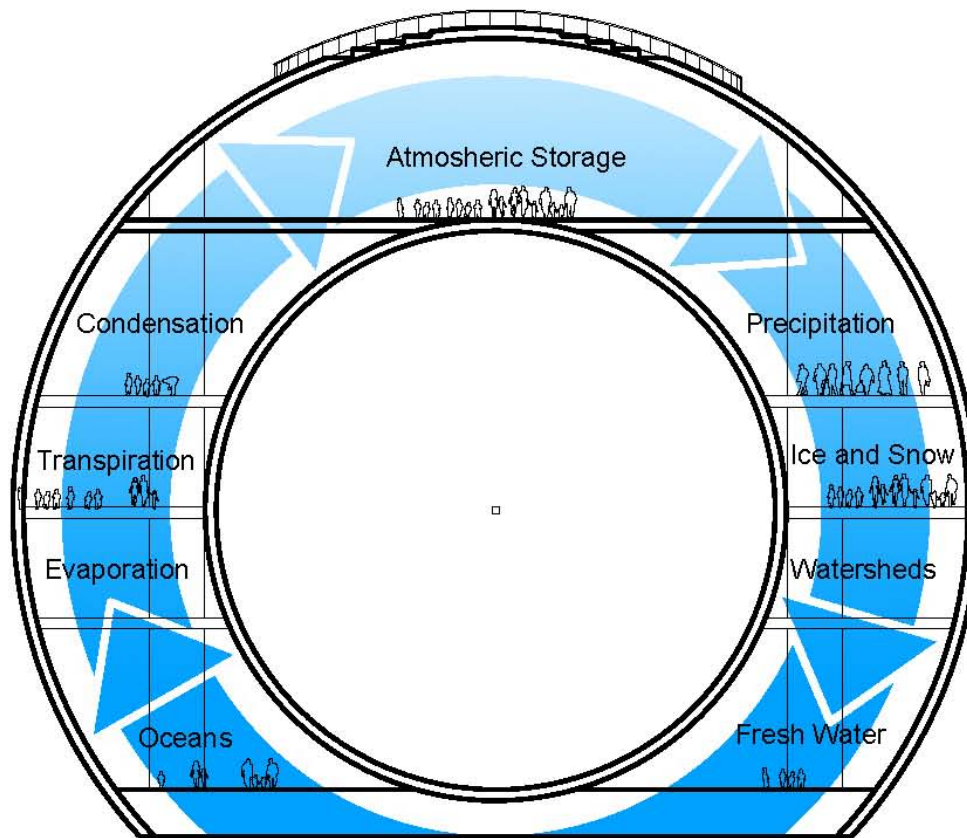




JAN FEB MAR APR MAY JUNE JULY AUG SEPT OCT NOV DEC

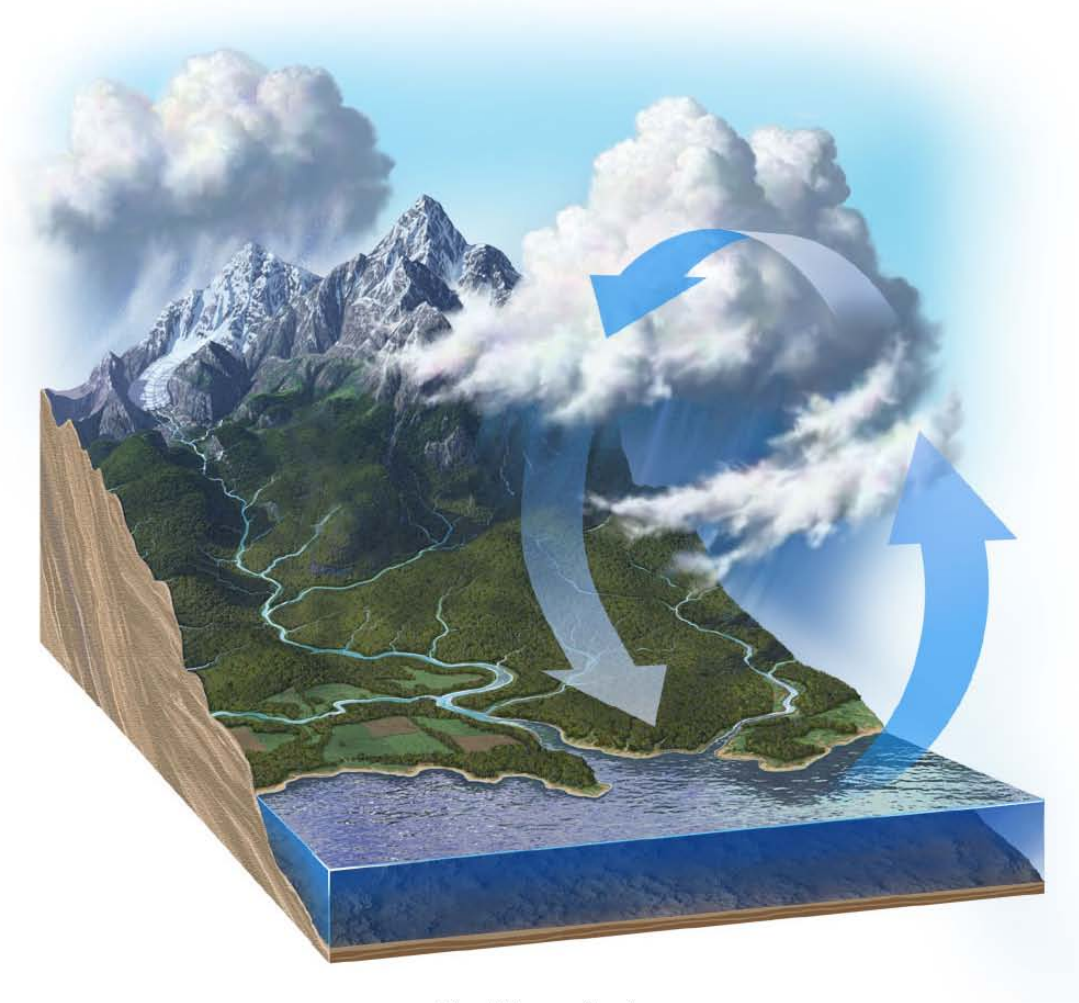
2011





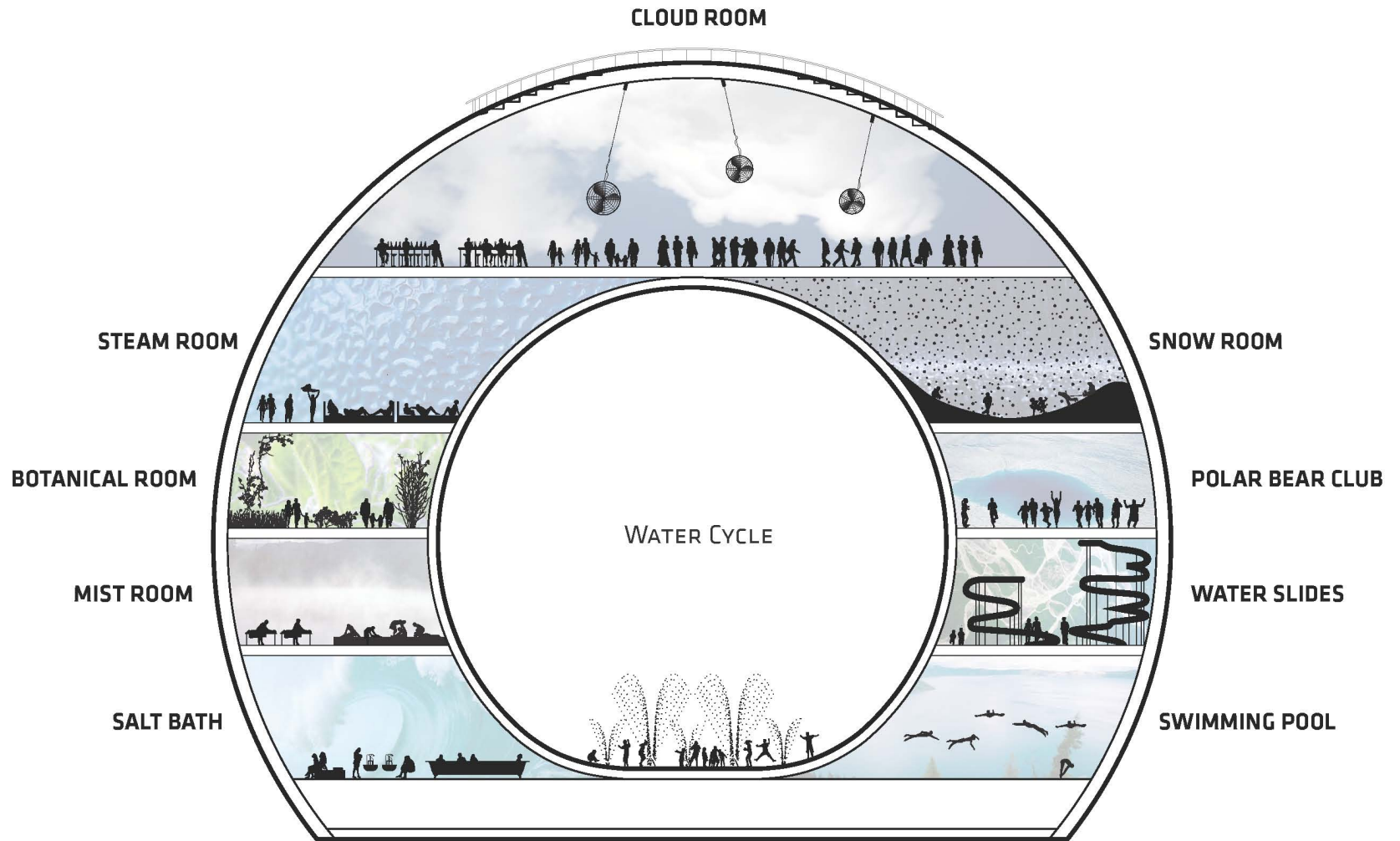
Experiencing the Water Cycle

Each floor of the Wave Pier could have a direct relationship to each phase of the water cycle.



The Water Cycle

Reaching back to the tributaries, the water is



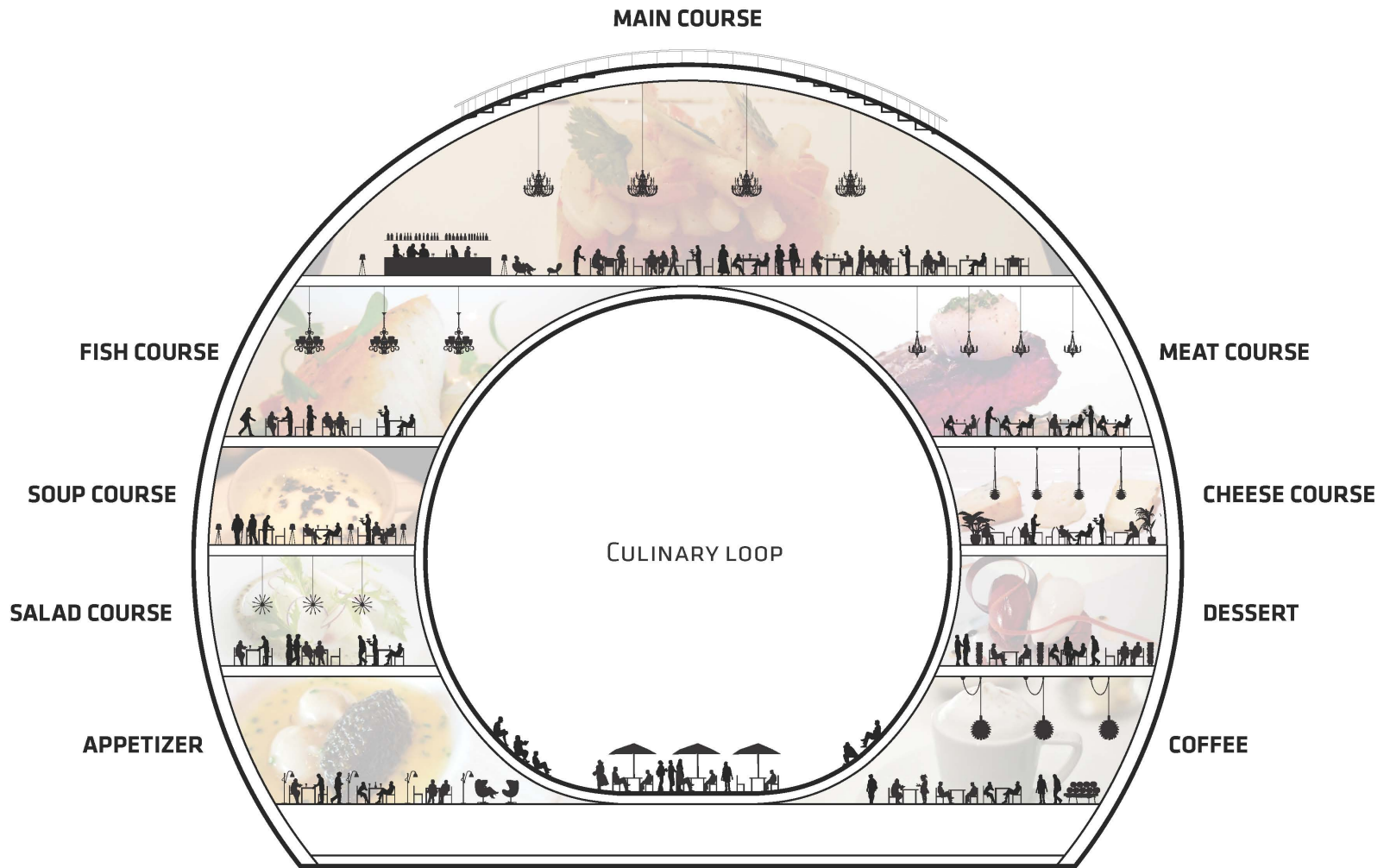
The Water Cycle

The Wave is complete with leisure activities related to different states of water.



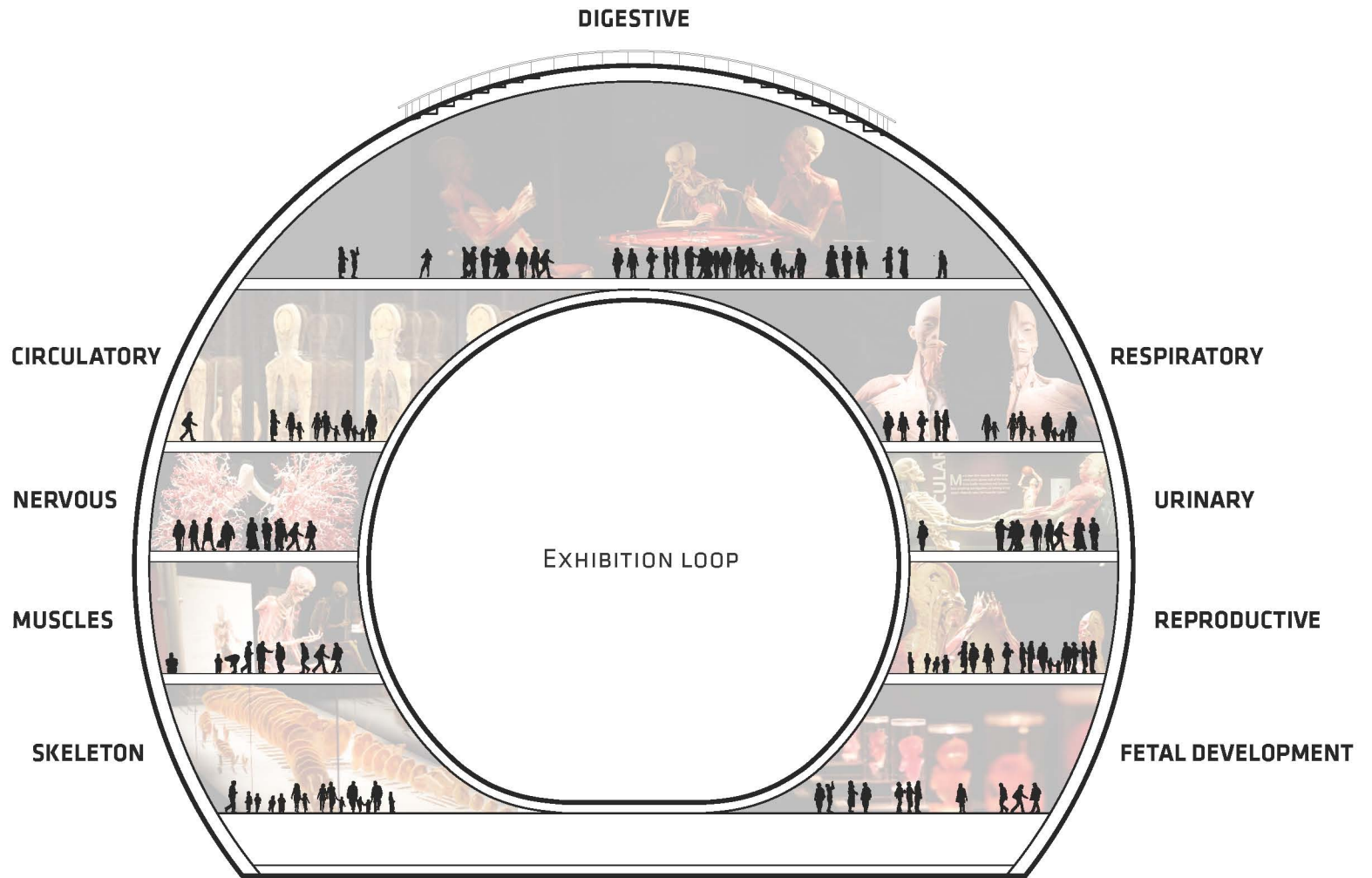
Different zones and floors could offer different ways to experience water in each of its various natural states





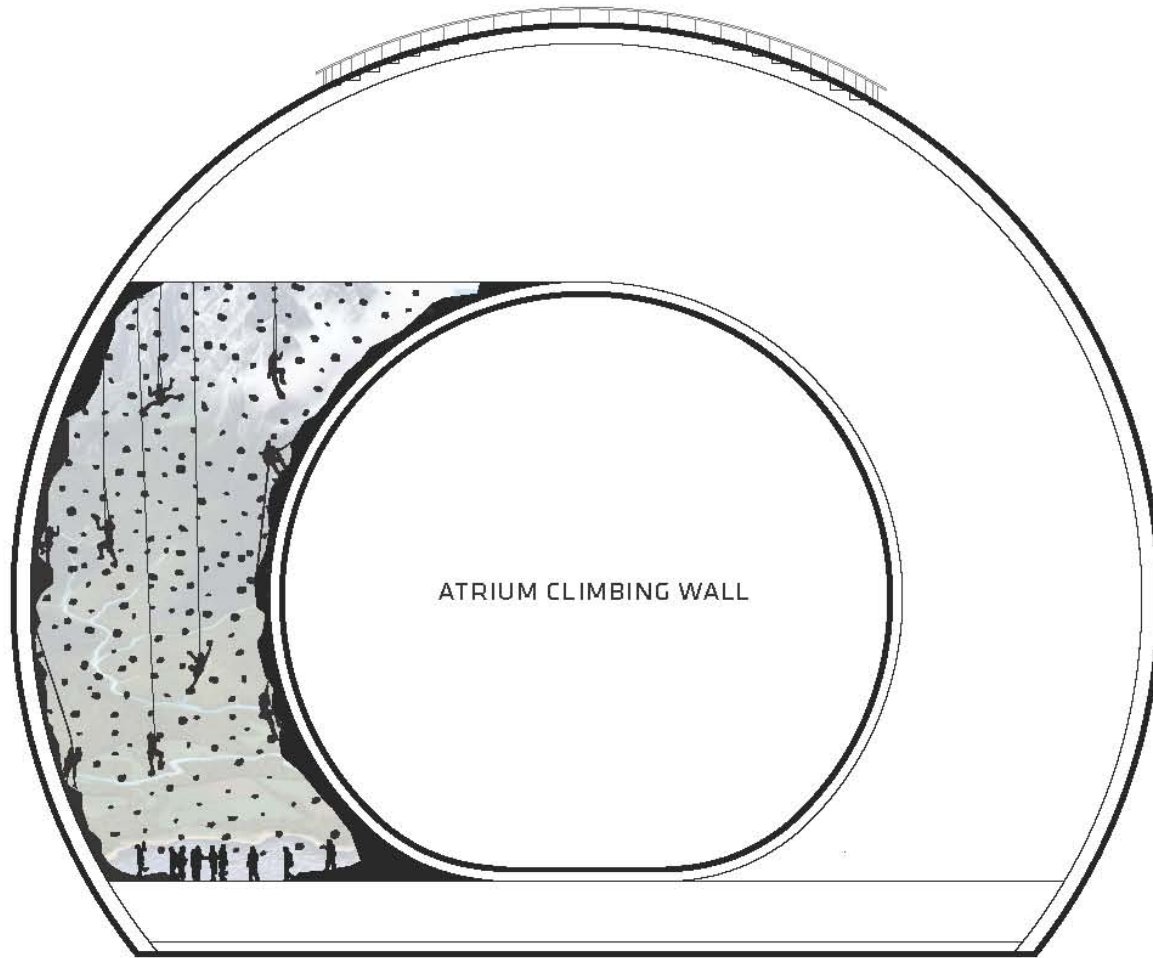
The Culinary Loop

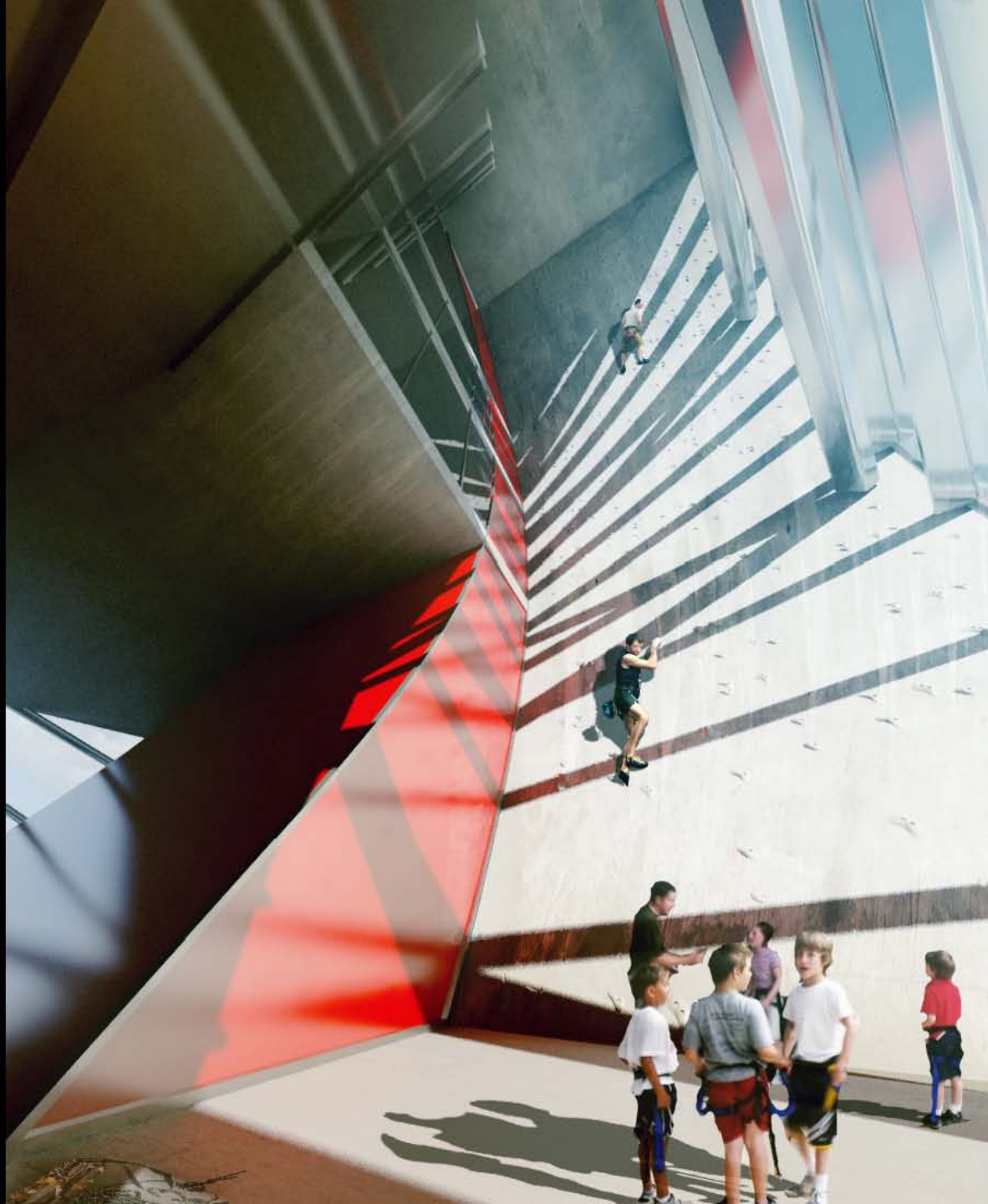
A specific course or cuisine is offered at each of the levels.

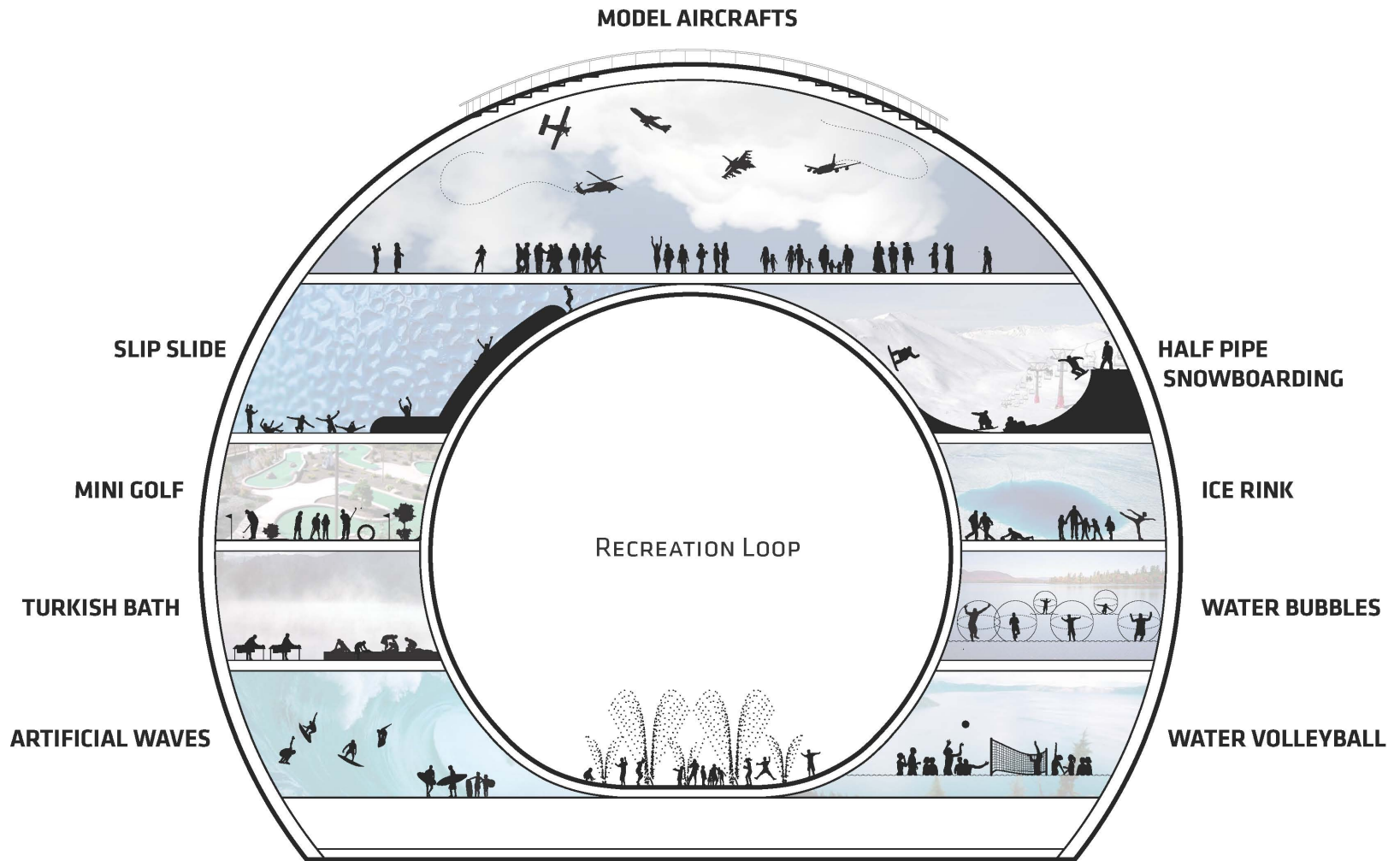


The Exhibition Loop

Traveling and permanent exhibits or parts of themed shows could occupy a floor each.





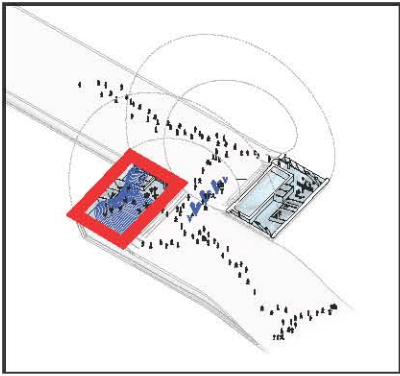


The Water (Play) Cycle

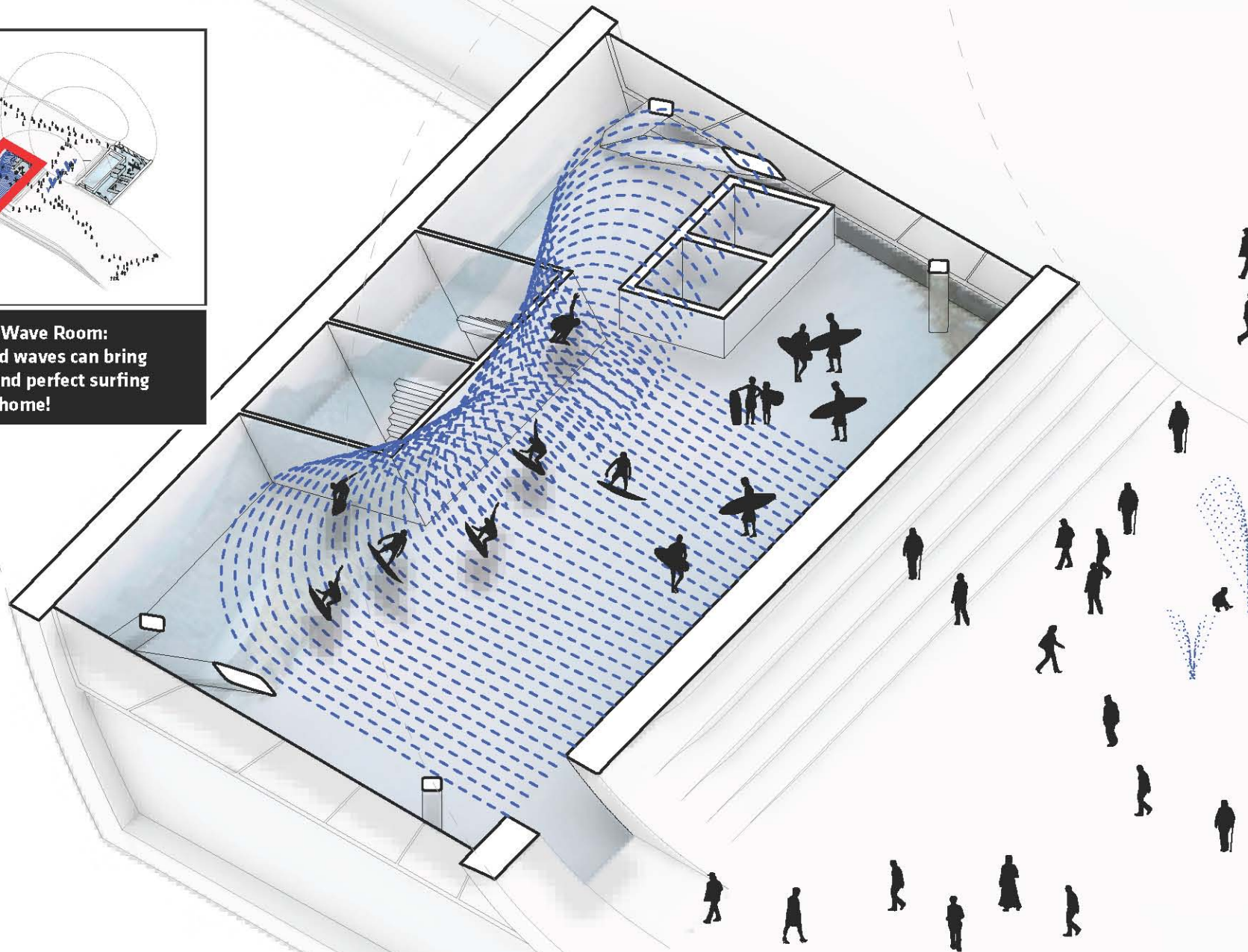
Each connection interaction to water could be inflected by a recreational activity.

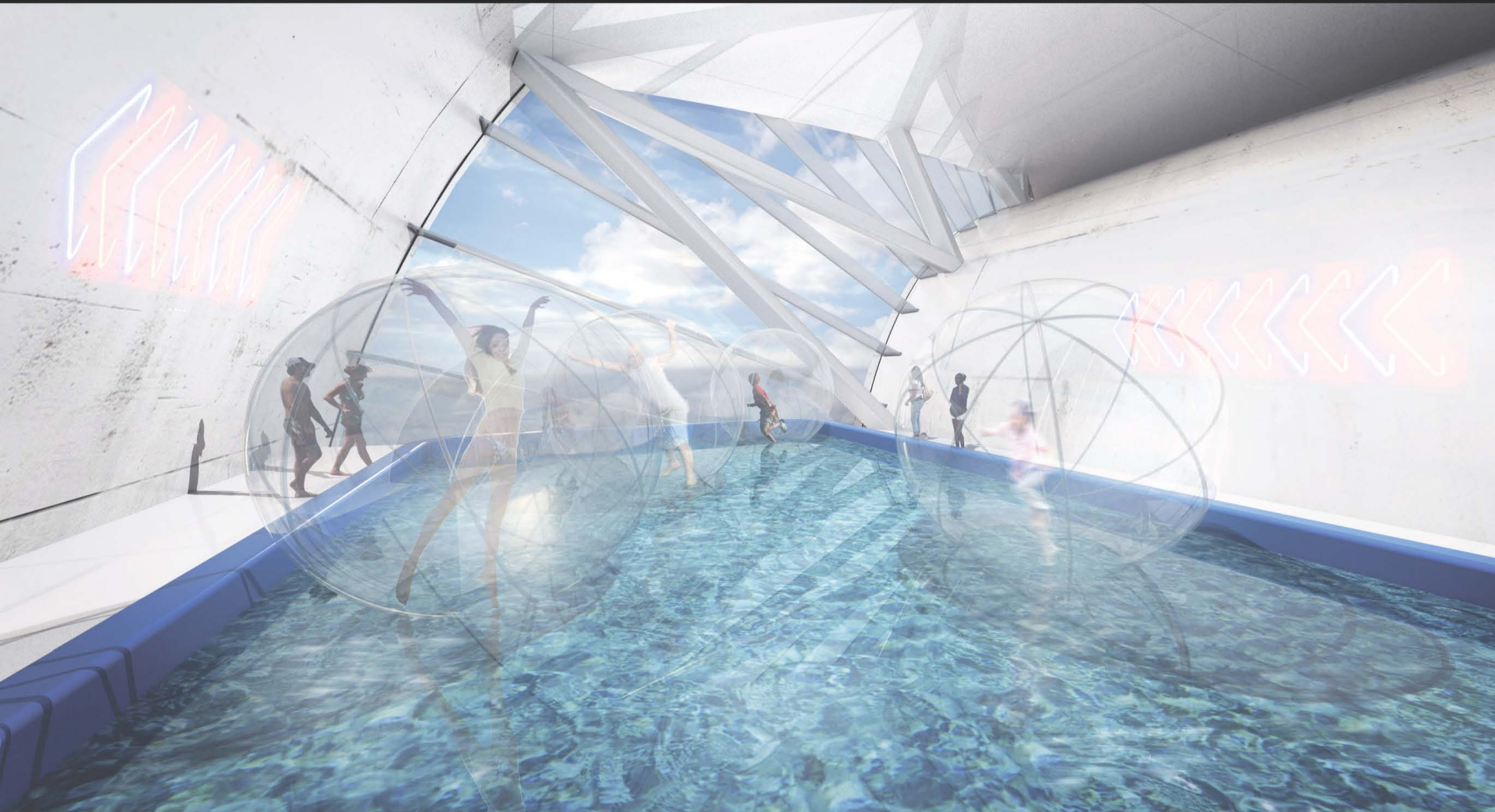




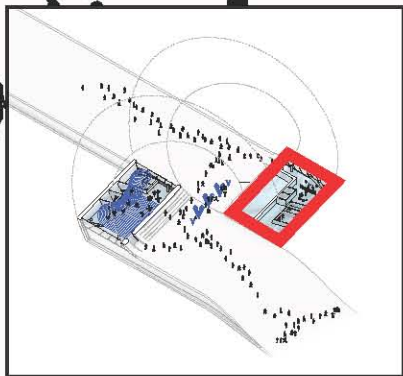


Artificial Wave Room:
Simulated waves can bring reliable and perfect surfing closer to home!





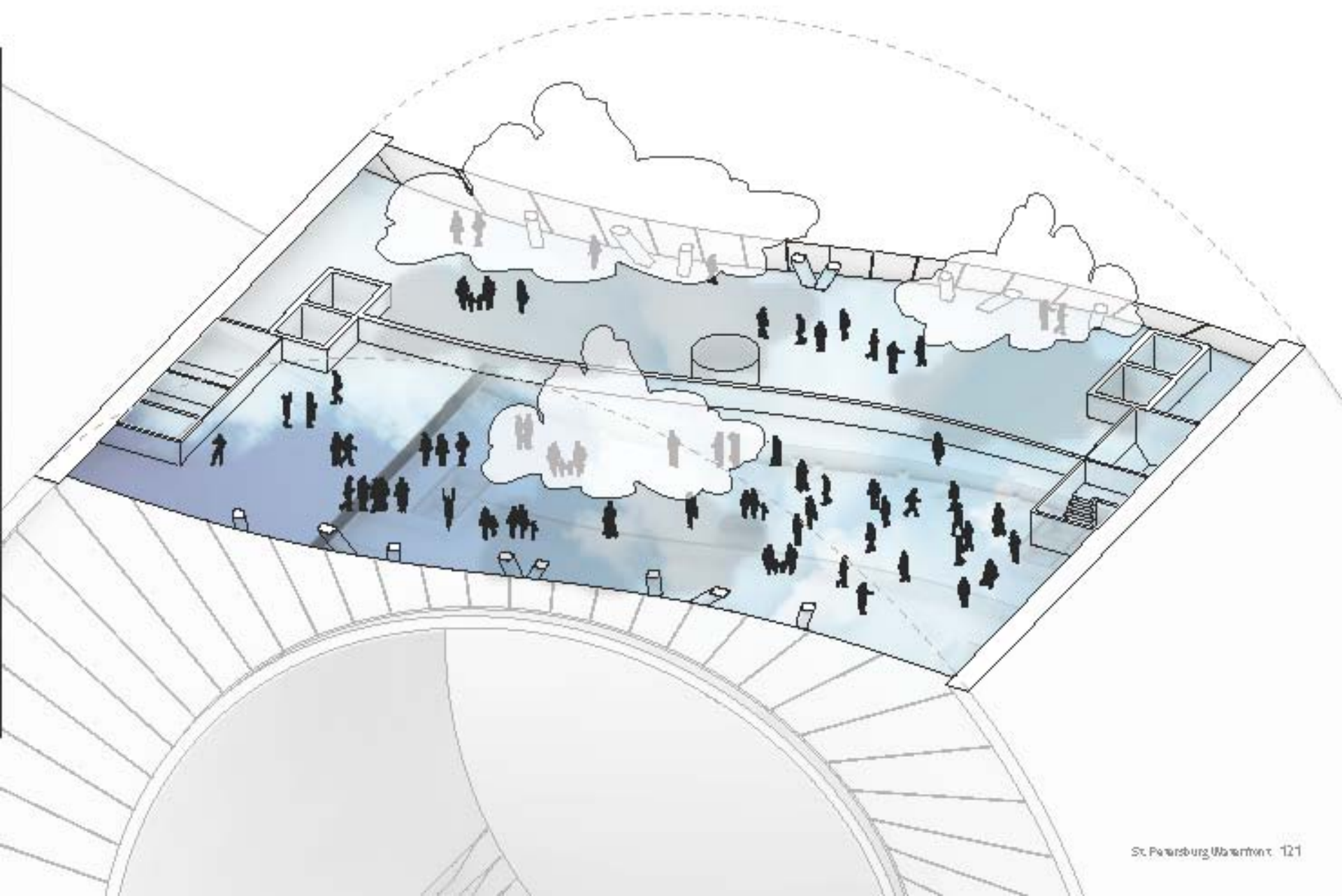
Bubble Room:
A shallow pool complete with all ages of children
incased in life-sized inflatable balls!



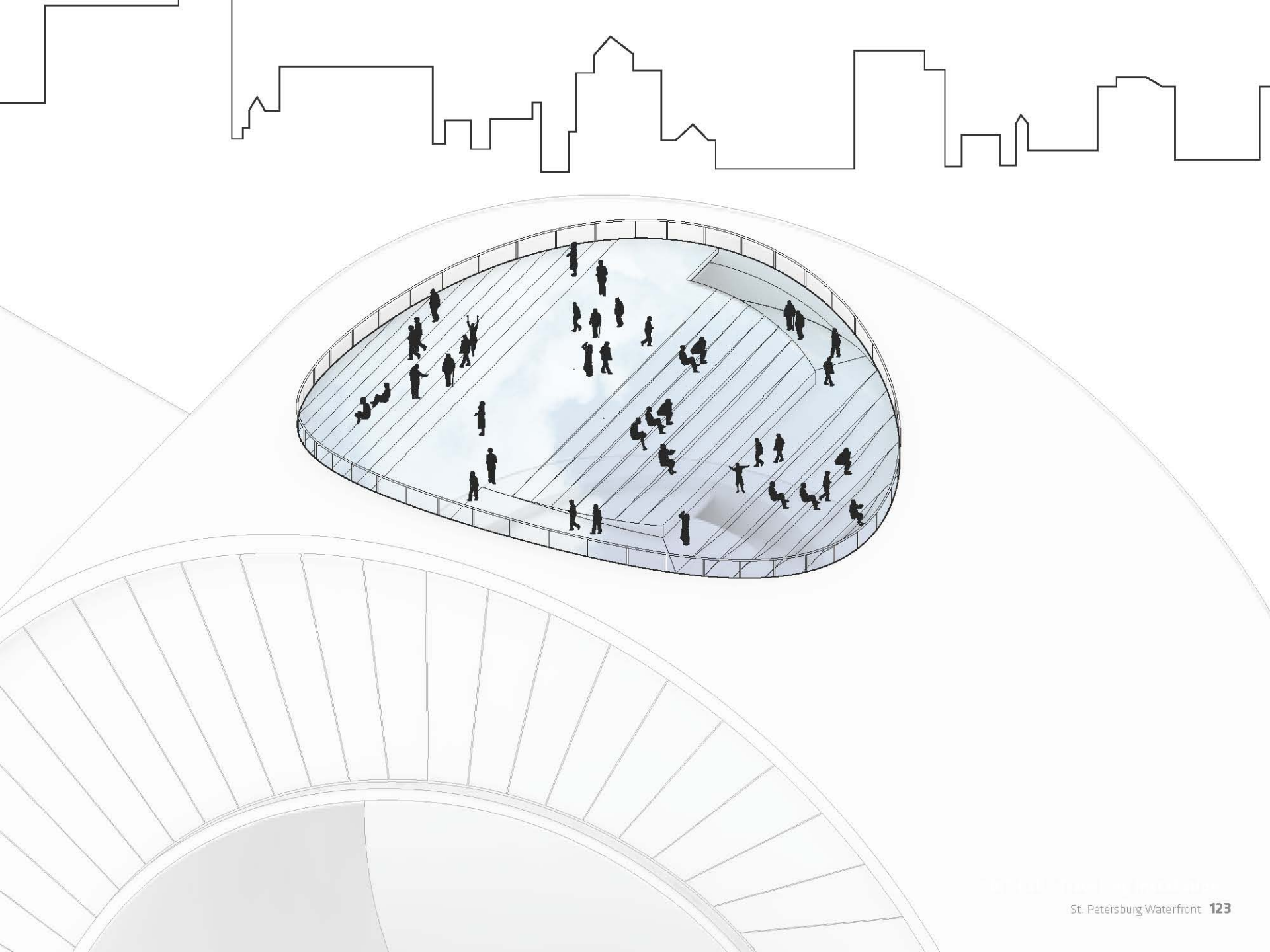
Water Volley:
In this waist-high pool two teams volley for water-soaked domination!



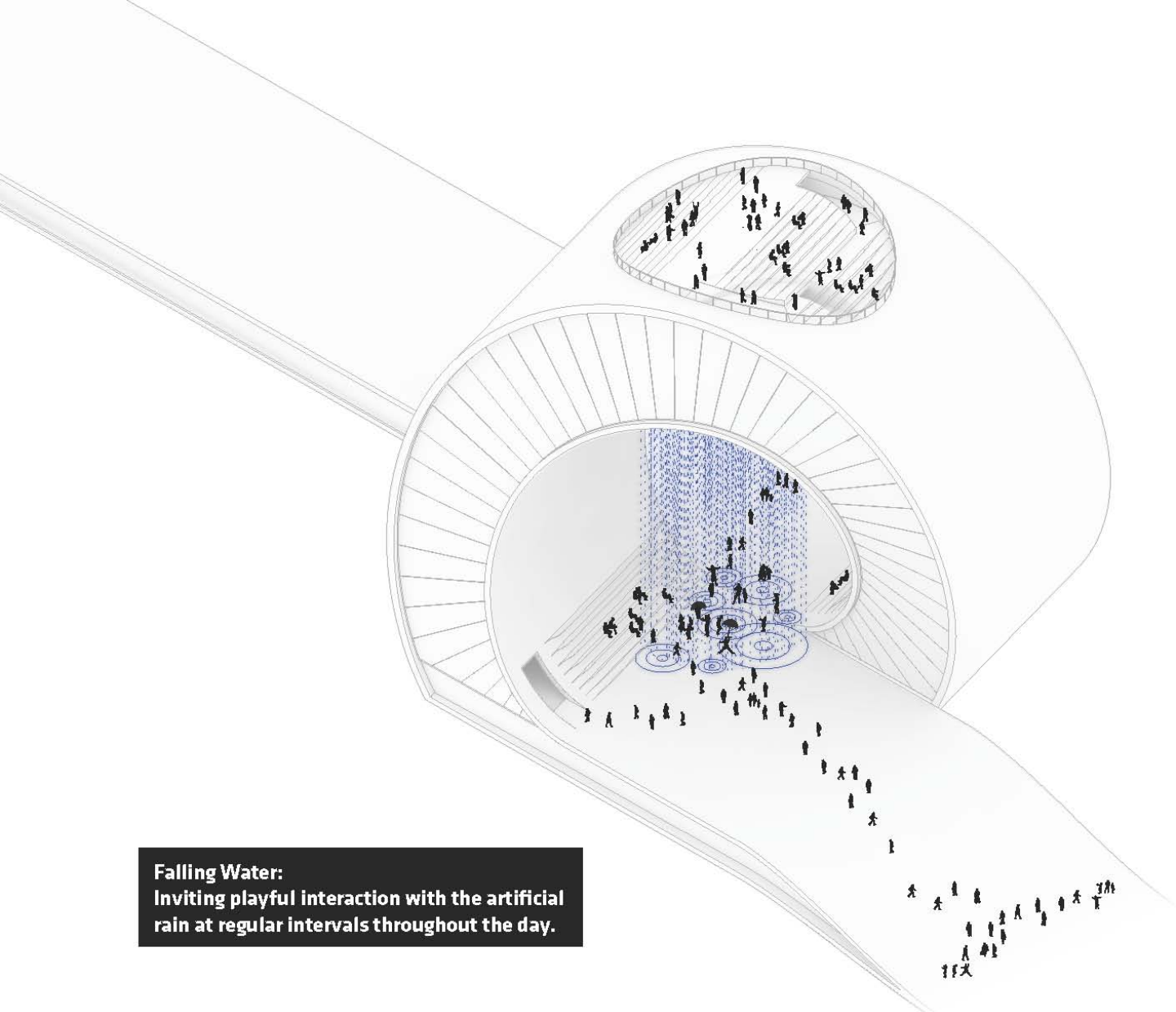




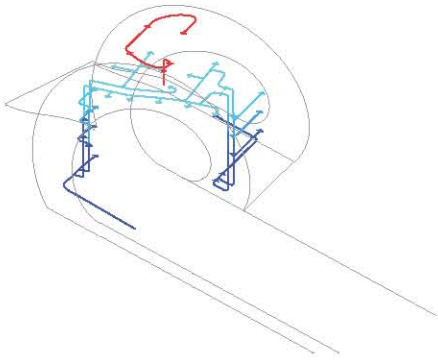




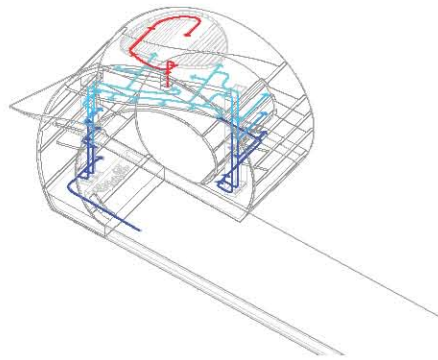




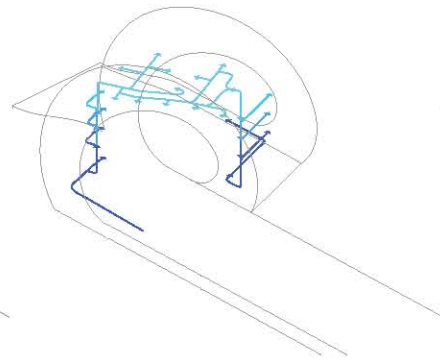
Falling Water:
Inviting playful interaction with the artificial rain at regular intervals throughout the day.



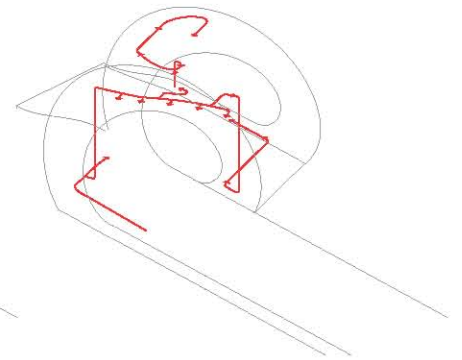
All Circulation



Floor Plates

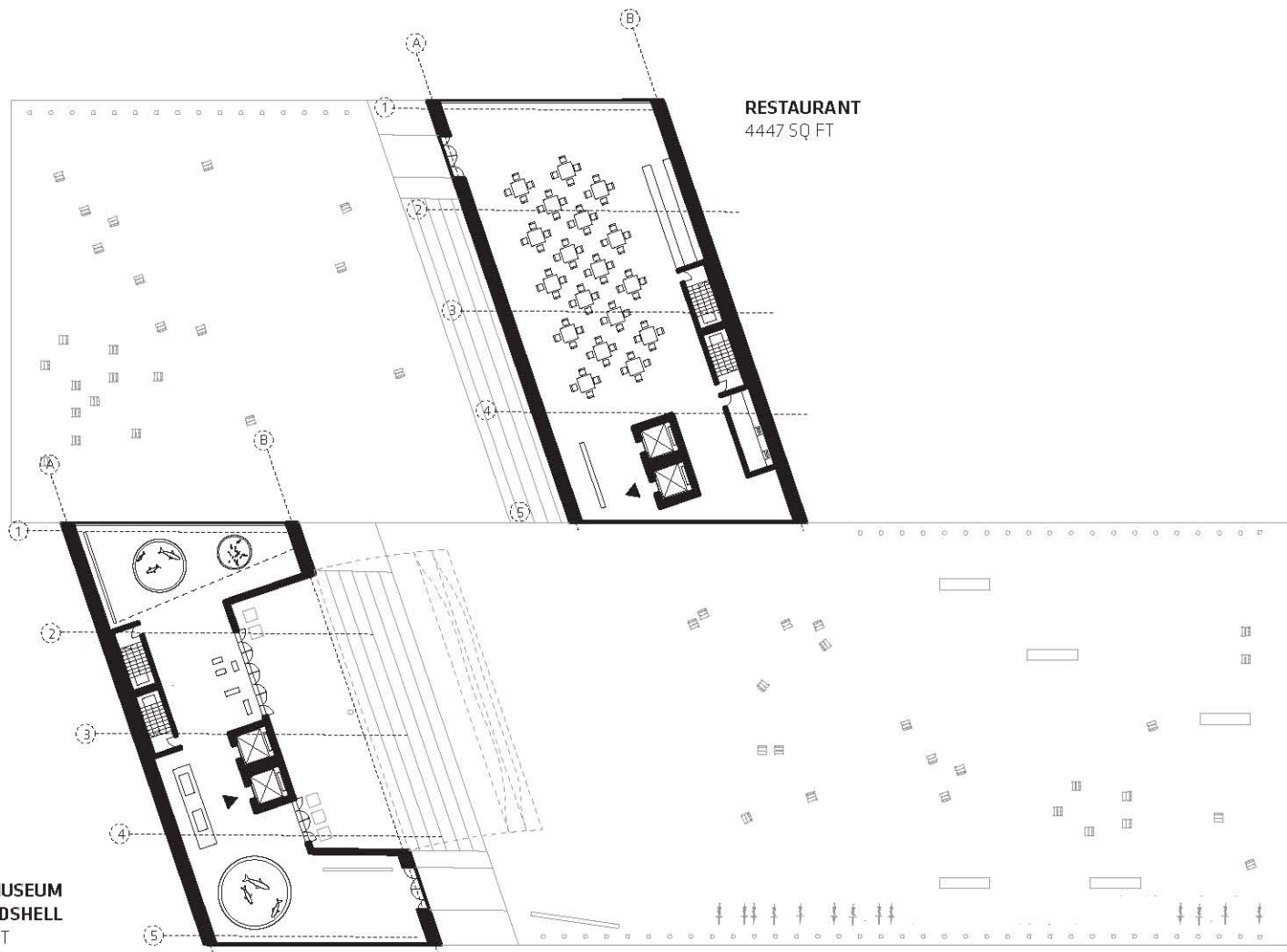


Water Programs



Public Loop

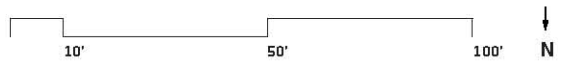


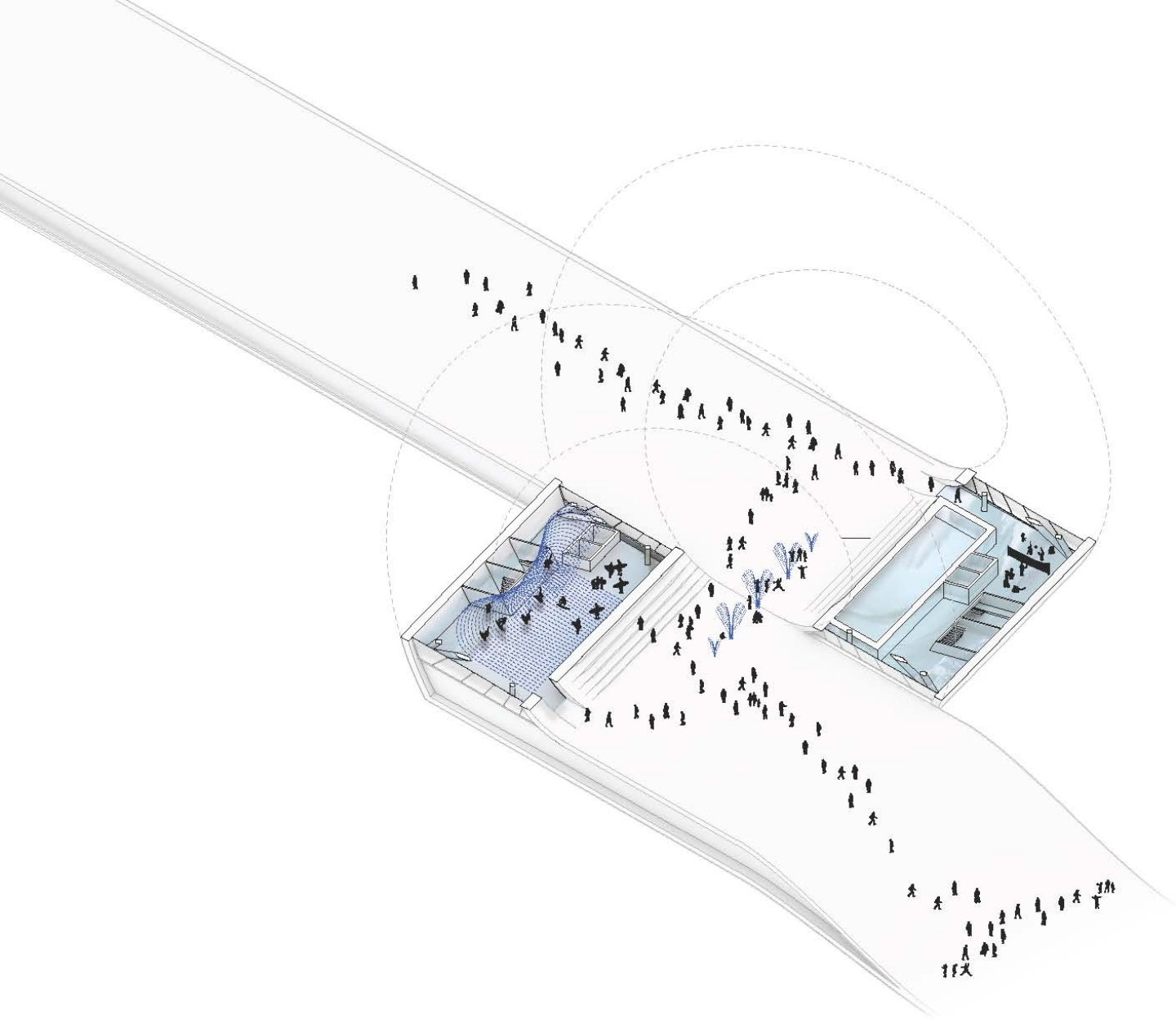


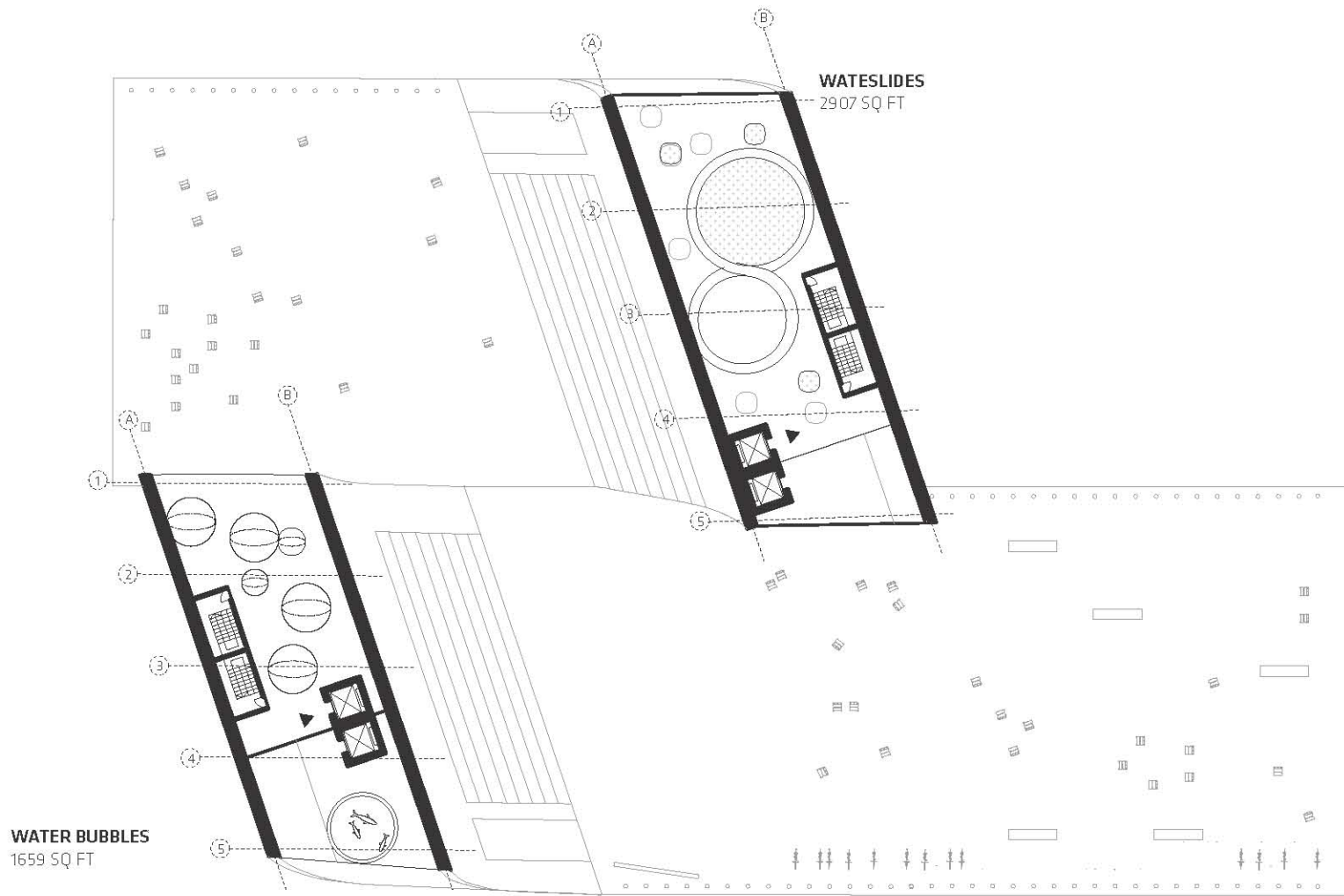
RESTAURANT
4447 SQ FT

**WATER MUSEUM
AND BANDSHELL**
4220 SQ FT

LEVEL 0 GROUND FLOOR



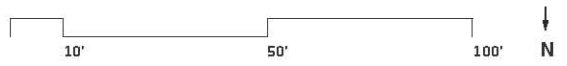


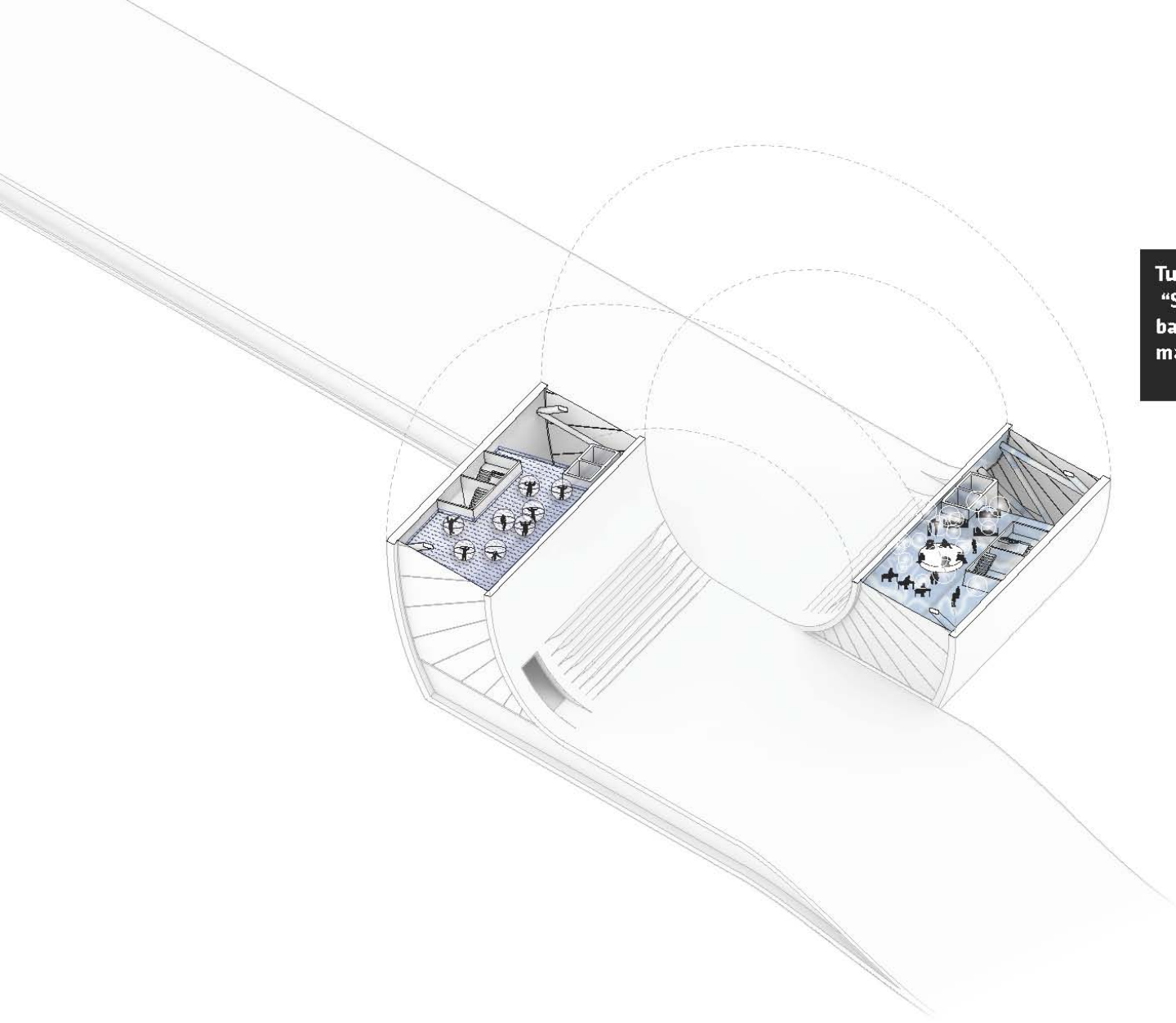


WATER BUBBLES
1659 SQ FT

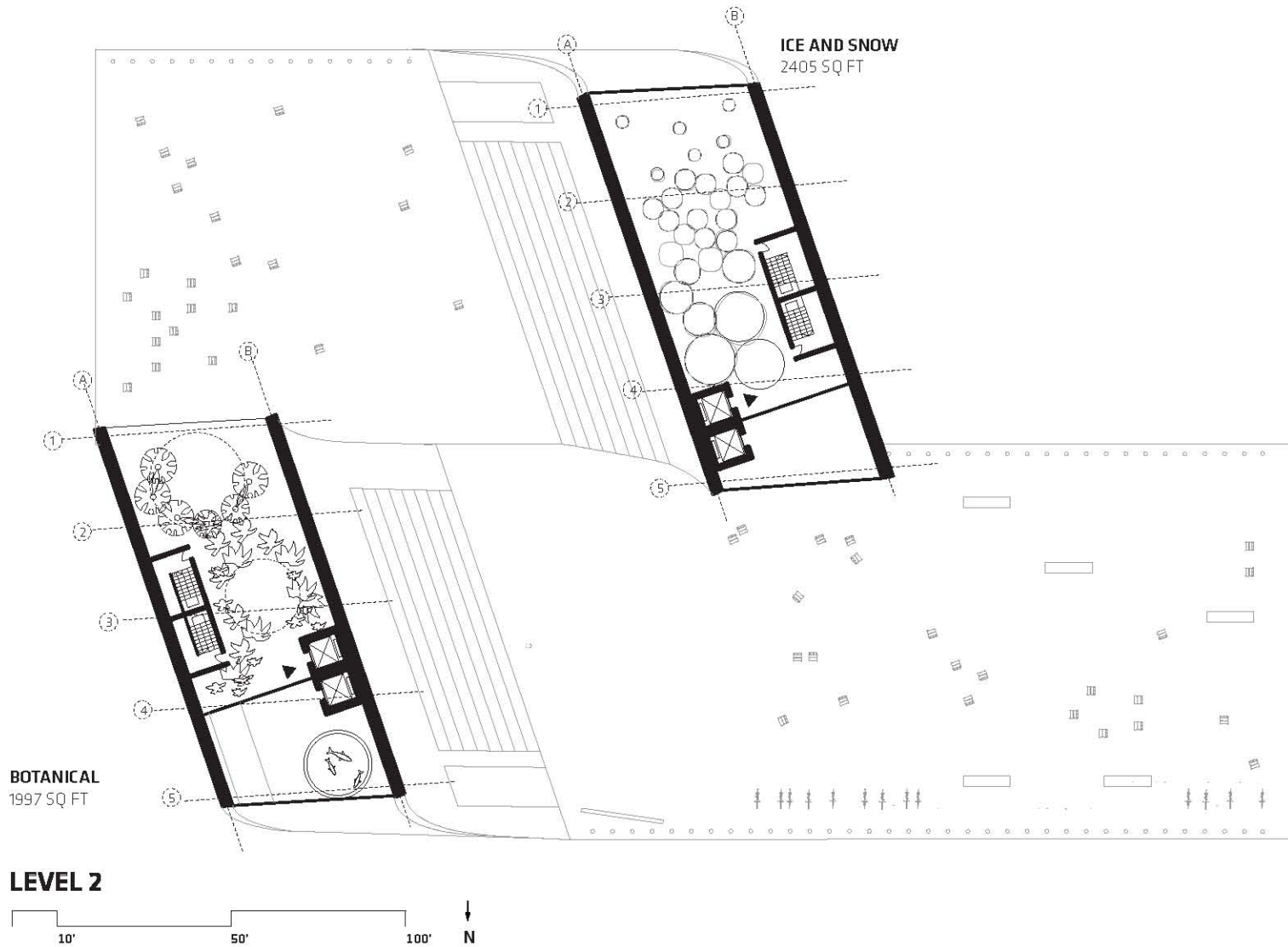
WATERSLIDES
2907 SQ FT

LEVEL 1

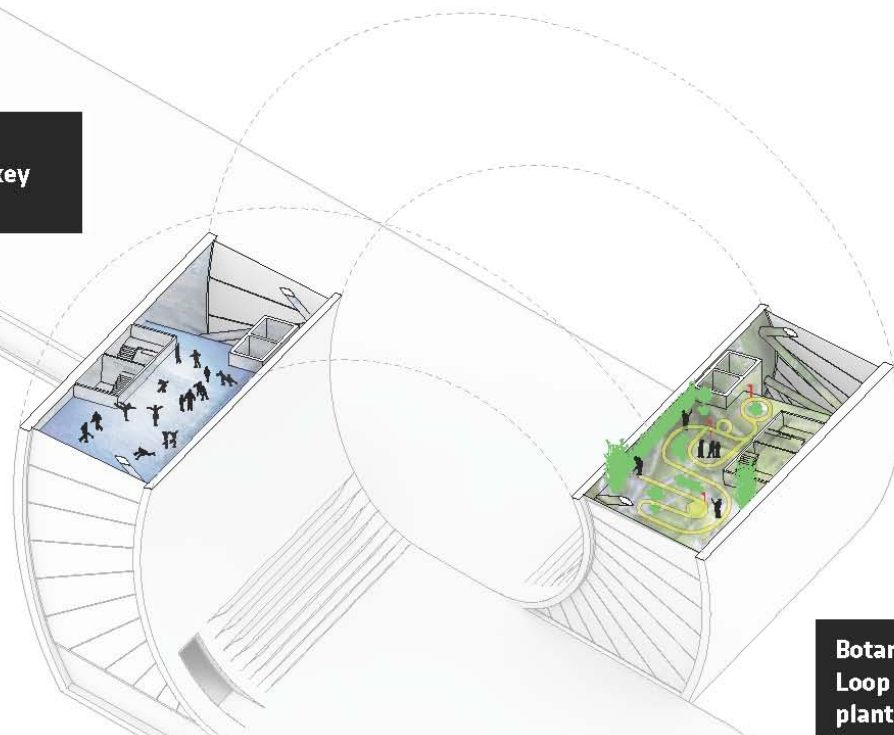




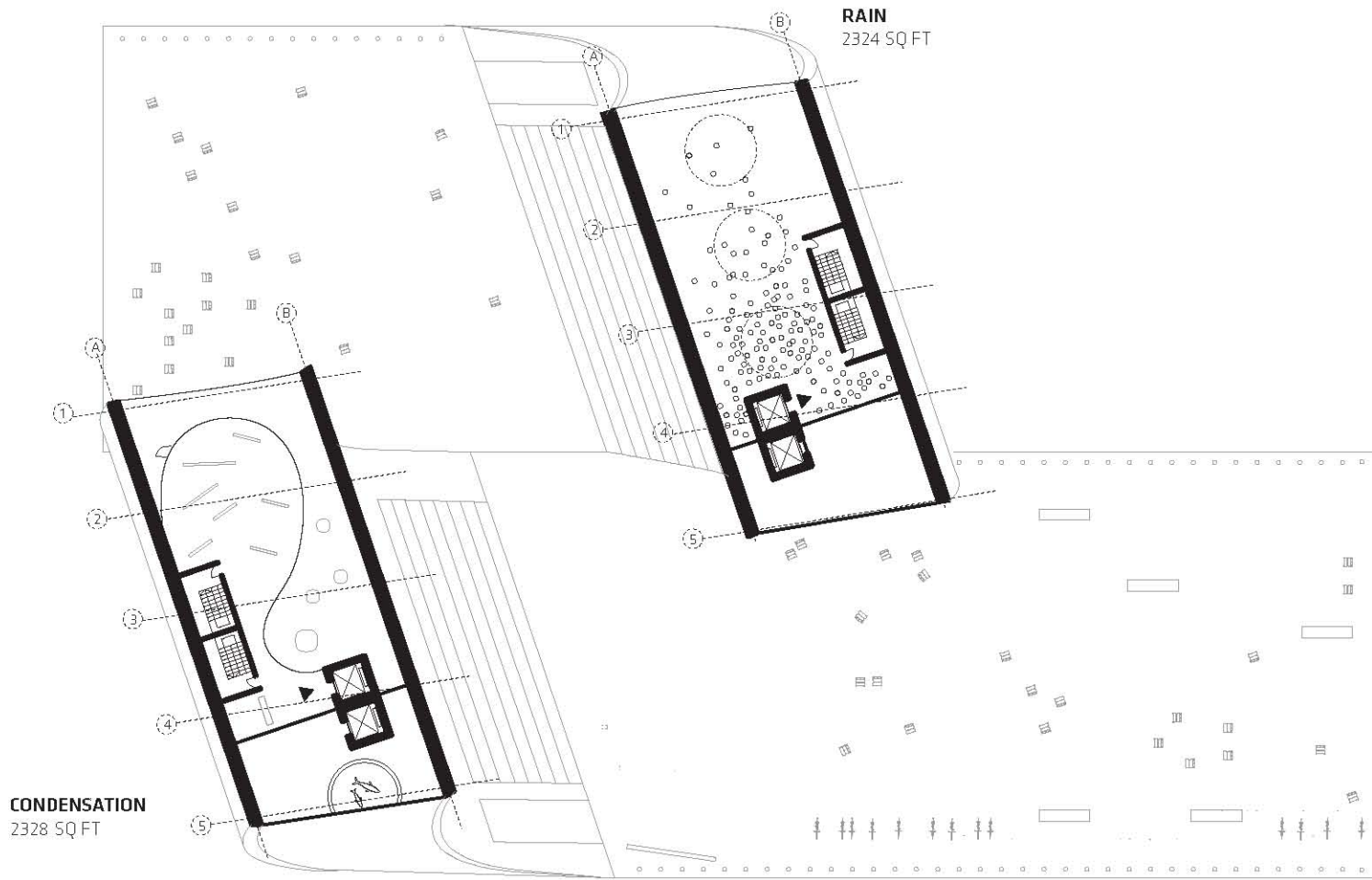
Turkish Bath:
"Steam Theme" self e-steam
baths, steam facials, and mist
massages...



Ice Rink:
Mini curling lanes, ice hockey lessons.



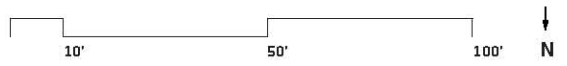
Botanical Mini Golf:
Loop and water course with a
plant-based micro climate.

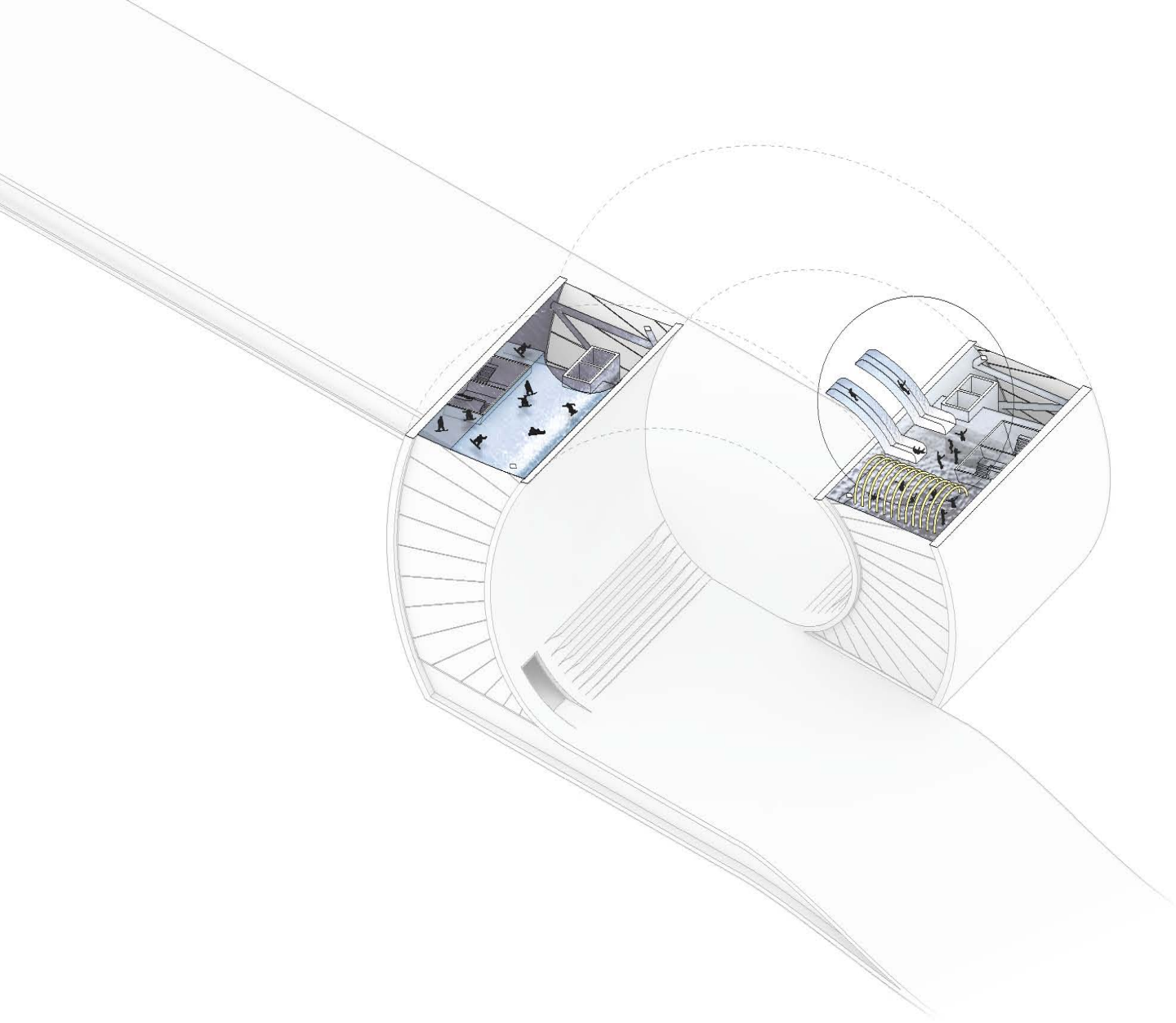


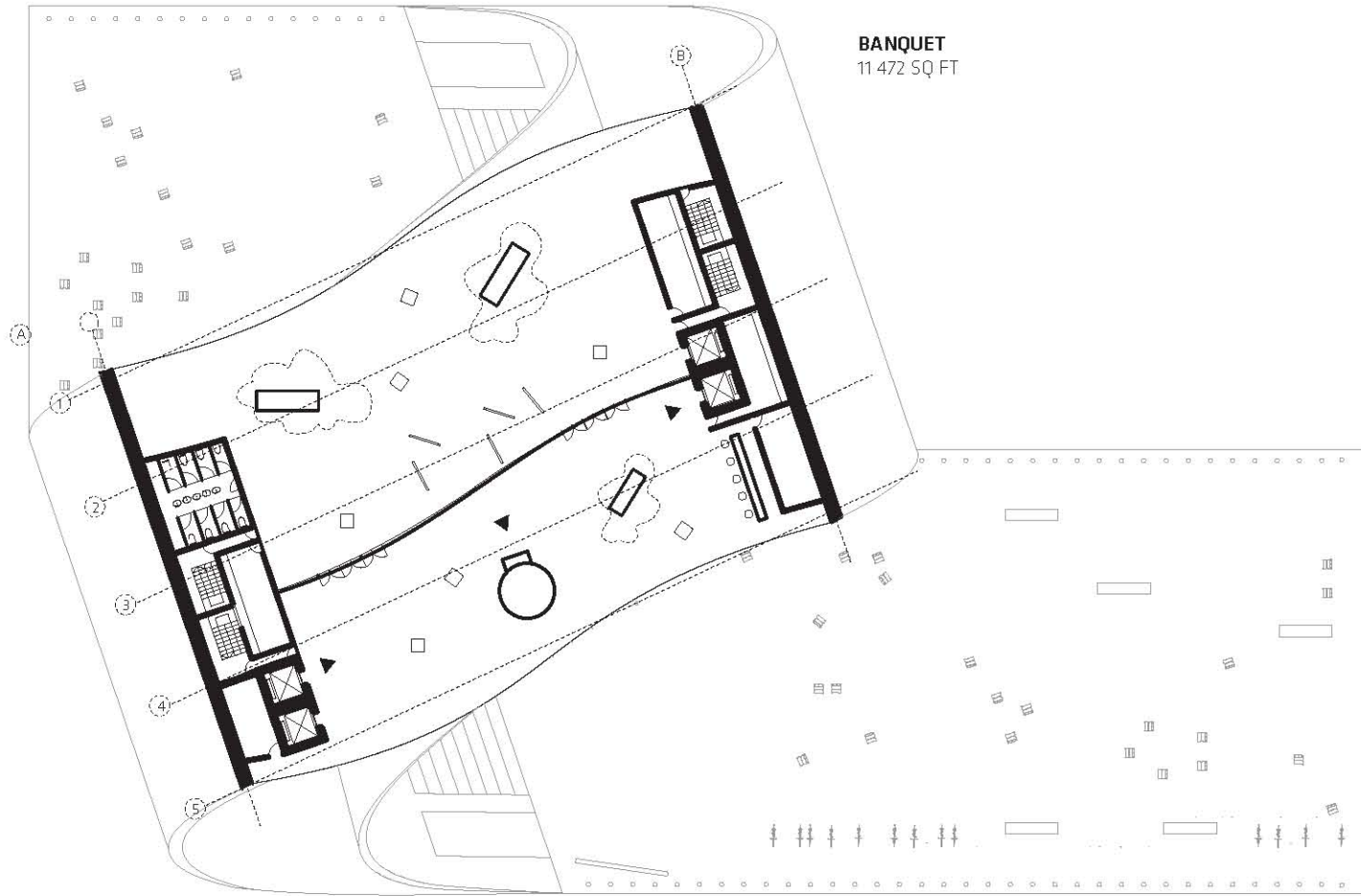
CONDENSATION
2328 SQ FT

RAIN
2324 SQ FT

LEVEL 3

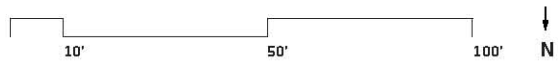


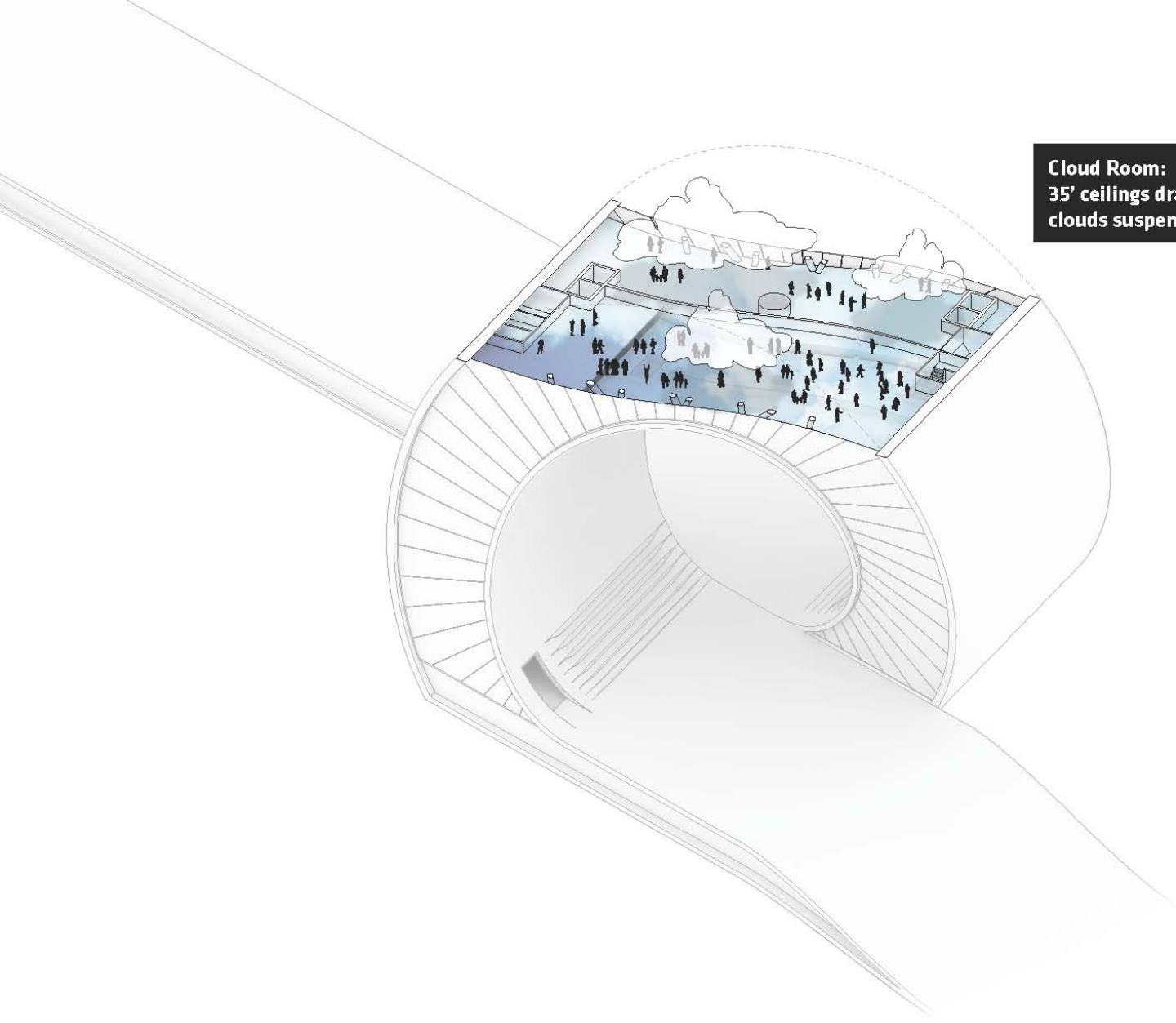




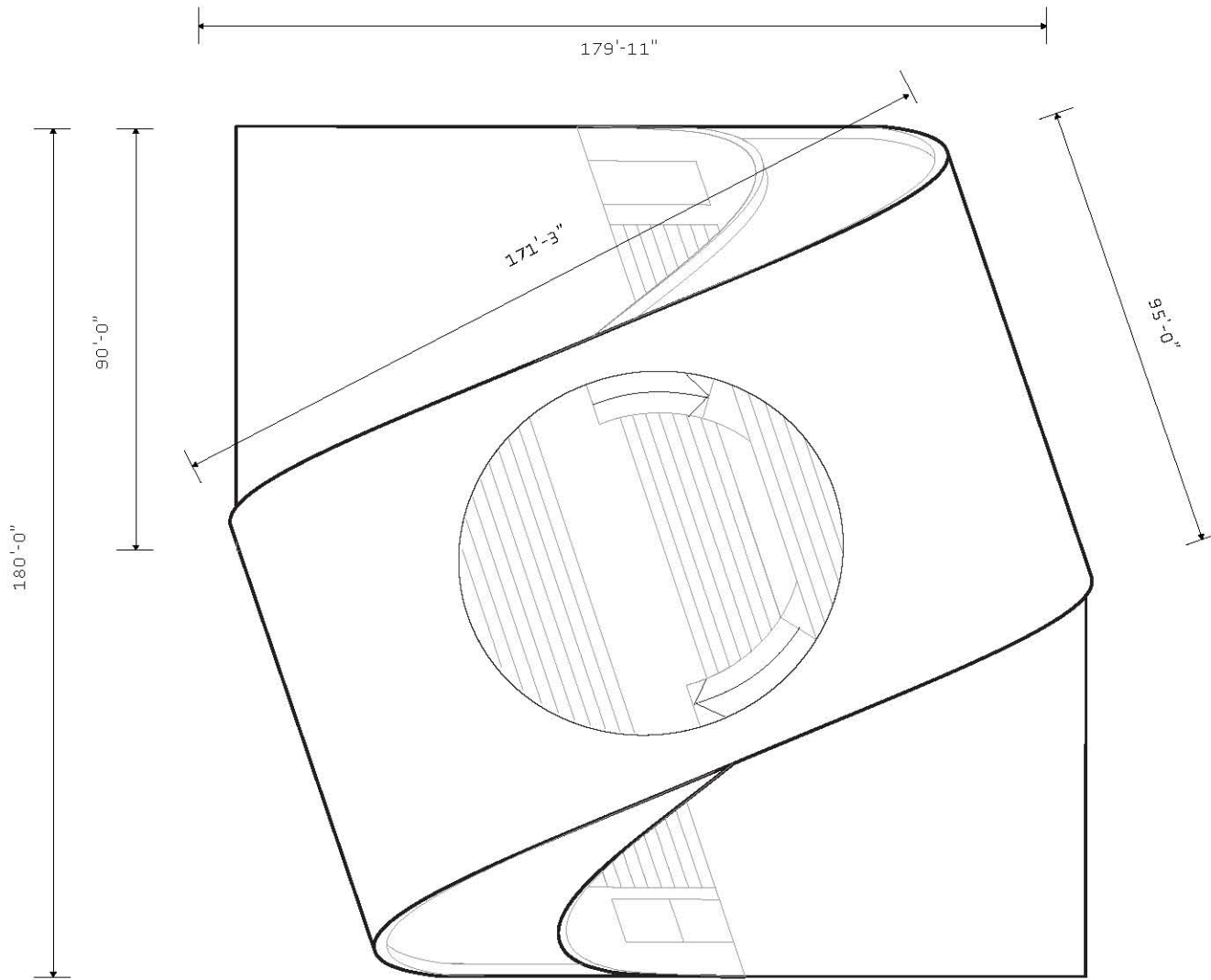
BANQUET
11,472 SQ FT

LEVEL 4 TOP FLOOR

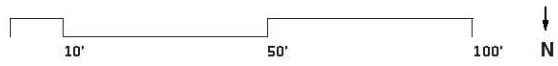




Cloud Room:
35' ceilings draw eyes up to see the cumulus clouds suspended in air.



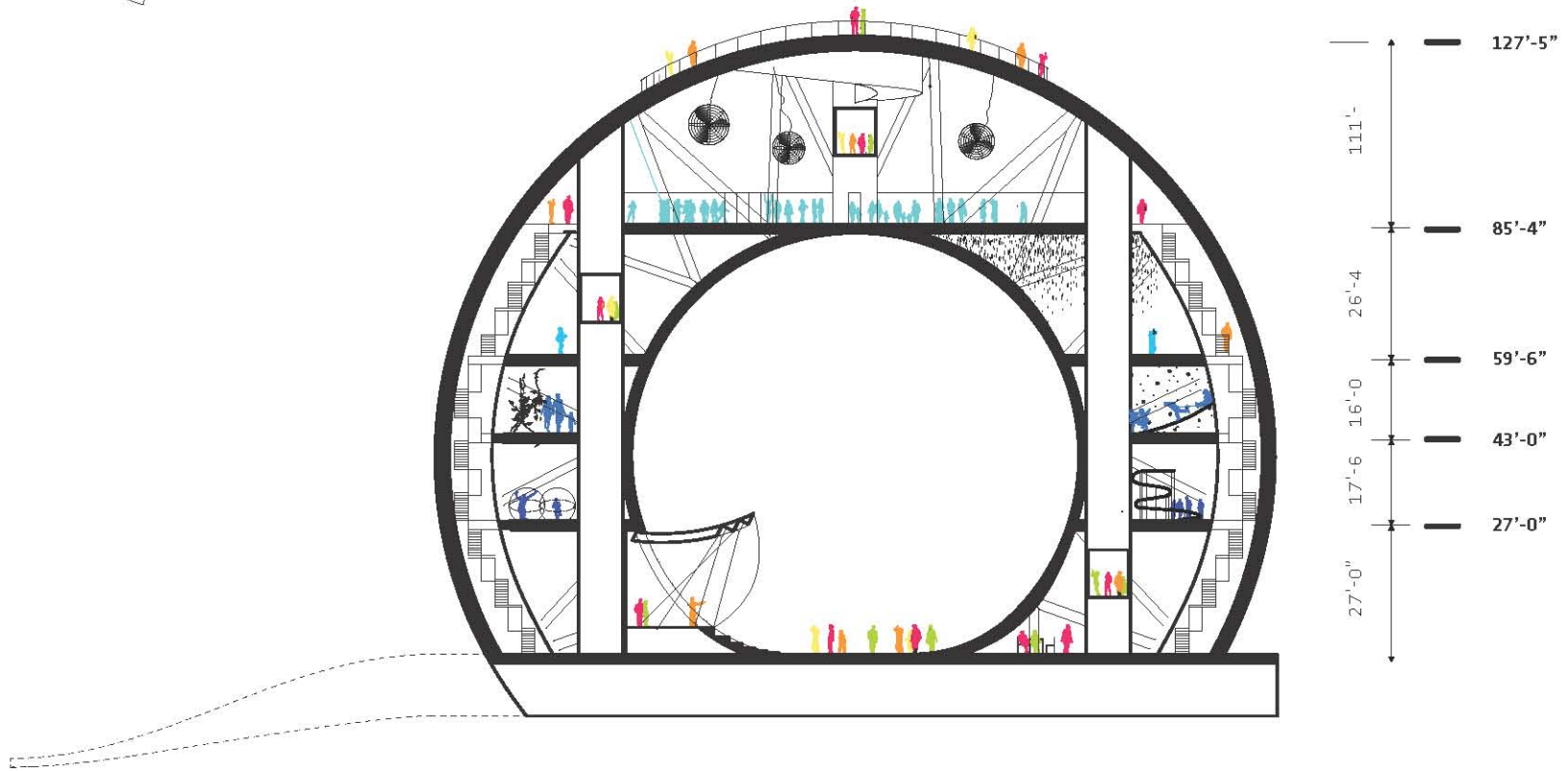
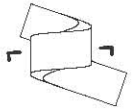
LEVEL 5



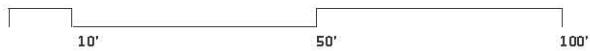




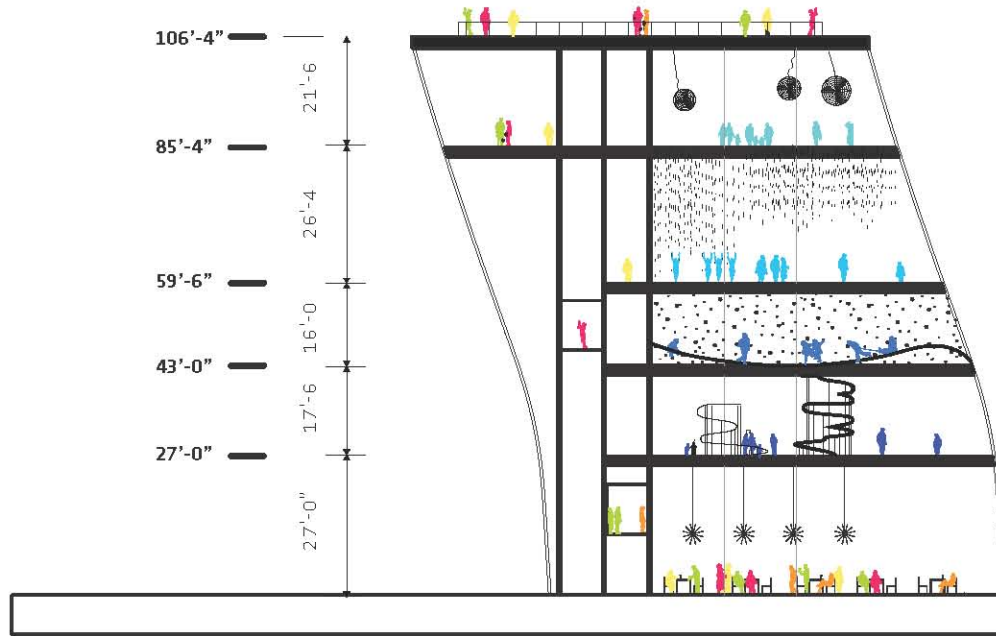
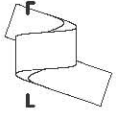




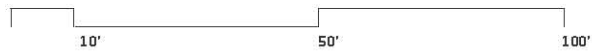
SECTION C

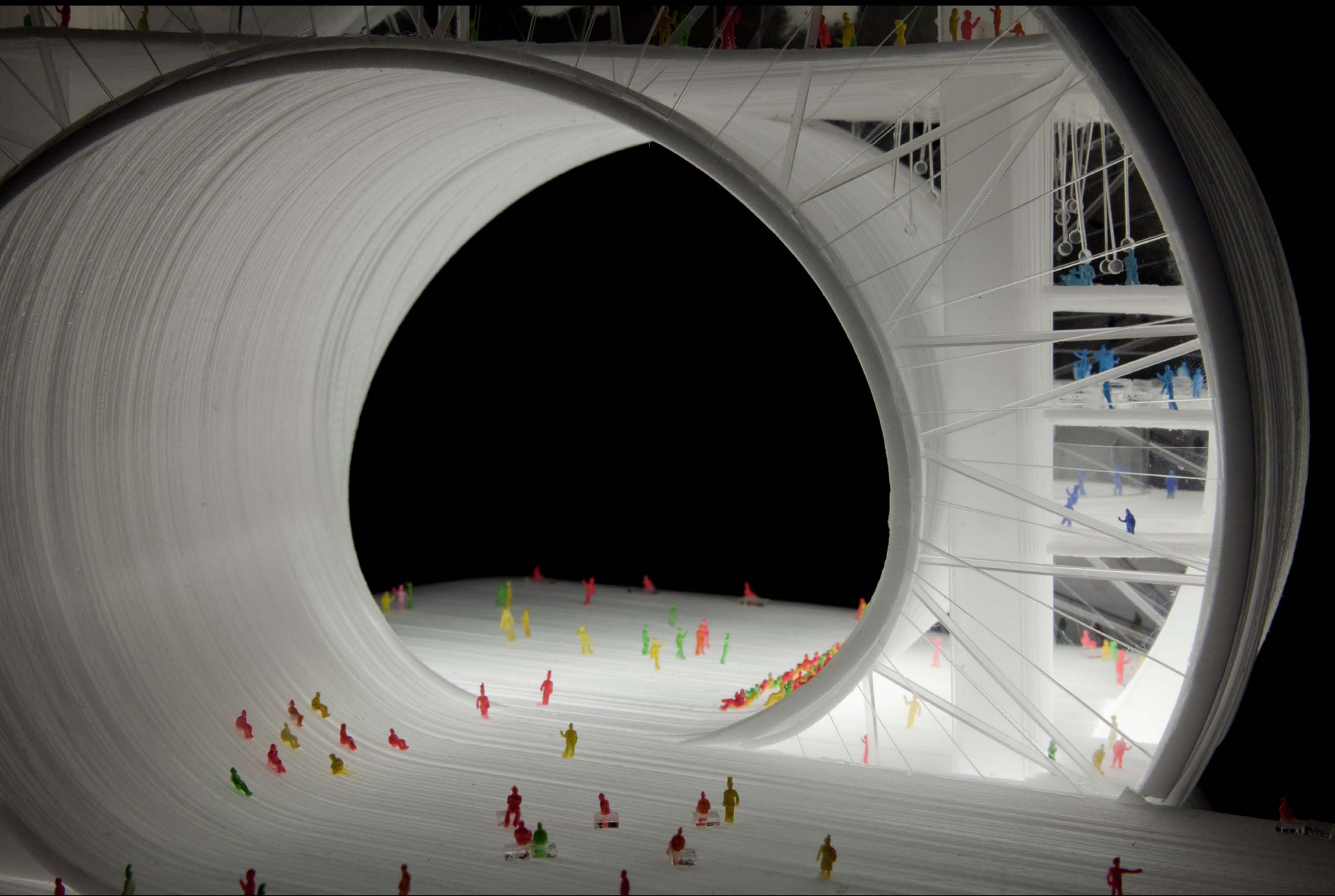


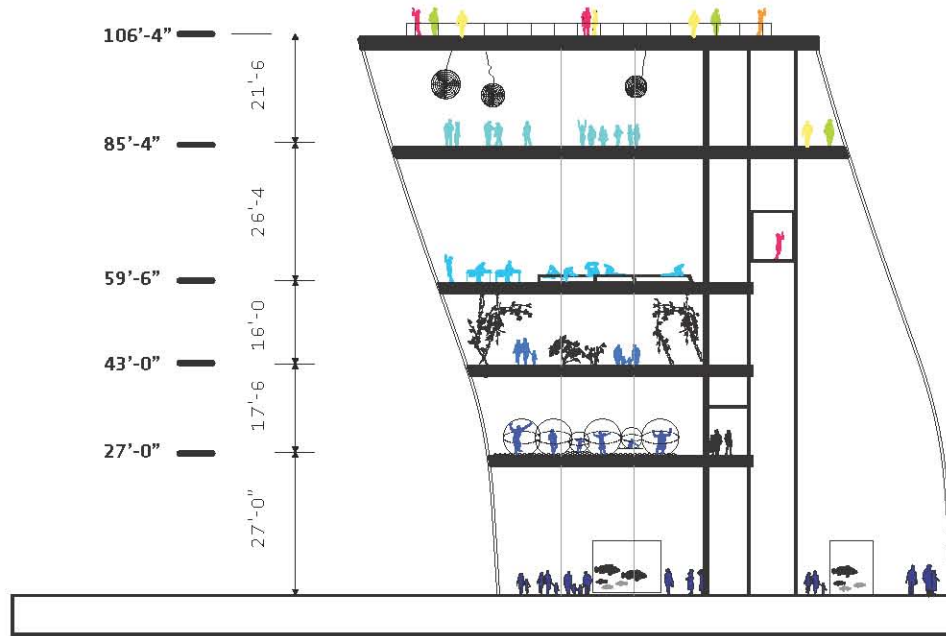
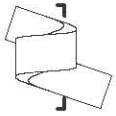




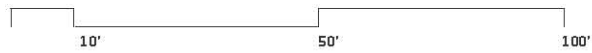
SECTION A

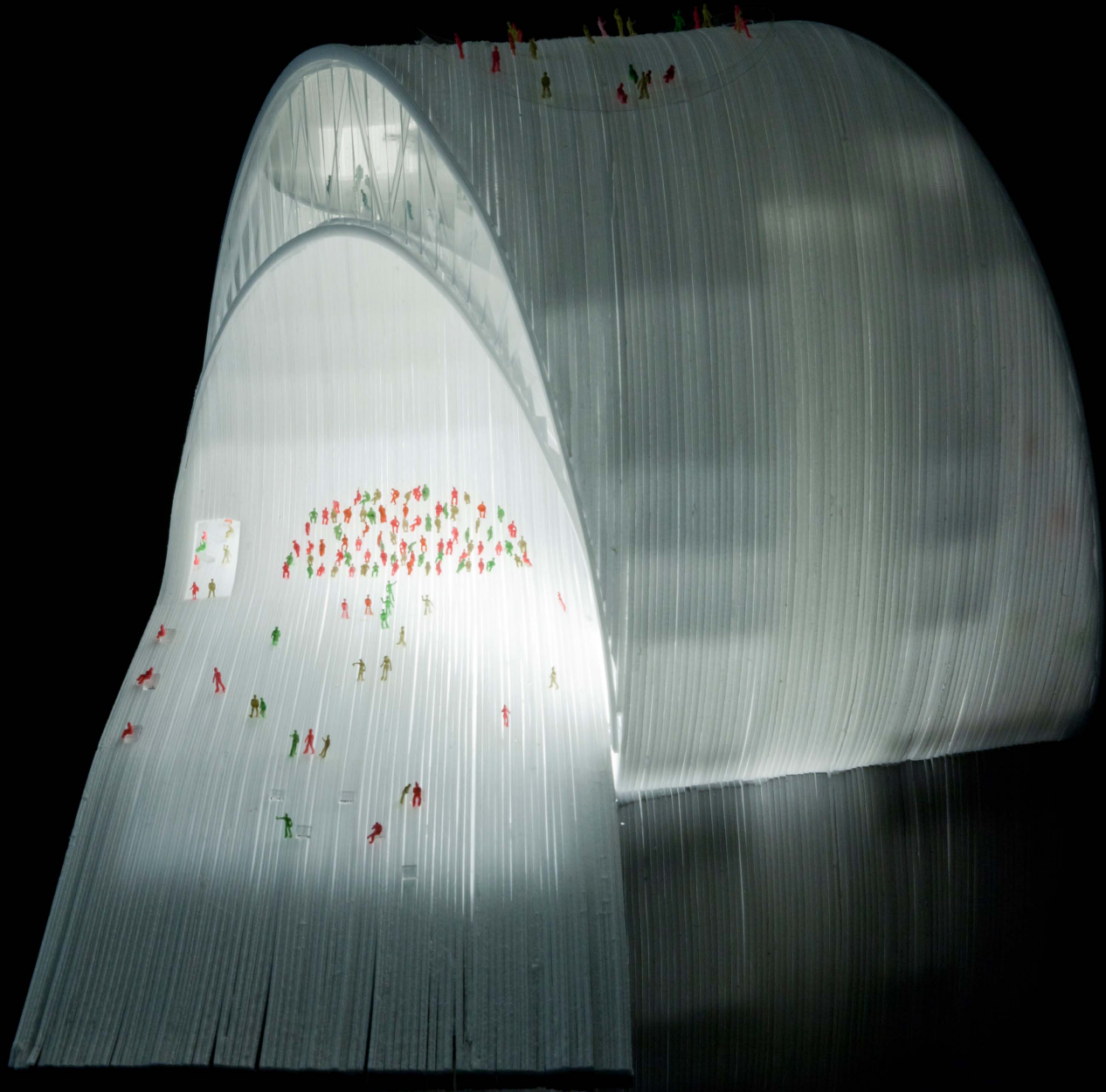


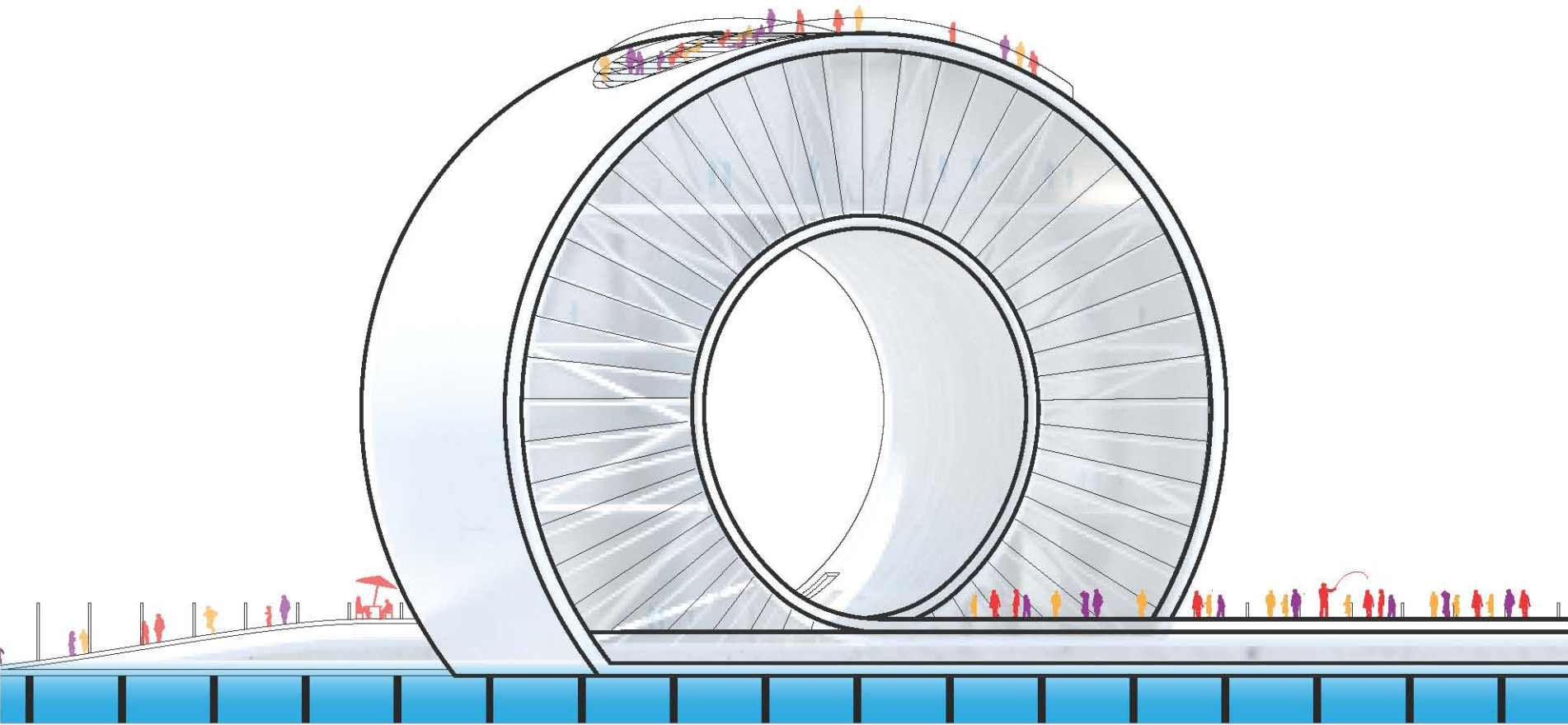


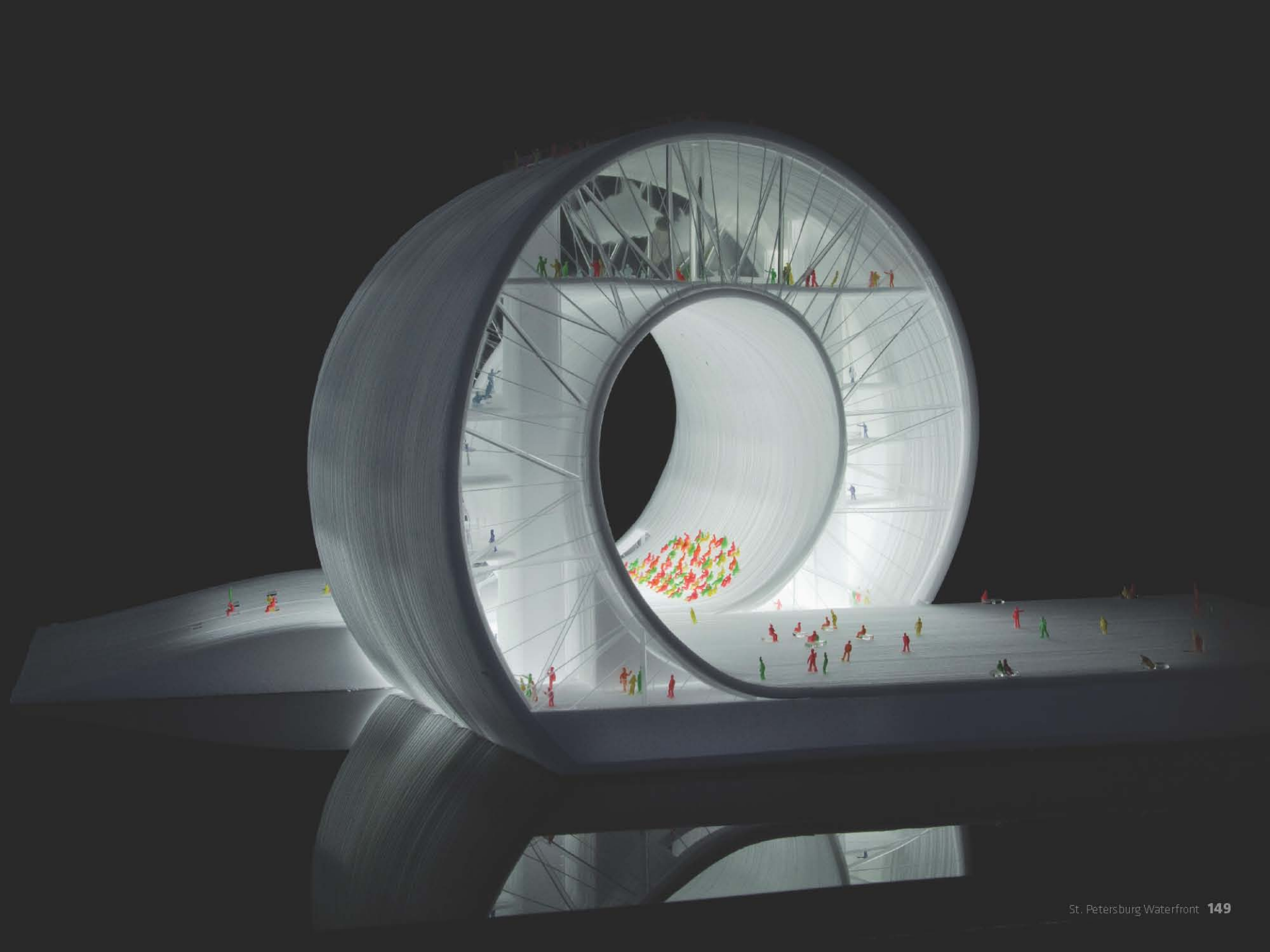


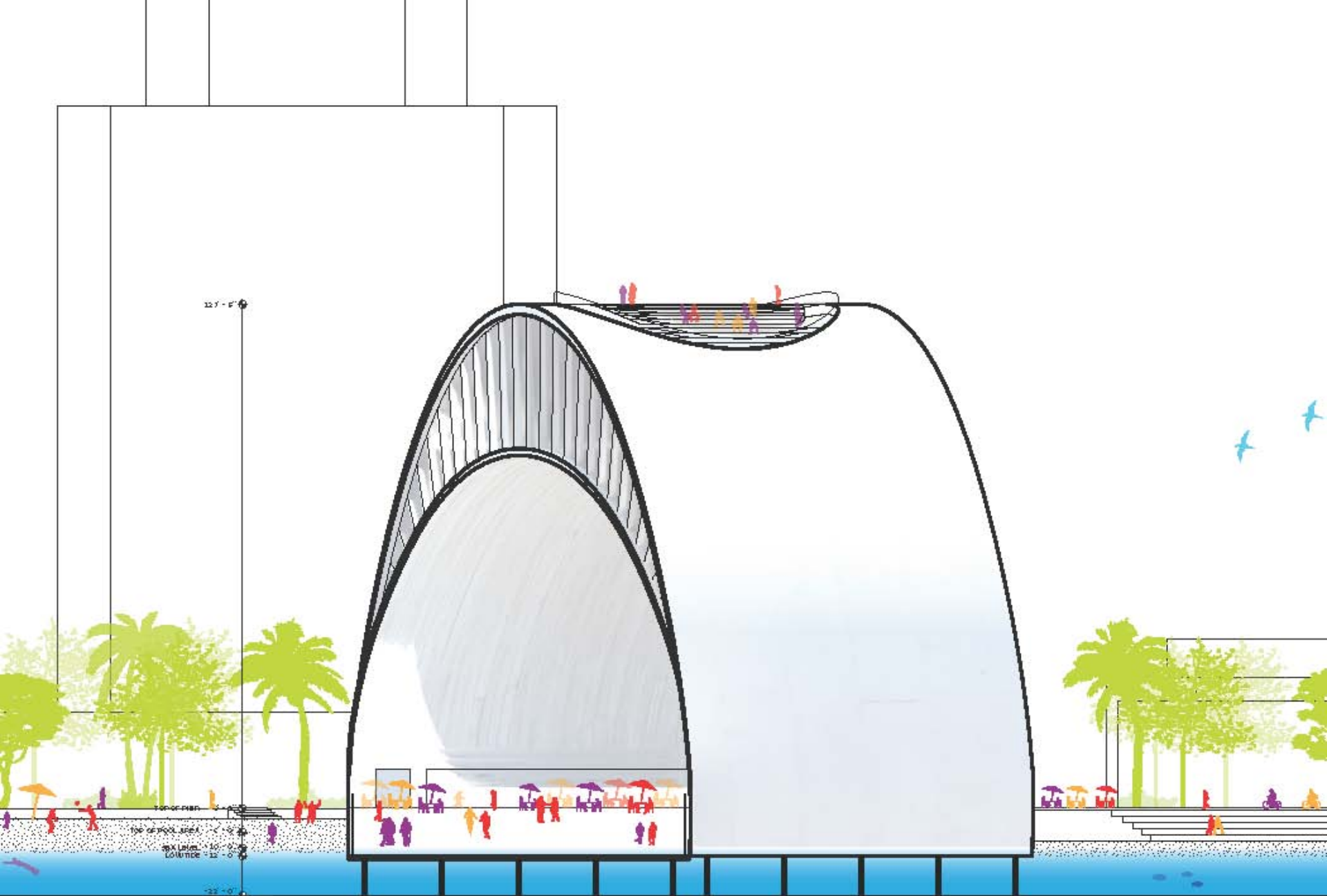
SECTION B

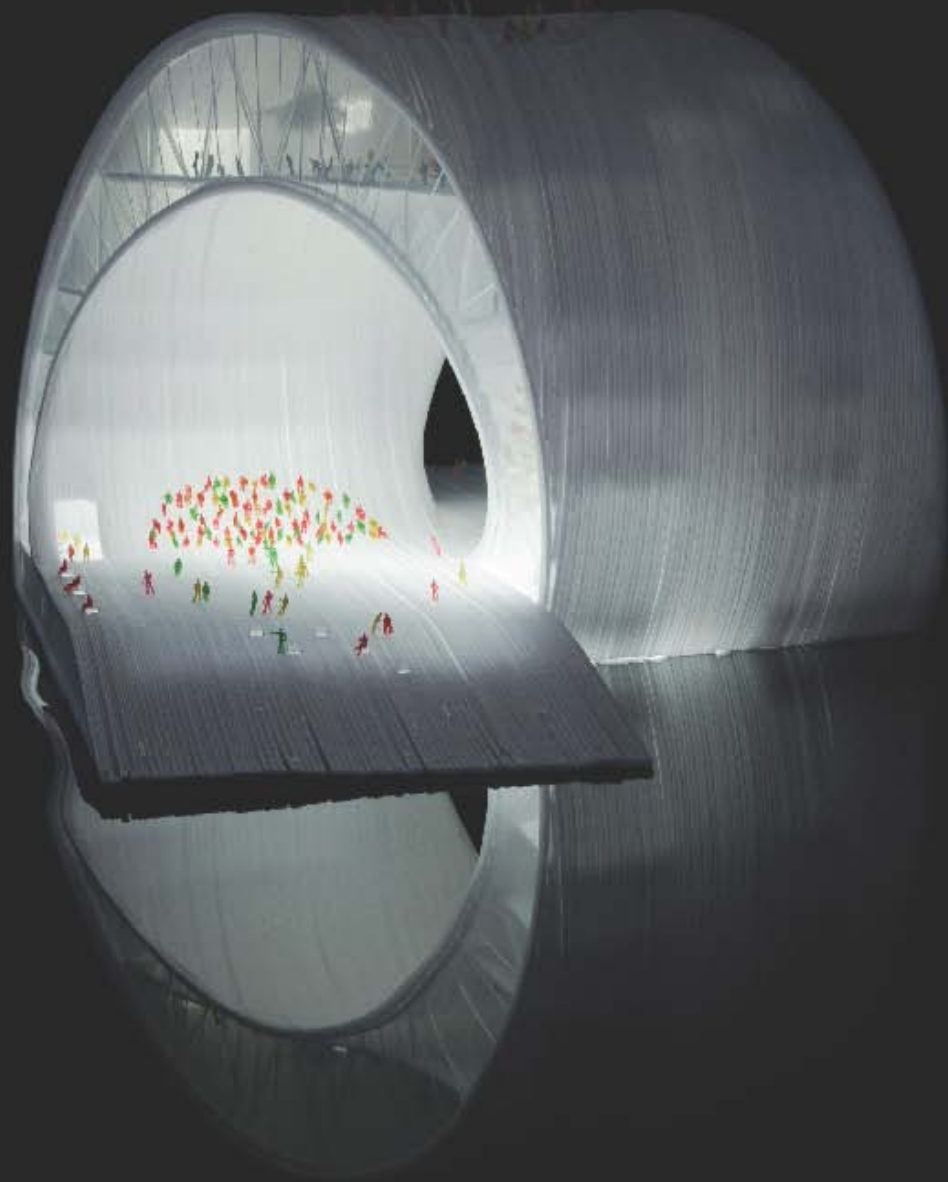










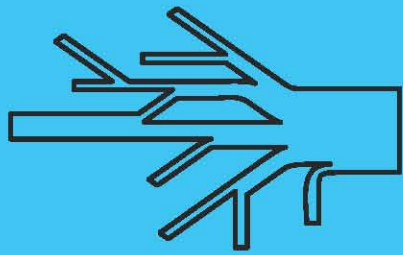


Watermark

The pier is integral to the identity of St Petersburg - a landmark - or rather watermark - that is a point of reference, a common denominator, a gathering point for the people of St Petersburg. And just like the people of St Petersburg will grow and evolve over time.





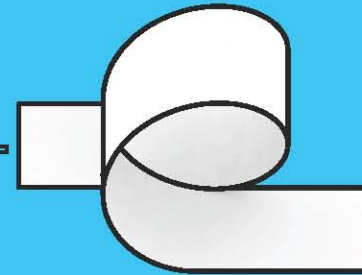


TRIBUTARY PARK



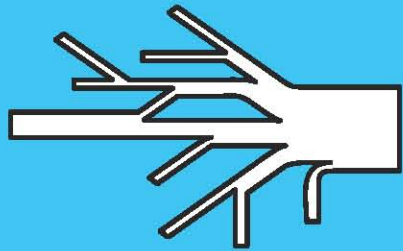
WAVE WALK

+



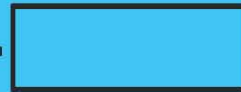
THE WAVE

PHASE 1



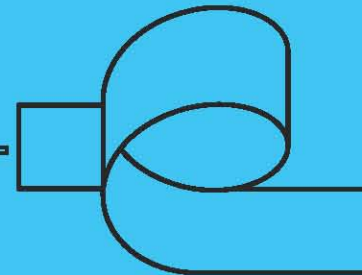
TRIBUTARY PARK

+



WAVE WALK

+



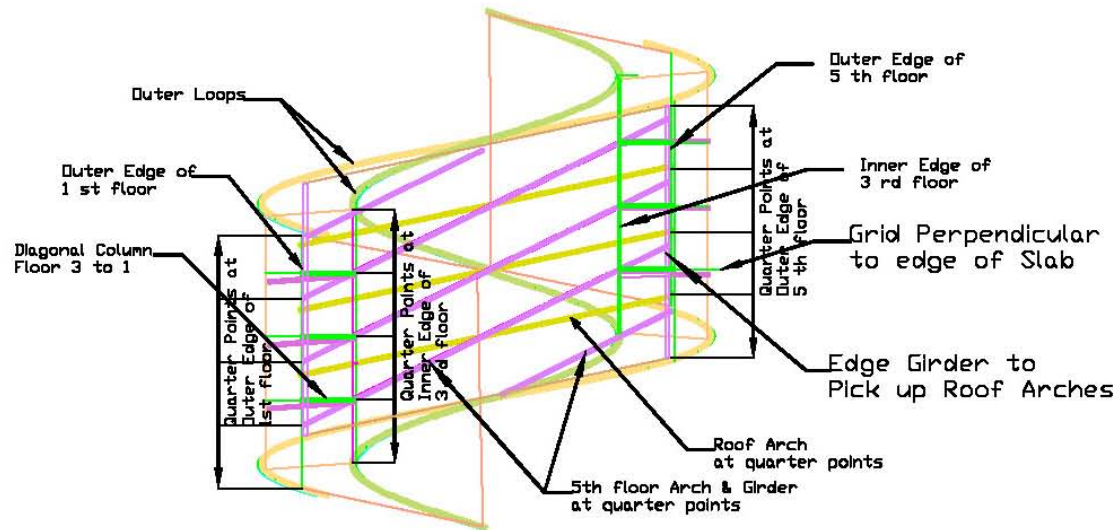
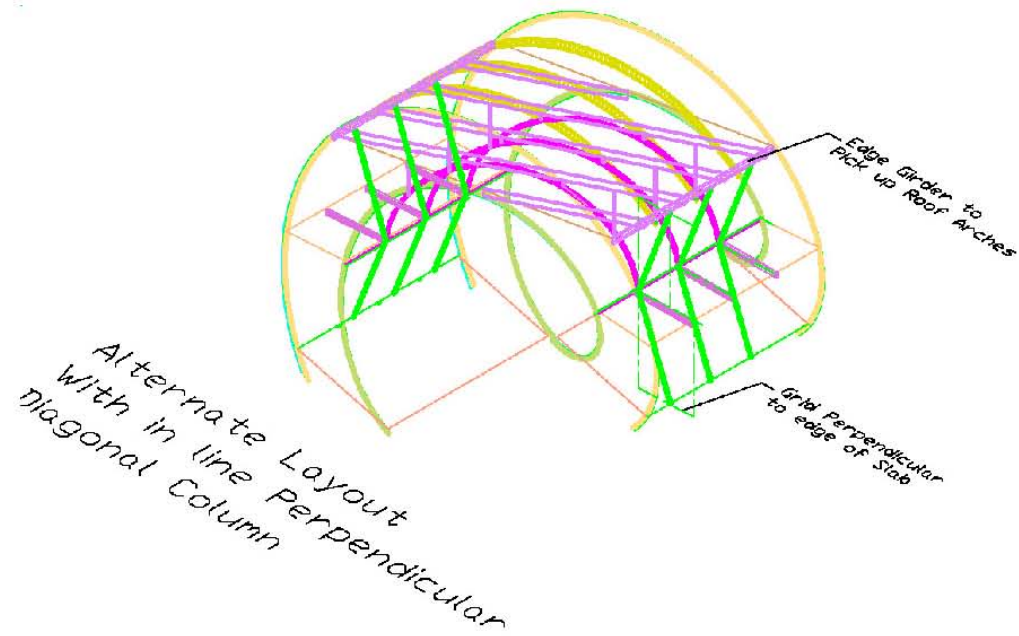
THE WAVE

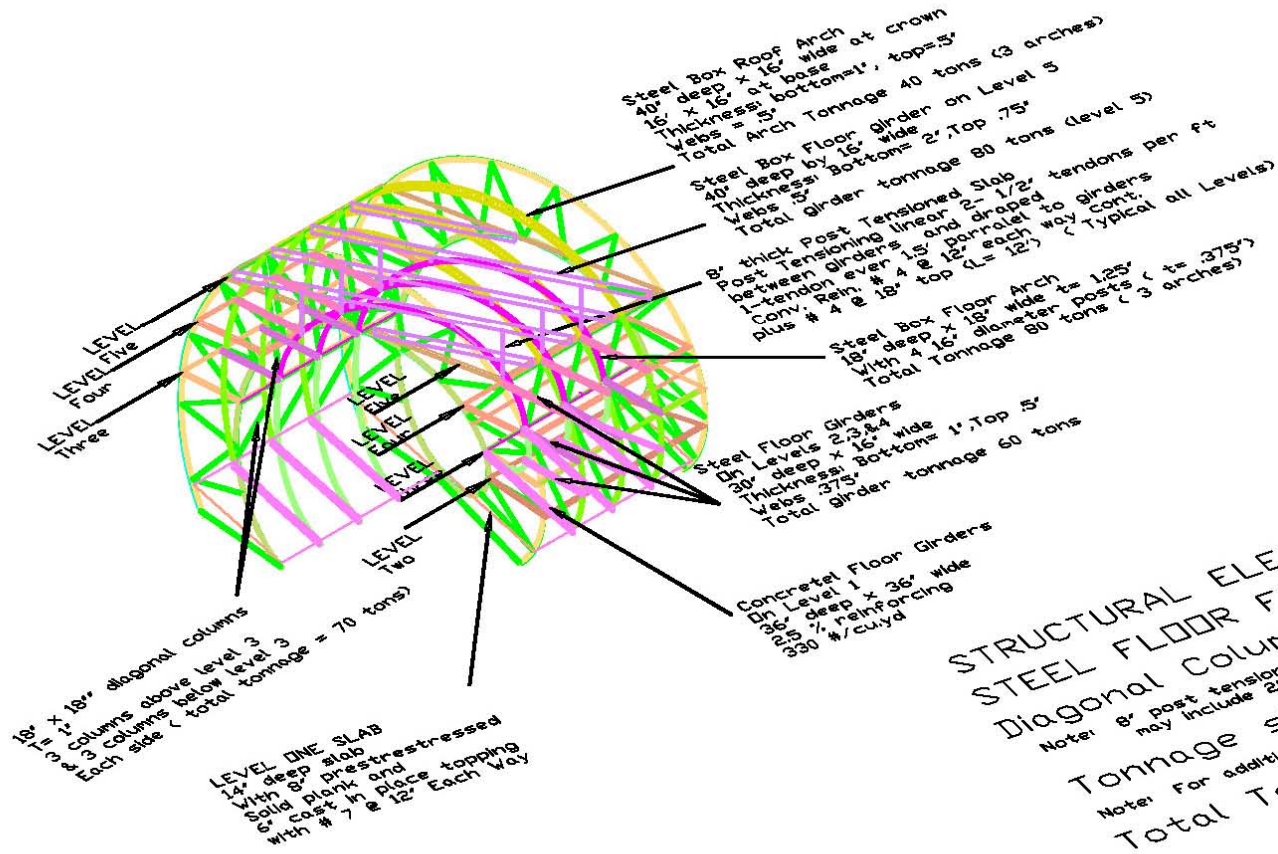
PHASE 2

Technical Supplement

Thornton Tomasetti

STRUCTURAL ENGINEER





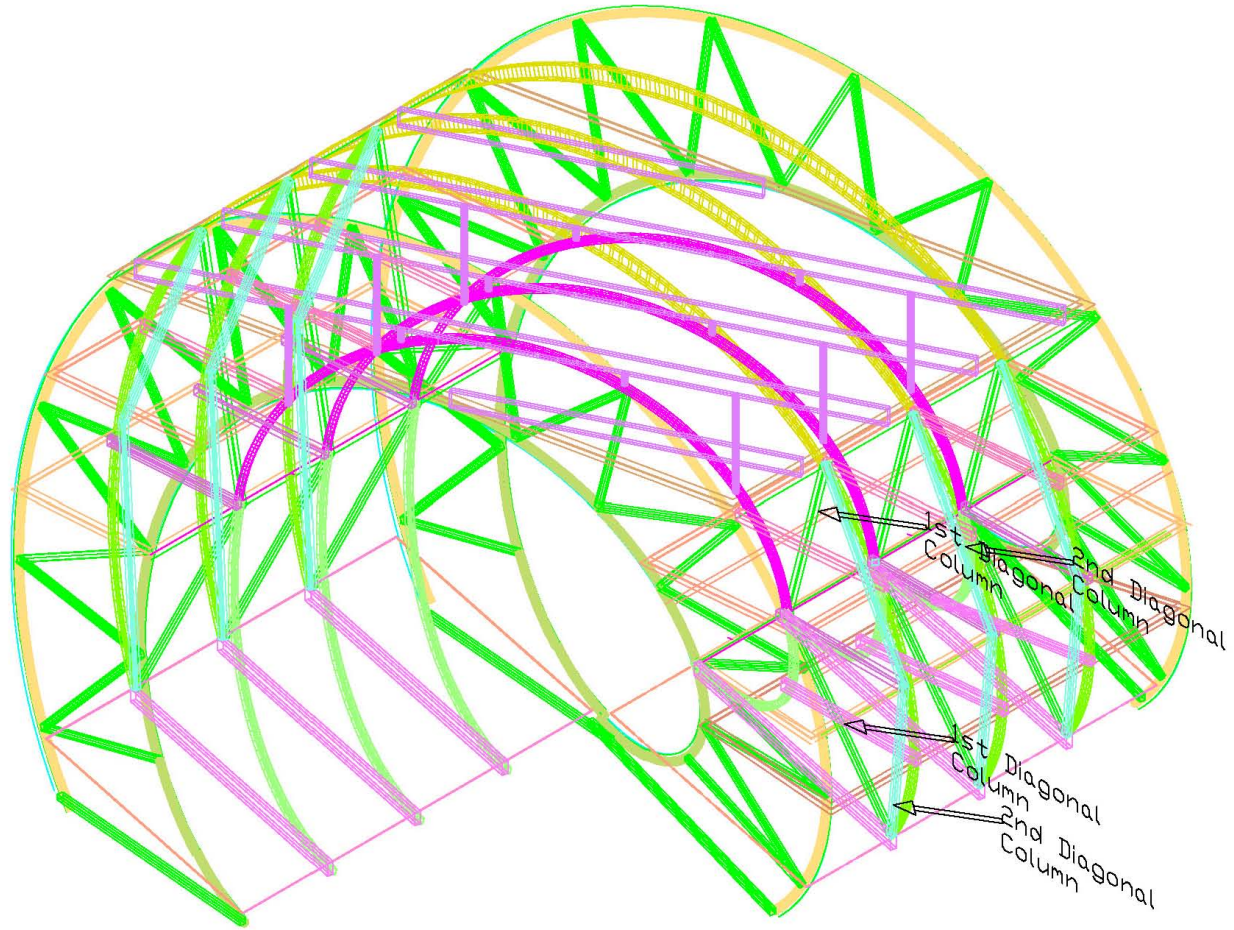
STRUCTURAL ELEMENTS OF STEEL FLOOR FRAMING

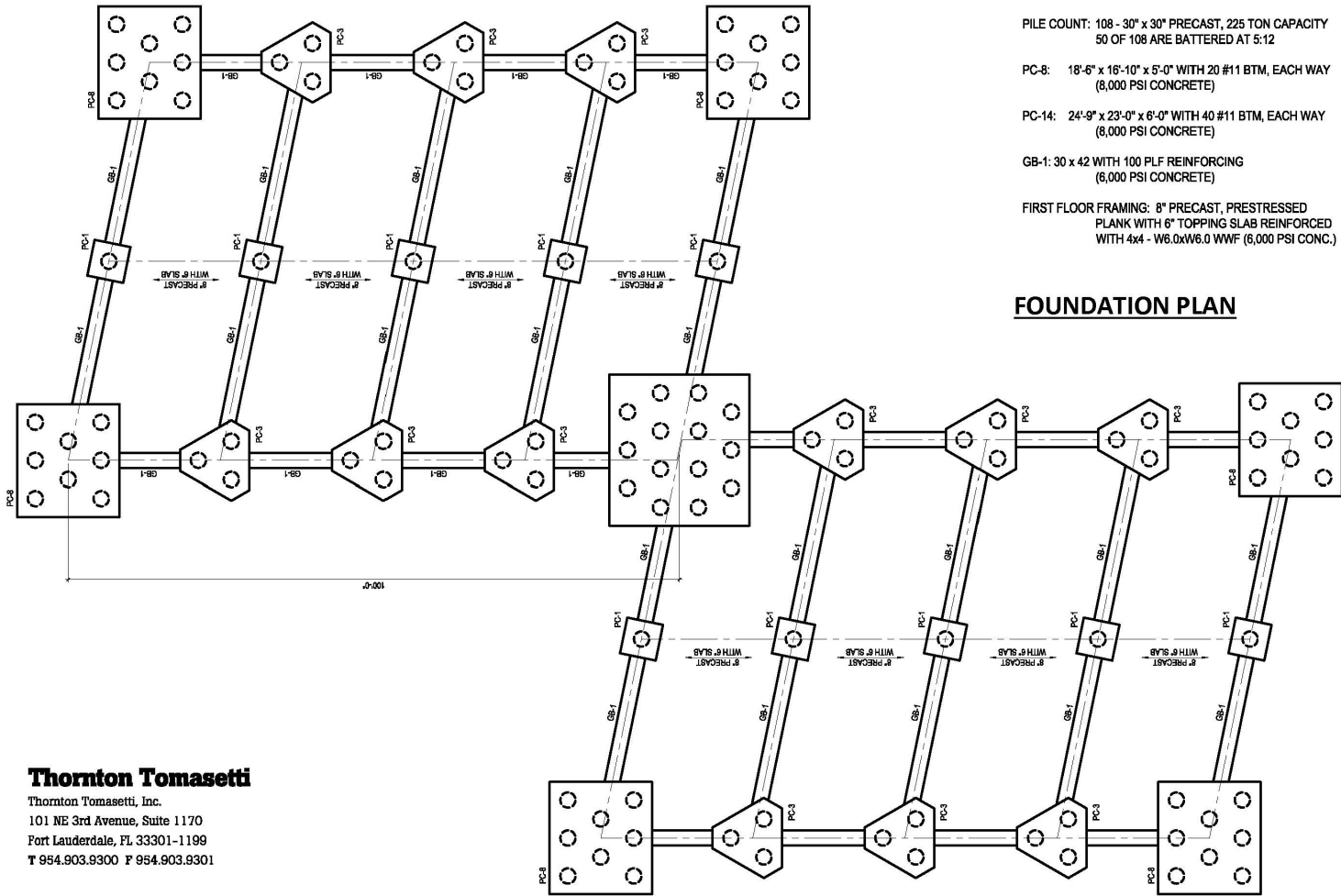
Diagonal Column
Note: 8' post tensioned cast in place slabs may include 2' filigree precast form

Tonnage shown = 330 tons

Note: For additional Tonnage see Steel Shell

Total Tonnage=330+545= 875tons





- PILE COUNT: 108 - 30" x 30" PRECAST, 225 TON CAPACITY
50 OF 108 ARE BATTERED AT 5:12
- PC-8: 18'-6" x 16'-10" x 5'-0" WITH 20 #11 BTM, EACH WAY
(8,000 PSI CONCRETE)
- PC-14: 24'-9" x 23'-0" x 6'-0" WITH 40 #11 BTM, EACH WAY
(8,000 PSI CONCRETE)
- GB-1: 30 x 42 WITH 100 PLF REINFORCING
(6,000 PSI CONCRETE)
- FIRST FLOOR FRAMING: 8" PRECAST, PRESTRESSED
PLANK WITH 6" TOPPING SLAB REINFORCED
WITH 4x4 - W6.0xW6.0 WWF (6,000 PSI CONC.)

FOUNDATION PLAN

Thornton Tomasetti

Thornton Tomasetti, Inc.
101 NE 3rd Avenue, Suite 1170
Fort Lauderdale, FL 33301-1199
T 954.903.9300 F 954.903.9301

**PARSONS
BRINCKERHOFF**

CIVIL & MARINE ENGINEER

Disposal of Demolition Material

The concrete substructure and decking will be utilized for ecological restoration at a site just north of the Pier and adjacent to North Shore Park in St. Petersburg. A report presented in 2005 assessed the ecological values of selected dredge holes in Tampa Bay. The report concluded that one location identified as North Shore was described as the "most degraded biologically".

The project team is proposing to place the clean demolition material in the location shown below. The area shown is approximately 92,000 square feet. According to the report, the site is generally 12 feet deep. The placement of material six feet high will accommodate all of the estimated 21,400 cubic yards of concrete demolition material and will provide viable artificial reef habitat. The area of seagrass will increase as the shifting sands gradually fill in the areas adjacent to the existing seagrasses.

The Tampa Bay WAVE Program (TBEP) adopted as one of its Action Plans the goal of identifying beneficial uses for dredge spoil produced as a result of dredging activities in Tampa Bay (Tampa Bay National WAVE Program 1996). One possible use of this material is to fill older dredge holes that may be problematic from an ecological sense. Tampa Bay Watch, Inc. (2000) identified 29 dredge holes in Tampa Bay and upland locations proximal to the bay and reported on the physical characteristics of eleven of them. As part of a contract with USEPA, the TBEP and its partners, the Florida Marine Research Institute (FMRI) of the Florida Fish and Wildlife Conservation Commission (FWCC) and the Environmental Protection Commission of Hillsborough County (EPCHC), undertook an ecological characterization study of a number of these dredge holes. This report summarizes the hydrographic conditions, sediment contaminant status, and benthic community structures of sixteen of these dredge holes.

The material would provide a hard substrate for colonization by attached marine organisms such as tunicates, algae, sponge, and soft corals. While this habitat is not endemic to Tampa Bay, the benefit of hard substrate is widely recognized.

As an alternative, the project team has explored the placement of clean sand of similar size and composition as the adjacent grass beds on top of the demolition material to create seagrass habitat. This has been successfully accomplished by members of the project team. It is anticipated the creation of the seagrass area adjacent to North Shore Part to add approximately \$425,000, not including the placement of the demolition material.



Marine Environmental Issues

The project will be designed in a manner that does not involve impacts to seagrasses. The project team will develop an environmental assessment of the project that will be included with the permit application packages. The assessment will include detailed documentation of the existing seagrass beds and a thorough discussion of the various project elements and the avoidance of impacts from such. Clear construction documents will be prepared to provide specific approaches for the contractor for the avoidance of impacts to adjacent seagrasses, including secondary impacts from activities such as dewatering, pile driving, barge and other water craft staging and access.

The softening of existing seawalls will be provided by the installation of oyster domes. This approach has documented success within Tampa Bay. Conversations with Tampa Bay Watch have been held to provide an opportunity for public involvement with the City's showcase project. The project team's Marine Biologist will provide a thorough assessment of the habitat potential for the oyster dome as well as careful coordination with the Coastal Engineer to avoid unintended consequences from the placement of the oyster domes.

LEED

There are several environmental aspects of the project that will provide possible points towards becoming LEED certified. Those include :

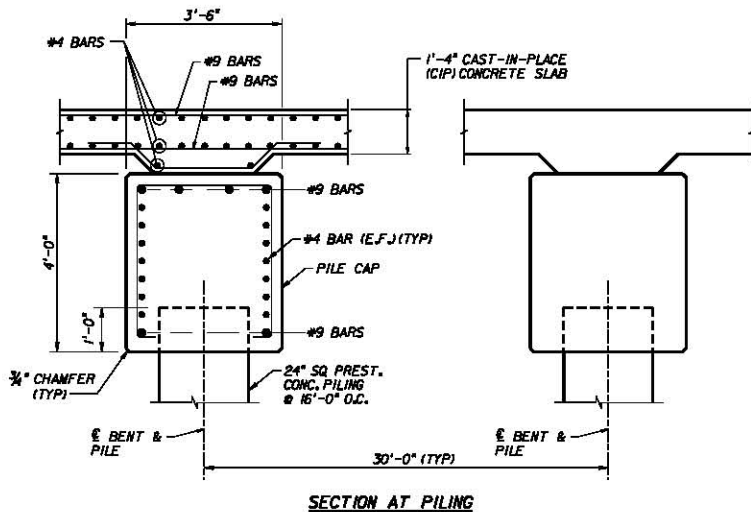
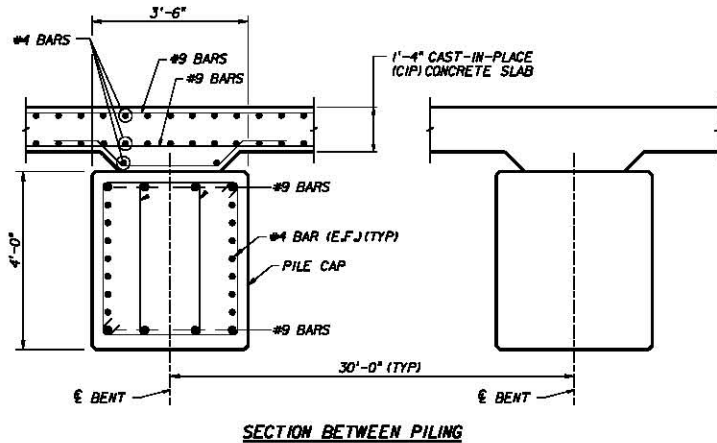
- Brownfield Redevelopment
- Stormwater Design – Quality Control
- Water Efficient Landscaping
- Construction Waste Management

According to the City's Resolution No. 2003-382, the project is within the City's brownfield area and is eligible for Brownfield grants as well as points towards LEED certification.

The stormwater design is envisioned to include collection of runoff from the building, collection into cisterns, and used as irrigation water for the plantings around the building as well as inside the building.

Native, drought tolerant vegetation will be used in all plantings associated with the project.

The use of the demolition material for marine habitat will qualify for points towards LEED certification.



Pier Superstructure

Our Team proposes the use of cast-in-place (CIP) slabs for the approach spans leading to the main pier structure. Compared to concrete beam alternatives, CIP slabs will provide a much thinner, visually streamlined superstructure, which can be situated closer to waterline. Typical spans for this section of the bridge will be approximately 30 feet in length. The slabs will be approximately 16 inches deep and will span directly from bent to bent. The primary reinforcement of the slabs will run longitudinally (along the length of the bridge).

Pier Foundations

The pile caps/bents that support this CIP Slabs will be spaced approximately 30 feet apart along the length of the bridge. Piles will be spaced approximately 16 feet apart with a 3'-6" wide x 4' deep pile cap. As this bridge is located in an extremely aggressive marine environment, the project requires the use of either 24" or 30" square precast, pre-stressed concrete (PPC) piles. Based on our geotechnical and constructability analysis, our team recommends the use of 24" square PPC piles for this element of the project.

In addition to those noted in the design basis document prepared by Moffat & Nichols for the City of St. Petersburg, we will also use following codes/specifications:

- AASHTO LRFD Bridge Design Specifications
- FDOT Structures Design Guidelines
- AASHTO LRFD Movable Highway Bridge Design Specifications (Brian /Tim to confirm use of floating spans)

Building Foundation

The conceptual building foundation layout is included in Section x.x. The foundation will utilize over one hundred 30-Inch square PCC piles. Approximately half the piles will be battered to resist horizontal loads.

ST. PETERSBURG PIER
ST. PETERSBURG, FL

TYP. 30' CIP CONCRETE SLAB SPAN

PARSONS BRINCKERHOFF, Inc.
5405 West Opram Street, Suite 300
Tampa, Florida 33607

CC & A
COST CONSULTANT

SCHEDULE OF VALUES						
A	B	C	D	E	F	G
Total GSF/ Component GSF	138,898					
			Quantity	Unit Cost (\$/unit or %)	Base Design Cost	Cost/SF
DIVISION	DESCRIPTION	Comments			D x E	F / B
2A	Bridge Demolition		1		\$5,900,000	\$42
2A	Pyramid Caissons Demolition		1		\$600,000	\$4
2B	Landscape, Irrigation, Hardscape		1	\$100,000.00	\$100,000	\$1
3A	Structural Concrete	incl. pier construction	1	\$11,301,564.00	\$11,301,564	\$81
3B	Exterior Concrete	ext. skin of loop	1	\$5,400,255.00	\$5,400,255	\$39
4	Masonry	stair/elevator cores	1	\$906,000.00	\$906,000	\$7
5A	Structural Steel		1	\$6,322,500.00	\$6,322,500	\$46
7A	Roofing & Waterproofing		1	\$191,509.00	\$191,509	\$1
8 through 12	Interior finishes	incl. pier amenities	1	\$2,881,540.00	\$2,881,540	\$21
14A	Elevators		4	\$175,000.00	\$700,000	\$5
21	Fire Protection incl. underground		33,900	\$5.29	\$179,225	\$1
22	Plumbing incl. underground		33,900	\$6.11	\$207,025	\$1
23	HVAC incl. underground		33,900	\$18.00	\$610,200	\$4
26	Electrical, Communication, Security incl. underground		33,900	\$21.67	\$734,750	\$5
99	Construction Contingency		1	\$2,000,000.00	\$2,000,000	\$14
P	TOTAL ALL DIVISIONS				\$38,034,568	\$274
Q	General Conditions, Insurances, Bonds, Permitting, CM Fees		1	\$7,422,933.00	\$7,422,933	\$53
R	CONSTRUCTION COST (P+Q)				\$45,457,501	\$327
	COST PER SQ-FT TOTALS					
S	SOFT COSTS (Allowances) A/E Fees, Testing, Surveys, Geotech, Threshold Inspections, FF&E, Tenant Improvements				\$4,500,000	
T	TOTAL CONSTRUCTION COST (R+S)				\$49,957,501	

PROJECT: St. Petersburg Pier Replacement

EST. TYPE: Conceptual

LOCATION: Landside Master Plan

DATE: November 27, 2011

TEAM: BIG

COMPONENT VALUES				
A	B	C	I	I
COMPONENT	SIZE (GSF)	CONSTR. COST/GSF	SOFT COSTS/GSF	TOTAL COST
Beach Improvements	37,318	\$4.65	\$0.33	\$185,748
Parking Area Improvements	84,957	\$2.90	\$0.21	\$264,206
Pathways	235,476	\$7.56	\$0.54	\$1,907,356
Landscaping	339,462	\$4.34	\$0.31	\$1,577,321
Buildings - Concessions & Wine Bar	2,000	\$252.00	\$18.00	\$540,000
Equipment - Playground & Outdoor Furniture	723,213	\$0.44	\$0.03	\$337,500
Fire Pit, Skate Park, Water Overlooks, Beach Steps	18,000	\$14.00	\$1.00	\$270,000
Site Electrical	723,213	\$0.35	\$0.02	\$270,000
Vinoy Basin Pedestrian Bridge	6,000	\$1,050.00	\$75.00	\$6,750,000
				\$0
				\$0
				\$0
TOTAL COST LANDSIDE MASTER PLAN	723,213			\$12,102,130

CONSTRUCTION COSTS ASLO INCLUDE GENERAL CONDITIONS, PERMITTING, BONDS, INSURANCE, CM FEES

SOFT COSTS INCLUDE A/E FEES, TESTING, SURVEYS, GEOTECH, THRESHOLD INSPECTIONS

DESCRIPTION	QTY.	UNIT	UNIT COST	TOTAL COST	PER S.F.	TOTAL COST
Preliminary Design Budget			Building GSF	33,900		
OVER WATER BUILDING COSTS						
Demolition						\$6,500,000
Bridge Demolition	1	ls	5,900,000.00	5,900,000	174.04	
Caisson Demolition	1	ls	600,000.00	600,000	17.70	
Pyramid Demolition w/above						
FOUNDATIONS						\$1,923,796
Precast Pilings	7,484	lf	90.00	673,596	19.87	
Pile Caps/Elevated Gr Beams	815	cy	1,100.00	895,950	26.43	
8" Precast Conc Deck	11,700	sf	15.00	175,500	5.18	
6" PIP Conc Deck	238	cy	750.00	178,750	5.27	
SUBSTRUCTURE						\$8,298,777
Fixed Walkway Pier	85,476	sf	81.00	6,923,532	204.23	
Floating Walkway Pier	22,545	sf	61.00	1,375,245	40.57	
SUPERSTRUCTURE						\$8,307,492
Steel Structure Loop	711	tn	8,500.00	6,043,500	178.27	
PIP PT Concrete Decks	785	cy	1,250.00	980,992	28.94	
Stair Cores	22,440	sf	25.00	561,000	16.55	
Elevator Cores	13,800	sf	25.00	345,000	10.18	
Steel Pan Stairs/Handrails	620	risers	450.00	279,000	8.23	
Concrete Fill at Pan Stairs	32	flts	1,500.00	48,000	1.42	
PIP Conc Ramp to Roof	1	ls	50,000.00	50,000	1.47	
EXTERIOR CLOSURE						\$6,884,395
PIP PT Conc Walls - Loop	1,512	cy	3,250.00	4,912,912	144.92	
Form Liner for Conc Walls	58,017	sf	8.40	487,343	14.38	
Drs/Frs/Hdw	4	ea	1,500.00	6,000	0.18	
Alum/Glass Storefront	21,636	sf	65.00	1,406,340	41.48	
Railing at Roof	718	lf	100.00	71,800	2.12	
MOISTURE PROTECTION						\$191,509
Waterproof Observation Deck	4,988	sf	3.50	17,458	0.51	
Ext wall spray insulation	58,017	sf	3.00	174,051	5.13	
INTERIOR FINISHES CONSTRUCTION						\$1,178,500
Stages	6,000	sf	50.00	300,000	8.85	
Public	23,000	sf	35.00	805,000	23.75	
Back of House	1,900	sf	15.00	28,500	0.84	
Mechanical/Electrical	3,000	sf	15.00	45,000	1.33	
PIER AMENITIES						\$185,000
Kiddie Swimming Area	1	ls	50,000.00	50,000	1.47	
50M Swimming Area	1	ls	25,000.00	25,000	0.74	
Beach Volleyball	1	ls	15,000.00	15,000	0.44	
Restrooms/Storage Bldg	1	ls	75,000.00	75,000	2.21	
Docks	1	ls	20,000.00	20,000	0.59	



PROJECT : St. Petersburg Pier
 LOCATION : St. Petersburg, Fl
 DATE : 11/26/11
 PROJECT # : 2011.139
 PAGE : 2 of 2

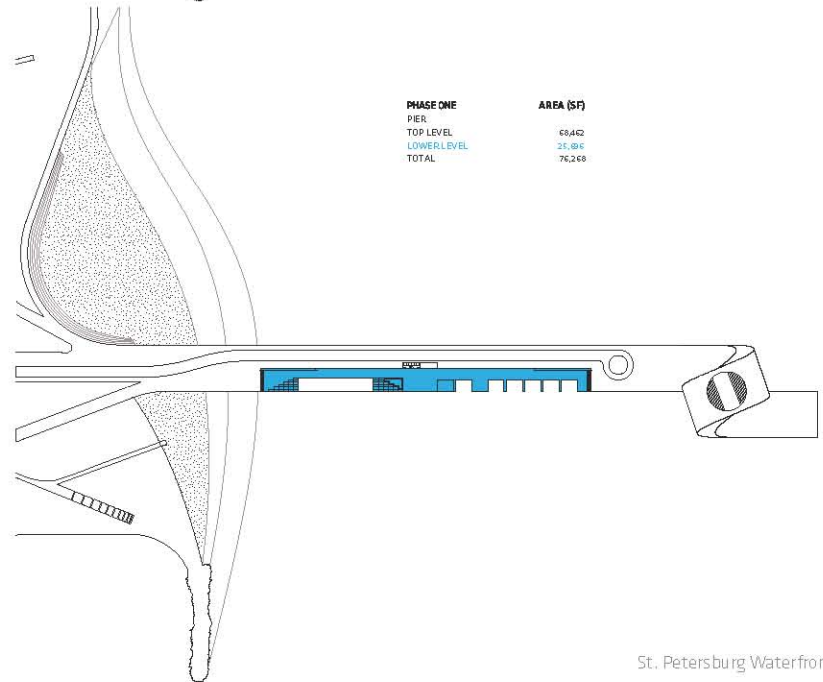
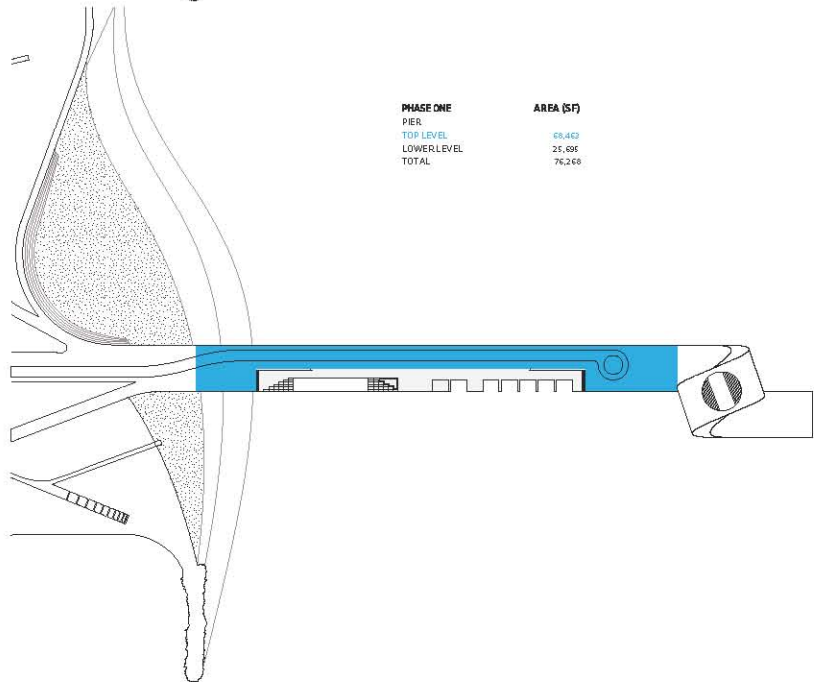
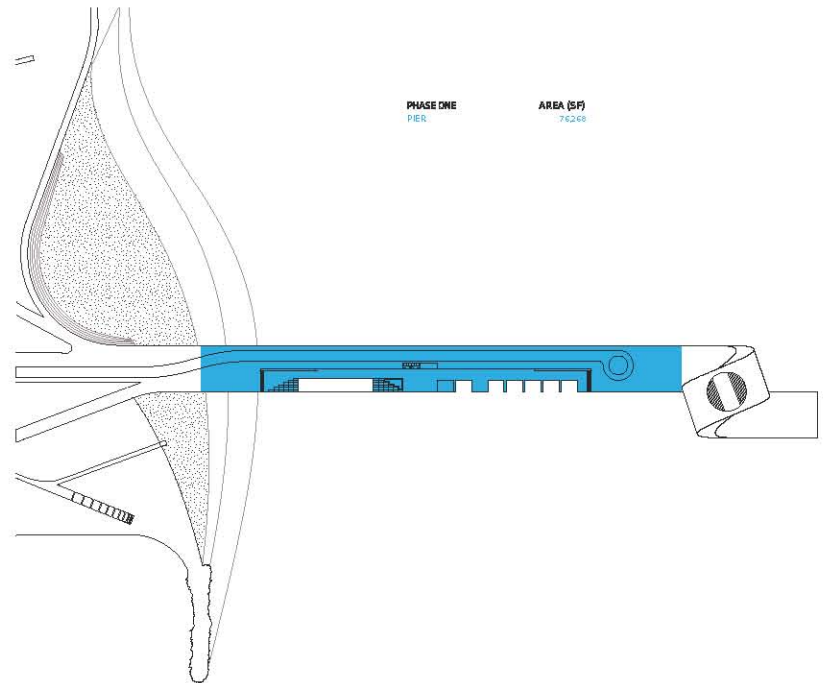
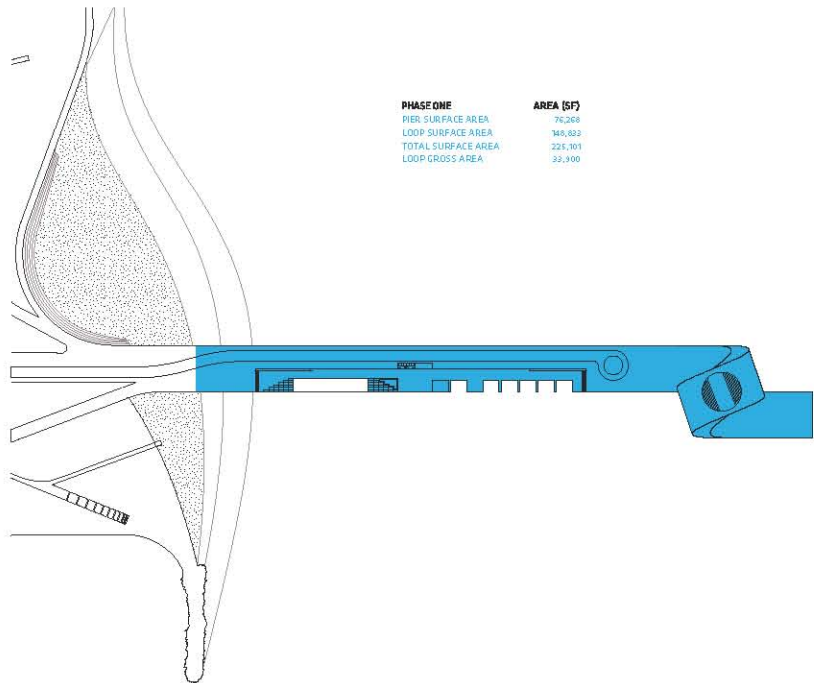
DESCRIPTION	QTY.	UNIT	UNIT COST	TOTAL COST	PER S.F.	TOTAL COST
Preliminary Design Budget			Building GSF	33,900		
OVER WATER BUILDING COSTS						
SPECIAL CONSTRUCTION						\$133,900
Specialties	33,900	ls	1.00	33,900	1.00	
Equipment	1	ls	0.00	0	0.00	
Hardscape/Landscape at Walkway F.F. & E. - N.I.C.	1	ls	100,000.00	100,000	2.95	
CONVEYING SYSTEMS						\$700,000
Traction Elevators	4	ea	175,000.00	700,000	20.65	
Escalators						
MECHANICAL						\$996,450
Fire Sprinkler System	33,900	sf	2.75	93,225	2.75	
FS Piping to Landside	1,150	lf	40.00	46,000	1.36	
Fire Pump	1	ls	40,000.00	40,000	1.18	
Plumbing System	33,900	sf	4.75	161,025	4.75	
Plumbing Piping to Landside	1,150	lf	40.00	46,000	1.36	
HVAC System	33,900	sf	18.00	610,200	18.00	
ELECTRICAL						\$734,750
Electrical System	33,900	sf	15.00	508,500	15.00	
Electrical Service to Landside	1,150	lf	75.00	86,250	2.54	
Electrical - I.T Cable	1	sf	10,000.00	10,000	0.29	
Electrical - Security	1	ls	15,000.00	15,000	0.44	
Electrical - Generator	1	ls	65,000.00	65,000	1.92	
Electrical - Site / Walkway Lighting	1	ls	50,000.00	50,000	1.47	
			Subtotal:	1,062.97		36,034,568
Construction Manager General Conditions	10.00%			106.30		3,603,457
Permitting	1.00%			10.64		360,346
Construction Manager Fee	4.00%			46.77		1,585,521
Gen Liability Insurance	1.50%			18.24		618,353
Sub Bonds & P&P Bond	3.00%			37.03		1,255,257
SubTotal				1,281.95		43,457,502
Estimate Contingency				0.00		2,000,000
Escalation				0.00		0
BUILDING BUDGET TOTAL:				\$1,281.95		\$45,457,502
SOFT COSTS						
A/E Fees Allowance	1	ls	4,500,000			4,500,000
Testing	1	ls	w/above			0
Surveys	1	ls	w/above			0
GeoTech	1	ls	w/above			0
Threshold Inspection	1	ls	w/above			0
FF&E & T.I. Allowance	1	ls	w/above			0
TOTAL CONSTRUCTION BUDGET						\$49,957,501.58

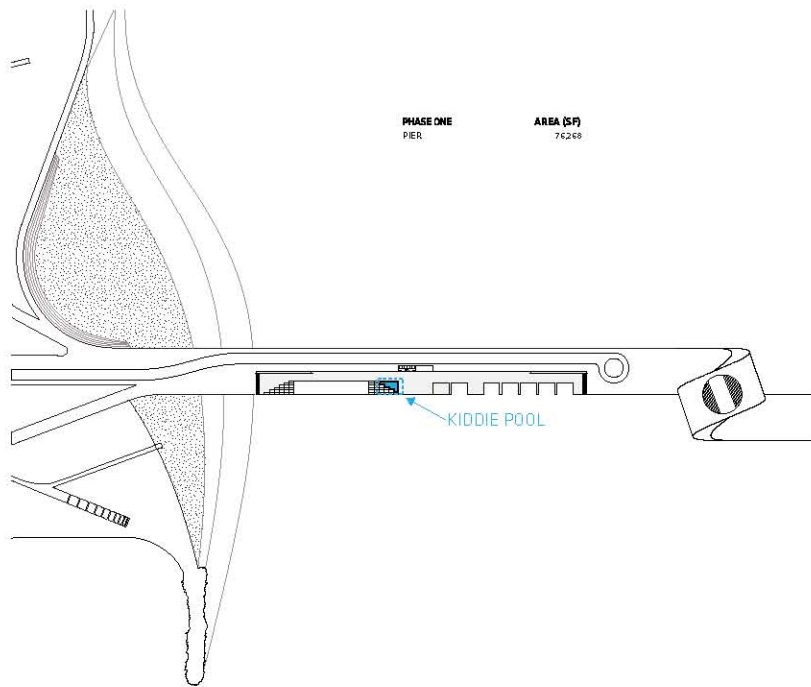
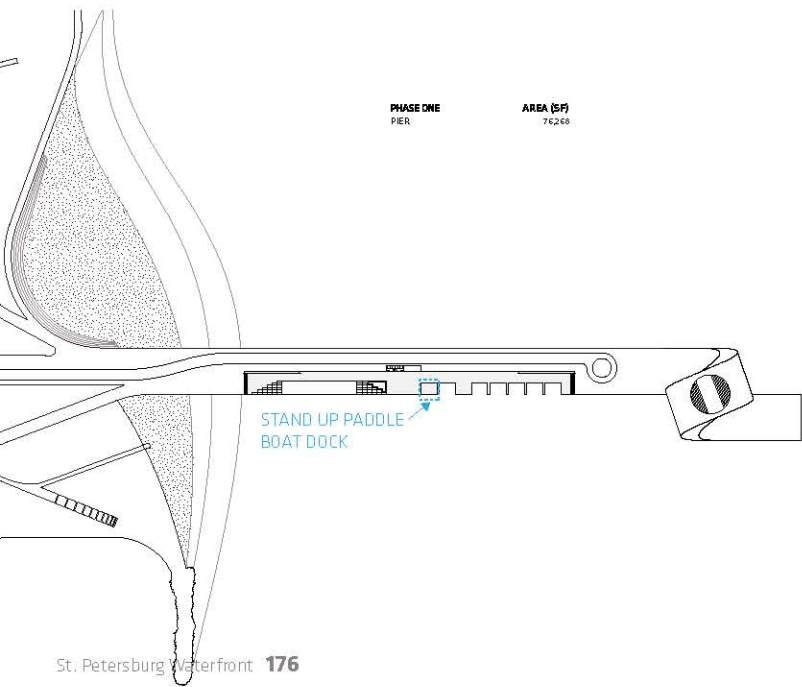
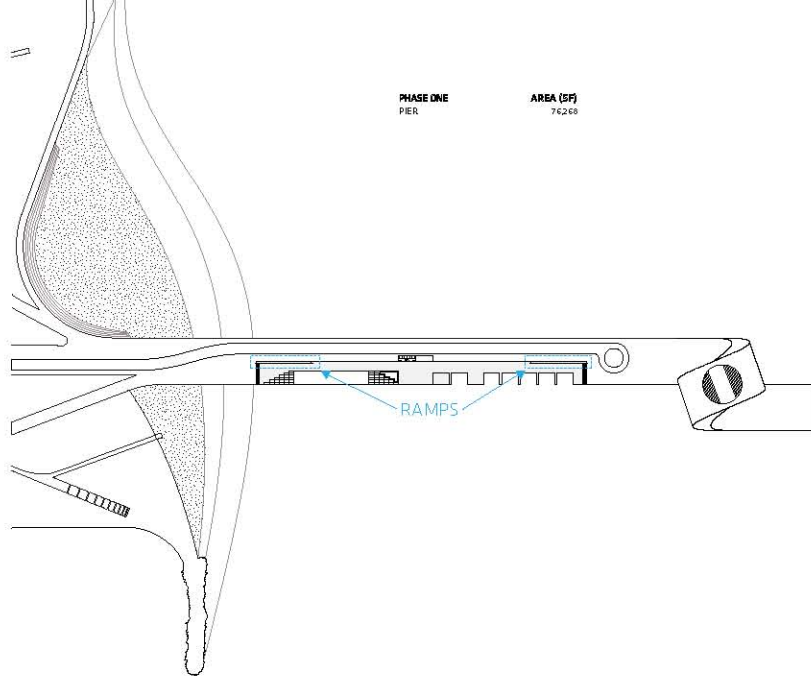
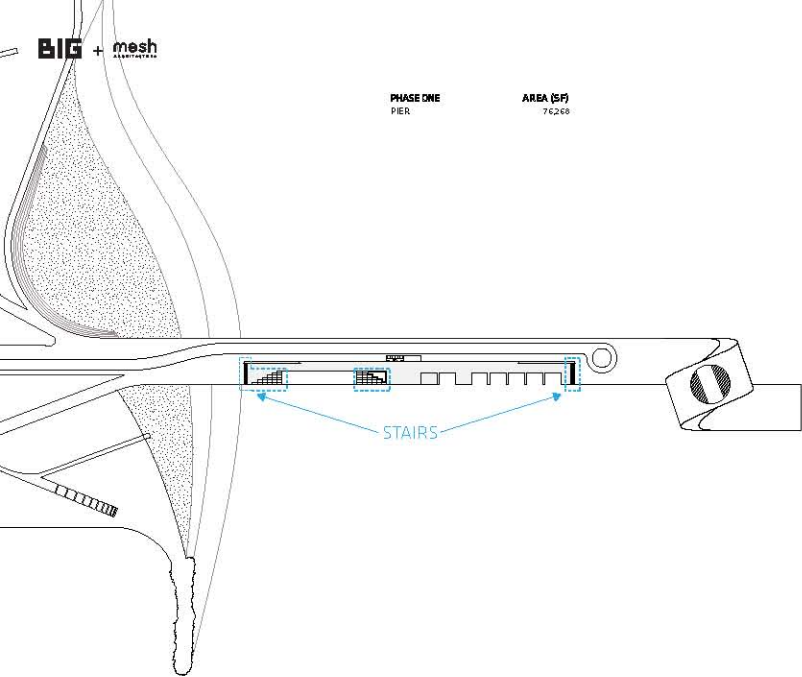


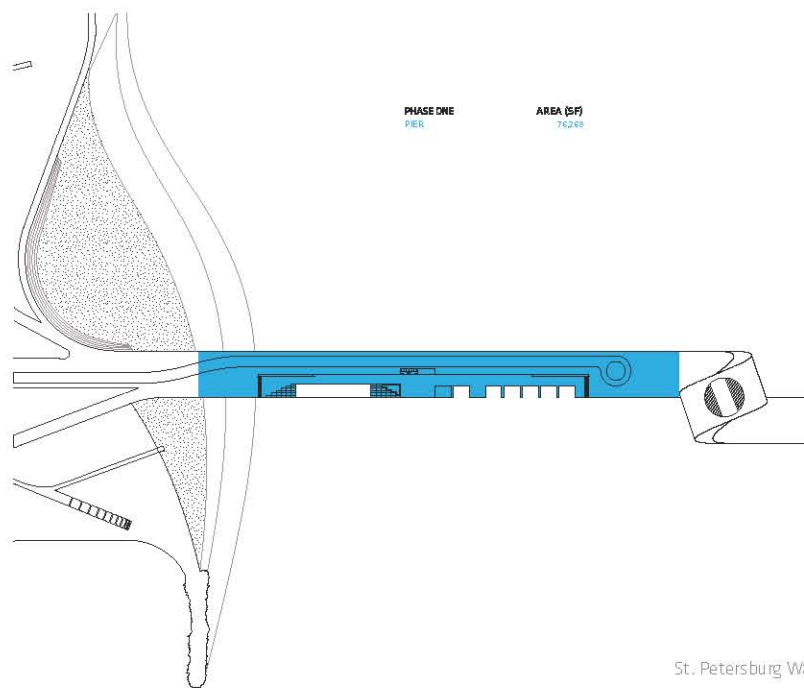
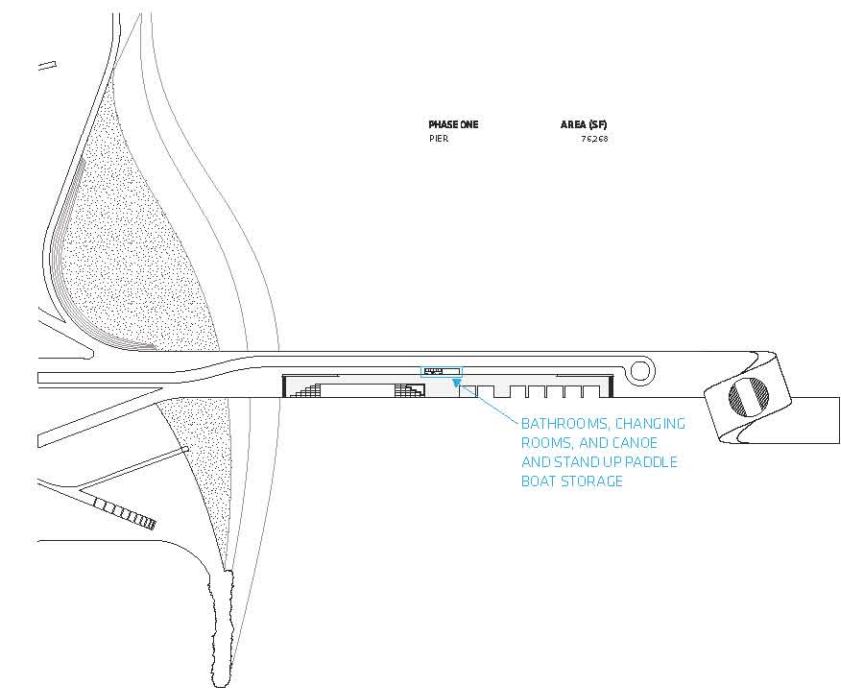
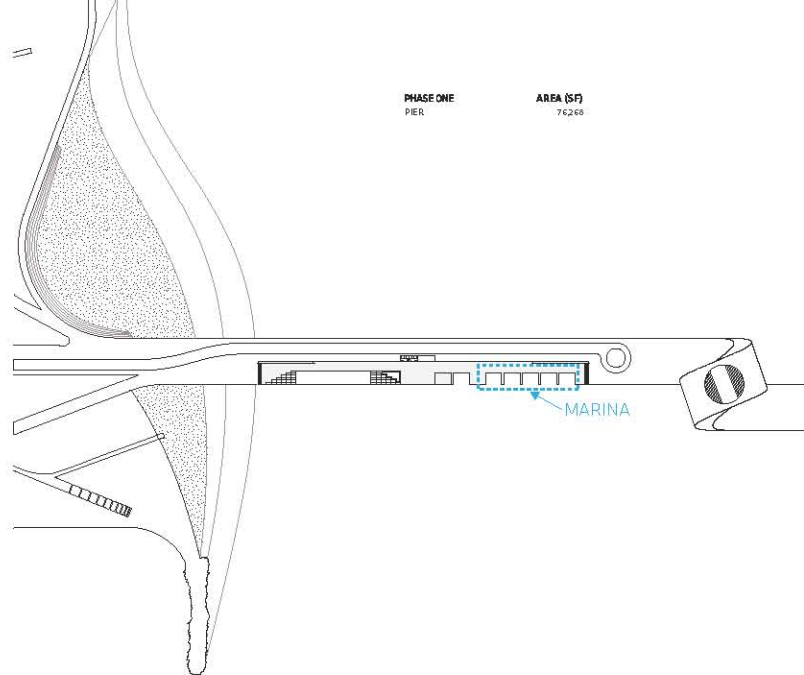
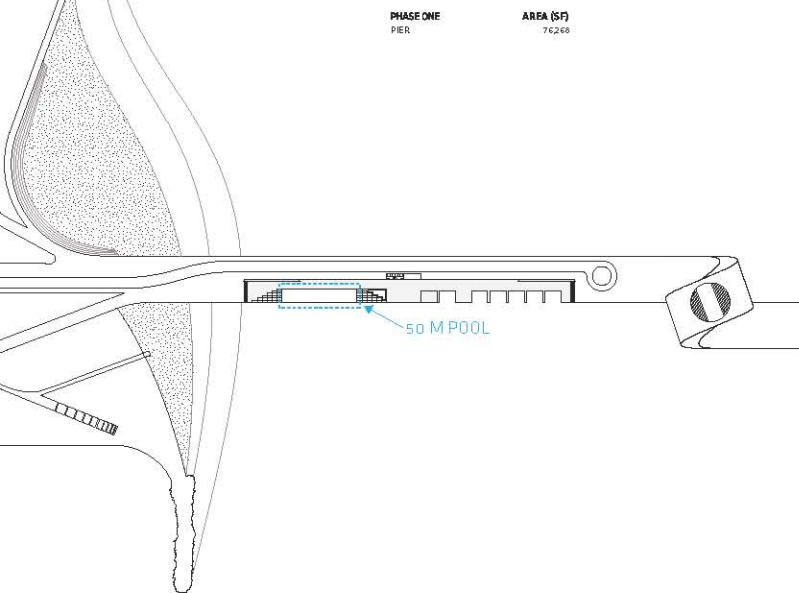
PROJECT : St. Petersburg Pier
 LOCATION : St. Petersburg, Fl
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 PAGE : 1 of 1

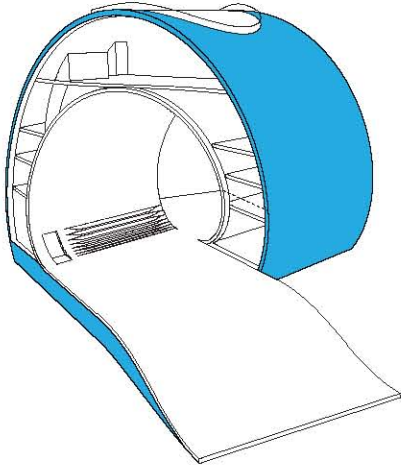
DESCRIPTION	QTY.	UNIT	UNIT COST	TOTAL	TOTAL COST
Preliminary Design Budget					
PHASE II - LANDSIDE MASTER PLAN BUDGETS					
Beach Removed					
Remove beach	837	cy	5.00	4,184	51,961.57
Backfill area fill dirt	2,778	cy	10.00	27,778	
Retaining walls	200	lf	100.00	20,000	
Beach Added					
Backfill beach sand	5,237	cy	15.00	78,558	85,628.58
Grade beach	28,281	sf	0.25	7,070	
Parking Removed					
Demo asphalt pavement	64,926	sf	0.50	32,463	112,418.17
Backfill area	1,503	cy	10.00	15,029	
Grade area	64,926	sf	0.25	16,232	
Sod area	64,926	sf	0.75	48,695	
Parking Added					
New asphalt pavement	2,226	sy	30.00	66,770	83,289.56
Excavate & hauloff area	927	cy	5.00	4,637	
Grade area	20,031	sf	0.25	5,008	
Sod area	2,500	sf	0.75	1,875	
Stripping/wheel stops	1	ls	5,000.00	5,000	
Pathways					
Paths	235,476	sf	5.00	1,177,380	1,412,856.00
Grade	235,476	sf	0.25	58,869	
Sod edges	235,476	sf	0.75	176,607	
Landscaping					
Remove Landscaping	1	ls	50,000.00	50,000	1,168,386.00
Added Landscaping	339,462	sf	3.00	1,018,386	
Irrigation	1	ls	100,000.00	100,000	
Buildings					
Concession Stand	1	ls	200,000.00	200,000	400,000.00
Wine Bar	1	ls	200,000.00	200,000	
Equipment					
Playground Equip.	1	ls	100,000.00	100,000	250,000.00
OutDoor Furniture	1	ls	150,000.00	150,000	
Special Construction					
Fire Pit	1	ls	40,000.00	40,000	400,000.00
Skate Park	1	ls	60,000.00	60,000	
Water Overlooks	1	ls	40,000.00	40,000	
Spa Beach Steps	1	ls	60,000.00	60,000	
Site Electrical	1	ls	200,000.00	200,000	
Vinoy Basin Bridge	1	ls	5,000,000.00	5,000,000	
Pedestrian Bridge	1	ls	5,000,000.00	5,000,000	
SubTotal					
GC's/Bonds/Ins/Permitting/Contingency					8,964,540
A/E / Surveying / Geotechnical Fees					2,330,781
TOTAL BUDGET					806,809
					12,102,130

PHASE ONE: PIER AND WAVE

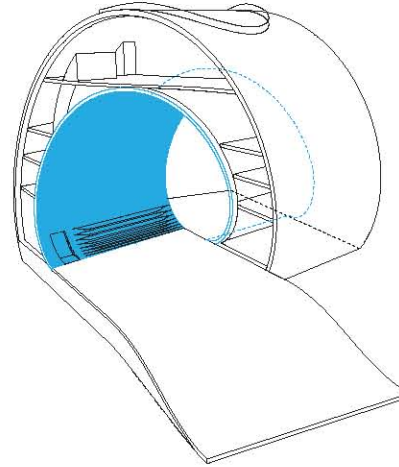




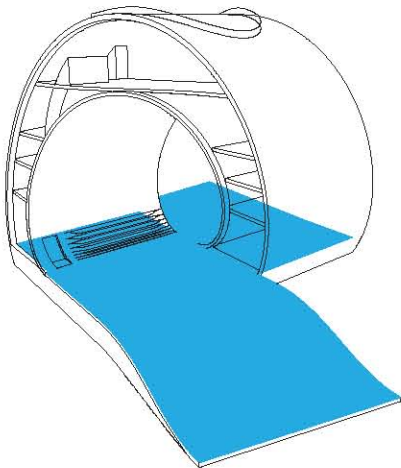




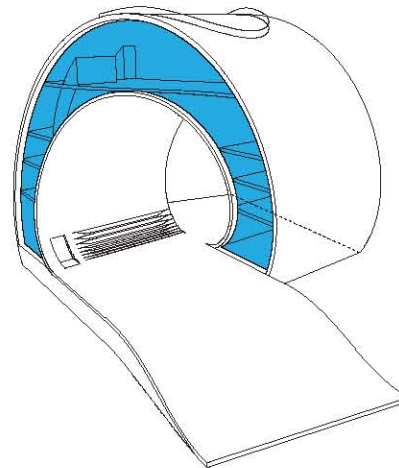
LOOP	SURFACEAREA (SF)
OUTSIDE LOOP CONCRETE	24902
INSIDE LOOP WOOD	23715
INSIDE LOOP DECKING	23742
SIDE GLASS	21626
BANDSHELL	980
FIRST FLOOR	8767
SECOND FLOOR	4566
THIRD FLOOR	4402
FOURTH FLOOR	4692
TOP FLOOR	11472
ROOF OBSERVATION DECK	4988
ROOF RAILING	718
INTERIOR WALLS	2853
TOTAL	148,899



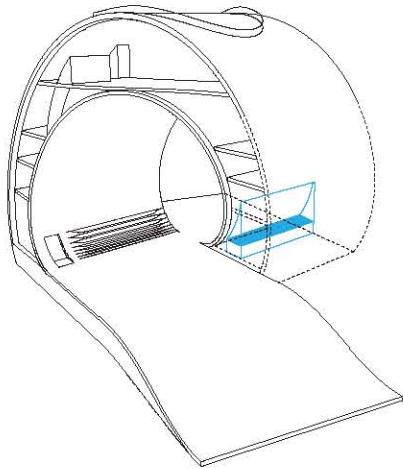
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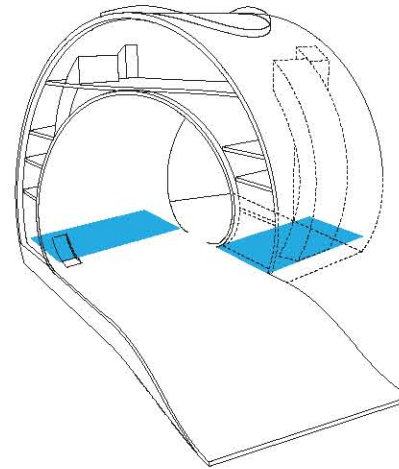
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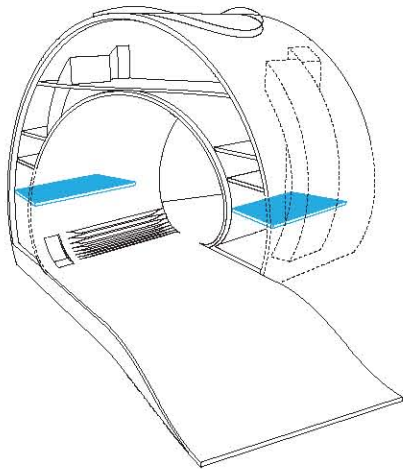
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ROOF OBSERVATION DECK	4988
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INTERIOR WALLS	2853
TOTAL	148,899



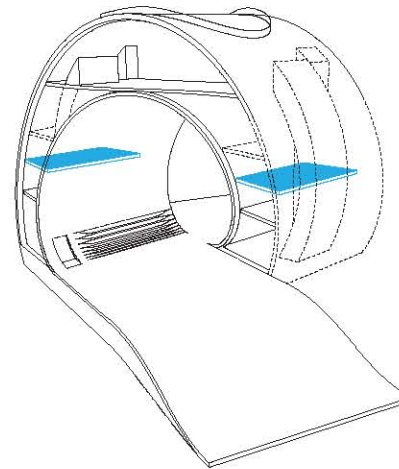
LOOP	SURFACE AREA (SF)
OUTSIDE LOOP CONCRETE	249.02
INSIDE LOOP WOOD	23.715
INSIDE LOOP DECKING	23.742
SIDE GLASS	21.626
BANDSHELL	9.80
FIRST FLOOR	8.767
SECOND FLOOR	4.566
THIRD FLOOR	4.602
FOURTH FLOOR	4.692
TOP FLOOR	11.472
ROOF OBSERVATION DECK	4.988
ROOF RAILING	7.78
INTERIOR WALLS	2.853
TOTAL	146,899



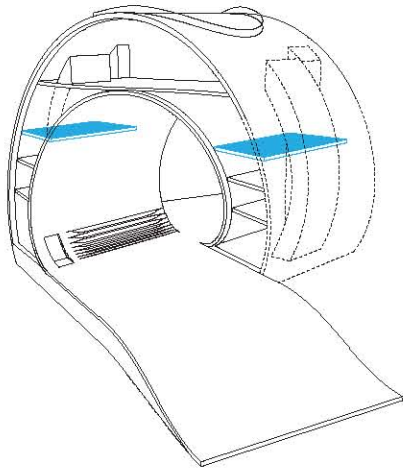
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INSIDE LOOP WOOD	23.715
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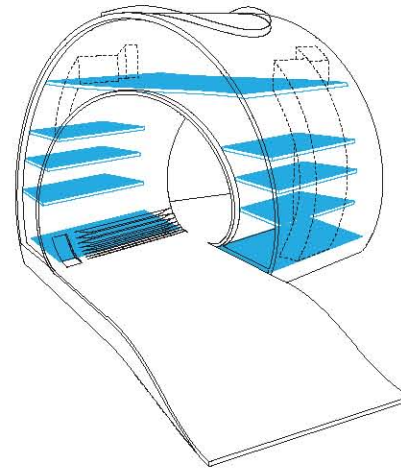
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TOTAL	146,899



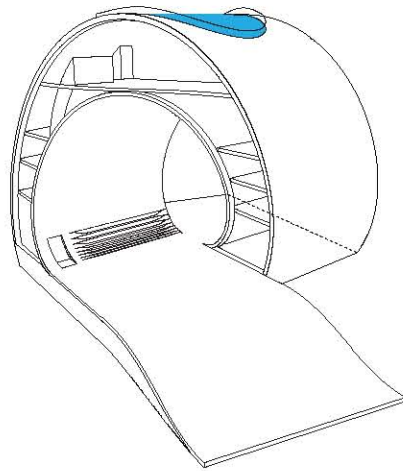
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OUTSIDE LOOP CONCRETE	249.02
INSIDE LOOP WOOD	23.715
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ROOF RAILING	7.78
INTERIOR WALLS	2.853
TOTAL	146,899



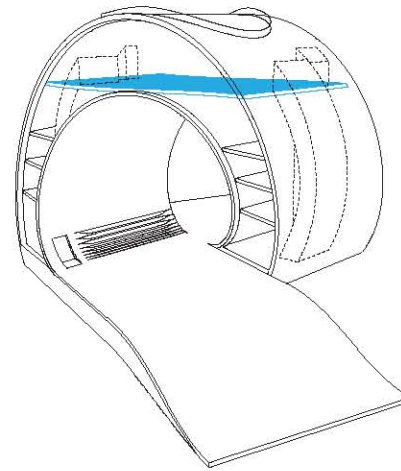
LOOP	SURFACE AREA (SF)
OUTSIDE LOOP CONCRETE	24,902
INSIDE LOOP WOOD	23,315
INSIDE LOOP DECKING	23,742
SIDE GLASS	21,626
BANDSHELL	980
FIRST FLOOR	8,767
SECOND FLOOR	4,566
THIRD FLOOR	4,402
FOURTH FLOOR	4,692
TOP FLOOR	11,472
ROOF OBSERVATION DECK	4,988
ROOF RAILING	718
INTERIOR WALLS	2,853
TOTAL	148,899



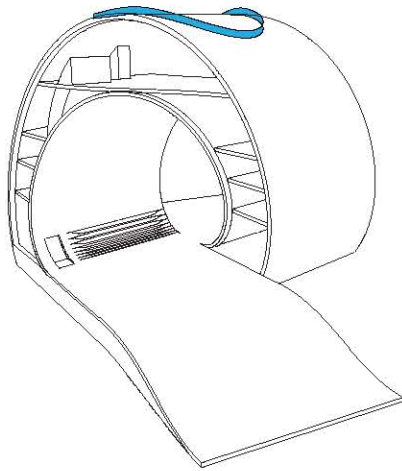
LOOP	AREA (SF)
FIRST FLOOR	8,768
SECOND FLOOR	4,566
THIRD FLOOR	4,402
FOURTH FLOOR	4,692
TOP FLOOR	11,472
GFA TOTAL	39,900



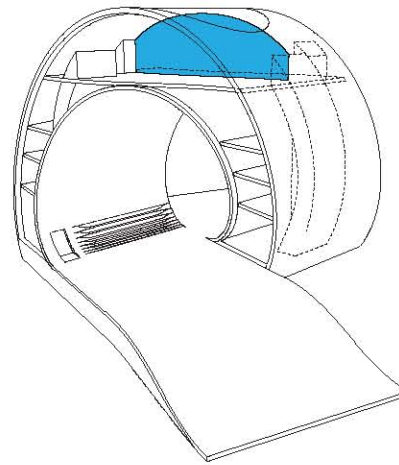
LOOP	SURFACE AREA (SF)
OUTSIDE LOOP CONCRETE	24,902
INSIDE LOOP WOOD	23,315
INSIDE LOOP DECKING	23,742
SIDE GLASS	21,626
BANDSHELL	980
FIRST FLOOR	8,767
SECOND FLOOR	4,566
THIRD FLOOR	4,410
FOURTH FLOOR	4,692
TOP FLOOR	11,472
ROOF OBSERVATION DECK	4,988
ROOF RAILING	718
INTERIOR WALLS	2,853
TOTAL	148,899



LOOP	SURFACE AREA (SF)
OUTSIDE LOOP CONCRETE	24,902
INSIDE LOOP WOOD	23,315
INSIDE LOOP DECKING	23,742
SIDE GLASS	21,626
BANDSHELL	980
FIRST FLOOR	8,767
SECOND FLOOR	4,566
THIRD FLOOR	4,402
FOURTH FLOOR	4,692
TOP FLOOR	11,472
ROOF OBSERVATION DECK	4,988
ROOF RAILING	718
INTERIOR WALLS	2,853
TOTAL	148,899

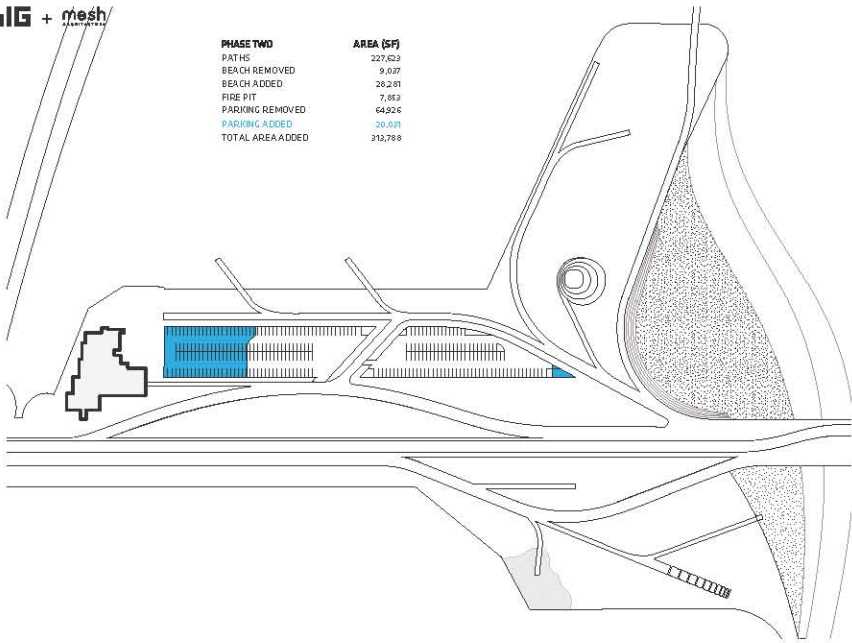


LOOP	SURFACE AREA (SF)
OUTSIDE LOOP CONCRETE	249,002
INSIDE LOOP WOOD	23,715
INSIDE LOOP DECKING	23,742
SIDE GLASS	21,636
BANDSHELL	980
FIRST FLOOR	8,767
SECOND FLOOR	4,566
THIRD FLOOR	4,402
FOURTH FLOOR	4,692
TOP FLOOR	11,472
ROOF OBSERVATION DECK	4,988
ROOF RAILING	718
INTERIOR WALLS	2,853
TOTAL	348,899

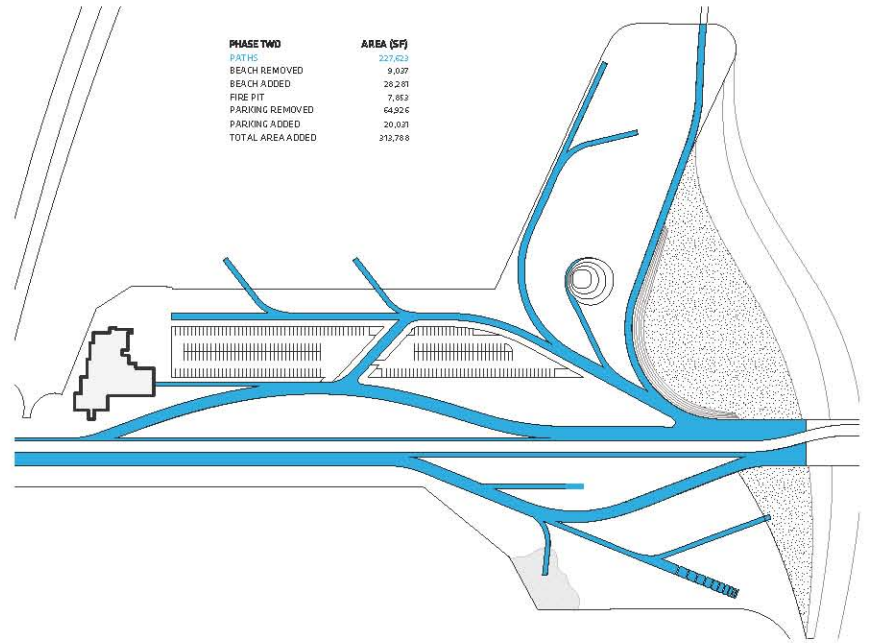


LOOP	SURFACE AREA (SF)
OUTSIDE LOOP CONCRETE	249,002
INSIDE LOOP WOOD	23,715
INSIDE LOOP DECKING	23,742
SIDE GLASS	21,636
BANDSHELL	980
FIRST FLOOR	8,767
SECOND FLOOR	4,566
THIRD FLOOR	4,402
FOURTH FLOOR	4,692
TOP FLOOR	11,472
ROOF OBSERVATION DECK	4,988
ROOF RAILING	718
INTERIOR WALLS	2,853
TOTAL	348,899

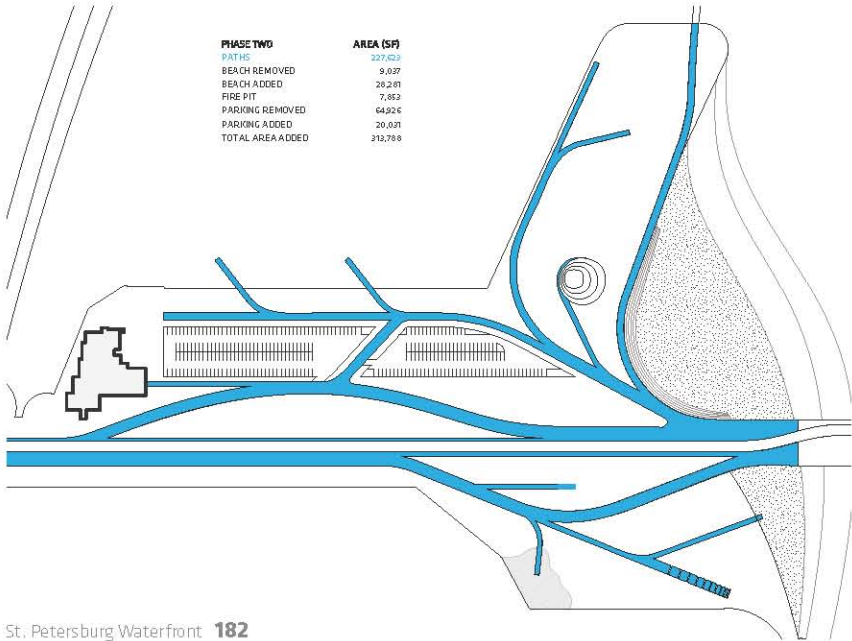
PHASE TWO	AREA (SF)
PATHS	227,623
BEACH REMOVED	9,027
BEACH ADDED	20,281
FIRE PIT	7,853
PARKING REMOVED	64,926
PARKING ADDED	20,031
TOTAL AREA ADDED	212,788



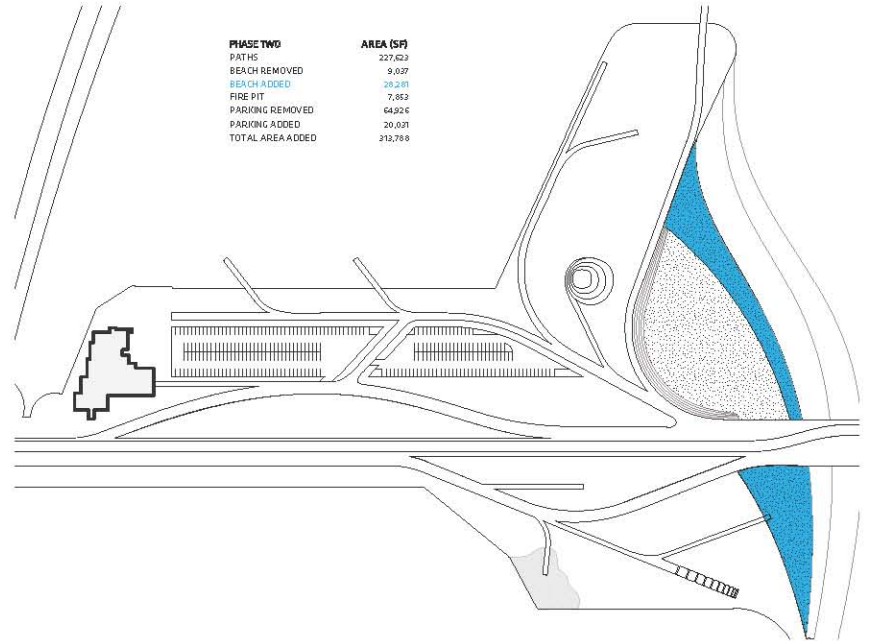
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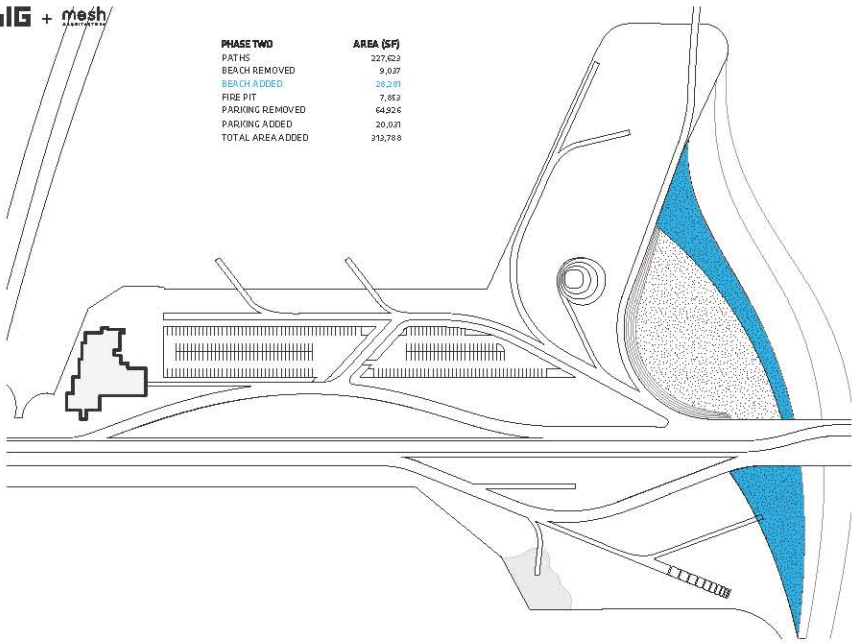
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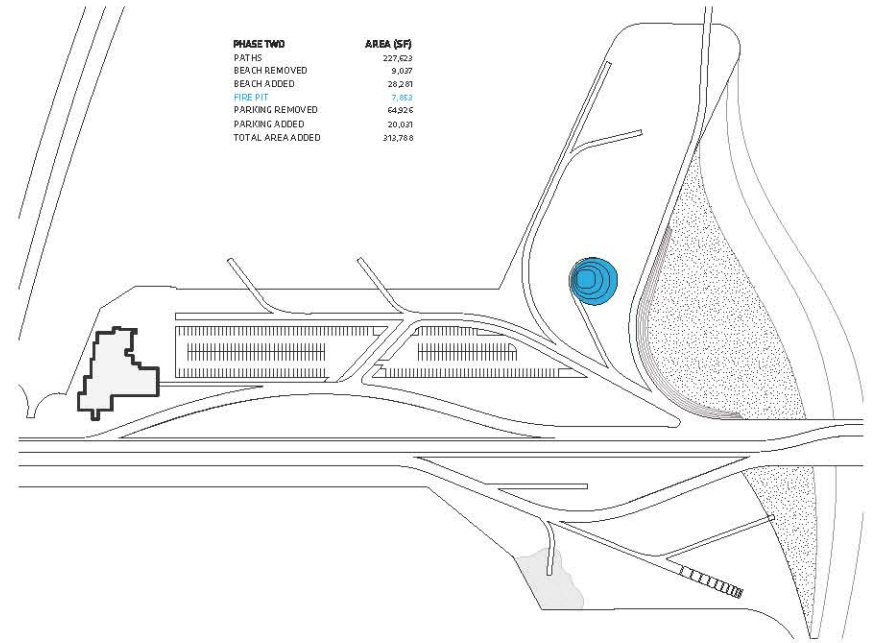
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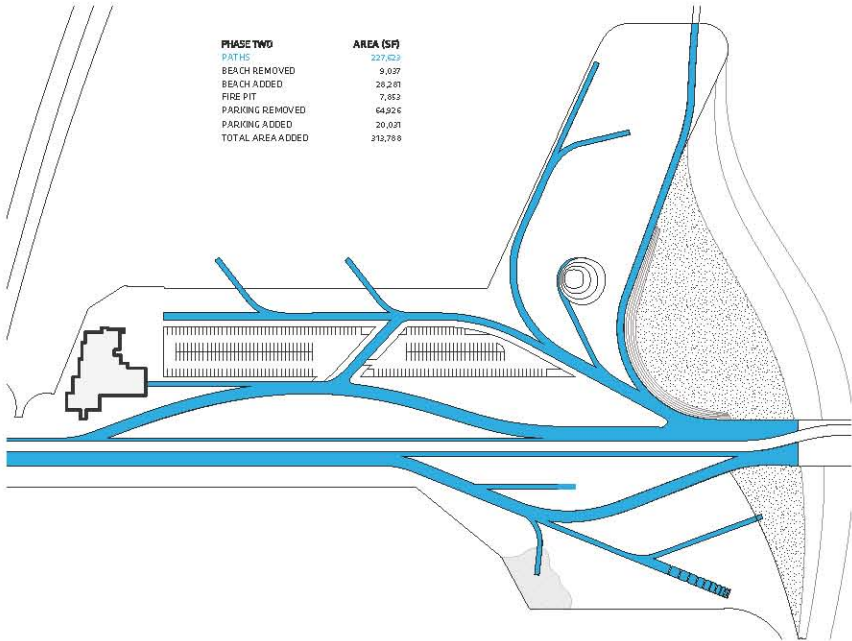
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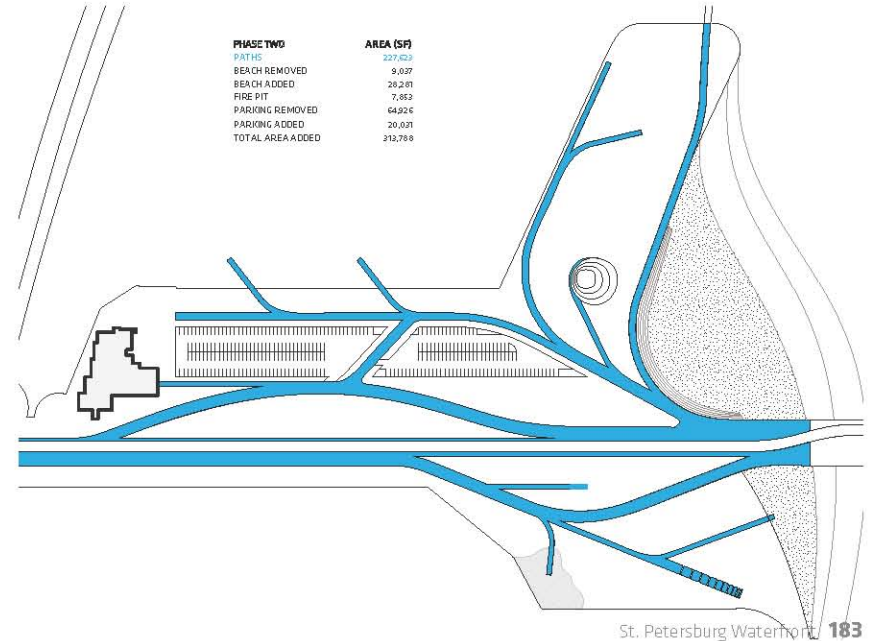
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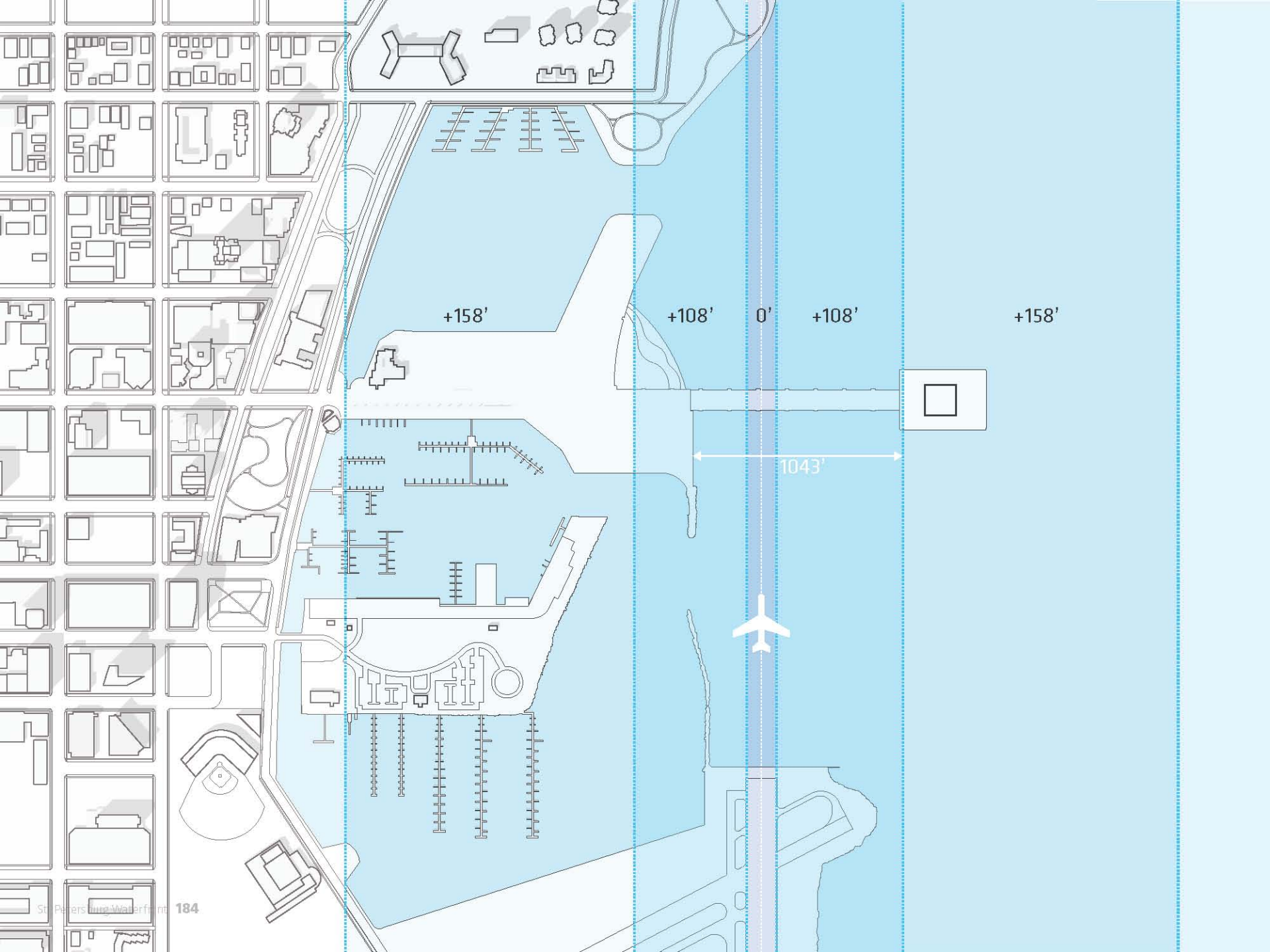


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+158'

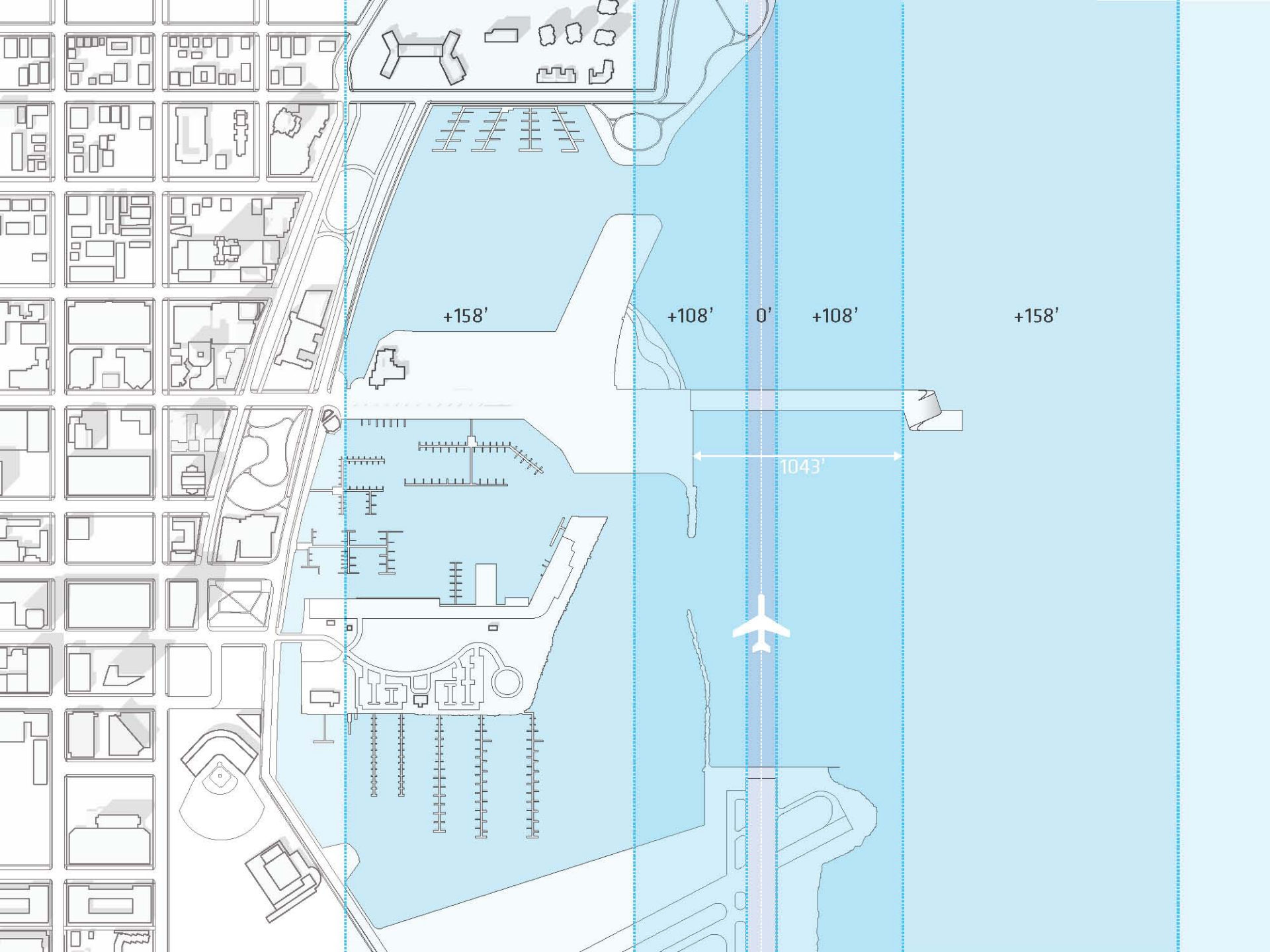
+108'

0'

+108'

+158'

1043'



atelier ten

SUSTAINABILITY

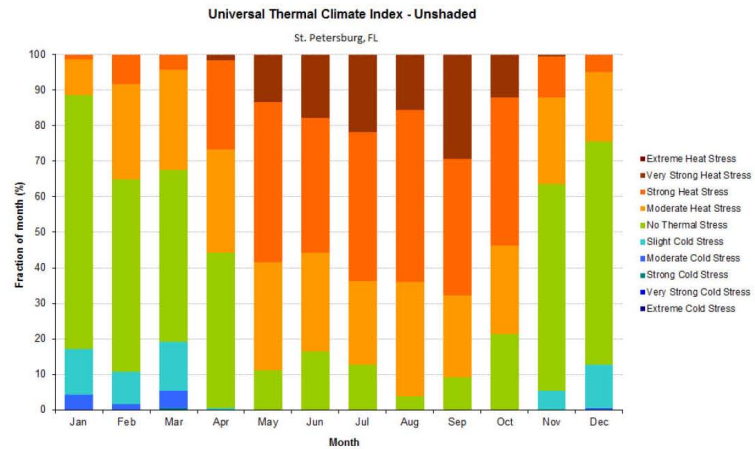
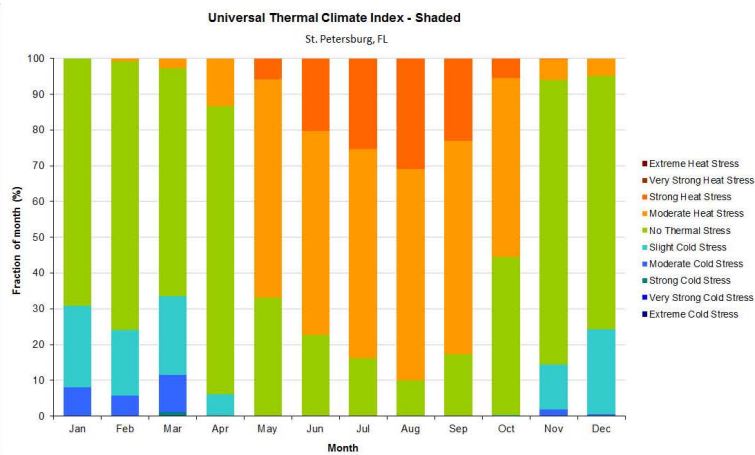
Thermal comfort – St. Petersburg, FL

The new pier for St. Petersburg will be thermally comfortable for visitors, while using minimal energy resources and emitting minimal greenhouse gas emissions. The climate in St. Petersburg is sub-tropical. Throughout fall, winter, and spring months visitors will experience mostly comfortable outdoor temperatures and spaces will need little or no conditioning.

During summer temperatures become more extreme and visitors will be hot unless further steps are taken. The constant humidity will be somewhat mitigated by breezes. Cooling from breezes can be further amplified through careful design and location of openings. Shade also increases comfort – shady areas that include thermal mass that is never exposed to sunlight will further benefit. The proximity to the water can be a further benefit if the seawater is used directly for cooling or cooler air near the water surface is harvested.

Cooling for unconditioned spaces

Several options for passive conditioning were evaluated for the Wave Pier project. The impact of eliminating direct solar heat gain by providing shade was evaluated. The team explored the use of seawater circulation in order to lower the radiant temperature of indoor surfaces. Also considered was the use of fans or careful natural ventilation design to increase airflow. While none of these is completely effective on its own, by combining these strategies visitor comfort within the unconditioned spaces can be improved to an acceptable level.



Climate

St. Petersburg has a humid subtropical climate with warm and humid summers with frequent thunderstorms and drier winters with freezing temperatures occurring only every few years. The city experiences a significant summer wet season, as nearly two-thirds of the 49 inches of annual precipitation falls in the months of June through September. St. Petersburg lies on a peninsula between Tampa Bay and the Gulf of Mexico and this proximity to large bodies of water both moderates temperature and introduces large amounts of humidity into the atmosphere.

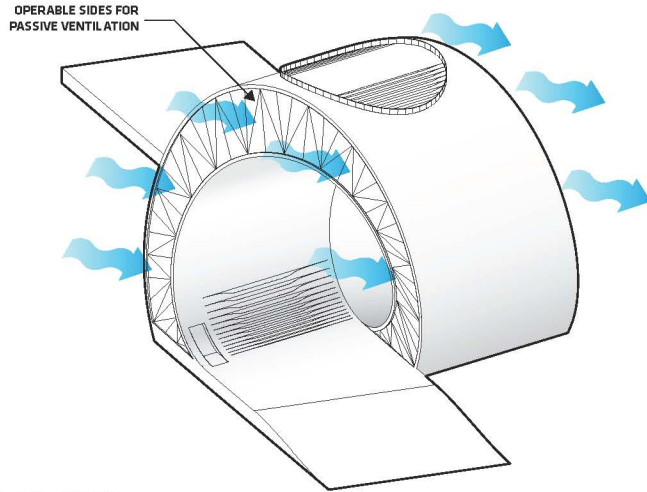
Average high temperatures range from 69d F in January to 90d F in July. Average lows range from 54d F in January to 77d F in August. The city receives plentiful sunshine throughout the year, averaging a total of 2,920 hours, or 66.7% of the possible total. The average relative humidity in mid-afternoon is 60-65% in the summer months and 50-55% during the rest of the year. Humidity is higher at night and the average at dawn is about 90% in all months.

Winds are generally mild with calms representing 26% of the recorded conditions. Average wind speeds, averaging 9 to 10 miles per hour, are highest in February through April. Prevailing winds are from the east in most months. In the summertime heat-produced thermals powered by the Gulf of Mexico or the Atlantic Ocean frequently result in short-lived afternoon thunderstorms which are accompanied by gusty winds. St. Petersburg is also subjected to occasional tropical storms during the summer and fall, although it has not suffered a direct hit by a hurricane since 1921.

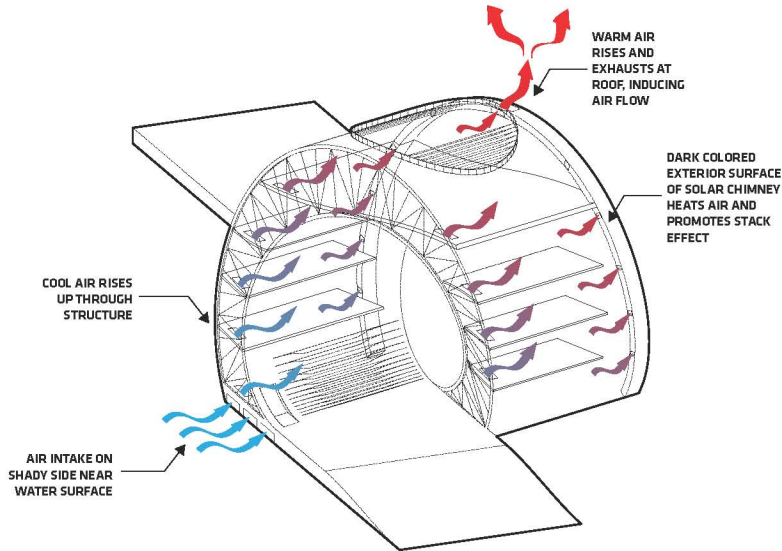
Climatic Responsive Design

The underlying principle of climatic responsive design is understanding the climatic conditions in which the building is situated. For humid subtropical climates the design priorities are:

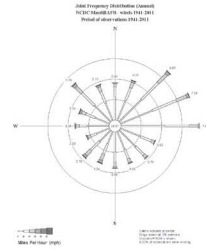
- Keep hot temperatures out during the summer.
- Natural ventilation to both cool and remove excess moisture in the summer.
- Protect from the summer sun.



CROSS VENTILATION

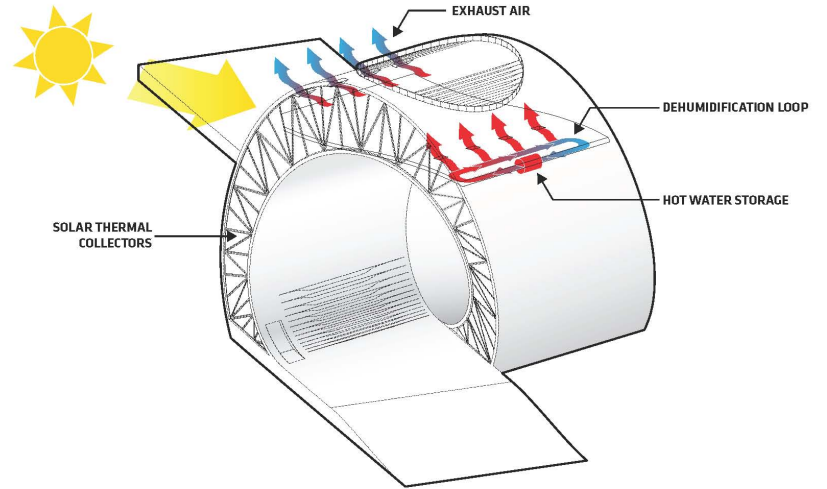


HEAT STACK

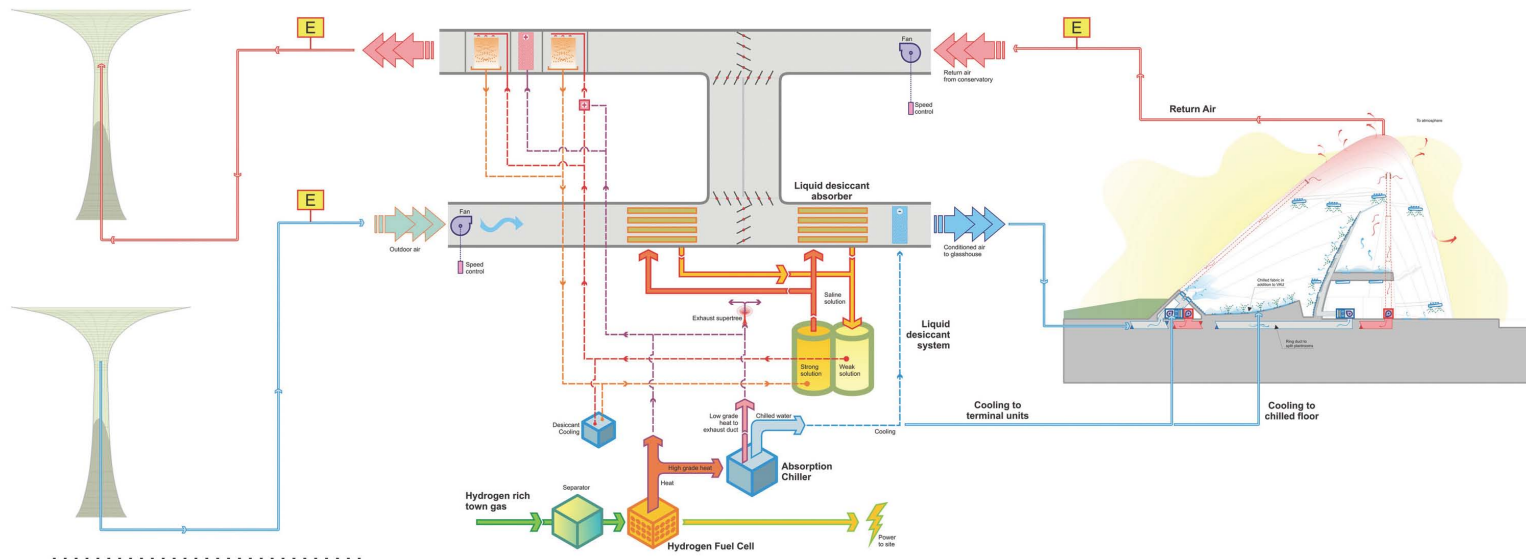


Allow Natural Ventilation

Two natural ventilation systems will be incorporated into the building. A pair of dark-colored solar chimneys will be located along the warmer south side of the building. Air intakes will be located low on the cooler north side. As the air in the chimney warms it will rise and exit through the top and induce natural ventilation from the entire building. During the non-summer months when the temperatures are comfortable and the humidity is lower a second natural ventilation system will be utilized directly through the occupied spaces. Here air intakes are located on the windward sides, the east and west faces, with the stack effect inducing air movement vertically through the building which again is exhausted out of the top.



High Efficiency Heat Pump System



Keep Hot Temperatures Out

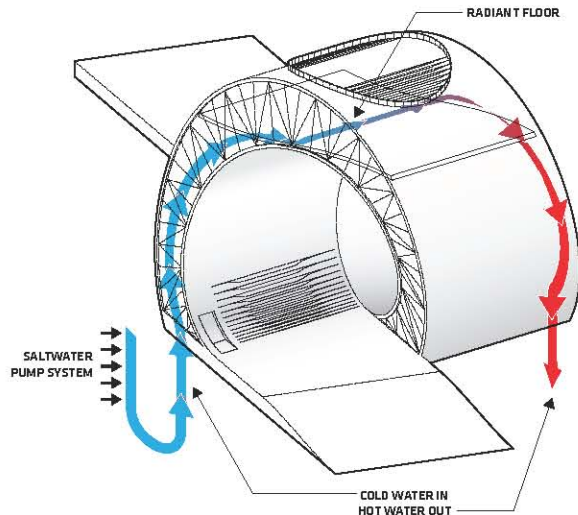
In order to keep hot temperatures out during the summer months the exterior surfaces of the building have a low albedo utilizing light colors in order to reflect the heat. The roof and exterior walls will also be highly insulated (minimum value of R-40). All exterior glass will be double-insulated with low-E coating. Operable interior louvers on south facing windows will be utilized to moderate the summer sun.

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Protect from the Summer Sun

The main response for this strategy is to locate windows such that they are predominately shaded during the summer months. The east and west windows are the hottest exposures by far and there are no windows facing directly in these directions although the twisting geometry of the building still provides for dramatic views to Tampa Bay and the downtown skyline.



SEAWATER COOLING

Water Systems

As the overall design concept is to celebrate St. Petersburg's relationship to water this is an important component of the project. Water is as precious a commodity as energy and its conservation is an important aspect of sustainable design. This is especially true in Florida where water shortages have become increasingly common. The treatment and distribution of potable water also consumes significant amounts of energy which contributes directly to greenhouse gas emissions. Our guiding principles for the use and conservation of water with this project are as follows:

- Reduce water demand and waste.
- Meet demand efficiently.
- Grey water and reclaimed water.

Reduce Demand

Considering the major and obvious uses of water in urban developments (flushing wastes, washing, cleaning, irrigation and drinking) there is considerable opportunity to reduce waste such as avoiding landscaping with high irrigation needs and selecting non-water based heat rejection HVAC systems. Additional strategies include sub-metering to identify areas of high water use and leak detection systems.

Water Efficiency

The principle of water efficiency is to reduce the quantity of water needed to satisfy any particular end-use demand. Water efficiency technologies to be incorporated include dual, low-flush toilets, waterless urinals, and aerators for sinks and lavatories.

LEED Certification

The building is required to be LEED certified. Atelier 10 is one of the country's leading sustainability consultants and will serve as the LEED consultant for the project. It is our recommendation to pursue LEED Platinum certification for the project due to the Pier's symbolic importance within the city. This level of certification will require aggressive and consistent commitment by all major parties to the project including the Owner, Design Professionals and Contractor. Insofar as it is practical, the maximum number of credits will be pursued in each of the six categories. Given the unique nature of the project there will be numerous opportunities to seek Innovation in Design credits especially for public education initiatives and the marine environmental strategies described elsewhere in this document.

ECONOMIC SUSTAINABILITY

One of the overriding goals of the project is to reduce the operational subsidies required by the city of St. Petersburg for the current Pier. Several strategies have been utilized to achieve this goal:

- Eliminate conventional retail establishments.
- Incorporate unique attractions that generate revenue but do not compete with existing commercial uses downtown.
- Utilize low maintenance building materials and systems in order to reduce long-term maintenance costs.
- During the design of the project develop capital fund-raising concepts to supplement the Tax Increment Financing funding source.

HR&A

DEVELOPMENT ADVISORS



Delivering the Vision

This section describes the means by which we will implement the new St. Petersburg Wave Pier. It focuses on:

- Establishing an operating budget for the first phase of the new Wave Pier commensurate with the project's goals of becoming the signature St. Petersburg experience – both for local families who will return time and again, and for visitors. That initial operating budget must also be sufficient to launch the programming that will generate the excitement needed to complete the master plan;
- Devoting the organizational resources necessary to ensure appropriate stewardship of the site, and to leverage ongoing support from the private sector; and
- Developing a leadership mechanism for capital and legislative delivery of the plan, including, depending on how capital and operating fundraising evolves, the potential need for intergovernmental collaboration and creation of a structure within which to engage downtown property owners.

While phase one of the plan is achievable in the short term, realization of the full vision is likely to take longer. The above-described systems establish the working framework for shepherding the plan through budgetary cycles, administrations, and changes in leadership.



Potential Operating Costs

Downtown Parks that have the potential to attract new businesses, secure residents' affection, and draw visitors to a city require significant annual operating investment. Their landscapes and structures are costly to maintain, their locations require the highest standards of care on a daily basis, and investment in attracting or producing frequent programming and events is required to meet goals. A new generation of these parks in major cities across America has required ongoing operating expenditure from about \$300,000 to nearly \$900,000 per acre. For planning purposes, HR&A has shown that annual operating costs for parks of this nature usually total 7-9% of initial capital costs, inclusive of capital maintenance and programming costs. Using either of these operating budget estimation techniques suggests annual operating costs for the first phase of the new St. Petersburg Wave Pier – the most intensively programmed and urban part of the proposed park – of perhaps \$2.5 to \$3 million.

Sources of Funds

A stable base of City funding is a prerequisite for maximizing philanthropy and other sources of operating income, and will be required to ensure the park meets its civic aspirations. In the initial years of the park's development and operations, City funding will likely be the only major source of operating revenue for the park. Over time, however, as the vision is implemented and the park becomes more successful – and requires more investment – the City will seek several potential sources of additional revenue to fill the likely funding gap left by stable City funding and increasing park costs. That said, the City's fiscal expectation should be that its annual operating contribution will shrink relative to today's – while it simultaneously gains a source of community joy, civic pride and economic stimulus. Many of the nation's most successful urban parks now operate with less than half their operating budgets provided by the city in which they are located.

Potential new sources of operating funding include:

- **Philanthropy and Sponsorships:** The Wave Pier should develop a means for concentrating philanthropic resources to be devoted to the park, and should develop a program for corporate sponsorships for certain elements within the park. Often, sponsorships can be provided with minimal concessions, either in the form of small signage or naming rights opportunities, or in the form of sponsorships for specific programs or events within the park. Indeed, national precedents suggest that certain programming that may not "pencil" on a standalone basis ends up making financial success because it can attract corporate sponsorship (and enliven the facility in question).
- **Real Estate Development:** The City of St. Petersburg could seek to leverage real estate assets within and adjacent to the Pier as implementation of the Plan will make these lands more valuable for development. Special assessment districts as a source



of capital funding for certain projects, disposition of public property in a manner that ensures ongoing funds for parkland, establishment of tax increment reinvest zones (and utilization/extension of existing tax increment financing), and a Park Improvement District should all be considered. Some of these may prove controversial and therefore should be explored in the context of specific funding gaps.

- **Programming and Concessions:** The program proposed for the Pier is capable of generating significant operating income in the early years of plan implementation – perhaps $\pm 15\%$ of operating costs. As the Plan is implemented and more programming is developed, opportunities may exist for the City to enhance the performance of large-scale programming within the exhibition and event spaces to an extent that can produce additional revenues for the park's operations and maintenance. Opportunities for revenue generation will arise through permits, programs and concessions, as well as rent paid by for-profit tenants and licensees of the Loop, for example in the restaurant and the catering facility attached to the Cloud Room banquet hall.

Managing the St. Petersburg Wave Pier

All of these sources of funds will require a tailored management solution for the Pier that can attract private funding in addition to a steady baseline of public sector support. Many cities across the country have recognized through their waterfront planning processes that the best means for implementing their plans was through the creation of a new special-purpose entity, frequently a quasi-public not-for-profit corporation. Where government remains directly in charge of overseeing the operations and maintenance of a particular signature park like the new St. Petersburg Wave Pier, it is common practice to establish a dedicated division of a public agency to manage that amenity. Such a structure can help ensure that the Pier is maintained at a level of quality commensurate with its goals, while operating with a level of both independence and accountability. It can implement the plan, manage the Pier to a high standard of care, and develop new revenue sources to ensure the standard of care is maintained.

St. Petersburg, of course, has already experimented with public-private facilities' operation in the form of the Downtown Enterprise Facilities Department and its management contract with Urban Retail Properties. During the design of Phase One, the BIG team will need to explore whether that arrangement can be adapted to the needs of the Wave Pier or whether the mix of commercial, not-for-profit, and public spaces; as well as retail, events, and parks uses contemplated for the Wave Pier require a different management form and/or entity.

PROJECT TIMELINE

	Year 1												Year 2												Year 3												Year 4								
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	
A/E Contract Negotiation	█																																												
Programming		█																																											
Schematic Design			█	█	█																																								
Schematic Design Review						█																																							
Design Development						█	█	█	█																																				
Design Development Review										█																																			
Construction Documents										█	█	█																																	
50% Construction Document Review																																													
100% Construction Document Review																																													
Environmental Permitting Pre-Application		█																																											
Environmental Permitting Data Collection		█	█																																										
Environmental Permitting Preparation				█	█	█	█	█	█																																				
Environmental Permitting Submittal										█																																			
Environmental Permitting Agency Review										█	█	█																																	
Environmental Permitting Public Notice																																													
Environmental Permitting Approval																																													
City Permitting Review & Approval																																													
Bidding & Negotiation																																													
Construction																																													
Exhibition/Tenant Space Build-out																																													
Substantial Completion																																													
Final Completion																																													

Project Timeline



Architecture: Lead Designer



Bjarke Ingels Group
Project Leaders: Bjarke Ingels & Thomas Christoffersen

BIG will serve as the Team's Project Leader and the main contact source to the client and their representatives, as well as the holder of the contract. Believing strongly in design as a collaborative process, BIG is partnering with the following consultants in their respective fields.



Architecture: Architect of Record



Mesh Architecture
Project Leader: Timothy Clemmons

Mesh Architecture will serve as the architects of record. With a history of successful projects in St. Petersburg, the firm will provide invaluable local insight and expertise.



Development Advisors



HR&A Advisors
Project Leader: John Alschuler

HR&A Advisors will recommend options for developing significant new revenue sources and creating an entity to fund and/or maintain the waterfront. They will also be involved with the public outreach process, economic analyses and a long-term implementation strategy for the plan.



Landscape Architect



Martha Schwartz Partners
Project Leader: Martha Schwartz

As landscape is a significant component of any waterfront redevelopment project, Martha Schwartz Partners will work closely with the architecture team on the design. The firm is a leading international practice whose work focuses on activating and regenerating urban sites and city centers.



Sustainability



Atelier Ten
Project Leader: Nico Kienzl

Atelier Ten will work closely with the designers and Cosentini to develop innovative and cost effective sustainability measures for both the site and the Pier building itself.




Civil & Marine Engineer

 Parsons Brinckerhoff
Project Leader: Brian Tanberg

With extensive experience in infrastructure, transportation, and marine projects, Parsons Brinckerhoff will serve as the team's civil and marine specialists.



Structural Engineer

 Thornton Tomasetti
Project Leader: Tom Scarangelo

Thornton Tomasetti will serve as the Pier's structural engineers, advising on the building's structure, the building performance, and the building skin.



MEP Engineer

 Cosentini Associates
Project Leader: Scott Caesar

With offices in New York and in Orlando, Cosentini Associates will provide mechanical, electrical, and plumbing engineering services to the project.



Cost Consultant

 CCGA
Project Leader: Robert Kaupp

CCGA will provide cost estimates and will advise on construction sequence phasing schedules for the project.



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