The Lens

The St. Petersburg Pier

Michael Maltzan Architecture
Tom Leader Studio
“For us, the ultimate significance of the Pier is not as an object, or even a single park, but as the central element connecting downtown St. Petersburg with its waterfront.”

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“The Lens is a new icon for the City of St. Petersburg, reframing the relationship between the City and the Bay.”

The New St. Petersburg Pier

The Lens: Framing the City and Water

The Civic Loop: Defining a New Civic Green

The Hub: Between Land and Water

Creating Connections:
St. Petersburg and Its Waterfront
The New St. Petersburg Pier
The St. Petersburg Pier is an extraordinary opportunity to create a new landmark that is representative of both the people and the City of St. Petersburg. As a team, we have come to know the City, its people, and its landscape. We recognize the challenge of continuing the legacy first begun by William Straub, as well as the importance of this key public space for all of St. Petersburg. Furthermore, the City and the Pier have a shared identity, one that has become inextricably intertwined over time. Given this close relationship, it is especially important that this new icon reflects and resonates with the City and its defining characteristic—its connection to the water.

The new Pier is not an icon unto itself. It is instead a lens that frames the City’s relationship to the water, changing how St. Petersburg views its present and its future. While the Pier will remain an important attraction for visitors, we believe that the Pier must be first for the people of St. Petersburg, an active, vital part of the City’s life and culture. Operating on multiple scales of renewal—individual, urban, economic, ecological—this new Pier serve as a new kind of fountain of youth for St. Petersburg and its citizens, a symbol of the renewed vitality of the City, a platform for continued growth, and a destination within the City, the region, and our nation.
The Lens: An Innovative View

Like a magnifying glass on the water, the new Pier acts both as a lens back to the City and a window into the underwater world beneath. Looping out over the water from the shore, the Lens provides views of the bay below and sky above, framing and highlighting the reciprocal relationship between the City and the Bay. Rising above the water, the crenellated form of the Lens canopy evokes waves or sails, a crown on the eastern horizon. Twin bridge paths that extend out and back from the uplands, eliminate the traditional unidirectional path typical for a pier and instead creates a circuit that allows for a wider variety of experiences as visitors walk to the Pier’s length, take in the waterfront vistas, and return back to the City.

From its beginnings as the Municipal Pier, the years of the “Million Dollar Pier,” and the decades that have followed, the Pier has always been a city forum; at its core, it is a place for residents to come together. It has also been the backdrop for important memories: fishing with a parent, a first date, a marriage proposal or returning with their own child. No longer simply a pathway to a terminus, the Pier will become a space for new experiences, one where new programs and activities create opportunities to build lasting memories for individuals, for families, and for the collective community. Recognizing the history and importance of the existing Pier, our proposal does not demolish it; instead it remakes the existing pier’s underwater structure into a framework for an extraordinary new aquatic landscape. The Lens, in essence, is a living room for the City, one where residents and visitors can make a direct, unmediated connection with the waterfront, with each other, and with the City of St. Petersburg.
The Civic Loop:
A New Civic Green
Opposite the Lens that extends out over the water is a complementary loop that encircles the upland as it meets downtown. During our team’s visits over the past several months, it is apparent that the experience of the Pier today is isolated from the upland and downtown. This Civic Loop, with the great lawn of the Civic Green at its center, directly links the experience of the water with the life of the downtown St. Petersburg. Pedestrian and bicycle pathways extending across this landscape loop connecting a diverse range of recreational experiences both over land or over water, knitting the site into a singular whole. The new marina, beaches, and lagoons that extend across the upland, descend to the water’s edge, float over it, and arc above it, defining extraordinary experiences and environments for recreation and restoration. The new Pier also reshapes the upland’s southern edge by lifting the primary pedestrian promenade to create a continuous experience of the water that begins at Bayshore Drive. Linking City and Pier alike, the project is no longer two parts, upland and over water, but instead a united whole.
The Hub: Between Land and Water

At the threshold where water and land meet is the new Hub of activity with a flexible array of program areas including the new Amphitheater to the south and the extraordinary new Water Park and playground to the north. Easily accessed, serviced, and closer to the activity of downtown, this zone is integrated into the surrounding landscape through a series of pathways and open lawns, connecting the beach front, new cafes and retail spaces, transient boat slips, and a series of expansive plazas. Each area is woven into the next, combining spaces for families, for play, and for performance. This space is the retail and commercial attractor and economic driver for the project, a counterweight to the more experiential icon of the Lens.
Connecting St. Petersburg and Its Waterfront

One of the great opportunities of this competition is to provide the new living room, the central piazza or town square for the city. It only makes sense that in St. Petersburg, this would happen partly on land and in large part on water. The heritage and identity of the city rests in countless ways on its relationship to the Bay. Water is the icon; it is a vast amenity the city already owns: no one needs to invent it or pay for it. What we can invent is a host of both powerful and nuanced ways to experience the Bay, its particular light, atmosphere, horizon, its nautical sociability, its renewed underwater life, and an aquatic perspective on the city itself. These experiences can include everyone that calls St. Petersburg home, from children and young families to long-established residents. This is a place for the entire city to gather on common ground—and water.

We recognize the new Pier will be the linchpin in a larger network of interconnected circulation pathways of pedestrians, cyclists, and motorists that extend across the entire downtown waterfront. Connecting Vinoy Park, Demen’s Landing, and Straub Park, the new Pier will be an integral part of downtown St. Petersburg. Once completed, the Pier will be a model for how other cities can rethink their waterfronts, especially their relationship to the natural environment when planning adaptable and sustainable energy and water strategies. A new waterfront promenade and sculpture walk links the existing cultural and commercial axis extending north and south along Beach Drive and Straub Park, creating more direct experiences of the water. To the west, Central Avenue and a remade 2nd Avenue North extending to Mirror Lake, links the Pier with the heart of downtown.
St. Petersburg Pier Site Plan

1. New 2nd Avenue North Streetscape to Mirror Lake
2. Welcome Mat Entry Plaza & Drop-Off
3. Waterfront Promenade & Sculpture Walk
4. Museum of History with New Café
5. New Tony Jannus Memorial
6. Ecological Gateway & Environmental Education Center
7. Existing Marina Parking Retained
8. Entry Promenade
9. Civic Green
10. Access Drive
11. Artesian Well & Manatee Viewing
12. Shade Forest
13. Broadcast Studio
14. The Hub / Flexible Pavilions, Cafés, & Supporting Retail
15. Renewed Spa Beach
16. Arrivals Plaza
17. Water Park & Playground
18. Drawbridge to Vinoy Park
19. Vinoy Park
20. Energy Islands
21. Recreation Platforms
22. Expanded Marina Programs
23. Signature Restaurant & Community Event Spaces
24. 400 Space Parking Garage Beneath Amphitheater
25. Service Dock Beneath Amphitheater
26. 4,000 Seat Amphitheater
27. Future Skyway to Demen’s Landing
28. Demen’s Landing
29. Lagoon with Drive-In Amphitheater Mooring Field
30. Jetty & Transient Boat Slips
31. Twin Bridges / Pier Circuit
32. Dockside
33. The Reef & Intertidal Pathway
34. The Lens Canopy & Observation Decks
35. The Promontory & Gelato Shop
“Embracing the water at its center, the Lens is a loupe focused on the water, an observation point for the sky overhead, the water below, and the city skyline beyond.”

The Lens: Framing the City and Water

The Lens Canopy
Twin Bridges
The Reef
Intertidal Pathway
Dockside
The Promontory
Cost Analysis Phase 1
The Lens:
Framing the City and Bay
The Lens is a new icon for the City of St. Petersburg, reframing the relationship between the City and the Bay. Visible from afar, it is a crown on the skyline and a marker within the daily life of St. Petersburg. Embracing the water at its center, it is a loupe focused on the water, an observation point for the sky overhead, the water below, and the city skyline beyond. This is a new space for collective experiences for individuals, families, and the residents of St. Pete to gather, to play, and to celebrate, whether for an afternoon walk, weekly farmer’s market, seasonal festival, or large annual event like July 4th.
As its canopy rises over the Bay, the Lens incorporates bicycle and walking paths arcing upwards before returning to the water’s edge. Its broad form shelters the main promenade from the hot sun and the rain, and creates a welcoming space for visitors as they arrive on foot, on bicycle, or via the Pier Tram. Elevators and stairs bring visitors up to a series of viewing decks with unprecedented views of the city skyline in the distance. An oculus inscribed at the far end of the loop opens and connects the world within the Lens and Tampa Bay beyond. At night, the surface of the canopy can become an extraordinary surface for video projection, for performance, and for art. Patterns of light, color or even clouds can track across its surface and will be visible from the Amphitheater and the surrounding city. The Lens will be an active extension of the city skyline on the water.

The canopy’s surface also plays an active role for sustainability. Built of pre-cast white concrete panels, the canopy incorporates an array of micro turbines embedded in its surface, their patterned form taking advantage of prevailing winds and the canopy’s airfoil form. Solar panels are arrayed across the northwest edge of the bowl; their position optimized in relationship to the sun’s path. The canopy also captures and routes rainwater into collection cisterns embedded in the pedestrian pathway below.
The Lens canopy floats effortlessly over the water, light in construction, yet able to resist hurricane-force winds and significant use over time. The design criteria for the project is a 75-year lifespan: as a result, the canopy is constructed of concrete, a lasting icon for the City. Given the sculptural form of the structure and the challenges of building overwater, the canopy’s form is developed into a regular, 30’ radial structural grid arrayed within the footprint of the shell. Below, the scale of the grid and its large-scale columns create a unique architectural space beneath the canopy; above, the grid is linked seamlessly into the upward-curving shape of the shell.

The structure consists of a series of precast concrete beams in a warped grid, following the funicular shape of the canopy, designed to be shallow but wide, taking advantage of the shell’s inherently structural form. Infill precast panels are then placed within this grid, cast in shallow trapezoidal shapes that repeat as they array around the Lens, meeting each other in a way that allows each to act as a component of a larger arch, with the innermost panels acting as the keystone. On top of this assembly is an architectural slab, mechanically attached to distribute loads across the entirety of the shell.

Precast concrete provides an ideal solution to the challenges of working overwater, with construction that can be erected from crane-equipped barges; individual components are small and light enough to be easily brought to site and quickly erected. These precast elements can then provide a working platform from which further work can be efficiently completed. Further, given its mass, the concrete structure is ideally suited to counteract both uplift and column bending that may occur during gale and hurricane force wind events.
Lens Section Looking East

Site Section Looking North - Welcome Mat to The Hub
Twin Bridges: A Circulation Circuit
Two bridges link the Lens to the upland: one skims along the water's surface creating a direct dialogue with the surrounding Bay; the other raises high overhead taking in sweeping vistas of the Pier and City. These twin bridges create a promenade to and from the Lens which is no longer unidirectional, but is instead a circuit, providing a diversity of experience as visitors travel out and return. The lower bridge is a wider, wood-clad deck accommodating pedestrians, runners, bicyclists, the Pier Tram, and service and emergency vehicles. The upper bridge's airy promenade is for pedestrians, and perhaps pelicans, with views in all directions, to the bridge below, and the water beneath.
The Reef: Life in the Water
At the focal point within the Lens are the remains of the old pier. Recognizing the significant role the current Pier has played in the City’s history, and the not insignificant cost to remove it, we have not demolished it. Instead the design leaves the caissons that support the current pier in place beneath the water’s surface and created an armature for an unprecedented underwater reef. The Reef will host a publicly visible and rich marine habitat that will support regeneration and growth, granting the aging pier structure a new life. At night underwater lights will reveal marine life and become a natural aquarium. As never before, the extraordinary natural elements that exist along the central downtown waterfront take center stage, are allowed to flourish, and in doing so, bring great joy to visitors of all ages. The waterfront is a constant source of environmental education and can sensitize the community more than ever to the fragile beauty of these underwater places and the critical importance of careful stewardship.

The Reef is constructed with varying levels of planted media for sea grass and extensive lightweight trays of oyster habitat suspended between the remaining underwater caissons. Oysters and sea grass create the “floor” of Tampa Bay’s food web structure – they create the conditions for mollusks, fish, turtles, manatees to thrive. Within the enclosure of the Lens, it is possible to create a wave-sheltered zone for an extensive new growth of these “floor” species, which clean the bay water which create water clarity and good conditions for dramatic species growth and diversity. The 2.5 acres of oyster habitat within the lens is sufficient to clean 20 million gallons of sea water per day. While we can’t clarify the entire bay, we can definitely create a clean and highly diverse native aquatic ecosystem inside the confines of the Lens.
Intertidal Pathway: Opportunities for Education

Over the Reef, a pathway extends out in the intertidal zone. A spiraling jetty appearing and disappearing in the daily tides, the Intertidal Pathway allows visitors to experience the life within the water firsthand. At low tide during the day, children, classes and families can explore natural tidal pools while fishermen can cast into the water at safe distances. At night, underwater lighting arrays attract marine life and illuminate the bay’s flora and fauna long into the evening. Recognizing the educational potential of this area, an open-air amphitheater descends to meet the water, allowing for docent science talks or more informal gatherings. Aquatic webcams can also be installed in this area for students and residents to enjoy the waterfront even while away from the Pier.

Intertidal Pathway and The Reef

01. Existing Pier Pilings Retained to Maintain and Expand Habitat
02. Clarified Bay Water from Oyster Reef Filters
03. Increased Light Penetration Allows Benthic Sea Grasses to Flourish
04. Seagrass Species Populate Ring
05. Reef Habitat for Seagrass / Oysters Built on existing Caissons
06. Increased Populations Fish/Mollusks/Turtles/Manatees/Birds/Dolphins
07. Intertidal Walkway Accessible at Low Tide
08. Below-Water Webcams Linked to Interpretive Programs
09. Manatee Feeding
10. Migratory Bird Habitat
11. Underwater Lighting Array Attracts Marine Life
12. Docent Amphitheater
13. Fishing from Dock
14. Shaded Pedestrian Promenade
15. Bicycle and Pedestrian Circuit
Dockside: Life on the Water

Within the Lens’ interior, wave action is dampened through a series of below-water panels hung beneath the promenade at its perimeter. This action creates an unexpectedly tranquil water surface and a welcoming aquatic landscape within. A second circuit within includes a harbor and central dock. Devoted to kayaks and paddle boats, with transient slips ringing the periphery, this new harbor also includes a café terrace with views to the Reef; kayak, paddle boat and stand-up paddle board rentals; and a bait shop with fishing off the eastern side of the inner ring. By carefully choreographing this range of experiences these multiple uses are able to coexist side by side.

Dockside at the Lens

01. Shaded Pedestrian Promenade
02. Precast Concrete Canopy w/ Integrated Microturbines and Solar
03. Central Dock
04. Calmed Wave Action within Lens & Dock
05. Active Water Recreation Including Kayaking and Paddleboats
06. Integrated Panels for Damping Wave Action
07. Dockside Café
08. Kayak & Paddleboat Rental
09. Bait Shop
10. Fishing into Underwater Garden Reef
11. Underwater Reef Habitat Constructed on Existing Pier Piles
Beneath the sheltering form of the Lens’ canopy, extending outward into the Bay, is a rocky outcrop were visitors can pause and take in the experience and beauty of the water and horizon beyond. A series of reflecting pools step downward, reflecting light upward toward the canopy overhead, animating its surface. The forest of columns that support the canopy subtly twist, their profile appearing to dissolve momentarily at mid-span. Elevator and stair towers connect the lower and upper levels in this area; a service and emergency vehicle turnaround is also incorporated.

A small gelato shop with breathtaking views of the waterfront can also be found here at the Pier’s end. Balconies extend out from the canopy above, creating elevated places to sit and take in the view. The arcing form of the Lens itself, visible from passing boats and the Dolphin Queen, recalls a sail raised in greeting and is a welcoming landmark within the new St. Petersburg skyline.

**Lens Promontory**

01. Precast Concrete Canopy
02. Radial Column Grid
03. Primary Oculus Linking Lens Center and Outer Promontory
04. Elevator and Stair Towers to Observation Balconies
05. Bicycle and Pedestrian Circuit
06. Observation Balconies
07. Microturbine Array
08. Promontory Gelato Shop & Service Program
09. Service & Emergency Vehicle Turnaround
10. Observatory Balcony at the Summit
Cost Analysis:  
Phase One - The Lens

The task of preparing an elemental cost plan at an early stage of a project is challenging but extremely useful. For the St. Petersburg Pier Competition, we have established a process by which the important aspects of the project have been discussed in terms of cost, performance, and architectural value, with the involvement of the entire team, and have been assimilated by Davis Langdon into a living document.

This process has allowed us to develop a relatively high level of cost detail, which has had a clear impact on our design’s success, despite the fact that the brevity of this competition phase has made it difficult to react in full to the entire cost data. Still, the estimate has an accuracy expected at this stage that reflects the level of definition currently available. As a team, we explored ways to manage cost while prioritizing project goals. This understanding has had a tremendous impact on our design approach. For instance, instead of opting for demolition of the existing Pier in Stage 1, we propose leaving existing pier piles in place to both preserve and create aquatic ecosystems. We have minimized building systems to save energy, carbon, and cost while proposing to integrate renewable energy systems into the architecture.

Outlined below is our breakdown of The Lens, Phase 1 (Over Water) of our comprehensive proposed design proposal. This estimate includes the primary components of The Lens, its pathways, bridges, underwater reef, support spaces, and the iconic canopy. We are submitting a complete project that is, at this time, estimated within the stated budgetary goal of $45 million.

We have also listed proposed elective architectural enhancements for aspects of our Phase 1 proposal which would add to the function and aesthetic form of the proposal, but are not critical to the project’s architectural integrity or functionality. These are more clearly defined in the detailed analysis in the Appendix. We are also proposing the Bike Path and Intertidal Path as two additional programmatic elements.

As requested, included in the Appendix of this submittal are the required Cost Templates provided by the City of St. Petersburg for this competition. The templates provide an opportunity to summarize the proposed work, but we found them limited in their ability to more fully describe the project costs and the thought processes that established the development of the estimate. Therefore, more detailed Phase 1 and Phase 2 cost estimates are also included in the Appendix of this submittal. The expanded cost summary is accompanied by a detailed cost narrative and illustrations that highlight individual design elements.

### PHASE 1 – THE LENS

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<td>Above Water Bridge</td>
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### PHASE 1 – ELECTIVES

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Elective Architectural Enhancements and Additional Optional Components above are totaled and include Contingency, GC and CM Fees, Bonding, Insurance, Permitting, A&E Fees, as well as FF&E and TI allowances. These costs are separated out in the Detail Cost Strategy Section in the Appendix.
Phasing

01 Phase 1 / The Lens
+ Twin Bridges
+ Dockside
+ The Reef
+ The Promontory

2A Phase 2A / Amphitheater
+ Amphitheater & Associated Restaurants
+ 400-Space 5-Level Parking Garage
+ Lagoon
+ Expanded Marina & Broawater
+ Future Skywalk to Domen's Landing

2B Phase 2B / Entry Promenade
+ Welcome Mat Entry Plaza
+ Entry Promenade

2C Phase 2C / Civic Loop
+ Civic Green
+ Community & Civic Gardens

2D Phase 2D / Water Park & Playground
+ Water Park
+ Play Areas
+ Drawbridge to Vinoy Park
+ Shade Forest
+ Energy Groves

2E Phase 2E / The Hub
+ Arrivals Plaza
+ Restaurant & Retail Pavilions
+ Broadcast Studio
+ Spa Beach

2F Phase 2F / Energy Flotilla
+ Energy Islands
+ Pools, Diving, & Sunning Platforms
Cal Drawbridge to Vinoy Park
“No longer simply a pathway, the Pier becomes a space for new experiences, one that creates opportunities to build lasting memories for individuals, for families, and for the community.”

The Extended Loop: Continuing Development

The Welcome Mat
The Civic Green
The Hub
The Amphitheater
Water Park and Spa Beach
Spa Beach Flotilla
Urban Connections
Cost Analysis Phase 2
The Welcome Mat: Entry Plaza and Promenade

The Civic Loop extends to the upland's western edge and complements the Lens Loop to the east. At the intersection of 2nd Avenue North and Bayshore Drive, is a large urban plaza, a Welcome Mat connecting the Pier and downtown St. Petersburg. Like classical piazzas of Europe, this surface is a flexible platform for a variety of functions. The plaza safely accommodates pedestrian circulation, vehicle routing and drop-off, outdoor dining, and informal gathering spaces that can be reconfigured year round. It also serves as a new, shared front door for the Pier, Fresco's, the existing "Comfort Station," the Museum of History and their new café, and the Museum of Fine Arts’ future expansion. Bridging between the upland and Bayshore Drive, this new, wider span increases aquatic circulation between the Vinoy Basin and the Marina. The plaza is punctuated by water features, architectural shade structures extending from the adjacent promenade, and an oak grove connecting to Straub Park and the nearby waterfront promenade and sculpture walk.

Extending from the Welcome Mat are a series of sinuous paths leading toward the Lens in the distance. A sheltering canopy of oaks and flowering trees shade this entry promenade that links downtown and Beach Drive with the new Hub to east. Here the vehicular traffic has been rerouted to the south, prioritizing the pedestrian experience. These pedestrian paths are interwoven with beds of crushed shells, an ideal running surface, gardens and plantings, and a line of circular benches where visitors can rest or gather.

Among the tree canopy are a series of architectural shade structures. Their radial fins carry a canopy of brightly flowering plants, while their south facing surfaces incorporate solar arrays. On their trunks, each shade structure includes a bladeless fan, also known as an air multiplier, cools visitors as they make their way along the promenade in the hot summer months. While investigating the potential for water features to provide localized seasonal cooling, we discovered that mist in an environment as humid at St. Petersburg does not have the expected cooling effect. Air movement, however, has a significant effect. As a result, these bladeless fans are simultaneously pragmatic and a unique, signature element for the promenade and the Pier.
**Entry Plaza**

01. Flexible Plaza with Removable Bollards for Multiple Configurations  
02. Connection to Beach Drive & New 2nd Avenue North Streetscape  
03. Esplanade & Sculpture Walk Extends South to Dali Museum  
04. Esplanade & Sculpture Walk Extends North Along Vinoy Basin  
05. Fresco’s Waterfront Bistro  
06. Outdoor Dining  
07. Historic Comfort Station Retained  
08. Entry Plaza Bridges from Waterfront to Upland, Increasing Circulation  
09. Architectural Shade Structures with Integrated Bladeless Fans  
10. Oak Grove Connects to Straub Park  
11. New Museum of History Café  
12. Museum of History  
13. Connection to Planned Museum of Fine Arts Expansion  
14. Pier Entry Promenade  
15. Access Drive for Autos & Servicing  
16. Transient Slips for Entry Plaza Access
The Civic Green

As the entry promenade extends to the east, the center of the Civic Loop, the Civic Green, stretches northward. Its southern edge lifts up to rise above vehicle circulation and provide and overlook to the park and the City Marina. Facing north, its topography slowly slopes downward toward the Vinoy Basin. This is a grand space for individual relaxation, family picnics, and citywide events. It is a new outdoor room for the City and a civic corollary to the aquatic room created by the Lens. The lawn’s lifted form allows existing marina parking to remain and ensures vehicular traffic is separated from pedestrian movement and remains out of view below. Instead the sails of the adjacent marina to the south dominate the horizon, creating a direct visual link between the upland and the surrounding Bay. Broad steps surmount this rise at key moments, connecting surface parking to the south and the Civic Green to the north. Between them, landscape plantings envelope the retaining wall at the lawn’s southern flank, creating a grotto of rich plant life running parallel to visitors arriving by car.

The Civic Green and a series of smaller community gardens create a new visual foreground for the Museum of History, which now anchors this important civic space’s western end. With a new wall of glass along the museum’s eastern face, the historic Benoit can overlook the lawn, reflected in the water of the new Tony Jannus Memorial. Along the northern perimeter of this civic loop, a new ecology gateway or a place for environmental education can be constructed to link existing parking and a pedestrian bridge to Bayshore Drive. Here, riprap and a new floating walkway will extend into the Vinoy Basin offshore. This new edge creates a more direct link between the expanse of the Civic Green and the water of the Basin while damping wave action in the basin by working in concert with the new promenade of steps along the Bay’s western edge.

Civic Green

01. Vinoy Basin Floating Walkway
02. Flexible Stage & Gathering Area
03. Saltwater Marsh & Riprap
04. Shaded Forest & Community Gardens
05. Civic Green for Citywide Events & Individual Relaxation
06. Shaded Forest & Energy Groves
07. Axial Connection to Museum of History
08. Entry Promenade
09. Architectural Shade Structures with Integrated Bladeless Fans
10. Raised Civic Green with Views over Access Drive to Marina
11. Landscape Grotto along Access Drive
12. Access Drive Relocated to South, Giving Priority to Pedestrians
13. Below-Grade Stormwater Routing
14. Retained Marina Parking
15. City Marina
At the nexus between the uplands and water, at the center of the Pier, is the new Arrival Plaza and Hub. Here, passenger drop-off and loading is surrounded by a flexible, large-scale retail village which can evolve or grow incrementally over time. A cluster of small pavilions, kiosks, shade structures, and groves of flowering shade trees house a range of cafes, bike and paddle board rentals, restrooms, and small retail spaces. This expandable market also includes a grid of shaded platforms with utilities in place, allowing these spaces to be used for a variety of events including a Saturday market, a monthly festival, or to provide spaces where food trucks, visiting vendors, or prospective new tenants can easily park, set up a booth, or build a new kiosk. It can grow over time; its plug-in, pop-up logic allows for a scalable response to evolving market demands.

This Hub might also include a small-scale broadcast studio, a contemporary echo of the historic radio and television studios located within the Million Dollar Pier. This studio can be a place where St. Petersburg institutions such as HSN can stage events with the Pier in the background, bringing St. Petersburg directly into living rooms across the country in the same way visiting Midwesterners would send in their vacation photographs showing the Pier to their hometown newspapers in decades past. These Hub programs can further leverage the evolving interest in food culture and its relationship to the local environment, especially seafood and the surrounding Bay. Taking advantage of the extraordinary range of chefs and other notables who currently visit HSN, the creation of culinary classrooms and pop-up kitchens could connect a broader cross-section of St. Petersburg through the shared experience of food.

**Arrivals Plaza and The Hub**

01. Entry Promenade and Access Drive from Welcome Mat
02. Parking Entry beneath Amphitheater
03. Service Entry and Loading Dock beneath Amphitheater
04. Arrivals Plaza and Drop-Off
05. Flexible Multi-Use Plaza
06. Overwater Connection to Pier/Upper Bridge
07. Overwater Connection to Pier/Lower Bridge
08. Connection to Spa Beach and Water Park
09. Flexible Shade Structures For Evolving Use including Pop-Up Kiosks
10. Bike and Paddleboard Rentals, Supporting Retail
11. Cafés & Shake Shack
12. Broadcast Studio
13. Flowering Shade Trees
The Amphitheater Activity Edge

Directly south of the Arrivals Plaza is a new Amphitheater, accommodating up to 4,000 seated guests on fixed benches or up to 2,000 people on blankets arrayed across its wide steps. The flexible stage can accommodate a range of events including music, drama, dance, and opera; back of house service and performer support spaces are also provided. Rising at the water’s edge, its terraced form looks out to the Lens, a natural counterweight to the canopy over the water. While the Lens is an artful experience of light, space and water, the Amphitheater, is its practical, highly programmed counterpart. Directly east is a new lagoon, a kind of drive-in-theater on water where performances can be viewed from boats at anchor. At the amphitheater’s apex is the Pier’s 15,000 sf signature restaurant, with views not only of the city skyline to the west but back to the performance stage and the Lens beyond. Community event spaces and other cafes can be located on each of the amphitheater’s tiers, creating a natural synergy between dining and scheduled events. The perennial question about amphitheaters is how they are used when no event is scheduled. Here, a water collection system allows a series of fountain streams and wetland gardens to cascade down the stepped structure, creating a year round children’s feature and climbing structure as adults enjoy the terrace amenities. The amphitheater’s large volume allows for ample shaded, concealed parking for up to 400 cars within a five-level garage and service dock, that are hidden from view by green walls extending up from gardens below.

To the west of the amphitheater, there is additional space for an expanded marina and marina-focused programs. Transient slips with a direct connection to the Pier and upland activities can be an important profit resource. To the east of the amphitheater, the new lagoon, carved into the existing south uplands, is linked to a new mooring field, additional transient slips and a pedestrian promenade along the existing breakwater jetty that extends south into the bay.
Spa Beach Flotilla: A Sustainable Model

Spa Beach has a hard time competing with St. Petersburg’s fantastic natural beaches to the west; in fact immersing one’s body in the Bay’s water is a “no go” for many. To renew interest in the beach experience, we propose launching a “flotilla” of new islands that can sponsor a variety of recreational hot spots as well as pilot sustainable features. Here the beach becomes viable again as swimming becomes not only possible, separated from the Bay, but also a unique experience varying from large saltwater pools to various freshwater spas and fountains as well as a kayak rental and launch ramp. Other islands host various distinct native, water cleansing planted biomes. Extending beyond a newly rehabilitated seagrass bed, the largest and furthest from shore is the Energy Island that includes pools ringed by wind turbines, pumping filtered water into their center, new marine habitats, and platforms for sunning and diving which include membrane-integrated photovoltaics.

Spa Beach Flotilla

01. Renewed Spa Beach
02. Freshwater Spa Pools
03. Saltwater Pools with Diving Platforms
04. Kayak Rental & Boat Launch
05. Renewed Seagrass Beds
06. Freshwater Fountain and Platform
07. Habitat Island & Water Filtration
08. Energy Grove
09. Connection to Water Park and Playground
10. Overwater Link to the Lens
Water Park and Spa Beach: New Landscapes for Play

To the north, the new Water Park is an extraordinary new space for active recreation for St. Petersburg’s children and their families. Here, activity animates a natural landscape of fountains, playgrounds, splash pads, and other spaces for exploration and play. Restrooms and service facilities are seamlessly incorporated into the landscape, largely out of view to visitors. At its southern edge, this landscape extends to include Spa Beach, with fresh pools and water play areas intermixed with the sandy beach. To the west, a platform overlooks the Vinoy Basin, a perfect spot for viewing manatees drawn to the basin by the artesian well located beneath the water’s surface.

The Water Park is a dynamic topography for the enjoyment of flowing and spilling water. As an interactive water feature, the park utilizes fresh water, combining the existing artesian source in Vinoy Basin with harvested and bio-filtered rainfall stored in cisterns and re-circulated. Features include wave “blow holes”, a shady grotto enclosed by a rain curtain, flowing channels and fresh water tide pools, slippery sliding slopes, as well as tree-canopied sand and lawn terraces overlooking the scene.

Water Park and Playground

01. Shaded Meadows and Seating for Families
02. Children’s Play Pools
03. Children’s Play Mounds
04. Waterslide Slope
05. Shaded Lawn and Picnic Areas
06. Connection to Spa Beach & The Hub
07. Deepwater Pools
08. Wave Channel
09. Interactive Water Features
10. Splash Pad and Pool
11. Interactive Fountains and Freshwater Pools
12. Rain Curtain and Support Spaces Integrated out of View
13. Wave Grottos
14. Blow Holes
15. Link to Vinoy Park
Urban Connections: The City and Life on the Water

For us, the ultimate significance of the Pier is not as an object, or even a single park, but as the central element connecting downtown St. Petersburg with its waterfront. A key connection between the Pier and the broader City will be a new waterfront promenade and sculpture walk, extending from the Dali Museum north along Bayshore Drive to the Vinoy Hotel. This broad promenade, featuring large-scale public art and a series of steps that descend to meet the Bay, will expand the emerging axis for the arts and culture that links the Dali Museum and the Mahaffey Theater to the Museum of Fine Arts, the Museum of History, and the Chihuly Collection. This promenade can bolster existing and continued development along Beach Drive and links Straub Park in a more meaningful, direct way with the water.

Waterfront Promenade, Sculpture Walk, and Straub Park

01. Straub Park Green
02. Sculpted Groundcover Accents
03. Additional Rich Plantings at Ground Plane
04. Straub Park Groves
05. Beach Drive
06. Bayshore Drive
07. Waterfront Pedestrian Esplanade
08. Waterfront Steps
09. Planted Terraces
10. Sculpture Terrace & Overlook
11. Removable Bollards to Allow for Festival Use
12. Oak Tree Shade Canopy
13. Vinoy Basin
Urban Connections:
A Renewed 2nd Avenue North

A series of east-west connections can extend from this north-south cultural axis, both at Central Avenue and along 2nd Avenue North. Linking the lively commercial character of Central Avenue with a renewed Denny’s Landing and an expanded South Straub Park that extends toward the Mahaffey Theater will create a central node along the new waterfront promenade. Likewise, a second east-west axis can be created along 2nd Avenue North, one dedicated to vitality, health, and recreation, linking the Pier, Beach Drive, including Baywalk, Williams Park, and Mirror Lake. Taking advantage of 2nd Avenue North’s existing configuration, we propose shifting two lanes of traffic and parking to the street’s southern edge and removing the existing median to create a 25-foot wide pedestrian boulevard along the northern edge of the street. This pedestrian axis for health and activities is punctuated by oak groves, shell and hardscape paths, and the iconic architectural shade structures like those at the Pier’s entry promenade. The new zone will host organized events including walks and runs while linking the new Pier, businesses along 2nd Avenue North, and a renewed Mirror Lake to the west.

2nd Avenue North Streetscape

01. Axis for Health, Vitality & Recreation links Pier, 2nd Avenue North Businesses including Baywalk, Williams Park & Mirror Lake
02. Vehicular Traffic Grouped to South, Existing Median Removed
03. 25’ Pedestrian Promenade Created Along Northern Edge
04. Crushed Shell and Synethetic Surfaces for Recreation
05. Continuous Oak Grove Providing Shade
06. Architectural Shade Structures with Integrated Bladeless Fans
07. Dedicated Bicycle Lane
Urban Connections: Vinoy Park Bridge

Additional connections can be made to both the north and south of the Pier. The addition of a new drawbridge at the northern end of the Water Park will link the Pier to Vinoy Park, facilitating circulation between the Vinoy Hotel and along the northern waterfront. To the south, maritime connections in the short term, or a skyway above marina boat traffic in the longer term, extend from the amphitheater, linking the Pier and Demen’s Landing. Here, our team’s research included the difficult history of segregation in St. Petersburg specifically as it relates to the beaches at South Mole and Spa Beach. Connecting these two important historical spaces and creating a shared space for all of St. Petersburg’s residents at Spa Beach is an important milestone in relation to this history. These links to the north and south enable a broader network of movement looping in and around Vinoy Basin and the marina, creating a continuous series of routes for bicyclists and runners linked to the Pinellas Trail and the broader region.

Vinoy Bridge

01. Water Park Loop/Connection to the Hub
02. Vinoy Basin & Marina
03. 80’ Span Pivoting Bascule/Drawbridge
04. Jogging Path Connecting Pier and Vinoy Park
05. Vinoy Park
06. Connection to the Vinoy Hotel & Northern St. Petersburg
Cost Analysis:
Phase Two—Extending the Loop

Recognizing that cost controls will be critical throughout the multi-phase Pier development, we have provided an initial elemental cost plan for Phase 2. This Outline Cost Summary below includes essential Phase 2 components including the Amphitheater, Welcome Mat, Civic Green, and Water Park. An expanded cost summary for Phase 2 is included in the Detailed Cost Analysis Section in the Appendix, along with the required Cost Schedules requested by the City of St. Petersburg.

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<th>PHASE 2 - Overland</th>
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<td>Energy Flotilla</td>
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**Phasing**

**Phase 1 / The Lens**
- Twin Bridges
- Dockside
- The Reef
- The Promontory

**Phase 2A / Amphitheater**
- Amphitheater & Associated Restaurants
- 400-Space 5-Level Parking Garage
- Lagoon
- Expanded Marina & Breakwater
- Future Skywalk to Demer's Landing

**Phase 2B / Entry Promenade**
- Welcome Mat Entry Plaza
- Entry Promenade

**Phase 2C / Civic Loop**
- Civic Green
- Community & Civic Gardens

**Phase 2D / Water Park & Playground**
- Water Park
- Play Areas
- Drawbridge to Vinoy Park
- Shade Forest
- Energy Groves

**Phase 2E / The Hub**
- Arrivals Plaza
- Restaurant & Retail Pavilions
- Broadcast Studio
- Spa Beach

**Phase 2F / Energy Flotilla**
- Energy Islands
- Pools, Diving & Sunning Platforms
- Drawbridge to Vinoy Park
“We aim to create a healthy, resilient system that provides the energy, water, and ecological vitality to support the Bay and the City—a real fountain of youth for St. Petersburg.”

Site Connections and Systems

Site Circulation and Itineraries
Access, Parking, and Transit
Urban Connections
Waterfront Ecologies
Sustainability Strategies
Visitor Itineraries and Calendar of Events

Families
01. Arrival & Drop-off at the Welcome Mat Entry Plaza
02. Parking Beneath Amphitheater
03. Restaurants, Cafés, & Stand-Up Paddleboard Rental in the Hub
04. Family Picnic at the Civic Green
05. Exploration and Play in the Water Park & Playground
06. Swimming at Spa Beach Freshwater & Saltwater Pools

Fitness
01. Jogging & Bicycle Connection Via Drawbridge to Vinoy Park
02. 1/2 Mile Recreation Loop Around Pier
03. Additional Active Recreation Circuits
04. Connection to New 2nd Street Avenue North Fitness Axis

Out-Of-Town Visitors
01. Arrival by Bus at the Arrivals Plaza and Hub
02. Circuit to and from the Lens via Pedestrian Promenade or Pier Tram
03. Kayaking and Fishing at Dockside
04. Intertidal Pathway & Connection to the Reef
05. Gelato & The View at the Promontory
06. Visiting Cafés & the Shake Shack at the Hub
07. Dinner at the Columbia with Views of Downtown & the Lens
08. Walk Down the Entry Promenade, Connection to Adjacent Museums
09. Link to Waterfront Esplanade & St. Petersburg Cultural Institutions

Date Night
01. Arrival & Parking Beneath Amphitheater
02. Dinner & Dessert at the Hub
03. Music or Drama Performance at the Amphitheater
04. After-Performance Stroll Around Pier
05. Nightcap to Central Avenue & Beach Drive Businesses

Transient Boating
01. Transient Slips at the Lens
02. Connection to Energy Island Flotilla
03. Sailboat Access to Vinoy Basin Retained Via Drawbridge
04. “Drive-In Amphitheater” Mooring Field
05. Additional Transient Slips at the Jetty
06. Access to City Marina Retained for Boats of All Sizes Via Skywalk
Event Location
- Water Park
- The Hub
- Civic Green
- The Lens
- Entire Pier

Event Type
- Reoccurring Event: Fixed Day of the Week
- Reoccurring Event: Variable Day of the Week
- Singular Event: Single or Multiple Days
Transportation and Site Circulation

**Access & Parking**

01. Entry Drop-Off At The Welcome Mat
02. Existing Manna Parking & Additional Spaces for History Museum
03. 100-200 Additional Spaces Below Great Lawn For Future Growth
04. 400 Space Parking Structure Beneath Amphitheater
05. Primary Drop-Off At The Hub
06. Additional Parking At The MidCore/Bayfront Garage
07. Additional Parking At Al Lang/Progress Energy Surface Lot

**Servicing**

01. Servicing for History Museum
02. Two WB-62 Truck Docks & Primary Servicing Beneath Amphitheater
03. Emergency Pull-Outs Along Lower Bridge
04. Turnaround At The Promontory
05. Emergency Servicing On Upper Bridge Via Electric Cart

**Transit**

01. “Looper” Connecting Central Avenue, 2nd Ave. North, & Downtown
02. Welcome Mat Connection Between “Looper” and Pier Tram
03. Pier Tram Itinerary Linking Welcome Mat, Hub, & Pier
04. Hub Connection Between “Looper” and Pier Tram
05. Tram Drop-off & Turnaround At The Promontory
Access and Parking

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03. 100-200 Additional Spaces Below Great Lawn For Future Growth
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Servicing Routes

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04. Hub Connection Between “Looper” and Pier Tram
05. Tram Drop-off & Turnaround At The Promontory
Urban Connections

**Waterfront Connectivity**
01. Link to North via Drawbridge over Vinoy Basin
02. Connection to Vinoy Park & North St. Petersburg
03. Circuit Integrating Vinoy Basin & Waterfront Esplanade
04. Skylink to Demen’s Landing
05. Renewed Demen’s Landing Landscape
06. Circuit Integrating City Marina & Waterfront Esplanade

**Waterfront Esplanade & Sculpture Walk**
01. Stepped Public Promenade with Large-scale Public Sculpture
02. Vinoy Hotel
03. Chihuly Collection
04. North Straub Park
05. Museum of Fine Arts
06. Museum of History
07. South Straub Park
08. Expanded Waterfront Park
09. Mahaffey Theater / Progress Energy Center for the Arts
10. Dali Museum
11. St Petersburg Yacht Club

**2nd Avenue North**
01. Pedestrian & Vehicular Link to Entry Promenade & Lens
02. New 2nd Avenue North Streetscape
03. Connections to Existing 2nd Avenue North Businesses
04. Link to Williams Park
05. Activity Circuit Surrounding Revitalized Mirror Lake

**Central Avenue 03**
01. Visual On-Axis Connection from Lens to Central Avenue
02. Link between Central Avenue & Waterfront Promenade
03. Connections to Existing Central Avenue Businesses

**Public Transit**
01. “Looper” Stop at the Arrivals Plaza / Hub
02. “Looper” Stop at the Entry Plaza / Welcome Mat
03. “Looper” Downtown Circuit

**Future Connectivity**
01. Planned Design Alternatives for Future Light Rail
Our approach to sustainability for the site begins with an emphasis on fitness; we aim to create a healthy, resilient system that provides the energy, water, and ecological vitality to support the Bay and the City now and in the future. Taken in sum, these multiple approaches can provide a permanent, adaptive platform that supports the site and the City’s health and longevity, not only in terms of energy, water, and ecology, but for the life and culture that emerges as a result of this resilient system—a real fountain of youth for St. Petersburg and its Pier.

Beginning with energy, our team has adopted a two-fold, layered strategy, beginning with an approach we call “add zero.” By utilizing conservation measures supported by renewable energy generation for the primary elements within the project, we can ensure that the new Pier’s net energy consumption at the end of Phase One is equivalent to the existing energy use on the site. In time, as specific elements of the project are built and we increase both energy generation and conservation, the Pier can move toward a true “net zero” approach, in which the project is truly off the grid, generating all of the energy it uses. Long-term, we plan to reach an ultimate goal of regenerative energy production: the Pier can become an energy generator for the City.

The most significant renewable resource available to us in St. Petersburg is the wind: wind power is most effective at this site and will be the primary power generator. Solar thermal and photovoltaics will also be used, and demonstration technologies such as desalinization and tidal power generation will be implemented in later phases. To cost-effectively achieve the energy goals for the project, add zero, net zero, and regenerative production, we aim to utilize passive design strategies to achieve at least 50% energy use reduction over code standards. This will be achieved through integrated passive design approaches, including daylighting, natural ventilation and cooling, and envelope/ massing design to reduce solar gain. Further, we will adopt a strategy of onsite energy generation to ensure no net increase in energy use, with each phase of construction producing its own power.

Power generation, water resources, site and landscape and bay ecology are inextricably linked in this proposal. The symbiosis that exists in nature between these elements is raised to a higher level of performance in terms of urban position and their ecological relationship. To reinforce this relationship architecturally, energy and water collection will be combined to create a series of site elements, termed “Energy Groves” and “Energy Islands,” organized on the site to gather water and power, and also mediating between landscape and architecture within the project as a whole.
The Lens
- Lens Exterior: 40 MW
- Promontory & Dockside Programs: 30 MW
- Observation Tower & Balconies: 10 MW

The Hub
- Restaurants & Cafes: 750 MW
- Broadcast Studio: 250 MW
- Kiosks: 4 MW
- Popup Kitchens: 300 MW
- Public Restrooms: 5 MW
- Shake Shack: 15 MW

Water Park
- Water Park & Fountains: 20 MW

Civic Green
- Civic Green & Associated Programs: 20 MW

Amphitheater
- Stage & Performance Areas: 30 MW
- Seating Areas: 20 MW
- Sound & Lighting: 10 MW
- Theater Back-of-House Areas: 30 MW
- Restaurant: 1200 MW
- Community Event Spaces: 30 MW
- Restrooms: 5 MW
- 400-Space Parking Structure: 30 MW
- Entry Promenade
- Welcome Mat Programs: 120 MW
- Entry Promenade: 40 MW
- Pedestrian Links & Lighting: 30 MW

This phase will add a great deal of new program to the site. As with Phase 2, all new program will be accommodated with renewable energy resources. A surplus will be converted to incrementally shift more energy off the grid.

As with Phase 3 new program will be added and accommodated with renewable energy resources. In this phase, all-site required power will be generated on-site. True Net Zero.

This phase will bring online the energy islands and the balance of renewable energy systems. At this point, excess energy will be generated and available for use within the broader City of St. Petersburg.
Sustainability: Wind and Solar Energy

Wind energy provides one of the best localized renewable energy sources for the project. Wind is steady and consistent at the site, can be deployed to address specific initial needs, and is scalable to respond to additional future requirements. Wind energy can be stored in battery arrays or turned to the grid to create a net zero power usage. Further, the generated power could be used to provide power to UV water treatment for non-potable water uses.

The Lens and its subsidiary programs as identified in Phase One will require approximately 100Kw of electrical energy. This will be supplied by 40 vertical shaft wind energy devices arrayed on the land side of the development, and by microturbines on the surface of the Lens, oriented to take advantage of prevailing winds accelerated by the canopy’s curved form.

For Phase Two on the upland, vertical shaft wind turbines will be arrayed in stacks and banks, creating a series of “energy groves,” harnessing the prevailing breezes regardless of directional shift and velocities throughout the year. Noting the close proximity of Alfred Whitted Airport to the south and flight paths that pass directly over the pier, it is important to note that vertical shaft turbines also have shown themselves to have virtually no impact on airport flight operations. The turbine units are approximately 9 feet by 15 feet tall and can be ganged into arrays of almost any configuration; the scale is substantially smaller than the larger horizontal blade unit which can be as large as 200 feet in diameter.

Finally, one of the most significant challenges with wind energy is that it is intermittent: in the flotilla of energy islands at the center of the site, we have the opportunity to change that. While they function in a similar way as the land-based energy groves through energy gathering and water purification, these elements add limited tidal power generation component to the equation in much the same way that PV will fill the gap on wind power generation. Each island has a pool at its center, surrounded by a series of turbines; when the wind blows, the turbines not only generate energy, they pump water into the pool’s center, filtering it in the process. When it is calm, this water flows back into the bay, powering hydropower turbines, creating an always-available source of renewable energy. Energy Islands will be constructed in the last phase of the development and will ultimately create the power surplus for site generated energy.

Finally, tidal and current-generated power sources are not effective nor economical using currently available technologies. However, rapidly evolving technologies may offer such opportunities in the future. Subsequent phases of the project can include demonstration power generation technologies, including energy from desalination, wave motion, and tidal current power within the Energy Islands, a test bed for energy strategies for the broader city and region.

While the main electrical generation will come from wind, supplemental power will be generated through photovoltaics (PV). While solar in St. Petersburg is not without its challenges, based on our analyses solar is an excellent candidate to power site lighting for the project. In contrast, photovoltaics supplementing wind energy is a different matter; photovoltaics can instead be used to “top out” the designed energy gathering efficiency of wind and ultimately maintaining a higher energy performance over the project life. Photovoltaic arrays are proposed as specific design elements integrated within the architecture and landscape, including flexible photovoltaic panels on the architectural shade structures along the entry promenade; and membrane-integrated arrays on the canopy of Hub programs, and on the surface of the Lens, positioned to optimize sun exposure.

Solar thermal can be used to heat water for domestic use, and is typically more cost effective than photovoltaics. Solar thermal arrays will be provided during Phase Two, in a simple collector array where the water is preheated for domestic use and final heating may be accomplished with flash heaters at the distribution point, powered by wind and photovoltaics. It may also be possible to use concentrating hot water collectors to create high temperature water for process use. This implementation would be planned for later phases of development as new and more efficient solar collection and delivery systems come on the market and prove cost-effective.
Wind Energy
- MICROTURBINE ARRAY
  Within Lens Canopy Optimized
  Vis-a-Vis Form & Wind Rose
- ENERGY GROVE
  1000 KW Wind Turbine Array
- ENERGY ISLAND
  Wind Turbine Array & Hydropower Turbines > Always-On

Solar Energy
- SOLAR ARRAY TYPE 3
  Membrane-Integrated Photovoltaics
  Within Lens, Optimized Vis-a-Vis Sun Path
- SOLAR ARRAY TYPE 2
  Flexible Photovoltaics Integrated Within Architectural Shade Structures
- SOLAR ARRAY TYPE 3
  Membrane-Integrated Photovoltaics
  Within Hub Canopies
Sustainability: Water Resources

We have likewise developed a two-fold strategy for water use, addressing both potable and non-potable water needs. Further, this approach is founded on water resource strategies that minimize stress on existing water supply while dramatically raising the local water quality in and around the Bay, impacting and enhancing the Bay ecosystem, which in turn impacts the ultimate environmental health of the community and City. As a result, our goal is to not only provide a resource for potable and non-potable uses for the proposed development but to raise the level of water quality of the water that will ultimately find its way back to the Bay, sustaining the health of the existing and restored ecosystem that forms the foundation for the project. This water strategy is aggressive and complex, and is tied to both rainwater capture, providing for potable and non-potable uses, wastewater and addressing runoff into Tampa Bay.

Our quantitative water goals for the project include reduction of potable water use by 75% for all uses, including irrigation and domestic water; onsite filtration, treatment, and reuse of rain, gray, and black waters, and onsite capture and treatment of all runoff. Similar to the project’s energy goals, water goals start with no net increase water use before transitioning to a true net zero approach, and ultimately to regeneration, wherein the Pier can provide water to the surrounding community.
Sustainability: Rainwater

The driving strategy for rainwater management is to treat 100% of the site runoff from paved areas before it flows into the Bay. Water cleansing, not volume management, is the key for the rainwater strategy on the site. The site receives ample rainfall of approximately 49 inches per year. Active rainwater collection through landscape, architectural features and other proposed urban elements is ultimately channeled and stored in five “Energy Groves” spread across the upland. The process of gathering rainwater is also be the process of cleaning the water, utilizing filtering ecological landscapes, constructed wetlands and reed beds to filter the water before it is collected into pools and cisterns.

For large, open hardscape areas, runoff will be treated by rain gardens, which treat water using planting and amended soils, while promoting infiltration into the ground, placed appropriately throughout the larger open areas adjacent to hardscaped zones to integrate with the overall landscaping, appearing as natural depressions with native planting. For the pier structures, planters can be integrated into the center of the Pier, directly treating runoff in a more longitudinal way. Plantings and amended soils will treat the water, which will infiltrate into a subdrain that conveys water to an appropriate outfall location.

The construction of these devices will include the storage capacity for two weeks of water use. Then, using an ultraviolet light treatment process, the entirety of this water can be treated, and then be used for non-potable functions such as irrigation and flushing, with the surplus finding its way to the Bay. The quality of this water will be higher than any other water flowing into the Bay, adding to the overall local and regional water quality, ultimately supporting the existing and restored marine ecosystem in and around the project.
Within the Lens, solar desalinization can provide for all water uses. The initial water requirements for Phase One are approximately 6100 gallons per month, with a storage average of 815 cubic feet stored beneath the walkway of the Lens promenade. A passive solar desalination “trough” system will be incorporated around the inner ring of the canopy loop, drawing salt water from below into a longitudinal trough that is heated by direct sunlight and heat energy captured by a solar panel array on the canopy overhead. Excess solar energy can be used to power localized pier lighting. Evaporated water will condense and be siphoned into a fresh water conveyance system distributed to the areas of potable water demand on the Pier including sinks, drinking fountains, and other potable water needs.

For the entirety of the Pier’s multiple phases, an approximate calculation of 450,000 gallons per month, potable and non-potable, will be handled through the 5 water collection and storage devices spread throughout the site, each averaging 100,000 gallons per month, with 14,000 cubic feet of storage at each site. Each of these elements is not only functional, they are also extraordinary elements in and of themselves, such as the large reflecting pool at the Hub’s main drop-off. Taken in sum, these elements will provide two weeks of rainwater storage, supplied by collection areas correlating to 56,000 square feet of area for each collection device.

Subsequent phases will increase requirements for water efficiency, allowing rainwater to be treated on site for potable uses via a small package unit which could be exhibited in an educational role in parallel to the other ecological strategies within the Hub and North Loop. This ultimately means that wastewater could also be treated on site if desired.
Waterfront Ecology:
Landscape Zones and Planting
“We are committed to continuing the dialogue we already started with the community; we know there are opportunities to meet with the public and we look forward to these conversations.”

Project Approach

Community Outreach: Building Consensus
Proposed Schedule
Proposed Phasing
Operational Costs: Potential Funding Sources
Community Outreach: Building Consensus

The citizens of St. Petersburg love their City, are proud of their downtown, and are protective of their waterfront. To successfully engage all of the citizens, community outreach must occur at many different levels. Online surveys and written comment cards provide germane input, however, personal engagement with individuals and groups deliver a more constructive style of feedback. We need to actively seek out the Community’s input not wait for or expect them to come to us.

We have already exhibited our team’s commitment to the importance of community outreach. During the months of September and October, the Design Team led an extensive community outreach campaign. Team members met one-on-one with individuals, community & county leaders, business owners, and non-profit entities, each of whom represented thousands of local citizens. Our team felt it was of the utmost importance to engage these groups now, before a design was proposed. How else would they trust that their voices would be heard? Additional outreach activities included meeting with mothers interested in family activities at the pier and events where Michael Maltzan, Tom Leader, Lisa Wannemacher, and other team members were able to talk one-on-one with over thirty community representatives. The valuable input that we received during these meetings has shaped our design for the new Pier.

Our team is committed to continuing the dialogue already started with the community and we know there are many opportunities to meet with the public to discuss ideas while raising awareness and interest in the new Pier. There are over 50 active neighborhood associations in the City of St. Petersburg. Several of them meet monthly and we propose to attend as many of these meetings as possible. The monthly
“Mayor’s Night Out” and “Breakfast with the Mayor” events might also be a great opportunity to engage a wide variety of local citizens. We also envision setting up an information booth at local gatherings such as the Saturday Morning Market, Movie’s in the Parks, and other downtown events.

The Pier is also a regional asset, meaning that persons in Pinellas County and the entire Tampa Bay area must be consulted and made to feel part of the new Pier. Our waterfront parks will be teaming with regional events during the spring and summer of 2012. From the Mainsail Arts Festival and American Stage’s Theatre Production in the Park to the St. Pete Grand Prix and a multitude of running races, these events will provide the perfect outlet for additional Community input and engagement.

Our job through all of this will be to balance the wants and desires of all of the various stakeholders and create a design that the entire community can embrace and fall in love with. To ensure the integrity of the process, we will strive for the greatest degree of transparency possible.

Finally, we believe it is important for the team to have the trust of the local citizenry and community Leaders. Our local design team members are extremely knowledgeable about the community and are well known in and around downtown, a strong foundation for our team as we move forward.
Proposed Schedule

The schedule on the following page is a preliminary duration schedule of how we would propose to move the St. Petersburg Pier project forward. We have identified 4 distinct efforts beginning with the Review and Award of the Project, followed by Site & Environmental Permitting, which will run concurrently with Architectural and Engineering Services, and will conclude with the Pre Construction and Bidding Process, where we anticipate early Demolition to occur. Like cost control, we see the act of scheduling as an integral tool to the design process. Establishing a schedule that is responsive to all contributing elements and constituents while maintaining a productive work flow is essential in realizing ambitious projects. To allow for an understanding of how the project will be developed, we established key milestones both maximize these distinct efforts as well as create moments within the project that celebrate these milestones as significant accomplishments. We find this process not only to be inherently efficient, but also important in creating and maintaining momentum during project development.

Should we be chosen to proceed with the project, we would expect to meet with the necessary applicable agencies, the City Building Department, and the Construction Manager, when and if appropriate, to develop a schedule that best meets scheduling expectations while providing a very clear and thoughtful road map that will ensure that the end product has the time and sequencing necessary to create an extraordinary destination for the City of St. Petersburg.
Proposed Phasing

Our proposal focuses not only on the iconic new Pier over water, but includes a comprehensive and unifying design that extends to the upland and adjacent areas of downtown. We propose that Phase 1, the Lens, is the first portion of the design to be construction. Subsequent development can be completed in various phases as the City desires.

Phase 1, The Lens, will be a striking, iconic landmark Pier and fulfill all the requirements the City has outlined. Phase 1 includes the Lens Canopy, Twin Bridges, Dockside, Reef, and Promontory. Phase 1 also includes the demolition and clearing of the existing pier and bridge. Existing underwater caissons will be repurposed and used as an armature for the new Underwater Reef. There are a number of elective architectural enhancements including the Bike Path and Intertidal Pathway, that could be completed as part of Phase 1 should funds become available; these elements could also be constructed during future project phases.

Following Phase 1, other portions of the design can be completed over a number of phases as the City’s needs demand and funding becomes available. Each of these individual elements can be built in sequence or can be built concurrently. We have identified the primary elements of Phase 2 as:

- Phase 2A / Amphitheater
- Phase 2B / Welcome Mat and Entry Promenade
- Phase 2C / Civic Loop and Civic Green
- Phase 2D / Water Park & Playground
- Phase 2E / The Hub
- Phase 2F / Energy Flotilla

Although these elements can be constructed individually, we recommend a building sequence that will strengthen the connections between the Pier and downtown and create new waterfront amenities for the entire community.

We propose that Phase 2B, the Entry Promenade, is the first element to be completed following Phase 1. This portion of the project, constructed at the threshold between the new Pier and the downtown core, will provide a dynamic new arrival space for Pier visitors and will also provide a grand, flexible, waterfront open space for the City of St. Petersburg. The extended Entry Promenade will provide an enhanced connection between the Welcome Mat and The Lens.

Following Phase 2B, we would recommend that Phase 2C, the Civic Loop and Civic Green, and Phase 2A, the Amphitheater, be constructed concurrently. The creation of the Amphitheater will provide a new public amenity for the City that includes the addition of 400 parking spaces in the below-theater parking structure. Existing surface parking currently in the area of Phase 2A can be removed and relocated to the new garage. This vacated area can then be dedicated to the new Civic Green along the waterfront.

The recommended third stage of development is Phase 2E, the Hub. The Hub, including the Arrivals Plaza, commercial and retail Pavilions, Spa Beach and possible Broadcast Studio will provide flexible program areas that can host a variety of daily, weekly, monthly, or annual events and activities.

Phase 2D, The Water Park and Playground, should be completed next. This landscape recreation zone will provide a valuable, family-friendly area for the residents of St. Petersburg. Finally, the adjacent Energy Flotilla, Phase 2F, will enhance this recreation zone by providing new on-water experiences in the Bay in concert with a significant source of renewable energy.
Phasing

Phase 1 / The Lens
- Twin Bridges
- Dockside
- The Reef
- The Promontory

Phase 2A / Amphitheater
- Amphitheater & Associated Restaurants
- 400-Space 5-Level Parking Garage
- Lagoon
- Expanded Marina & Breakwater
- Future Skywalk to Demen’s Landing

Phase 2B / Entry Promenade
- Welcome Mat Entry Plaza
- Entry Promenade

Phase 2C / Civic Loop
- Civic Green
- Community & Civic Gardens

Phase 2D / Water Park & Playground
- Water Park
- Play Areas
- Drawbridge to Vinoy Park
- Shade Forest
- Energy Groves

Phase 2E / The Hub
- Arrivals Plaza
- Restaurant & Retail Pavilions
- Broadcast Studio
- Spa Beach

Phase 2F / Energy Flotilla
- Energy Islands
- Pools, Diving, & Sunning Platforms
- Drawbridge to Vinoy Park
The team recognizes that the long-term sustainability and vitality of the new Pier will depend on identifying funding resources for the Pier’s operational costs. Our initial research has identified four primary types of potential funding sources: enterprise revenues; local government funding; state and federal government funding; and public-private and private funding. Outlined here are examples of some of these potential sources based on our knowledge of similar projects across the country and other world-class cities; each source brings with it a series of challenges and opportunities. The St. Petersburg Pier is a unique project and comprehensive discussions with city representatives will be a critical first step in accessing which funding strategies might be appropriate for the new Pier.

**Enterprise Revenues**

- Concession Fees: The Pier will include concessions, the rent from which can be allocated towards Pier operating costs. Multiple food concessions within the Hub, as well as one or more destination restaurants in the Amphitheater will pay base rent, and may pay percentage rent from net cash flow above an agreed-upon hurdle. If a ferry landing is included in the project, ferry and / or water taxi operators will pay landing fees, not to mention drive greater customer traffic.

- Special Events Fees: The Pier already plays host to numerous large-scale public celebrations and private special events. These draw significant crowds from throughout the City and the region. The events also attract considerable media attention. And yet, as a matter of policy, the City has not captured the value of hosting these events on its Pier Property and its surrounds. Instead, event organizers receive permits for events with little if any monetary consideration paid to the City. Waterfront parks, public piers and other municipally owned venues throughout the U.S. like the St. Petersburg Pier, are identifying ways to monetize the value of their waterfront venue to support ongoing public programming and operations. Managing organizations are creating standardized forms of agreement for live concerts, sports, festival, promotional events as well as smaller private events such as weddings. Revenues for comparable venues elsewhere in the U.S. can easily reach into the hundreds of thousands of dollars. The Amphitheater is designed to accommodate a full range of cultural arts performances and other large special events. The destination restaurant, dedicated parking facilities, the range of adjacent waterfront experiences, and support retail and amenities, all enhance the financial prospects for a special events program at the Amphitheater and elsewhere in the Pier / Park district to be highly remunerative for the Pier owner / operator.

- Advertising: Advertising space, sensitively integrated into the overall park / Pier design, will generate additional ongoing revenue for operations. This could be in the form of creative and ever-changing digital displays, public art installations and other creative means that seek to avoid there being a sense of commercialization of the public realm. Another Advertising opportunity is naming rights for features such as the Vinoy Bridge, the Amphitheater, and the Broadcast Studio. We do not however suggest selling naming rights to the Pier itself.

**Local Government Funding**

- Sales Tax: Sales tax is charged at the time of sale in St. Petersburg and equal to 7.0% of the value of most goods. This revenue is already dedicated; 6% goes to the State, 1% goes to the County via the Penny for Pinellas, and only a portion of the Penny is allocated to the City. Rather than facing the considerable political challenge of adding an additional sales tax increment to directly benefit a specific project in St. Petersburg, interested parties might seek a modest funding allocation from one of these recipients to support the regionally-beneficial public improvements and programming at the Pier.

- Subsidy Elimination: The current Pier subsidy is approximately $1.5 million plus annual maintenance costs of $200,000 to $400,000 and is projected as a City expenditure for several years to come. Our design proposal’s goal is to remove the subsidy completely. By projecting these savings out 5 to 10 years, the City can bond against it for a Capital Improvement funding stream.

- Other Sources: At City Council’s direction, City Staff may be able to identify additional sources of moneys that can be used for Capital Improvements
  - $14 million is set aside for the City’s proposed Intermodal Facility. The portion set aside for a parking garage, may be transferrable to the Pier site because we are integrating an “invisible” garage into our amphitheater design.
  - $2.5 million is set aside for Streetscape Improvements.
  - $2.5 million is set aside for Parkland Improvements.
State and Federal Government Funding

- Federal Funding through SAFETEA-LU: The Pier may be accessed from points throughout the Tampa Bay region via ferry transport. This could open up an opportunity for federal funding support for the Pier reconstruction project. Since 2005, the Federal Highway Administration has provided roughly $50 million per year to cover up to 80 percent of the construction costs of new ferryboats and infrastructure. These grants are allocated through the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). Grants cannot be used for operational spending, but they may free up local capital for operational use. The most recent application period closed in June 2011, and it is unclear whether additional funds will be made available. Reauthorization of a federal transportation spending bill remains delayed.

Public-Private and Private Funding

- Impact Fees: Impact fees are one-time fees collected from developers within a specified distance of an infrastructure investment, like the Pier in St. Petersburg. Impact fees typically fund roadway, sewer, water, open space, and school capital infrastructure, and not infrastructure operations. There must be a rational nexus between the development and the need for the infrastructure improvements. Further, the developer’s fair share of the infrastructure cost must be established.

- Business Improvement Districts (BIDs): BIDs are not-for-profit management organizations that consist of business within specified commercial districts and rely on special assessment funds to support shared maintenance, branding, and public amenities. The vast majority of BID funds are raised through special assessments on commercial property, but occasionally funds are raised through residential property assessments. Many BIDs also fundraise for grants, special contracts, and philanthropic contributions.

- Philanthropy: Local community development organizations may contribute one-time or ongoing funds to support components of the Pier / Park operations and programming; however, charities and community development organizations will need to be convinced of the public benefit that the proposed Pier / Park plan and program will offer, particularly to those of limited means.
“We share a passion for the creative process but as importantly, we know how to deliver ambitious, large-scale urban projects like the St. Petersburg Pier.”

Design Team

Design Team Organization

Team Member Firm Profiles and Key Personnel
Design Team and Organization
Michael Maltzan Architecture has assembled a remarkable design and technical team, perfectly suited to the St. Petersburg Pier Project. Collectively, the team believes that architecture, landscape and urban design play an important role in shaping and representing the aspirations of our time.

Our original submission for the St. Petersburg Pier concentrated on the core team of designers and engineers. Michael Maltzan Architecture was joined by Tom Leader Studio, Landscape Architecture; Buro Happold Consulting Engineers, Structural, MEP, and Sustainability Engineering; Sherwood Design and Engineering, Civil and Sustainable Infrastructure Engineering; HR&A Advisors, Inc., Economic Development Advisor; and James Culter, Marine Scientist with the Mote Marine Laboratory.

Since the beginning of the competition phase, with the permission of City competition organizers and advisors, we have expanded our team to include additional design and technical specialists. These team members have been valuable resources in the competition phase and will be critical team members moving the project forward. These additional consultants include local associate architect Wannemacher Jensen Architects, Inc., a St. Petersburg based firm that understands the real needs of the City of St. Petersburg and the complex opportunities and challenges the Pier presents. Applied Technology & Management joined the team to provide coastal engineering; their waterfront expertise includes waterfront development projects, public and private marina development, city piers, and existing marina redevelopment. Cost consultant Davis Langdon has provided expert cost analysis, allowing the team to gain a deeper understanding of construction issues and projected project costs.

**Team Organization**

Michael Maltzan Architecture, Inc. will be the lead consultant and serve as the Executive Architect, Architect of Record, and Design Architect for the St. Petersburg Pier from the design competition phase through construction. Since the Stage I materials were submitted, Michael Maltzan, FAIA, has become a licensed architect in the State of Florida. If our team is selected for the St. Petersburg Pier, Michael Maltzan Architecture, Inc. will pursue all appropriate corporate registrations for conducting business in the State of Florida and will be the primary contracting entity with the City of St. Petersburg.

Our St. Petersburg Pier team includes:

**Michael Maltzan Architecture / Architect**
Michael Maltzan, Principal in Charge

**Tom Leader Studio / Landscape Architect**
Tom Leader, Principal in Charge

**Wannemacher Jensen Architects, Inc. / Associate Architect**
Lisa Wannemacher, President

**Buro Happold Consulting Engineers / Structural, MEP, and Sustainability Engineer**
Lisa Matthiessen, Principal in Charge

**Sherwood Design Engineers / Civil & Sustainable Infrastructure Engineer**
S. Bry Sarté, Principal In Charge

**James Culter / Marine Scientist**
Center For Coastal Ecology, Mote Marine Laboratory

**Applied Technology & Management, Inc. / Coastal Engineer**
Robert Semmes, Vice-President

**HR&A Advisors, Inc. / Economic Development Advisor**
Jamie Spring, Partner In Charge
James Lima, Independent Advisor

**Davis Langdon / Cost Consultant**
Martin Gordon, Director

Detailed profiles of each firm, as well as highlighted bios noting specific qualifications and experience of the individual team leaders, are included in the following pages.
Michael Maltzan Architecture
Architect

Michael Maltzan Architecture is an architecture and urban design practice committed to the creation of progressive, transformative experiences that chart new trajectories for architecture, urbanism, and the public realm. Led by Michael Maltzan, FAIA, the practice is dedicated to the design and construction of projects which engage their context and community through a concentrated exploration of movement and perception. Through a shared belief in the role architecture can play in the contemporary city, this work has created new connections and catalyzed change across a range of scales, programs, and contexts from MoMA Queens to Skid Row.

The Los Angeles-based practice addresses the increasingly complex reality of our information-driven culture, crafting intimate, individual experiences woven into the broader context of the city or the campus at large. Each design emerges from its specific context—the city, the campus, geography, program, history, and technology, equally. The 30-person firm’s intensely creative, collaborative studio culture is focused on developing partnerships across disciplines to integrate sustainability and form, producing unprecedented detail and beauty.

The practice’s work has been recognized with numerous accolades, including five Progressive Architecture awards, 24 citations from the American Institute of Architects, the Rudy Bruner Foundation’s Gold Medal for Urban Excellence, and as a finalist for the Smithsonian/Cooper-Hewitt Museum’s National Design Award. This work has been featured in a number of international publications including Architecture, Architectural Record, Architectural Review, Artforum, A+U, Domus, Blueprint, GA Houses, Lotus, Los Angeles Times, Newsweek, The New York Times, and the monograph Alternate Ground.

MMA projects have also been exhibited in museums worldwide including the Museum of Modern Art, the Cooper-Hewitt National Design Museum, the Canadian Centre for Architecture, and the Los Angeles Museum of Contemporary Art. Monographic exhibitions have been featured at the Southern California Institute of Architecture, the Harvard Graduate School of Design, and the Carnegie Museum’s Heinz Architectural Center.

The firm has participated and won many international design competitions. Winning competition entries include the Los Angeles State Historic Park & Interpretive Center in Los Angeles, Giardini Di Porta Nuova in Milan, and Pirelli RE Offices also in Milan. The MMA team was selected as a finalists in the Governor’s Island Competition in New York and most recently in the Minneapolis Waterfront Competition along the Mississippi River, the Victoria and Albert Museum Exhibition Road International Competition, and the Southpark Design Competition in London.

MMA’s project team will be led by Principal-In-Charge, Michael Maltzan, FAIA. Michael will be joined by Senior Associate and Project Director Tim Williams and Project Designer Wil Carson.
Michael Maltzan, FAIA
Principal

Michael Maltzan, FAIA, is principal of Michael Maltzan Architecture, Inc. in Los Angeles. He is committed to creating architecture that is a catalyst for new experiences and an agent for change in our cities.

Mr. Maltzan lectures internationally and often serves as a design instructor, lecturer, and critic at prestigious architectural schools including The Architectural League of New York, Harvard University, Princeton University, Rice University, Rhode Island School of Design, University of California, Los Angeles, University of California, Berkeley, University of Southern California, University of Waterloo, and the Southern California Institute of Architecture.

He holds both a Bachelor of Fine Arts and a Bachelor of Architecture from Rhode Island School of Design, where he received the Henry Adams AIA Scholastic Gold Medal. He received a Master of Architecture degree with a Letter of Distinction from Harvard University’s Graduate School of Design, and he also attended the Architectural Engineering Technology program at Wentworth Institute of Technology. Mr. Maltzan is a licensed architect in Texas and California, a Fellow of the American Institute of Architects, and a GSA Design Excellence Program Peer.

Tim Williams,
Project Director

Mr. Williams has collaborated with Michael Maltzan since 1992, joining MMA in 1996. Over the past 15 years, Mr. Williams has directed the office’s growth as a Senior Associate. He has also been instrumental in the design and construction of the practice’s large-scale work for both public and private clients, including Inner-City Arts, Kidspace Children’s Museum, Playa Vista Park, Milan’s Giardini Porta di Nuova, the Skid Row Housing Trust’s Star Apartments, and Los Angeles’ One Santa Fe and Central Avenue Art Park.

Proactively engaged with all project stakeholders, he is the point of contact for the entire project team. He is committed to overseeing and managing a team that works within the parameters of schedule, budget, and program, and is dedicated to project delivery that is both efficient and best fulfills the project’s design intent. Mr. Williams’ unparalleled dedication and extensive experience in project definition, resource management and coordination, risk mitigation and negotiation has enabled MMA to deliver even the most complex, most ambitious projects successfully.

Prior to joining MMA, Mr. Williams was instrumental in the design and realization of important cultural works at Gehry Partners including the Guggenheim Bilbao and Walt Disney Concert Hall; he also led the technical development of projects including the EMR Communication and Technology Center in Bad Oeynhausen, Germany, and Anaheim’s Team Disney Administration Building.

Wil Carson, AIA
Project Designer

Wil Carson first joined MMA in 2003. As the senior project designer, he has been integral in the design of notable projects including UCLA Hammer Museum’s Billy Wilder Theater, the Fresno Metropolitan Museum, Jet Propulsion Laboratory, New Carver Apartments, One Santa Fe, Pirelli RE Offices, Playa Vista Park, and San Francisco State’s Creative Arts Center. He has also worked at urban scales, leading master planning and programming for the Vancouver Art Gallery and the Go For Broke Interpretive Center and MOCA Geffen. Building on his experience researching our natural world, his work focuses on the integration of building systems, ecology, and energy conservation, advancing sustainability through a synthesis of technology and form.

Mr. Carson received his A.B. in Visual and Environmental Studies from Harvard University and his Masters in Architecture from the University of California, Los Angeles, graduating with distinction. Prior to joining MMA, Mr. Carson was a designer for NBBJ, working on large-scale projects in Asia and the Middle East, as well as collaborating on exhibition designs with Gehry Partners, Zaha Hadid, and Neil Denari, and with the artist John Maeda.
Tom Leader Studio
Landscape Architect

Tom Leader Studio (TLS) was formed in March 2001 for the practice of landscape architecture. TLS seeks to investigate and build upon the unique, inherent qualities of cities and their landscapes. In so doing, TLS seeks to provide a link between emerging ideas and practices and the concrete need for their realization in physical space. Community involvement and design collaboration is central to TLS civic projects such as the new 19 acre Railroad Park in downtown Birmingham, Alabama. Here TLS worked closely a large number of civic stakeholders for five years, managed a large team of local consultants.

As the practice has grown over the last ten years, it has sought a balance between speculative work, competitions, and exhibits, with the constructed work that is now being realized. In 2002, the firm exhibited the Fresh Kills Landfill project and created a related installation at “Archilab” in Orleans, France. The TLS “Shanghai Carpet” project has been featured in exhibits including the Museum of Modern Art’s 2005 “Groundswell” exhibit on international landscape design and at the Vitra Design Museum. TLS exhibited several projects, including a temporary park for the Fresno Museum of Art formed with rented scaffolds, in the 2006 “Design Life Now” Triennial at the Cooper Hewitt Museum.

The landscape, art and architecture collaboration, “Pool Pavilion Forest”, completed in 2007 with artist James Turrell, was featured in the New York Times Magazine and received a 2009 ASLA Honor Award. A monograph of the firm’s work “Tom Leader Studio: Three Projects” has been recently published by Princeton Architectural Press. In 2010 three significant built projects reached completion, including Railroad Park, the Stanford School of Medicine in California and the Stanford Academic Art Walk. The firm won 2009 ASLA Honor Awards for Pool Pavilion Forest, Stabiae Archaeological Park in the Bay of Naples, Italy; and Park Merced in San Francisco. Current work includes a community art center in Emeryville, CA, a U.S. / Mexico Border Crossing in Calexico, CA., an 18 acre Veterans Hospital Campus in Denver, numerous site design and planning projects in southern China, as well as a new city outside Delhi, India. The firm has been published in the New York Times, ID Magazine, Landscape Journal, Topos, Landscape Architecture, Praxis, A+T, and Competitions, and Land Forum. Also in 2011 TLS was named the winners of the Minneapolis River Front Competition for 5 miles of the Mississippi River.

Tom Leader will lead the TLS team which includes Laryssa Stecyk, Project Designer, and Erik Prince, Designer.
Tom Leader, Principal

Tom Leader Studio was formed in March 2001 for the practice of landscape architecture. This nationwide practice seeks to be an active, experimental atelier seeking a liaison between emerging ideas and practices and the concrete need for their realization in physical space. With interest and experience in large scale work, Leader nevertheless seeks what is personal and original while in pursuit of the pragmatic. Leader has twenty-five years of professional experience as a practicing landscape architect. Sixteen of those years were spent as a partner in the firm of Peter Walker and Partners, designing and building numerous award-winning projects throughout the U.S. and internationally. Two projects under his direction won national Honor Awards from the American Society of Landscape Architects—Longacres Park in Seattle, Washington, and Asahikawa River Park on the island of Hokkaido, Japan.

In 1996, Leader won the San Francisco Prize in a competition for the design of Philip Burton Federal Plaza and in 1998, he was awarded a year-long Rome Prize Fellowship in Landscape Architecture at the American Academy in Rome. He has been featured in two exhibits at the San Francisco Museum of Modern Art including the on-site installation “Coastlines” as head of a collaborative team for the exhibit “Revelatory Landscapes” in 2001. He has served as a panelist for the Mayor's Institute on City Design, an AIA R/UDAT in Springfield Ohio, and the NEA Design Arts & Policy Panel. In 2002, the firm exhibited and created an installation at “Archilab” in Orleans, France and was involved in the LMDC's design competition for the master plan of the World Trade Center site.

As the practice has grown, it has sought a balance between speculative work and the constructed work that is now being realized. Pool Pavilion Forest was completed in 2007; in 2010 three significant projects will reach completion, including a 21-acre Railroad Park in downtown Birmingham, Alabama, the Stanford School of Medicine in California and the Stanford Academic Art Walk. The firm recently won 2009 ASLA Honor Awards for Pool Pavilion Forest, Stabiae Archeological Park in the Bay of Naples, Italy, and Park Merced in San Francisco. In 2010, Tom Leader Studio, Three Projects, edited by Jason Kenter, was published by Princeton Architectural Press.

Laryssa Stecyk, Project Designer

Laryssa came to Tom Leader Studio in 2010 with over six years of landscape architecture and graphic design experience. In her professional work, Laryssa has played crucial roles in the development of projects across multiple scales and functions; from master planning whole cities to designing cutting edge parks. From the broadest concepts to the finest details she has mastered the skills necessary to move a project through all phases of creation.

At TLS Laryssa’s efforts focus on construction sets and graphic representation. Her knowledge of engineering and detailing as well as a proficiency in REVIT architecture continue to be a major asset to the team. Most recently she collaborated in producing the construction document sets for Denver VA Hospital and Calexico Port of Entry. Laryssa has transformed many TLS visions into tangible and marketable productions both internally and directly to clients as well. Her recent work for the Emeryville Center for the Arts as well as the Minneapolis RiverFirst Project were instrumental in gaining an edge against competing firms.

Laryssa graduated in 2009 from Cornell University with the highest distinction for her Master's Degree in Landscape Architecture. During this time she received numerous accolades including the ASLA Student Award of Honor for General Design in 2008 and the ASLA Award of Honor for academic distinction in 2009. Her studies focused primarily on Architecture and the role of mobile technology in the perception of public spaces.

Erik Prince, Designer

Erik has over eight years of profession experience practicing Landscape Architecture in the San Francisco Bay Area, Boston and New York City. He holds a BS in Landscape Architecture from Colorado State University and in 2010 graduated with distinction from the Harvard Graduate School of Design with a Masters of Landscape Architecture where he received the Jacob Weidenman Prize, the school’s highest honor for design. Erik’s professional experience emphasizes the design, communication and construction of award winning urban projects ranging from the community level to the city scale. His interest in the transformation of complex industrial waterfronts is demonstrated through his previous experience as a designer and project manager for numerous projects at Michael Van Valkenburgh Associates (MVA). Erik’s research investigates the constructed interface of urbanism and water where the typological urban and ecologic systems confluence and index a relationship to sub-surface conditions and regionally operative systems.
Wannemacher Jensen Architects
Local Associate Architect

Wannemacher Jensen Architects Inc. has a 20 year history dedicated to the City of St. Petersburg. This relationship has resulted in successful completion of over 200 projects directly for the City. WJA is the only local Architectural team to have done a significant project for the City of St. Petersburg and this extensive local experience will ensure a successful project delivery.

WJA’s specialty is community focused municipal Architecture including 30 community centers, 6 aquatic complexes, several performance spaces, and a multitude of parks up to 140 acres in size. The firm designs with optimism that Architecture can inspire positive change and enrich society. Each project seeks to promote community and client ambitions, advance creative development, redefine conventions, and generate purpose driven solutions. WJA has consistently found new ways to introduce designed experiences to the residents of St. Petersburg. Every typology and program is seen as an opportunity and a responsibility to the community. This dedication to innovation at all scales has placed the firm at the forefront of St. Petersburg’s urban rebirth.

The firm’s work is recognized both locally and nationally with accolades including 16 AIA Design Awards, 6 AIA Awards for St. Petersburg projects, The Dean Rowe FAIA Award for design Excellence, the AIA Tampa Bay Firm of the year, and the Recreation Management Innovative Architecture & Design Award. Projects such as the City of St. Petersburg’s North Shore Pool, and Roberts Recreation Center have been published in various magazines and books including, Florida Caribbean Architect, Bay Magazine, Beachlife – FRAME, Architecture of the Americas - BRAUN, Concrete Design – DAAB, Recreation Management Magazine, Florida Parks and Recreation Magazine, Tampa Bay Illustrated and the St. Petersburg Times. Exhibitions include the Gulfcoast Museum of Art, and the Project Creo Center for Art and Design.

WJA embraces the local community architect role representing the history, needs, and dreams of St. Petersburg. Throughout this process WJA has worked symbiotically with Michael Maltzan Architecture traveling to Los Angeles multiple times and hosting design meetings in St. Petersburg. Locally WJA has held dozens of meetings with various demographic groups and key community stakeholders. The team believes that Local input and dialog is paramount to deliver a successful proposal that St. Petersburg residents will embrace. This input has shaped the design proposal and program significantly. A master plan of this size and importance requires a successful concerted community outreach initiative which WJA will continue to lead from design through construction. This collaboration will ensure that the local needs and wishes will be heard and met.

President Lisa Wannemacher and Design Principal Jason Jensen will lead the WJA team.
Lisa Wannemacher, President

Lisa founded the firm 19 years ago in downtown St. Petersburg and under her leadership, the firm has completed over 200 projects for the City of St. Petersburg and over 250 projects within the City limits. Lisa was recognized in early 2011 with an Award from the St. Petersburg Chamber of Commerce for her outstanding service and commitment to the Chamber and continues to stay actively involved in the Community on various volunteer Committees and Boards.

Lisa has worked closely with many Public and Private clients including 19 Municipalities in the Tampa Bay Region. This Municipal experience has challenged Lisa to design inspiring Architecture that meets the needs of multiple users groups and various Community interests while still balancing the Owner’s tight budgets. Lisa was a guest lecturer at the University of South Florida Architecture Program’s 2011 Spring Lecture Series. Her lecture titled “A Fine Balance, Life, Love and Architecture” was very well received and based around her belief that you should do the things in life that make you happy, love the person who makes you smile, and practice architecture in a way that makes you proud.

Jason Jensen, Design Principal

Jason Jensen, AIA, LEED AP is design principal at Wannemacher Jensen Architects, Inc. and a lifetime St. Petersburg resident. Jason has been recognized through his career for design excellence, including the AIA Young Architect/Garcia Award, 9 AIA design awards, a solo exhibition at the Gulf Coast Museum of Art and published extensively.

His design influence is built upon a diverse background as a Jazz musician and Installation Artist. Both avenues of creation involve improvisation and exploration in a temporary realm. This type of process spurs innovation and allows experiential discoveries to be made and integrated into architecture. Emphasis is placed on interaction asking patrons to be an active participant in their environment.

Jason brought art to the Pier organizing the Sola Creo Art Exhibition and founded Project Creo on the third floor of the Pier in collaboration with The Arts Center. He also designed, constructed & sponsored the Williams Park Lighting Installation for St. Pete’s First Night 2009. He is personally invested in the future of this community.

In addition, Jason has extensive Project Management and Coordination experience listed below. This will ensure that the design intention is not lost in the construction translation.
Buro Happold—Structural, Systems, and Sustainability Engineer

Established in 1976, Buro Happold is a global design organization with an international network of 25 offices and over 1,500 staff. With five offices in the United States and over $1B of completed work from East Coast to West, Buro Happold’s Los Angeles and San Francisco offices are part of a single California based profit center that includes 50 engineers, building physicists and BIM technicians in the following disciplines: Structural and Facade Engineering, Mechanical, Electrical, Plumbing, Fire Protection MEP/FP, Sustainability + LEED Consulting, Fire Engineering, Civil and Infrastructure Engineering, Transportation, Water Management, Waste Management.

Our structural engineers utilize a suite of analytical software to optimize the building, facade or art piece geometry to perfect the design, weight of the structure and the embodied energy. We specialize in the following areas: Facade Engineering, High Rise, Long Span Structures, Art and Sculptural Complex Structures.

Our MEP engineers work with the whole design team to inform the building form, orientation and materials to satisfy the external and internal design criteria, incorporating a global view of energy consumption, embodied energy and sustainability into the design. The whole process is highly iterative with special focus in: Energy Modeling, Computational Fluid Dynamics (CFD) Analysis, TRNSYS System Optimization Modeling, Laboratory Design, Lighting Design, Post Occupancy Evaluation.

Principal In Charge Lisa Matthiessen will lead the Buro Happold team that includes Principal Craig Schwitter, Principal Greg Otto, and Senior Associate Steve Chucovich.
Lisa Matthiessen,
Principal-In-Charge

Lisa Fay Matthiessen is an architect with over 23 years experience in design and construction, with an emphasis in sustainable design. Prior to joining Buro Happold, she led Davis Langdon’s Sustainable Design department for eight years. She has experience in delivering a variety of services, from multi-disciplinary engineering and sustainability services on individual buildings to policy development and sustainability master planning on the city and university level. Lisa’s goal is to meet the needs of all stakeholders to the greatest extent possible – financially, socially/culturally, economically, and environmentally – and provide for the highest quality, flexible, functional and reliable systems within budget and schedule Lisa’s strengths include: understanding of design and construction from a variety of perspectives; expertise in the technical aspects of sustainable design; and a strong reputation in the sustainable design industry. Ms. Matthiessen received her BA from Stanford University and her MArch from the University of California, Los Angeles and is a fellow of the American Institute of Architects. She is currently serving on the GSA’s National Registry of Peer Professionals, as Vice Chair of the LEED Market Advisory Committee, and as Technical Advisor to the Clinton Climate Initiative.

Craig Schwitter
Principal, Pier Design

Craig Schwitter has over 20 years of experience in the engineering design of complex buildings including educational, performing arts, stadia, transportation and cultural projects. Mr. Schwitter founded the first North American office of Buro Happold in 1998. Since then the region has grown to over 200 staff based in multiple office locations including New York, Los Angeles, Boston and San Francisco. The North American offices offer a full spectrum of engineering services including structural, MEP, and façade, special projects engineering, lighting design, sustainability consulting services, and geo-technical services. With a focus on integrated engineering and the use of appropriate technology, Mr. Schwitter has played a hands-on role in ensuring a high level quality in Buro Happold’s projects and breakthrough innovations on recent high profile engineering commissions with the firm.

Greg Otto,
Principal, Structural Engineering

Greg Otto founded the Los Angeles office in 2006 and currently leads the structural group on the west coast. Mr. Otto received a BSCE from Cooper Union, a BArch from Kansas State University, and a MEng from the Massachusetts Institute of Technology. Having been educated as an architect and engineer and engaged in the practice of both, Greg has been focused on collaborative working between the architect and engineer and the potential for innovation. His current research is directed toward computer modelling and analysis, and manufacturing methods that bring the architect, engineer and fabricator into a more collaborative and innovative environment. With a focus on integrated design and the use of appropriate technology, Greg has played a significant role in ensuring a high level of quality and innovation in Buro Happold’s projects over the last seven years. In addition to his professional work, Greg has been actively engaged in academic research and teaching of both Architecture and Engineering at numerous academic institutions including Yale University, Harvard University, Southern California Institute of Architecture (SCI-Arc) and University of Southern California (USC).

Steve Chucovich,
Associate Principal

Steve Chucovich has over three decades of experience in planning, architecture and urban design, and spent 23 years as Principal of Architecture Denver, a Colorado based design practice. His experience includes large-scale urban, infrastructure and transportation planning projects such as the Millennium Bridge, a landmark in downtown Denver that received the merit award from the American Institute of Architects, Denver chapter in 2002. Mr. Chucovich received a BArch from the University of Kansas. Presently, he is working on design and consulting engagements for Buro Happold where his project and design management experience has proven vital to the successful delivery of a worldwide portfolio of innovative projects that emphasize sustainable living through building design, orientation, and the individual’s interaction with the built environment.
Sherwood Design Engineers
Civil Engineer

Sherwood Design Engineers is a group of forward-thinking designers committed to pioneering tomorrow's sustainable solutions in today's communities. At Sherwood Design Engineers we value great planning and solid engineering, but what sets us apart in the international design community is our dedication to developing environmentally responsible infrastructure. Green building is an integral part of the philosophy we bring to all our projects. Our firm has LEED accredited green-build professionals on staff, in-house ecologists on our design team, and we bring a history of sound, technical engineering to every assignment. Across the globe, we have implemented new technologies and green-design innovations on projects ranging from the engineering of individual buildings to the master planning of large-scale developments and sustainable communities.

As engineers we believe that true sustainability requires considering all aspects of a project's design, development, and impact; and clients continually seek us out for our integrated approach to large-scale, environmentally sensitive projects. Our planning begins with specific site research to assess environmental constraints and opportunities, and our process encourages the active participation of all parties involved, including clients, planners, public agencies, and the local population.

Sherwood Design Engineers has been responsible for master planning and infrastructure designs for high-profile projects from the Northstar Village in Lake Tahoe, to the Draper Lake watershed reconstruction in Florida; and we have applied our expertise in waterfront storm water design to projects from the Harlem River Promenade in New York, to the LA State Historic Park in Los Angeles. Each of our designs incorporates the best combination of technology and sustainability available, and everywhere we work we provide creative engineering designs that make positive contributions to the local economy and environment.

Principal Bry Sarté will lead the Sherwood team.

S. Bry Sarté, Principal Engineer

Bry Sarté, founder of Sherwood Design Engineers, leads a group of civil and environmental engineers based in San Francisco, New York, and Cambridge. As a leading designer in green and sustainable engineering, he has been published internationally and has made significant contributions to contemporary research involving global environmental issues affecting water supply, urban design, material science and energy use. Bry has built an international reputation by providing engineering services and design solutions which reflect a deep commitment to executing well-planned, sustainable alternatives for communities world-wide.

Mr. Sarté has served as Principal Engineer for many of Sherwood's innovative ecological open space projects ranging from the sustainably-oriented Los Angeles State Historic Park, to the Draper Lake watershed reconstruction in Florida. He also oversees Sherwood's environmental review work and alternative water treatment designs, focusing on capacity limitations within existing water distribution and wastewater collection systems, constraints on storm water collection and detention facilities, and protection of wetlands and wildlife refuge from contamination related to non-point source discharges.

Mr. Sarté is the author of the recently published John Wiley & Sons book, Sustainable Infrastructure: The Guide to Green Engineering and Design, which serves as a comprehensive guide to integrating sustainable strategies into infrastructure planning and design with emphasis on water resource management, site design and land planning. Throughout the book Mr. Sarté highlights the central role that creative engineering integrated into collaborative design processes play in developing the complex solutions needed to affect a sustainable transformation of our built environment.

Bry Sarté founded the Sherwood Institute in 2009 where he serves as Executive Director. The institute is comprised of academic, professional, and government advisors from five countries directing research and innovation at the nexus of critical water and energy issues.
James Culter, Marine Scientist

Mr. Culter has over 31 years professional experience with focus on Environmental Assessment, Biological Monitoring, Benthic Ecology, Invertebrate Taxonomy, Hydrographic and Bathymetric Surveys and Technical Mixed Gas diving to 100 meters. His education included training in parametric and non-parametric statistics and techniques of multivariate community analysis.

As a senior scientist and manager of the Benthic Ecology Program, Mr. Culter has specialized in marine/estuarine ecology and environmental assessment utilizing benthic invertebrates as environmental indicators of stress and anthropogenic impacts. In 2009 he conducted a study of barnacle distributions in three spring-fed rivers for the Southwest Florida Water Management District. In 2008-2009 he conducted the taxonomic analysis of benthic samples from the Chassahowitzka and Homosassa / Halls Rivers, also for a District project.

His experience working with benthic invertebrates in Florida tidal rivers dates to the early 1980’s and has included the following rivers: Alafia, Caloosahatchee, Chassahowitzka, Hillsborough, Loxahatchee, Manatee, Little Manatee, Myakka River and Myakkahatchee Creek, Peace River and Shell Creek, Pithlachascotee, Weeki Wachee Waccasassa and Withlacoochee, Rivers. Many of the projects were for minimum flows studies. He has also managed multidisciplinary studies of 316(a)&(b) studies (operational impacts of power plants) for Tampa Electric Company and conducted a benthic biodiversity survey of the Charlotte Harbor NEP study area. He was a coinvestigator for the development of a tidal creek index for Sarasota County. Other estuarine studies have included collection of data for the Tampa Bay Water DeSal facility (2001, 2002) evaluation of desalinization plant discharge effects in Antigua, a survey of nearshore hard-bottom areas of Gasparilla Island, and evaluation of benthic recovery at sand borrow sites.
Robert H. Semmes, 
Vice-President

Mr. Semmes has over 22 years of experience in waterfront planning and development projects. He specializes in marina development and revitalization, financial performance projection modeling for modern luxury marina developments, marina market segmentation, specialty environmental issues related to port and harbor development, and ecosystem assessment, restoration, and mitigation.

He has also prepared numerous water and sediment quality assessments, sedimentation investigations, and plans and specifications for dredging, marina, and boat landing construction projects. He has extensive permit preparation and negotiation experience for projects with complex environmental issues including open water and ocean disposal of dredged material and the larger issues related to harbor deepening and expansion. He brings broad-based management and negotiation skills to projects, acting as an on-site engineering representative, liaison to contractors, owners, and the regulatory community.

With a Masters degree in Agricultural Engineering from the University of Florida and a Bachelors in Agricultural Operations Management from the University of Florida, Mr. Semmes brings local expertise to Florida projects from start to finish.
HR&A Advisors
Economic Development Advisor

HR&A Advisors, Inc. (HR&A) is an industry leader in economic development, real estate and public policy consulting. Equipped with a unique understanding of the intersection of the public and private sectors, HR&A has served a diversity of clients since 1976. HR&A has extensive experience advising on some of the most complicated real estate and economic development projects in communities across the country.

HR&A approaches each assignment by focusing on how to achieve our client's goals in the context of the public sector's priorities and the private sector's motivations. Our approach has allowed hundreds of public and private clients to transform public infrastructure, real estate and economic development concepts first into actionable plans, then into job-producing, community-strengthening assets. Our support for the redesign and replacement of the landmark St. Petersburg Pier will include: strategies for building a sustainable financial model. Projects like the pier project often require more funds to maintain and manage than they do to build. HR&A is an industry leader in creating sound financial frameworks to leverage funds for ongoing public realm operations and maintenance; strategies to leverage real estate for net new economic activity and fiscal benefits; a strategic framework for public-private partnerships for project delivery and management.

HR&A's work has been recognized with numerous prestigious awards, including the International Economic Development Council’s 2009 Public-Private Partnership Award for the creation of the Cincinnati Center City Development Corporation (3CDC), the New Jersey Future 2009 Smart Growth Award for the Newark Broad Street Station plan, and the 2005 American Institute of Architects Honor Award for Regional and Urban Design for the Anacostia Waterfront Initiative.

Partner in Charge Jamie Spring will lead the HR&A team in collaboration with James Lima, formerly of HR&A.

Jamie Springer, Partner

Jamie Springer has extensive international experience in public sector management, public-private development structures, economic development and planning, and community relations. He has helped provide public, private, not-for-profit and institutional clients across North America, in Europe and Asia with strategic real estate advice drawn from his deep understanding of the public-private development process. He provides urban infrastructure planning and implementation services to a range of cities. Prior to joining HR&A he was Project Director for the Brooklyn Bridge Park Development Corporation, where he helped to manage the public approval process that led to the transfer of land from the Port Authority of New York and New Jersey, and City and State of New York to the BBPDC in order to create an 85-acre network of open spaces on Brooklyn's East River waterfront. Jamie is an Adjunct Lecturer at New York University's Schack Institute of Real Estate and serves as Board Chair of Fifth Avenue Committee in South Brooklyn.

James Lima, Independent Advisor (formerly with HR&A Advisors)

Since the start of the St. Petersburg Design Competition, Partner-In-Charge James Lima has departed HR&A Advisors to start an independent consulting practice. He remains involved with the MMA team and is an independent advisor working in collaboration with the Jamie Springer and the HR&A team.

James F. Lima has expertise in market-rate and mixed-income housing, and economic development initiatives focused in revitalizing urban centers and waterfronts. Over the past decade, he has successfully aligned the interests of private and public entities to build close to $1 billion worth of mixed-income housing, retail and new public amenities throughout the City of New York.

At HR&A, he serves as development advisor to a diverse client roster that includes the City of Newark, New Jersey, WATERFRONT Toronto, Avalon Bay Communities, Inc., the Syracuse business alliance, and the Massachusetts Development Finance Agency. A strategic planner, consensus builder, and pragmatic problem-solver, Mr. Lima is hailed as an effective and creative leader in public-private real estate development.
Davis Langdon
Cost Consultant

Davis Langdon, an AECOM company, provides a comprehensive and integrated construction consultancy delivered through our cost management, risk consulting, sustainability consulting and research business units. Their multi-disciplinary teams possess a wide ranging understanding of construction, making it possible for us to plan, manage and control all aspects of your projects.

Their integrated knowledge galvanizes decision making, bringing much needed certainty to the development process. Understanding you, your goals, and the challenges you face, we help you develop the knowledge you need, when you need it, to stay in control and move forward with confidence. We help you navigate the complex and ever-changing interaction of quality and quantity, time and cost, so that you can achieve the most, and the best projects, for your capital investment.

As a global organization with over 3,000 staff in 100 offices around the world we bring global resources to address local circumstances. In the United States, they have offices in Boston, Denver, Honolulu, Houston, Los Angeles, New York, Philadelphia, Sacramento, San Francisco, Seattle, and Washington, DC. Their teams bring together creative minds from many disciplines, resulting in a comprehensive integration of knowledge and a unique grasp of the economics of sustainable development.

Davis Langdon has developed a specialty in cultural facilities. We have provided cost consulting services on a diverse range of projects including performing arts centers, museums and libraries. Through this experience, Davis Langdon has gained an in-depth knowledge of the key issues that surround cultural building, and the inclusion of art-in-architecture as a community commitment. In addition, we are able to provide advice on broad issues, and we understand the economics relating to the facility, i.e. funding sources, availability, and expected returns.

Director Martin Gordon and Associate Director Rick Lloyd will lead the Davis Langdon team.

Martin Gordon,
Director

With over 41 years in the building and civil engineering profession, Martin Gordon heads Davis Langdon’s Cultural Initiative, focusing on museums and performing arts venues. Mr. Gordon has a Bachelor’s degree from Hammersmith College and a professional degree from the Royal Institution of Chartered Surveyors. At Davis Langdon, Mr. Gordon plays a key role during the early phases of these projects, bringing more meaningful cost information to the design teams, and helping the owners and institutions understand the total cost of these types of projects, including construction, soft costs, exhibits and endowments. Martin has also been responsible for cost planning and estimating on a wide range of domestic and international projects in the academic, residential, healthcare, public, government and commercial cultural sectors. Projects include the Eisenhower Memorial in Washington, DC; the San Francisco MOMA Expansion in San Francisco, CA; the World Trade Center's Cultural Center in New York, NY; and the The Foundation LUMA in Arles, France. Leveraging his experience and expertise in value engineering, cost planning and analysis, Martin assists clients in determining the most cost effective design solutions for their projects.

Rick Lloyd,
Associate Director

As the Associate Director leading Davis Langdon’s Los Angeles office, Rick Lloyd brings over 26 years’ experience of construction cost planning and estimating services on a very wide range of domestic and international projects. Mr. Lloyd holds a Bachelor’s degree from Thames Polytechnic. He has notable expertise in the education, healthcare and government sectors. He has extensive experience in providing cost estimates at all phases of design and construction, including pre-construction and post construction cost reports, claims reviews and settlements, and project management services. In addition, Rick has conducted and participated in value engineering exercises on many projects. Leading projects such as the Huntington Library, Art Collection, and Botanic Gardens Master Plan Study in San Marino, CA; the New London Embassy Design Competition in London, Walt Disney Concert Hall in Los Angeles, CA; the Marvel Dubailand Gates of Adventure in Dubai, UAE; and Baha Mar Development in New Providence, Bahamas; Mr. Lloyd has shown vast experience and expertise both locally and globally.
“The Pier will be the new symbol of the vibrant and thriving City of St. Petersburg.”

Appendix

City of St. Petersburg Cost Templates:
St. Pete Cost Template Over the Water
St. Pete Pier Cost Template Land Side

Detailed Cost Analysis and
Supporting Documents

Competition Boards
City of St. Petersburg Cost Template - Over Water

Included on the following pages are the completed cost template forms requested by the City of St. Petersburg for the St. Petersburg Pier Competition. Included are the "St. Pete Cost Template Over the Water" and the "St. Pete Pier Cost Template Landside". Supporting cost information is included in the next section of this Appendix entitled “Detailed Cost Strategy”. This information is intended to better frame our full understanding of the Phase 1 budgetary requirements and our strategy for meeting the stated $45 million budgetary goal.

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# City of St. Petersburg
## Cost Template - Over Water

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122  Michael Maltzan Architecture / Tom Leader Studio
The items on this page are beyond the budget and not included in the $45 million budget goal.

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<th>B</th>
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<td>Plumbing, incl. underground</td>
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<td>23</td>
<td>HVAC, incl. underground</td>
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# City of St. Petersburg
## Cost Template - Land Side

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<tr>
<th>COMPONENT VALUES</th>
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<tr>
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<td>COMPONENT</td>
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<td><strong>SITE WORK, including infrastructure</strong></td>
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<tr>
<td>2A Amphitheater</td>
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<td>2B Entry</td>
</tr>
<tr>
<td>2C Civic Loop &amp; Civic Green</td>
</tr>
<tr>
<td>2D Water Park</td>
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<tr>
<td>2E Hub</td>
</tr>
<tr>
<td>2F Energy Flotilla</td>
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<tr>
<td><strong>TOTAL COST LANDSIDE MASTER PLAN</strong></td>
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</table>

*Construction costs also include general conditions, permitting, bonds, insurance, CM fees. Soft costs include A/E fees, testing, surveys, geotech, threshold inspections, FF&E + TI allowance.*
Detailed Cost Analysis

Introduction

Summary cost information for The Lens (Phase 1) and The Extended Loop (Phase 2) has already been introduced in this submission. This Detailed Cost Analysis is intended to provide a deeper explanation of our cost estimating process as well as our recommended strategy for maintaining projects costs in Phase 1 and future phases.

As part of our initial cost estimating process we were compelled to go beyond the basic cost estimate required in the provided evaluation forms, and provide our cost analysis as part of this submission. In Phase 1 we have proposed and estimated a series of elective architectural enhancements for certain aspects of our proposal, which would add to the function and aesthetic form of the proposal, but are not critical to the project’s architectural integrity and functionality. Additionally, we proposed and estimated two elective programmatic elements which would impart increased program and activities to the proposal, while further enhancing the completeness and iconography of the design.

At the conclusion of this concept phase, we are very clearly providing several electives, which are beyond the stated budget, but can enhance the design’s impact. We are providing a topping slab on both the bridge and the pier, however, an alternate wood deck system can be provided instead. We have included an option for programming a Docent Theater. Additional elevators to the balconies are preliminarily priced. We have also allowed for additional square footage for the promontory and the upland areas. We are also proposing solar panels and wind turbines for the Lens Canopy, and the rehabilitation of 55,000 square feet of existing sea grass. Finally, we have conceptualized a Bike Path and an Intertidal Path at the furthest end of the Lens Canopy as additional optional components.

We feel confident that the budgetary target can be met at this time, with a significant architectural gesture that will be a stimulus for future growth in and around the new pier. We feel the electives we have designed for and have provided pricing for, if funding is identified, will only add to the significance and impact of the design.

Our team believes that cost control is integral to, not reactive to, the design process. A confidence in a balance of performance, quality, and budget expectations must be established early in a project. It ensures that cost control continues during design with a constant recalibration of this balance as the project evolves with timely and open communication between the Client and the design team. Cost control is informed by a workflow in which the metrics and attributes of the design are evaluated on a continual basis as part of the normal process of quality control. It gains in accuracy when these metrics and attributes are derived from sophisticated, integrated documentation such as 3D computer models, performance simulations, large-scale physical models, and assembly mock-ups. Finally, cost control is ultimately most effective when directly connected to the reality of the marketplace through the early and sustained involvement of a contractor and select sub-contractors and their input during the design process, when possible and allowed. We propose the above approach to cost control for the St. Petersburg Pier Replacement.

Included on the following pages are the following supporting documents: Detailed Cost Analysis, Phase 1; Detailed Cost Analysis, Phase 2; Project Specific Narrative; Master Phasing Plan Diagram; Phase 1 Specific Plan Diagrams.
## Detailed Cost Analysis
### Phase 1

<table>
<thead>
<tr>
<th>PHASE 1</th>
<th>VALUES</th>
<th>Unit</th>
<th>Unit Cost</th>
<th>Cost</th>
<th>Base Budget</th>
<th>Effective Architectural Enhancements</th>
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**Detailed Cost Analysis**

**Phase 1 - Optional Components**

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Detailed Cost Analysis
Phase 1 Narrative

**PHASE 1: OVER WATER**

**ELEMENT 0 - DEMOLITION & CLEARING**

The existing pier and bridge are to be removed; however, we are proposing that the existing piles are to remain to provide support for Elements I, J, & K.

- **0.01** Removal of existing bridge deck: Demolition of existing bridge structure and removal of generated debris.
- **0.02** Removal of existing pier deck: Demolition of existing pier structure and removal of generated debris.
- **0.03** Leave intact bridge below water piles and remove pile caps.
- **0.04** Leave in place pier piles and pyramid caissons.

**ELEMENT A - ABOVE WATER DRIVE**

The Above Water Drive consists of an 18 foot wide precast concrete deck and pier construction with an optional IPE wood finish decking on wood or steel purlins.

- **A.01** Piles: One pair of piles set 15 feet apart at 30’ on center for the length of the span. The piles will go 75’ to 85’ deep as described in the geotechnical report. The piles will be cast-in-place concrete approximately 5’ in diameter and assuming normal percentage epoxy coated steel reinforcing. Precast concrete in a pier/pier cap system is acceptable. 14,620 LF.

- **A.02** Pile Caps and Grade Beams: Cast-in-place concrete beam spanning the pair of piles. This beam will be approximately 6’x23’x4’ with continuous notches to receive precast deck panel. Assume normal percentage epoxy coated steel reinforcing. 1,248 LF.

- **A.03** Concrete Deck Assembly: 4’ deep precast concrete “T” unit spanning between pile cap bearing beams. Concrete finish will be standard grey precast and will be painted prior to installation with epoxy paint. 24,800 SF.

- **A.04** Concrete Topping Slab: 6” mildly reinforced topping slab crowned in the center for drainage over EPDM rubber weather membrane. Place bolts or imbed plates in concrete for finish deck assembly attachment. Place continuous angle at edge for attachment of rail assembly. Finish of concrete will be machine trowel. IPE decking over structural slab (A.05) is an optional alternative. 24,800 SF.

- **A.05** IPE Deck: 2x6 IPE (or similar performing FSC wood material) on steel or IPE purlins. Planks will be attached with stainless steel screws. Entire assembly will be designed to withstand uplift from Hurricane force winds per code. 23,000 SF. *(Effective Architectural Enhancement)*

- **A.06** Handrails: Custom designed and fabricated steel railing with stainless steel cabling. Vertical members every 6 feet on center. 3,700 LF.

- **A.07** Benches: Precast concrete benches. 500 SF.

- **A.08** Docent Theater: IPE deck on concrete slab. 1,800 SF. *(Effective Architectural Enhancement)*

- **A.09** Lighting: Foot lighting to be incorporated into handrail (A.06) 1,850 SF.
Detailed Cost Analysis
Phase 1 Narrative

PHASE 1: OVER WATER

ELEMENT B – ABOVE WATER BRIDGE

The Above Water Bridge consists of an 8 foot wide continuous precast concrete box girder supported by a cast in place concrete pier structure spaced every 75’. Heights of piers will vary, see design drawings.

B.01 Piles – Below Water: One pair of piles set 12 feet apart for the length of the pile cap. The piles will go 75’ to 85’ deep as described in the geotechnical report. These piles will be cast-in-place concrete approximately 6’ in diameter and assuming normal percentage epoxy coated steel reinforcing. Precast concrete in a pier/pier cap system is acceptable. 2,890 LF.

B.02 Pile Caps: Approximately a 7’x15’x4’ rectangular beam cast on top of piles. Assume normal percentage epoxy coated steel reinforcing. 260 LF.

B.03 Concrete Piers (above water): Cast-in-place concrete in shapes and heights as described on design drawings. These components will be attached to the piling caps below low tide waterline. They will be approximately 8’x4’ in cross section. Assume normal percentage epoxy coated steel reinforcing. Quantity: 17.

B.04 Concrete Slab: Long span, pre-stressed box girder in shape and configuration as shown on images. Underside (visible) concrete finish will be consistent smooth finish achieved with a mold liner or steel formwork. 11,200 SF.

B.05 Ramp 1: Concrete slab with IPE deck. 2,200 SF.

B.06 Ramp 2: Concrete slab with IPE deck. 2,750 SF.

B.07 Stair 1: Precast concrete stairs. 8’ wide, 32 risers with 17” wide treads.

B.08 Stair 2: Precast concrete stair with IPE deck. 8’ wide, 30 risers with 37” wide treads.

B.09 IPE Deck: 2x6 IPE (or similar performing FSC wood material) on steel or IPE purlins. Planks will be attached with stainless steel screws. Entire assembly will be designed to withstand uplift from Hurricane force winds per code. 12,500 SF. (Elective Architectural Enhancement)

B.10 Handrails: Custom designed and fabricated steel railing with stainless steel cabling. Vertical members every 6 feet on center. 3,700 LF.

B.11 Lighting: Foot lighting to be incorporated into lower section of handrail (B.10). 1,850 LF.

B.12 Benches: Precast concrete benches. 200 SF.
PHASE 1: OVER WATER

ELEMENT C – PIER PROMONTORY

The Pier Promontory consists of an aggregation of artificial concrete “rocks” placed on the existing piles of the pier.

C.01 Precast Concrete Rocks: Site cast 8” thick architectural concrete panels no more than the equivalent of 80 square feet each in 5 irregular form shapes. These panels will be reinforced with a grid of normal percentage epoxy coated steel rods. Faces and edges will be finished using smooth form liners. These elements will be attached and span across the tops of the existing pilings that will be reused after demolition. Attachment will be by mechanical connection using epoxy coated steel attachments. Epoxy grouting of voids in the existing pier caps may be required but will be addressed on a case by case basis. 6,000 SF. (Increased SF: Elective Architectural Enhancement)

C.02 Benches: Precast concrete benches. 275 SF. (Increased SF: Elective Architectural Enhancement)

C.03 Reflecting Pools: 1,200 SF. (Elective Architectural Enhancement)

C.04 Precast concrete stepping stones: 100 SF. (Elective Architectural Enhancement)

C.05 Precast program concrete shell: 285 SF.

ELEMENT D – ELEVATOR TOWERS

Elevator Towers to transport visitors to the upper Lens Canopy Balconies (Element E).

D.01 Piles: 4 piles set 15 feet center to center to provide a base for the tower platform. The piles will go 75’ to 85’ deep as described in the geotechnical report. These piles will be cast in place concrete approximately 6’ in diameter and assuming normal percentage epoxy coated steel reinforcing. Precast concrete in a pier/pier cap system is acceptable. 340 LF. (Increased SF: Elective Architectural Enhancement)

D.02 Pile Cap/Slab: Provide 18’x18’x1’ thick structural slab. This component will be attached to the piling caps below level of the precast rocks (C.01 above). Assume normal percentage epoxy coated steel reinforcing. 18 LF. (Increased SF: Elective Architectural Enhancement)

D.03 Tower Structure: Steel tube frame superstructure attached to pile cap/slub and cross braced as required to provide Hurricane wind load resistance. Towers will be clad in white, powder-coated metal panels in the configuration shown on the design drawings. Quantity: 1. (Additional Towers: Elective Architectural Enhancement)


D.05 Steel Access Stair. Approximately 153 risers made of epoxy coated steel.
Detailed Cost Analysis
Phase 1 Narrative

**PHASE 1: OVER WATER**

**ELEMENT E – BALCONIES**

Precast concrete Balconies supported by the Lens Canopy (Element F).

E.01 Precast Concrete Balconies: Site cast 8” thick architectural concrete panels no more than the equivalent of 80 square feet each in dimensions as shown on the drawings. These panels will be reinforced with a grid of epoxy coated steel rods and structurally anchored back to the adjacent concrete columns and beams to provide some of the lateral bracing required by these columns. Faces and edges will be finished using smooth form liners. Quantity: 3.

E.02 Handrails: Custom designed and fabricated steel railing with stainless steel cabling. Vertical members every 6 feet on center. 90 LF.

E.03 Lighting Allowance. 90 LF.

**ELEMENT F – LENS CANOPY**

The Lens Canopy consists of a precast concrete structure supported on a series of slender concrete columns, grouped to reduce the number of required piles. Solar panels and wind turbines can be embedded into the canopy surface; otherwise, a pattern of openings add to the lightness of the canopy.

F.01 Piles: One pile per 4-5 columns in pattern as shown on the design drawings. The piles will go 75’ to 85’ deep as described in the geotechnical report. The piles will be cast-in-place concrete approximately 8’ square and assuming normal percentage epoxy coated steel reinforcing. Precast concrete in a pier/pier cap system is acceptable. Quantity: 12. 1,020 SF.

F.02 Pile Caps: Cast-in-place concrete cap integral to the pile top. This element will be approximately 12’x12’x4’ rectangular beam pad cast on top of piles. Assume higher performance steel and higher percentage epoxy coated steel reinforcing. Quantity: 6. 72 LF.

F.03 Columns: 4’ diameter concrete columns 30-65’ tall, 30 feet on center at canopy above converging on the pile cap below waterline. These columns can be cast in place or precast and will have a fair face architectural finish. Anchorage to canopy above will be through welded connection to resist uplift. Quantity: 30. 1,350 LF.

F.05 Precast Concrete Canopy: 10’x30’x8” thick integrally ribbed architectural precast panel cast in a trapezoidal shape to create the curved surface as shown. These panels will bear on a latitudinal placed notched precast concrete beam following the row of columns below. The panels will be inset on the beam to create an even bottom surface. The concrete will be smooth finish from a metal form or form liner. 24,000 SF.

F.06 Solar Panels: Thin film solar panels bonded to a single membrane roof assembly applied over the precast concrete surface. Uni-Solar thin film flexible photovoltaic modules or equal. 540 SF. *(Elective Architectural Enhancement)*

F.07 Wind Turbines. Quantity: 72. *(Elective Architectural Enhancement)*
PHASE 1: OVER WATER

ELEMENT G – UNDERWATER REEF

The Underwater Reef consists of a series of planters and habitats suspended from the existing pier piles.

G.01 Planting Beds: 28,820 SF.
G.02 Oyster Beds: 30,000 SF.
G.03 Sea Grass Reef: 18,000 SF.
G.04 Artificial Reef: 5000 SF
G.05 Rehabilitation of Existing Benthic Sea Grass Population: 55,000 SF. (Elective Architectural Enhancement)

ELEMENT H – UPLAND PROGRAM SHELL SPACES

The Upland Program Shell Spaces consist of a series of small buildings built on slabs, close to the end of the Above Water Drive (Element A).

H.01 Buildings: Shell and Core. 6,250 SF.
Architectural: Small structures on grade slab. Provide hook-ups for plumbing and electrical. (Increased SF: Elective Architectural Enhancement)

ELEMENT I – MARINA / DOCK

The Marina / Dock consists of a floating steel-framed IPE deck.

I.01 Dock: Steel or aluminum frame assembly (possibly modified prefab dock framing components), in configuration as shown on the design drawings. Walking surface will be 2x6 IPE (or similar performing FSC wood material) on steel frame or IPE purlins. Planks will be attached with stainless steel screws. Entire assembly will be designed to withstand uplift from Hurricane force winds per code.

Entire dock assembly will be attached to encapsulated floatation drums. Drums will be constructed of a polyethylene shell filled with expanded polystyrene for flotation. The dock will be anchored to a series of small piles approximately 12” in diameter made of fiberglass pipe filled with concrete. These piles will be placed approximately 20 feet on center around the perimeter of the dock. 10,500 SF.

I.02 IPE Deck: 10,500 SF.

I.03 Stair 01: 2x6 IPE (or similar performing FSC wood material) on steel frame or IPE purlins. Planks will be attached with stainless steel screws. Entire assembly will be designed to withstand uplift from Hurricane force winds per code. 5’ wide, 63 risers with 11” wide treads.

I.04 Stair 02: 2x6 IPE (or similar performing FSC wood material) on steel frame or IPE purlins. Planks will be attached with stainless steel screws. Entire assembly will be designed to withstand uplift from Hurricane force winds per code. 6’ wide, 11 risers with 4’ wide treads.

I.05 Ramp 01: 2x6 IPE (or similar performing FSC wood material) on steel frame or IPE purlins. Planks will be attached with stainless steel screws. Entire assembly will be designed to withstand uplift from Hurricane force winds per code. 892 SF.
Detailed Cost Analysis
Phase 1 Narrative

PHASE 1: OVER WATER

I.06 Buildings: Shell and Core. 900 SF.
Architectural: The dock shell spaces consist of a series of small concessions spaces on the dock, clad in a similar manner to the dock. Provide hook-ups for plumbing and electrical.

ELEMENT J – BIKE PATH (ADDITIONAL OPTIONAL COMPONENT)

The Bike Path consists of a prefabricated wood deck supported by the Lens Canopy (Element F).

J.01 Bike Path Deck: 2x6 IPE (or similar performing FSC wood material) on steel or IPE purlins. Planks will be attached with stainless steel screws. Entire assembly will be designed to withstand uplift from Hurricane force winds per code. 3,800 SF.

J.02 Handrails: Custom designed and fabricated steel railing with stainless steel cabling. Vertical members every 6 feet on center. 1,400 SF.

J.03 Lighting Allowance. 1,400 LF.

ELEMENT K – INTERTIDAL PATH (ADDITIONAL OPTIONAL COMPONENT)

The Intertidal Path consists of a perforated metal walkway supported on an encapsulated flotation system anchored to the existing piles as required.

K.01 Perforated Metal Walkway: Walking surface will be 1” deep aluminum grating set into an aluminum perimeter frame with an aluminum rail (see K.02). Entire dock assembly will be attached to encapsulated flotation drums. Drums will be constructed of an epoxy coated cylindrical steel lozenge shape shell filled with expanded polystyrene for flotation. Anchorage to existing piles shall be through a tension cable assembly attached to the aluminum frame and a collar at the existing piles. Quantity 3500 SF.

K.02 Handrails: Aluminum railing (uprights and handrail) with stainless steel cabling. Vertical members every 6 feet on center. 1,240 LF.

K.03 Lighting: Underwater lighting suspended beneath perforated metal walkway (K.01). 650 LF.

THE END
Cost Analysis
Components Diagram
## Detailed Cost Analysis
### Phase 2

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# Detailed Cost Analysis

## Phase 2

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### PHASE 2C CIVIC LOOP & CIVIC GREEN

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<td>A Civic Green</td>
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<tr>
<td>C Floating Walkways</td>
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<td>C.01 Concrete Structures</td>
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# Detailed Cost Analysis

## Phase 2

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<td>A.03 Bathroom Building</td>
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<td>A.04 Paths - on grade</td>
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<td>A.05 Paths - floating</td>
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<td>A.06 Lighting Allowance</td>
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<td>A.07 Precast concrete benches</td>
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<tr>
<td>B Vinoy Bridge</td>
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<tr>
<td>B.01 Bridge + Decking</td>
<td>3,000 SF</td>
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<td>B.02 Lighting Allowance</td>
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<td>C Energy Grove</td>
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<td>C.01 Concrete Slab</td>
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<td>C.02 Wind Turbines</td>
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### Phase 2E Hub

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<td>A Hub Arrival Plaza</td>
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<td>B.03 Beach steps - concrete</td>
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<td>C.01 Buildings - Shell + Core</td>
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### Phase 2F Energy Flotilla

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<td>B.01 Concrete bathtub, supported on piles</td>
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<td>B.02 Wind Turbines</td>
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Detailed Cost Analysis
Phase 2 Narrative

PHASE 2A: AMPHITHEATER

ELEMENT 0 - DEMOLITION & CLEARING

0.01 Demolition and removal of existing on-grade parking and support structures.

ELEMENT A - AMPHITHEATER

The Amphitheater consists of 4 tiers of flexible seating with a stage, restaurants, community event space, and parking.

A.01 Building: 65,000 SF. Architectural: Fair face, concrete finish.
A.02 Stage: 6000 SF. Architectural: Fair face, concrete stage on grade.
A.03 Seating: 24,000 SF. Architectural: Fair face, tiered, white concrete seating. No fixed seating.
A.04 Amphitheater Restaurant Space: 15,000 SF. Architectural: Provide hook-ups for plumbing and electrical.
A.05 Amphitheater Transient Boat Slips: 10,500 SF. Architectural: Precast concrete slips with mooring for boats.
A.06 Handrails and Balconies to match Phase 1.
A.07 Lighting Allowance: 60,000 SF.

ELEMENT B - AMPHITHEATER PARKING

Parking beneath the Amphitheater.

B.01 Parking Structure: 90,000 SF. Architectural: Precast concrete parking structure.
B.02 Lighting Allowance: 90,000 SF.

ELEMENT C - LAGOON

The Lagoon consists of a newly excavated marina, jetty and dock, in addition to the Marina / Dock (Phase 1).

C.01 Over-Water Elements: 9,300 SF.
C.02 On-Grade Elements: 8,600 SF.
C.03 Lighting Allowance: 550 LF.

THE END
**PHASE 2B: WELCOME MAT**

**ELEMENT 0 - DEMOLITION & CLEARING**
0.01 Demolition and removal of existing on-grade parking and support structures.

**ELEMENT A - ENTRY PLAZA**
The Entry Plaza consists of an open, slightly graded paved plaza forming the connection between the city and the upland portion of the project.
A.01 Painting, Landscaping, Drainage: 90,000 SF.
A.02 Lighting Allowance: 900 LF.
A.03 Precast Concrete Benches: 300 LF.

**ELEMENT B - SERVICE DRIVE**
Reconditioning of existing service road and addition of a roundabout to provide access to parking (Phase 2A, Element B) and upland programming.
B.01 Paving, Curbs, Signage, Drainage: 65,754 SF.
B.02 Lighting Allowance: 1,400 LF.

**ELEMENT C - SERVICE DRIVE LANDSCAPING**
Landscaping around the service drive and roundabout.
C.01 Landscape, Drainage: 4,000 SF.
C.02 Round About Water Feature: 4,000 SF.
Architectural: Precast white water feature.
C.03 Access Drive Retaining Wall: 3,800 LF.
Architectural: Poured in place concrete retaining wall.

**THE END**
Detailed Cost Analysis
Phase 2 Narrative

PHASE 2C: CIVIC LOOP & CIVIC GREEN

ELEMENT 0 - DEMOLITION & CLEARING

0.01 Demolition and removal of existing on-grade parking and support structures.

ELEMENT A - CIVIC GREEN
Expansive landscaped green space for large public gatherings.

A.01 Civic Green: 280,000 SF.
A.01.1 Landscape Park on Grade: Lawn, groundcover, and some trees. 190,000 SF.
A.01.2 Landscape Park on Structure: Lawn, groundcover, and some trees. 15,000 SF.
A.01.3 Landscape Forest on Grade: Dense forest w/ rich understory and groundcover. 70,000 SF.
A.01.4 Landscape Intertidal Fringe: Intertidal groundcover w/ mid-level trees. 30,000 SF.
A.01.5 Landscape Water Feature: White concrete infinity pool. 5,000 SF.

A.02 Paths on Grade: 45,000 SF.
Architectural: Concrete slab on grade.
A.02.1 Paving: 45,000 SF.
A.02.2 Lighting Allowance and Electrical Infrastructure: 4,200 SF.
A.02.3 Precast Concrete Benches: 300 LF.

A.03 Floating Walkways: 3,000 SF.
Architectural: Precast white concrete slab on submerged piles with IPE or comparable decking.

THE END
PHASE 2D: WATER PARK

ELEMENT 0 - DEMOLITION & CLEARING

0.01 Demolition and removal of existing structures.

ELEMENT A – WATER PARK

Expansive, landscaped green space for various water-based family play activities.

A.01 Painting, Landscaping, Drainage: 170,000 SF.
A.02 Extra for Water Features: 46,500 SF.
A.03 Bathroom: 2,000 SF.
A.04 Paths on Grade: 40,000 SF.
Architectural: Concrete slab on grade.
A.05 Floating Paths: 8,000 SF.
Architectural: IPE or comparable wooden dock with steel framed floating dock.
A.06 Lighting Allowance: 2600 LF.
A.07 Precast Concrete Benches: 300 LF.

ELEMENT B – VINOY BRIDGE

Drawbridge connecting the Water Park (Element A) to Vinoy Park.

B.01 Bridge: 3,000 SF.
Architectural: Steel drawbridge + IPE Decking.

ELEMENT C – ENERGY GROVE

Slab on grade with wind turbines for generating electricity.

C.01 Energy Grove Slab: 5,000 SF.
C.02 Energy Grove Turbines: 35 Turbines.

THE END
Detailed Cost Analysis
Phase 2 Narrative

PHASE 2E: HUB

ELEMENT A – HUB

The Hub consists of a series of small adaptable pavilions covered by shade canopies.

A.01 Program Slabs: 20,000 SF.
Architectural: Concrete slab on grade.

A.02 Buildings: Shell and Core: 10,000 SF.
Architectural: Small structures on grade slab. Provide hook-ups for plumbing and electrical.

A.03 Shade Structures: 17,000 SF

A.04 Lighting Allowance: 20,000 SF.

ELEMENT B – HUB LANDSCAPING

Landscaping in and around the Hub area.

B.01 Landscaping: 71,800 SF.

B.01.1 Landscape Streetscape on Grade: Trees in ornamental paving. 56,800 SF
B.01.2 Landscape Park on Grade: Trees and groundcover. 15,000 SF

B.02 Paths on Grade: 29,000 SF.
Architectural: Concrete slab on grade.

B.03 Beach Steps: 22,900 SF.
Architectural: Precast concrete steps.

B.05 Beach Cleaning: 6,800 SF.

B.07 Precast Concrete Benches: 300 SF.

B.06 Lighting Allowance: 2,800 LF.

ELEMENT C – BROADCAST STUDIO / COMMUNITY EVENT SPACE

Small broadcast studio.

C.01 Building: Shell and Core. 5000 SF.
Architectural: Round in form with full height glazing to all for views in and out of studio with hook-ups for data, plumbing and electrical.

THE END
PHASE 2F: ENERGY FLOTILLA

ELEMENT A – ENERGY FLOTILLA

The flotilla consists of a series of artificial islands optimized to perform a specific ecological function.

A.01 Islands: 15,000 SF.
Architectural: Precast concrete bathtub.

ELEMENT B – ENERGY ISLAND

The largest island in the flotilla, optimized to harvest tidal and wind power.

B.01 Energy Island: 20,000 SF.
Architectural: Precast concrete bathtub.

B.02 Energy Island Wind Turbines: 30 Turbines.

THE END
The Lens: ST. PETERSBURG PIER
Board 2

THE LENS: A NEW PIER

Like a magnifying glass in the sunlight, the Lens will gather both light and water to create a new public space. The new Pier will create a cultural hub that will be a focus for the city, a beacon for visitors, and a symbol of St. Petersburg’s commitment to the future.

A PLACE FOR MEMORY & RENEWAL

Pier 10’s beginning as the World Trade Center site is a reminder of the importance of our history. The Lens will serve as a reminder of the past, but also as a symbol of renewal and hope. The Pier will be a place where people can come together to reflect on our past and look forward to the future.

A LIVING ROOM FOR THE CITY

Recognizing the history and importance of the existing Pier 10, the Lens will be designed to fit seamlessly into the landscape. The new Pier will provide a gathering place for the community, a place where people can come together to celebrate, socialize, and enjoy the water.

Michael Maltzan Architecture / Tom Leader Studio
St. Petersburg Pier
Board 5

The Hub

At the threshold where water and land meet is a hallmark of the program areas including the existing park surrounding the pier, public art gardens, and pedestrian access to the pier. The area surrounding the pier is designed to enhance the public's experience and create a sense of place.

Each area is woven into the network of pedestrian paths and bridges. This figure is the result of a collaborative design process involving multiple disciplines and stakeholders to create a comprehensive plan.

Michael Maltzan Architecture / Tom Leader Studio

St. Petersburg Pier
Board 6

**ENERGY, WATER, ECOLOGY, FITNESS, RESILIENCE**

Our approach is flexible for new strategies with no exclusive path. We have multiple environmental strategies, some of which support the site and the climate, and others which are more passive in nature. We are exploring the potential for each strategy to work in a context that is more resilient to climate change.

**HOLD:**

The most significant renewable resource available on the site is the energy within the concrete of the existing pier. Our research into the potential for energy storage and generation in concrete is ongoing.

**ENERGY ISLANDS:**

One of the main aspects of the project is the relationship between energy and water. The islands are designed to be self-sufficient, with energy generated from renewable sources such as solar and wind. The islands are designed to be self-sufficient, with energy generated from renewable sources such as solar and wind. The islands are designed to be self-sufficient, with energy generated from renewable sources such as solar and wind.

**WATER:**

Solar power can be incorporated into the existing pier, providing a sustainable energy source for the surrounding areas. The islands are designed to be self-sufficient, with energy generated from renewable sources such as solar and wind. The islands are designed to be self-sufficient, with energy generated from renewable sources such as solar and wind.

In terms of water, we have focused on the potential for the site to provide a sustainable water supply for the surrounding areas. The islands are designed to be self-sufficient, with energy generated from renewable sources such as solar and wind. The islands are designed to be self-sufficient, with energy generated from renewable sources such as solar and wind.

On the islands, water bodies are integrated with the natural environment, providing a sustainable water supply for the surrounding areas. The islands are designed to be self-sufficient, with energy generated from renewable sources such as solar and wind. The islands are designed to be self-sufficient, with energy generated from renewable sources such as solar and wind.

Every day of water flows into the system, providing a sustainable water supply for the surrounding areas. The islands are designed to be self-sufficient, with energy generated from renewable sources such as solar and wind. The islands are designed to be self-sufficient, with energy generated from renewable sources such as solar and wind.
**Board 8**

**Connecting St. Petersburg**

One of the great opportunities on the St. Petersburg waterfront is the potential for an expanded Pier in a new Pier District. The Pier serves as the urban, cultural, and traditional gateway for the city. It acts as a connector to the Bay, the Bayshore District, and the downtown skyline. It also acts as a primary pedestrian and vehicular route to and from the Pier District. A Pier that is clearly defined, designed, and recognizable is essential for the Pier District's development as an urban waterfront.

These experiences can create a strong sense of identity for St. Petersburg and can serve as a gateway into the city's cultural and economic life. The Pier should be designed to enhance the existing waterfront character and to provide a vibrant public space that reflects the city's identity.

---

*Michael Maltzan Architecture / Tom Leader Studio*

*St. Petersburg Pier 153*
Michael Maltzan Architecture
Tom Leader Studio
Wannemacher Jensen Architects
Buro Happold Consulting Engineers
Sherwood Design Engineers
Mote Marine Laboratory
Applied Technology & Management
HR&A Advisors
Davis Langdon