MIGUEL ROSALES

LEAD BRIDGE ARCHITECT PORTFOLIO

ROSALES+

BRIDGES AS STRUCTURAL ART

Miguel Rosales

PRESIDENT ROSALES + PARTNERS

35 years of experience
Specialized in bridge design and architecture

Miguel Rosales is the president and principal designer of Rosales + Partners. He has 35 years of experience as a leading bridge architect and designer for major bridge and infrastructure projects in the U.S. and abroad.

Mr. Rosales has received grants from the NEA, AIA/AAF, and MIT to research bridge and infrastructure design and is the recipient of several bridge individual design awards.

He is noted for his practical ability to balance technical and aesthetic principles, conceiving cost-effective architectural bridge enhancements, and delivering iconic bridges that have become symbols of identity and community pride.

He is skilled at working with community participation groups to resolve controversies that often accompany mayor transportation bridge projects. He has a unique combination of architectural sensitivity, engineering understanding and communication skills that assist clients with achieving strong community support.

Miguel Rosales is specialized in bridge design and aesthetics and has collaborated with multiple transportation agencies and departments of transportation across the US over the last 35 years. He has also collaborated with numerous city and county government agencies. He is a creative designer and good listener that takes into consideration the goals and objectives of each of his clients with respect to aesthetics and bridge architecture always balancing aesthetics with structural, constructibility and cost considerations. His ultimate goal is to try to achieve attractive bridges within a reasonable construction costs that the client is able to afford. His bridges have won multiple awards including both engineering and architectural achievement recognitions nationally and internationally.

SUMMARY OF EXPERIENCE

- Rosales + Partners, Boston, MA Principal, 1997 to Present
- Wallace, Floyd, Associates, Inc., Boston MA Senior Architect / Urban Designer, 1988- 1995
- Stull & Lee Inc., Boston, MA Architect / Urban Designer, 1987-1988
- Beacon Companies, Boston, MA Urban Design Consultant, 1987

EDUCATION

- Massachusetts Institute of Technology, 1987. Master of Science in Architecture Studies
- Universidad Francisco Marroquín, 1985 Diploma in Architecture
- University of Florida, 1984 Program in Historic Preservation

REGISTRATIONS

- Professional architect in Florida, Illinois, Iowa, Kentucky, Maine, Maryland, Massachusetts, Minnesota, New York, Ohio, Texas, Washington, West Virginia

VISITING CRITIC AND LECTURER

- Universidad Francisco Marroquín Guatemala City, Guatemala
- Swiss Federal Institute of Technology Zurich, Switzerland
- Massachusetts Institute of Technology Cambridge, MA

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Zakim Bridge

BOSTON, MA

Construction Delivery Method: Design Build Bid
Year of Project Completion: 2003

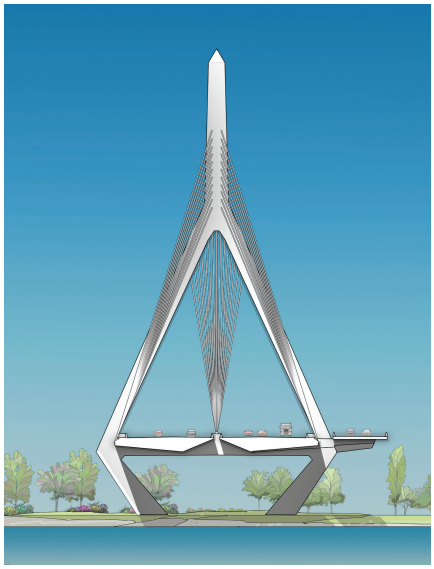
Type: **Cable-Stayed**

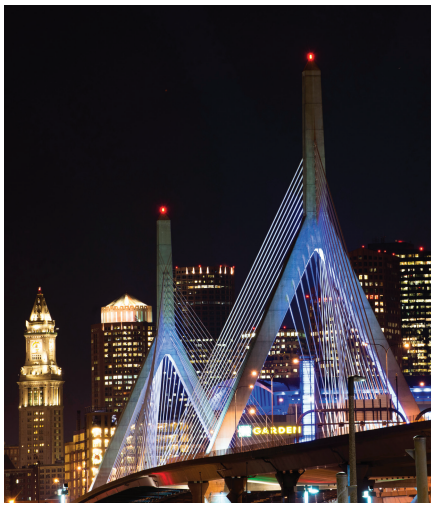
Services: **Conceptual Design**

Cost: **$115 Million**

A part of the Central Artery/Tunnel Project, the Leonard P. Zakim Bunker Hill Bridge is one of the widest cable-stayed bridge in the world and the only asymmetrical cable-stayed bridge in the U.S. The bridge carries ten lanes of traffic: eight interstate lanes passing through the towers and two local traffic lanes cantilevered of the east side, outside the towers. The towers recall the shape of the historic Bunker Hill Monument in neighboring Charlestown, while the bridge's overall form echoes the shape of the sailboats that navigate the inner Charles River Basin and Boston Harbor. The bridge is a striking addition to the Boston skyline and a new symbol of the city.

* Contributions by Miguel Rosales as part of a consultant team, prior to the formation of Rosales + Partners





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Bridge Details and Aesthetic Enhancements

- Concrete towers with faceted surfaces that help the bridge appear slender from a distance due to the light/shadow effect created by the tower cross section.
- Bridge deck openings in the median and in the space between the eight-lane main roadway and the two-lane cantilevered ramp help bring sunlight to the water, mitigating shadow impacts for fish migration into the Charles River from Boston Harbor.
- Cable anchors were designed to clearly show how the cables attach to the deck, emphasizing their cylindrical shape and function.
- Shape of the upper portion of the towers inspired by the adjacent Bunker Hill Monument.

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Puente Centenario

PANAMÁ CITY, PANAMÁ

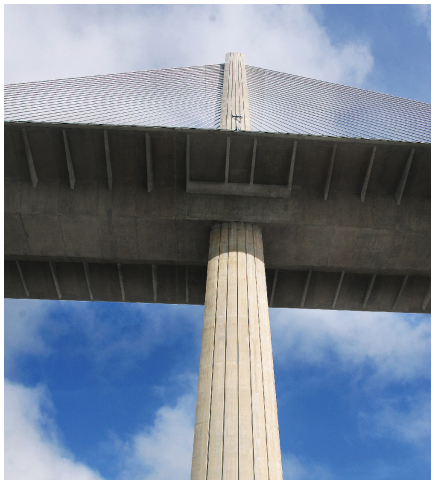
Construction Delivery Method: Design Build
Year of Project Completion: 2004

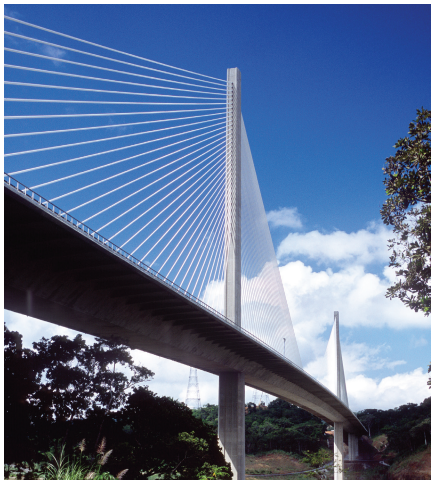
Type: **Cable-Stayed**

Services: **Conceptual and Preliminar Design, Type Study Selection, Preliminary**

Cost: **$120 Million**

Puente Centenario is a slender cable-stayed bridge carrying six lanes of traffic across the Panama Canal. The bridge has one of the longest spans of its kind in Central and South America. A vertical navigational clearance allows large vessels to pass below and accommodates a future canal expansion. The towers support a single plane of cables anchored along the median. The bridge is visible from great distances and contrasts dramatically with the lush rainforest setting. Aesthetic lighting illuminates the towers at night, thus making the bridge the sole focal point in an otherwise naturally dark setting. Designed throughout to appear modern, streamlined and elegant, the Puente Centenario is a fitting landmark for Panama and its people.





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Bridge Details and Aesthetic Enhancements

- Tapered, slender concrete towers with vertical rustications to improve proportions.
- Concrete box system with wide cantilevers that create shadow lines along the bridge facade, making the structure appear slender from a distance.
- Consistent materials, texture, and color for the entire bridge, including the superstructure and towers.
- Aesthetic lighting to enhance the crossing of the canal.

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Fore River Bridge Replacement

QUINCY, MA

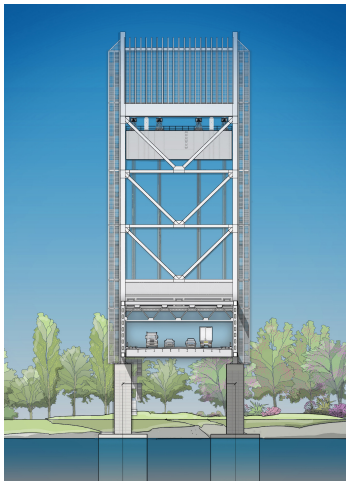
Construction Delivery Method: Design Build
Year of Project Completion: 2019

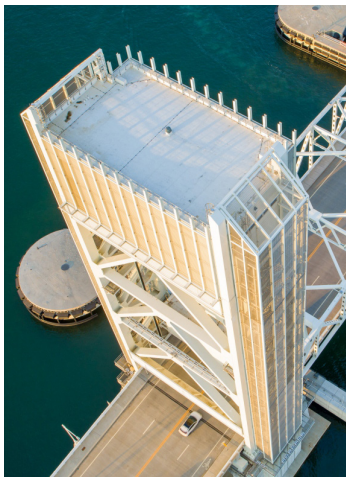
Type: **Vertical Lift Truss**

Services: **Conceptual Design, Type Study Selection, Preliminary Design, Community Participation and Architectural Visualizations**

Cost: **$300 Million**

The new Fore River Bridge connects the cities of Weymouth and Quincy, Massachusetts. The vertical lift movable bridge has tall towers visible from the distance marking the river crossing. The bridge includes sidewalks and bike lanes to improve multi-modal connectivity in the area. The new bridge integrates into the urban context of the area and its architecture is inspired by the art deco detailing of the 1936 bridge that was demolished in 2004 at the same location. Special detailing has been provided to enclose all utilities, stairs and elevators along the entire height of the two elegant towers. Stainless steel high strength mesh provides a surface that is attractive during the day and night. The bridge is illuminated with blue LED lighting that enhances the gateway experience across the Fore River and the South Shore.





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Bridge Details and Aesthetic Enhancements

- Use of stainless steel semitransparent mesh enclosure for towers and control center helps to conceal utilities, stairs, and vertical mechanical circulation to enhance tower facades.
- Well proportioned approach piers with Art Deco architectural detailing.
- Contemporary art deco–inspired detailing and articulation of safety railings, roadway light poles, concrete piers, and steel towers.
- Architecturally integrated controlled center room within main tower.
- Light-gray structural system that complements the marine environment and use of a vibrant orange to identify movable counterweight components.
- Aesthetic blue lighting enhances the bridge at night.

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Clearwater Memorial Causeway Bridge

CLEARWATER, FL

Construction Delivery Method: Design Bid Build
Year of Project Completion: 2005

Type: **Concrete Box Girder**

Services: **Conceptual and Preliminary Design**

Cost: **$48.5 Million**

The elegant concrete bridge over Clearwater Bay connects two waterfront neighborhoods and the beach to the main land. The bridge consists of concrete tapered box girders and carries two lanes of traffic in each direction with a sidewalk on each side connecting downtown Clearwater with Clearwater Beach. Its tapered architecturally enhanced piers add to the scenic overlooks. The uncluttered clean appearance and aesthetic lighting enhance the views of the bay. The adjacent areas to the bridge have experienced new development partially due to the attractive appearance of the crossing.

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George Washington Carver Bridge

DES MOINES, IA

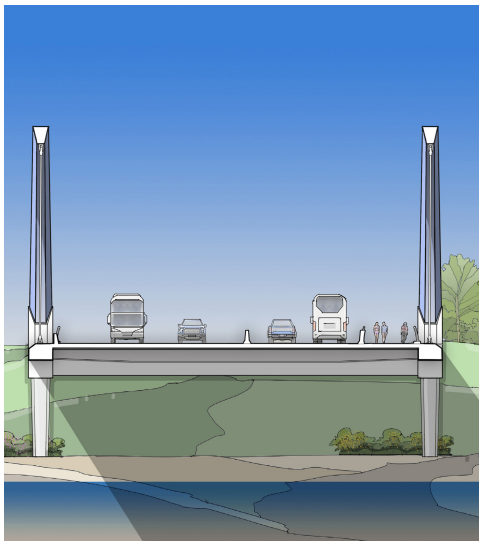
Construction Delivery Method: Design Bid Build
Year of Project Completion: 2005

Type: **Tied Single Arches**

Services: **Conceptual, Preliminary, and Final Design, Community Participation**

Cost: **$22 Million**

The George Washington Carver Bridge is located in Des Moines, Iowa over the Raccoon River. As part of the Martin Luther King, Jr. Parkway, the bridge provides three roadway lanes in one direction and two roadway lanes and one bike/pedestrian walkway framed by two arches. The roadway is suspended by cables from two elegant steel arches. The main supporting structures and free standing arches are visible at the roadway level. This makes the bridge transparent and preserves views of the riverbanks and the cityscape, creating a unique driving experience in the city. The blue arches complement the site's abundant greenery and clearly mark the river crossing, creating a welcoming gateway to the city from the airport. The arches appear to float over the water framing the views of the skyline and Iowa's tallest skyscraper. The George Washington Carver Bridge has become a new Des Moines icon.



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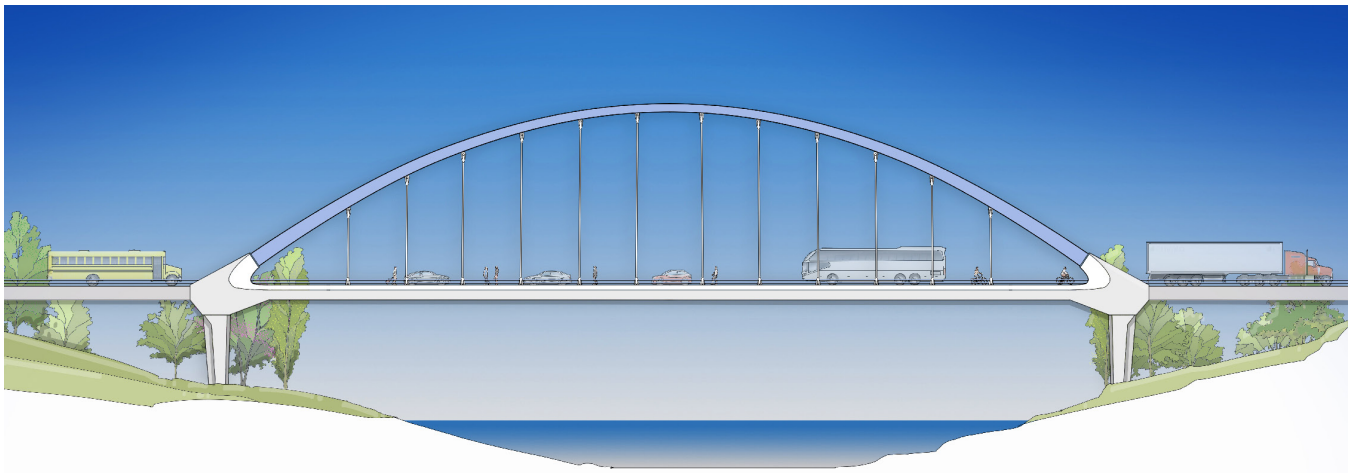
Bridge Details and Aesthetic Enhancements

- Distinct blue color visible from long distances to mark the bridge crossing over the river and proximity of downtown from the airport.
- Aesthetic lighting enhances the bridge at night.
- Pedestrian railings integrated into the overall arch form.
- Elimination of bracing between arch ribs for visual clarity, structural simplicity, and to frame city views.



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Trinity River Vision Bridges

FORT WORTH, TX

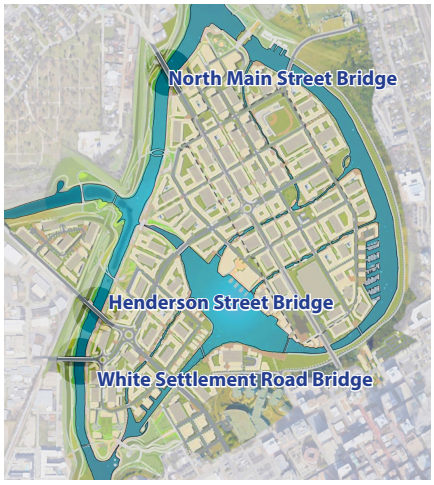
Construction Delivery Method: Design Bid Build
Year of Project Completion: 2021

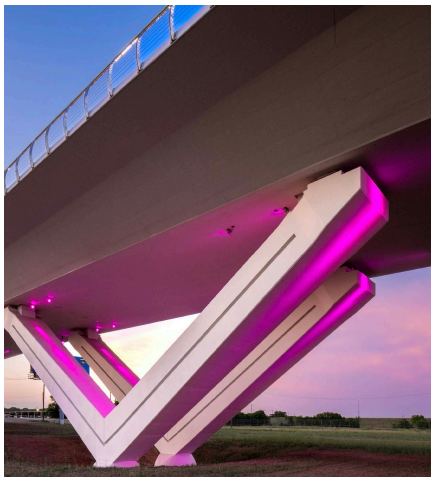
Type: **Concrete Box with V-Shaped Piers**

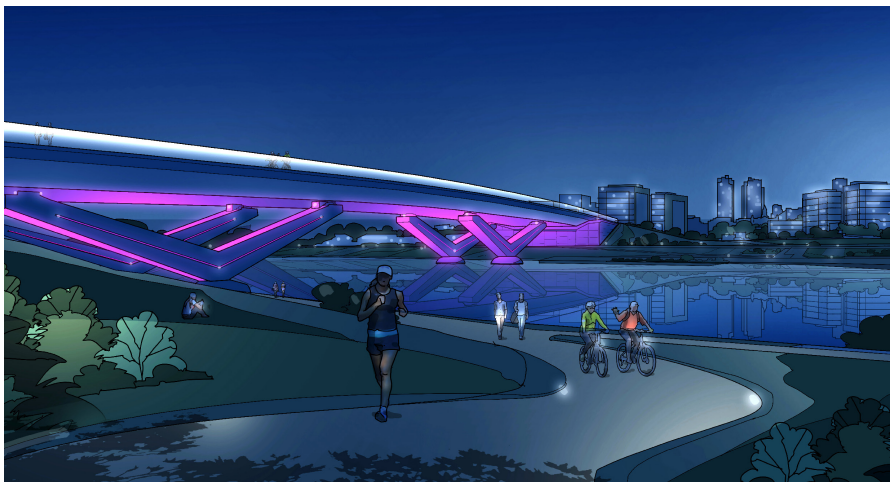
Services: **Conceptual, preliminary and final design. Construction supervision**

Cost: **$90 Million**

Three new Trinity River Vision Bridges will cross over a future bypass channel in downtown Fort Worth. These bridges including the White Settlement Road, Henderson Street and North Main Street provide a pedestrian-friendly experience and complement the iconic architectural elements of the City's Cultural District. The designs are clean and modern yet suggestive of the arches of the existing Lancaster Avenue and Main Street bridges. The v-shaped pier design is slender, streamline, and touches the landscape gently. The bridge superstructure consists of trapezoidal concrete boxes with clean lines. These structures enhance the sense of connection between Trinity Uptown and Fort Worth's most cherished cultural hubs and improve the image of the mostly industrial area adjacent to the new channel. The bridges are illuminated at night for enhanced pedestrian use at deck and below deck levels.







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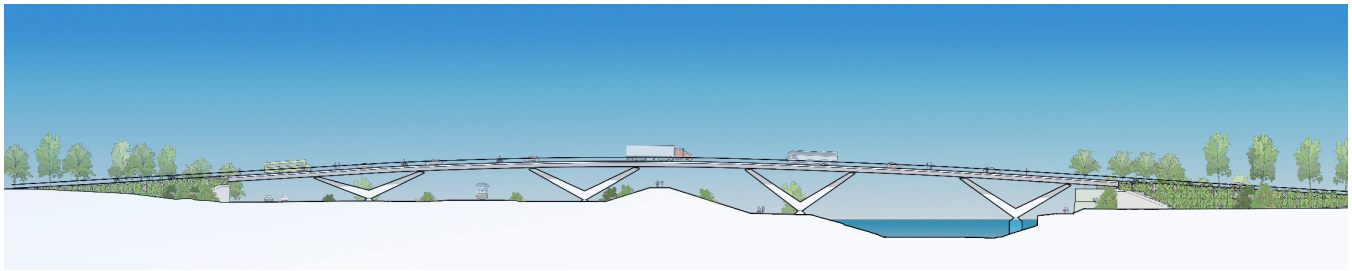
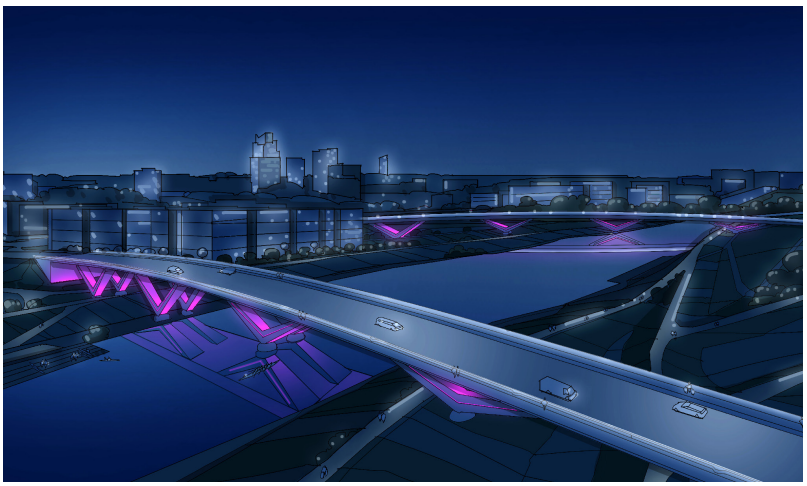
Bridge Details and Aesthetic Enhancements

- Well-proportioned, slender V-shaped piers that resemble open arms.
- Arched pedestrian railings with razor-thin cables for unobstructed views and overall transparency.
- Elegantly and carefully detailed bridge abutments with diagonal rustications.
- Light-colored structural elements highlight the bridge along the new riverfront.
- Bridge underside is uncluttered with stream line appearance.
- Use of illuminated wide sidewalks and bike lanes for improved connectivity.





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I-74 Mississippi River Crossing

QUAD CITIES, IA AND IL

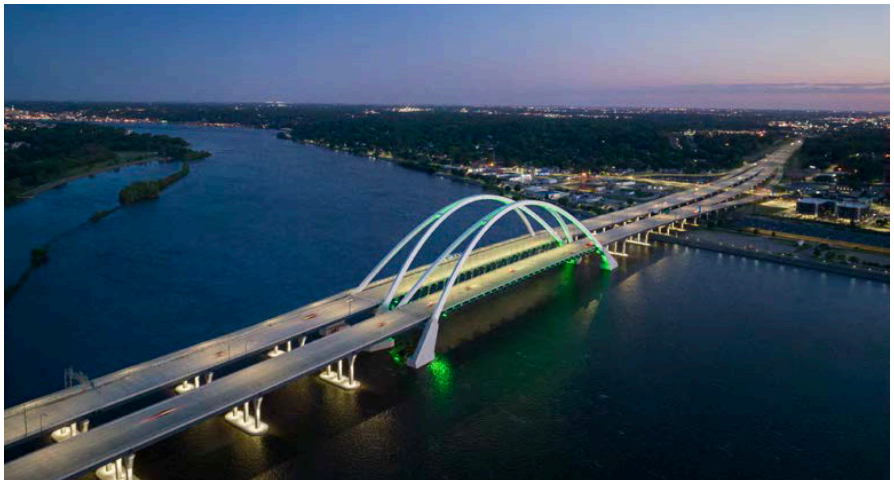
Construction Delivery Method: Design Bid Build
Year of Project Completion: 2022

Type: **Steel Arches**

Services: **Conceptual Design and Type Study Selection, Community Participation, Architectural Visualizations and Physical Models**

Cost: **$700 Million**

A set of twin steel arches replaced a pair of existing suspension bridges that for decades had been the symbols of the region. The impressive arches are higher than the existing suspension bridges and visible from long range viewpoints. The new crossing has twin decks and a main arch span over the navigation channel. A pedestrian and bicycle trail is attached to the bridge creating a link between trails along the river shorelines. The bridge is illuminated at night acting like a beacon along the Mississippi and visible from the four cities surrounding the crossing. The height of the arches over the river makes them true landmarks along the Mississippi River and the Quad Cities region.



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Bridge Details and Aesthetic Enhancements

- Twin steel basket-handle arches.
- Minimal structural bracing between arches for visual clarity and aesthetic appeal.
- Protected pedestrian and bicycle walkway along the entire bridge.
- Aesthetic lighting highlights the arches and approach spans.
- Elegantly and carefully detailed bridge arch abutments, cable anchors, and connections.
- Slender inclined arches mark river navigation channel.

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Throop Street Bridge

CHICAGO, IL

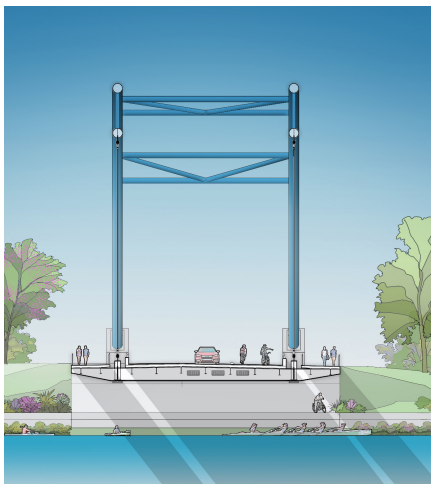
Construction Delivery Method: Design Build Bid
Year of Project Completion: 2024

Type: **Truss Arch**

Services: **Conceptual Design, Type Study Selection, Preliminary and Final Design, Construction Supervision**

Cost: **$35 Million**

The new Throop Street Bridge will cross the Chicago River as part of a new proposed Lincoln Yards $6 billion development plan to revitalize an old industrial district in the City of Chicago to create 21 acres of open and publicly accessible space. The bridge will be a signature truss span with a clear span over the navigable river. The bridge also includes a separated cycle track that will improve bicycle connectivity in the area with a direct link to the 606 multi-use recreational trail. The height and prominence of the truss arch will become a signature critical component of the development and mark the crossing from a distance. The bridge type recalls other historic truss bridges over the Chicago River but with new state of the art detailing and architectural enhancements. The bridge will be illuminated at night creating a beacon for the community.



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Bridge Details and Aesthetic Enhancements

- Arch truss inspired by traditional steel bridges across the Chicago River.
- Well-proportioned structural arch truss superstructure with angled and slender elements.
- Integrated aesthetic lighting that highlights the arch.
- Carefully detailed bridge abutments with architectural rustications.
- Light-blue structural elements and matching railings that enhance the bridge from a distance.
- Monumental concrete abutments to visually terminate the end of arch trusses.

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Port Columbus Crossover Taxiway and Service Bridges

COLUMBUS, OH

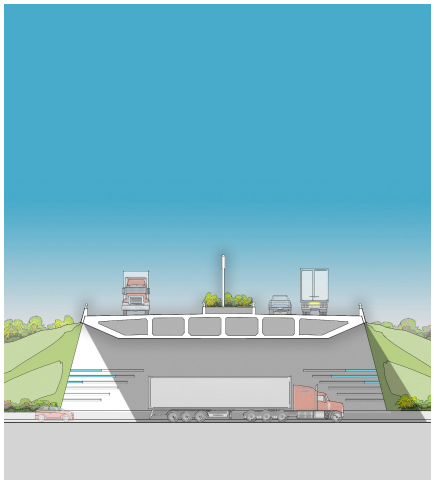
Construction Delivery Method: Design Build Bid
Year of Project Completion: 2008

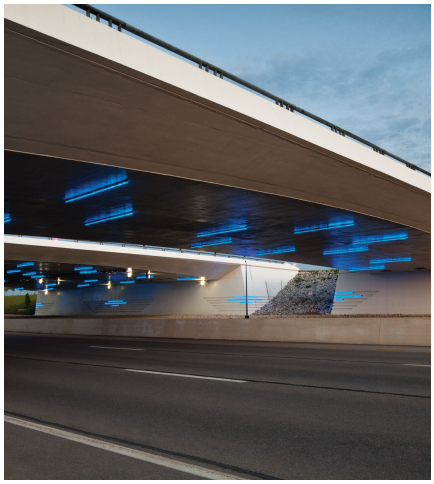
Type: **Post-Tensioned Cast-in-Place Frame**

Services: **Conceptual Design, Type Study Selection, Preliminary and Final Design**

Cost: **$10.5 Million**

The Port Columbus International Airport in Columbus, Ohio, needed a crossover taxiway so that aircrafts could travel from the terminal building to the outer runways. The bridge is designed to carry a 747-400 aircraft weighing 894,900 pounds. A post-tensioned cast-in-place concrete structural system with integral abutments was selected. A hydronic deicing system consisting of tubes containing glycol from a pump and heater was embedded into the deck to keep it from icing during Ohio winters. Two additional narrower service bridges were also built following the same architectural language. A system of striking blue linear lights were integrated into the underside of the bridge and inclined abutments. The clean and elegant spans create a new gateway into the airport with their understated architecture and visual consistency.





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Bridges Details and Aesthetic Enhancements

- Family of visually consistent concrete bridges with a streamlined appearance.
- Inclined and tapered abutments with horizontal rustications.
- Distinct light-gray color for visual consistency.
- Aesthetic lighting enhances the bridge at night with blue linear lights integrated into the abutments and bridge deck underside.

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I-90 Dresbach Bridge

DRESBACH, MN AND LA CROSSE, WI

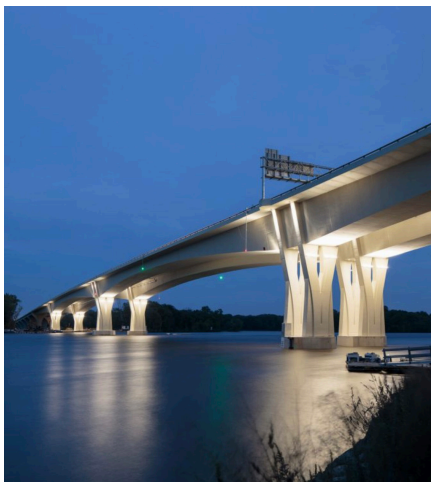
Construction Delivery Method: Design Build Bid
Year of Project Completion: 2016

Type: **Concrete Segmental Box**

Services: **Conceptual Design, Type Study Selection**

Cost: **$190 Million**

The I-90 Dresbach Bridge spans the Mississippi River between Dresbach, Minnesota and La Crosse, Wisconsin. The structure consists of a series of long-span concrete segmental boxes and sculpted concrete piers. The bridge is understated, elegant and low profile to blend in with the sensitive landscape that includes several scenic bluffs and protected wetlands near the river. The bridge is a new gateway between the two states and provides added capacity and safety while also enhancing the river environment.



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Wasena Bridge
ROANOKE, VA

Construction Delivery Method: Design Build Bid
Year of Project Completion: 2025

Type: **Concrete Y Piers and Box Superstructure**

Services: **Conceptual Design, Type Study Selection, Preliminary and Final Design, Construction Supervision**

Cost: **$30 Million**

The new Wasena Bridge will replace an aging, existing fracture critical bridge located in Roanoke, VA. The new bridge will include wider sidewalks, bicycle dedicated lanes and a family of Y shaped piers that will open views and improve the recreational areas under the bridge. This new elegant structure will fit well into the natural context and cross over the Roanoke Bridge and series of railroad tracks. The slender concrete piers have distinct architectural treatments to emphasize their slenderness. The new signature crossing will also include aesthetic lighting, open railings and overlooks to further integrate the bridge into the beautiful landscape and emphasize views of the adjacent mountain range.

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Liberty Pedestrian Bridge

GREENVILLE, SC

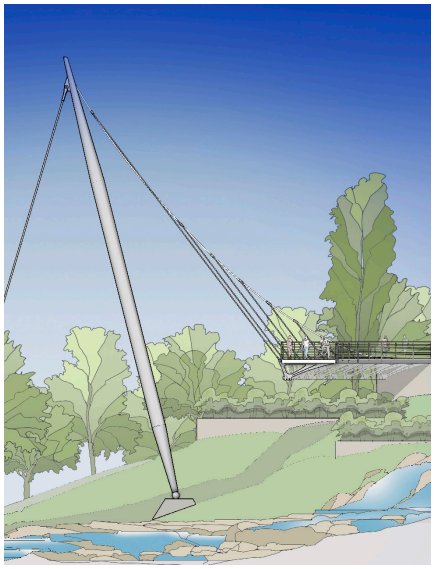
Construction Delivery Method: Design Build Bid
Year of Project Completion: 2004

Type: **Curved Suspension**

Services: **Conceptual, Preliminary, and Final Design, Construction Services and Community Participation**

Cost: **$4.5 Million**

Greenville's downtown is split by a wooded valley park containing the falls of the Reedy River. The award-winning Liberty Bridge, which replaced a six-lane highway bridge that was demolished, is located just downstream from this group of waterfalls. The new bridge has a curved clear span over the river that arcs away from the falls providing visitors with an aerial platform from which to view the cascading water. The bridge gently slopes into the ravine and is supported by twin inclined towers and a single suspension cable, allowing for unobstructed views. With a clear span over the river, the bridge appears to float over the landscape. The twin towers and suspension cable are visible from vantage points around the city drawing visitors to the public park, falls and the Reedy River.



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Bridge Details and Aesthetic Enhancements

- Slender pedestrian railings with razor-thin cables for unobstructed views and overall transparency.
- Well-proportioned, curved structural truss superstructure with angled and curved elements.
- Tapered, inclined steel towers with bottom sphere assemblies to allow for bridge flexibility and thermal movements.
- Integrated railing lighting and overall aesthetic lighting that highlights the towers and cables.
- Carefully detailed bridge abutments, cable anchors, and connections to enhance pedestrian experience.
- Light-colored structural elements to highlight the bridge within the park's context.

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Phyllis J. Tilley Memorial Pedestrian Bridge

FORT WORTH, TX

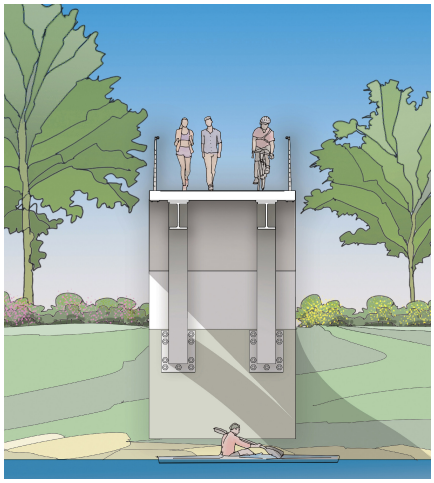
Construction Delivery Method: Design Bid Build
Year of Project Completion: 2012

Type: **Steel Arch/Stressed Ribbon**

Services: **Conceptual, Preliminary and Final Design, Lighting Design, Community Participation and Physical Models**

Cost: **$2.5 Million**

The Phyllis J. Tilley Memorial Bridge crosses over the Trinity River connecting Trinity Park to a new trail that terminates in downtown Fort Worth. The bridge has a graceful profile that enhances the serene and beautiful landscape. A steel arch supports steel stress ribbon segments and pre-cast concrete planks over the river complementing the adjacent historic Lancaster Avenue vehicular bridge. The long steel stressed ribbon/arch combination bridge was the first of its kind in North America. Pedestrians and bicyclists crossing the bridge experience a smooth, undulating ADA compliant bridge surface. At night, the bridge is illuminated with a combination of white and blue LED lighting for increased safety and aesthetic appeal. This elegant and cost-effective bridge has become a visual asset along the Trinity River and a new symbol of the City of Fort Worth.



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Bridge Details and Aesthetic Enhancements

- Well-proportioned, slender steel arch and curved profile over the river.
- Slender pedestrian railings with razor-thin cables for unobstructed views and overall transparency.
- Elegantly and carefully detailed bridge abutments for both arch and stress ribbons, visually connected with an inclined wall.
- Well integrated ADA accessibility ramps which are not apparent on the facade of the bridge.
- Light-colored structural elements that highlight the bridge within the park's context along the riverfront.
- Visual compatibility with the existing historic bridge by introducing a matching arch profile.

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Moody Pedestrian Bridge

AUSTIN, TX

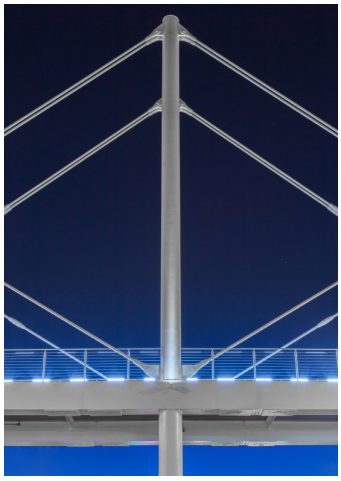
Construction Delivery Method: Construction Management At Risk
Year of Project Completion: 2016

Type: **Inverted Fink Truss**

Services: **Conceptual Design, Final Design, Aesthetic Lighting and Construction Supervision**

Cost: **$3 Million**

The Moody Pedestrian Bridge is a one of a kind Inverted Fink Truss bridge in Austin, Texas. The bridge connects two buildings as part of the Moody College of Communication at The University of Texas. The bridge crosses over West Dean Keeton Street; a busy thoroughfare that traverses the campus. The bridge is characterized by a series of slender steel towers that vary in height and scale creating an elegant statement along one of the major avenues surrounding the campus. This type of bridge is the first of its kind in the U.S., and the only one worldwide with a single support tower as the main loading member. Slender high towers mark the bridge crossing from a distance creating a gateway to the university campus for students and visitors alike. The pedestrian bridge compliments the architecture of the Bello Center, one of the recently completed buildings of the College of Communication. The bridge has integrated aesthetic lighting into its stainless-steel railings.



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Bridge Details and Aesthetic Enhancements

- First inverted Fink truss bridge in the United States.
- Minimal number of support piers to allow unobstructed access to adjacent campus buildings.
- Efficient use of materials by sizing towers and rods to reflect the increasing loads toward the central tower foundation. Towers and rods are reduced in size and height when closer to the ends of the cantilevers.
- Main bridge foundation was built on a narrow street median that could not be widened.
- Innovative bridge illumination of walking surface and main superstructure.

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Frances Appleton Pedestrian Bridge

BOSTON, MA

Construction Delivery Method: Design Build Bid
Year of Project Completion: 2018

Type: **Steel Arch**

Services: **Conceptual, Preliminary Design Visualizations and Construction Supervision**

Cost: **$12.5 Million**

The Frances Appleton Pedestrian Bridge was proposed as part of the master plan to restore the iconic 1908 Longfellow Bridge across the Charles River between Boston and Cambridge. The existing, obsolete pedestrian bridge next to the historic bridge was replaced with an ADA compliant bridge that better complements the arches of the historic structure. This new deck arch is contemporary in appearance and very transparent in order to not obstruct views of the historic Longfellow Bridge, the river and parkland. The slender main steel arch is one of the largest spans over Storrow Drive connecting to the Esplanade. The approach ramps follow a similar architectural language and appear to float over the landscape before landing next to the river. This new bridge has quickly become an iconic bridge linking downtown Boston to the Esplanade and the Charles River. Frances (Fanny) Appleton was the wife of Henry Wadsworth Longfellow. The bridge links to the sidewalks and dedicated bicycle lanes on the Longfellow Bridge - reuniting them.

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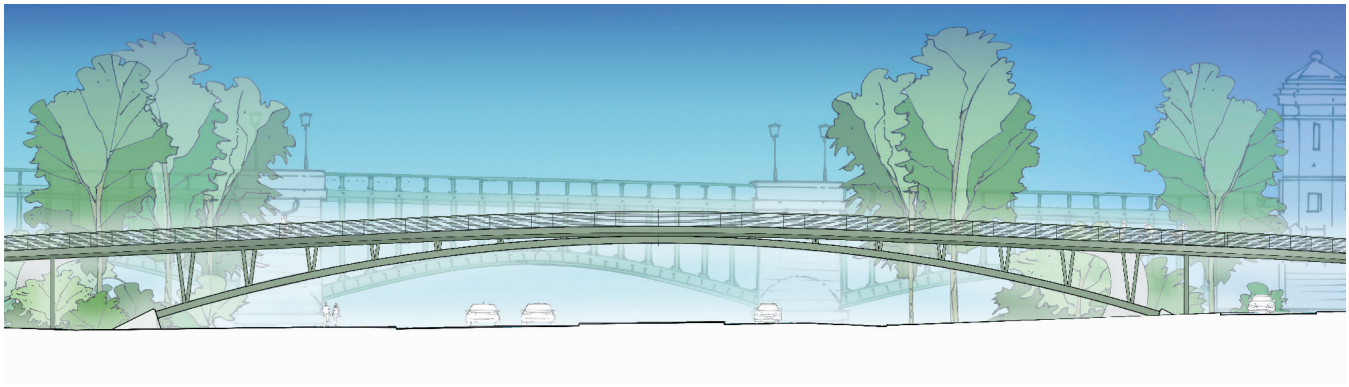
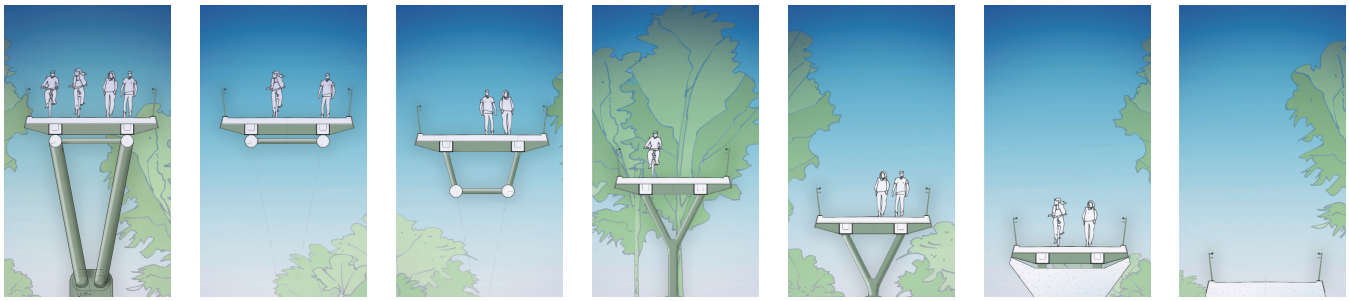
Bridge Details and Aesthetic Enhancements

- First accessible pedestrian/bicycle bridge over Storrow Drive, which connects Boston to its riverfront Esplanade.
- Elegant ADA accessible curved ramps and stairs.
- Use of steel castings to accommodate special detailing of Y-shaped piers to resemble tree branches.
- Use of dark green gray color that matches historic bridge and integrates into park.
- Use of lightweight concrete to help reduce pedestrian-induced vibrations and avoid dampers.
- Pedestrian bridge with the longest arch span in the Boston area.





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East 54th Street Pedestrian Bridge

NEW YORK, NY

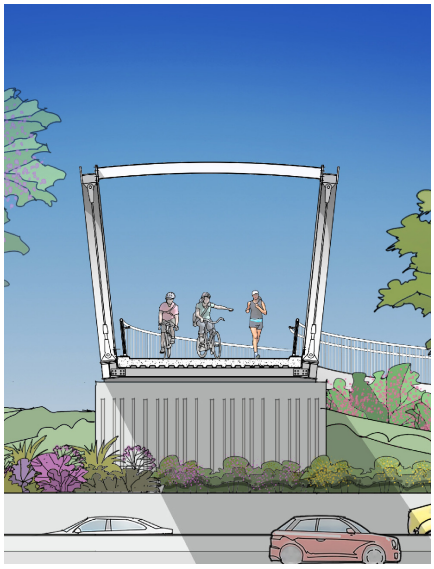
Construction Delivery Method: Design Bid Build
Year of Project Completion: 2023

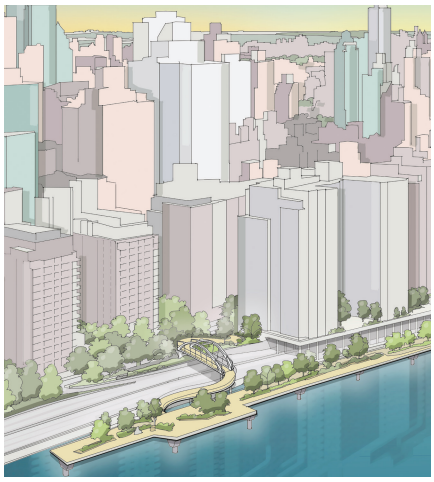
Type: **Steel Tied Arch**

Client: **New York City Economic Development Corporation, New York, NY**
www.edc.nyc

Est. Cost: **$14 Million**

The new pedestrian and bicycle bridge at East 54th Street in Midtown Manhattan will consist of an elegant clean span arch bridge over FDR Drive. The bridge will connect the adjacent neighborhood to a new linear park on the East River. The bridge has been designed to fit within the context of an existing park and the waterfront. It will have a distinct color and design features that include inclined arches and fencing for open views of the river and Roosevelt Island. All details have been designed with a context sensitive architectural design theme and consistent high quality detailing. The approach spans are ADA accessible and follow a curvilinear alignment for visual appeal and interest. The new bridge will become a new gateway structure along the East River and a source of pride for the community.





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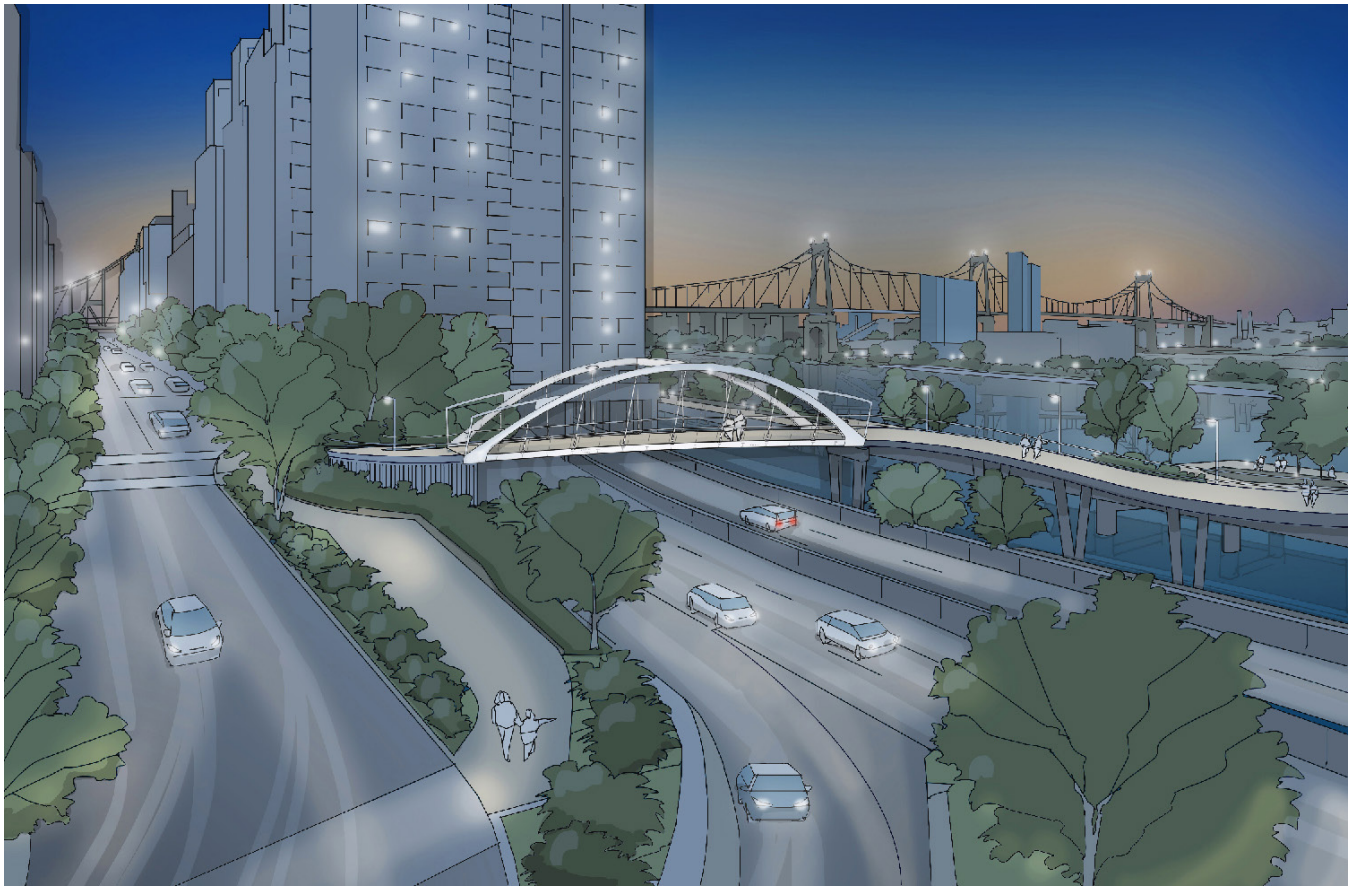
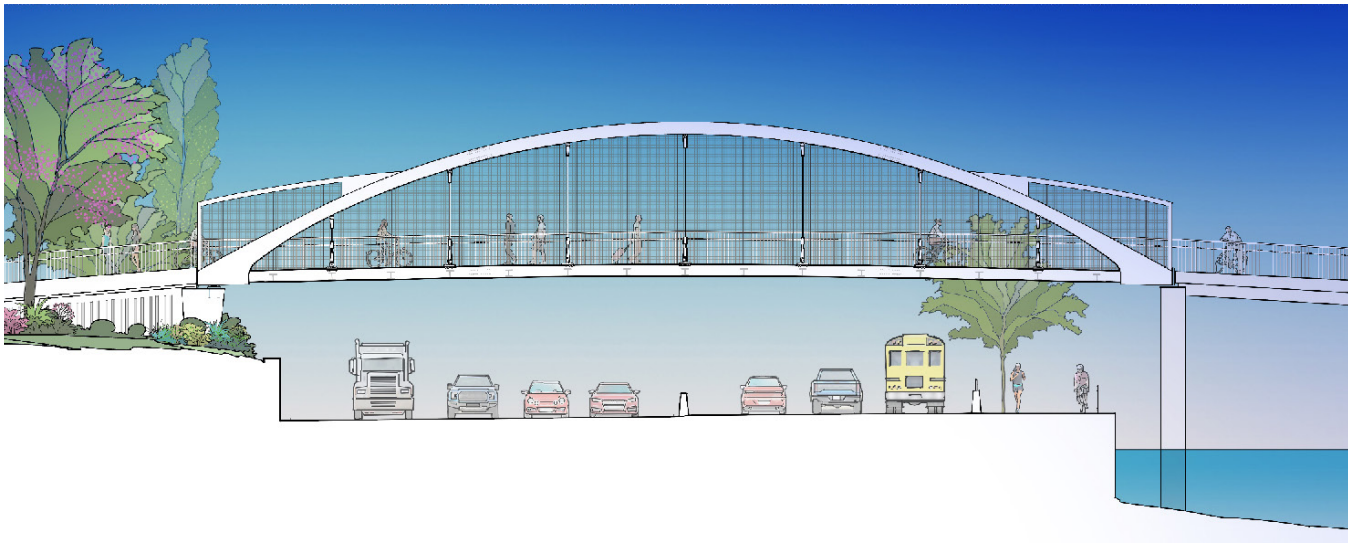
Bridge Details and Aesthetic Enhancements

- First tied-arch bridge over FDR Drive.
- Midcentury-inspired architectural features and articulation of safety railings to visually relate to the context and nearby architecture.
- Light-gray structural system complements the marine environment.
- Use of curved access ramps to enhance an adjacent park and provide full accessibility.
- Concrete retaining walls enhanced with vertical rustication and angled geometry relating to the main arch.





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Marion Street Pedestrian Bridge

SEATTLE, WA

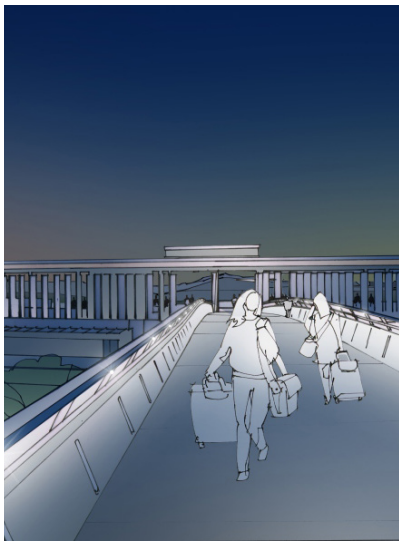
Construction Delivery Method: Design Bid Build
Year of Project Completion: 2023

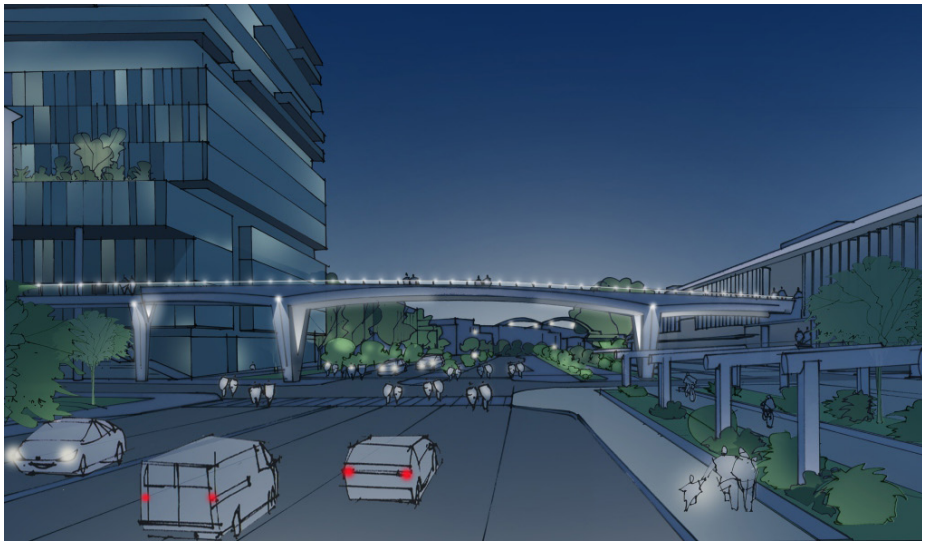
Type: **Concrete Box**

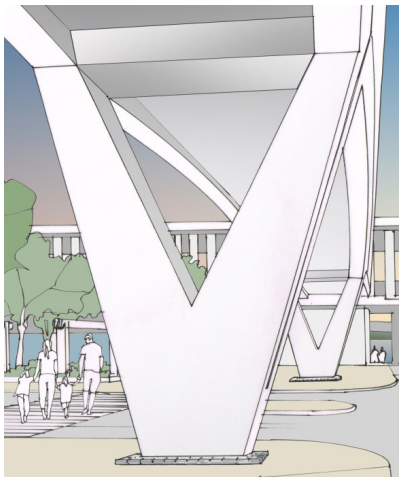
Services: **Conceptual Design, Final Design, Aesthetic Lighting and Construction Supervision**

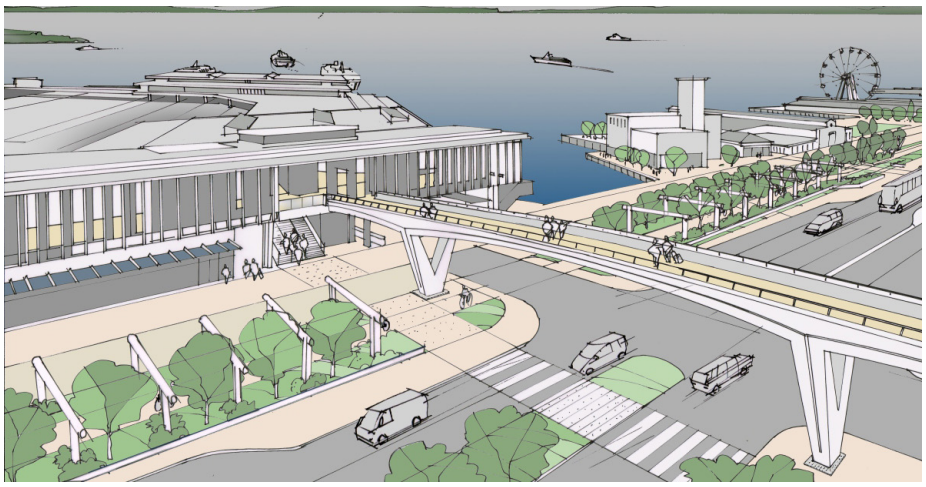
Est. Cost: **$7 Million**

The proposed pedestrian bridge connecting downtown Seattle Ferry Terminal at Colman Dock Ferry Terminal will cross over a new promenade and reconfigured Alaskan Way. The bridge will replace a narrow and unattractive pedestrian bridge when the elevated double-deck Alaskan Way is demolished and rerouted into a tunnel. The bridge will become a new gateway to the city along the improved waterfront with excellent views of Elliot Bay and beyond. The Marion Street bridge includes a main span over Alaskan Way and two balancing, long cantilevers which allow the bridge to be built independently of the new Ferry Terminal and future buildings along the waterfront. The main reinforced concrete piers are sculptural, well proportioned and will be illuminated at night.









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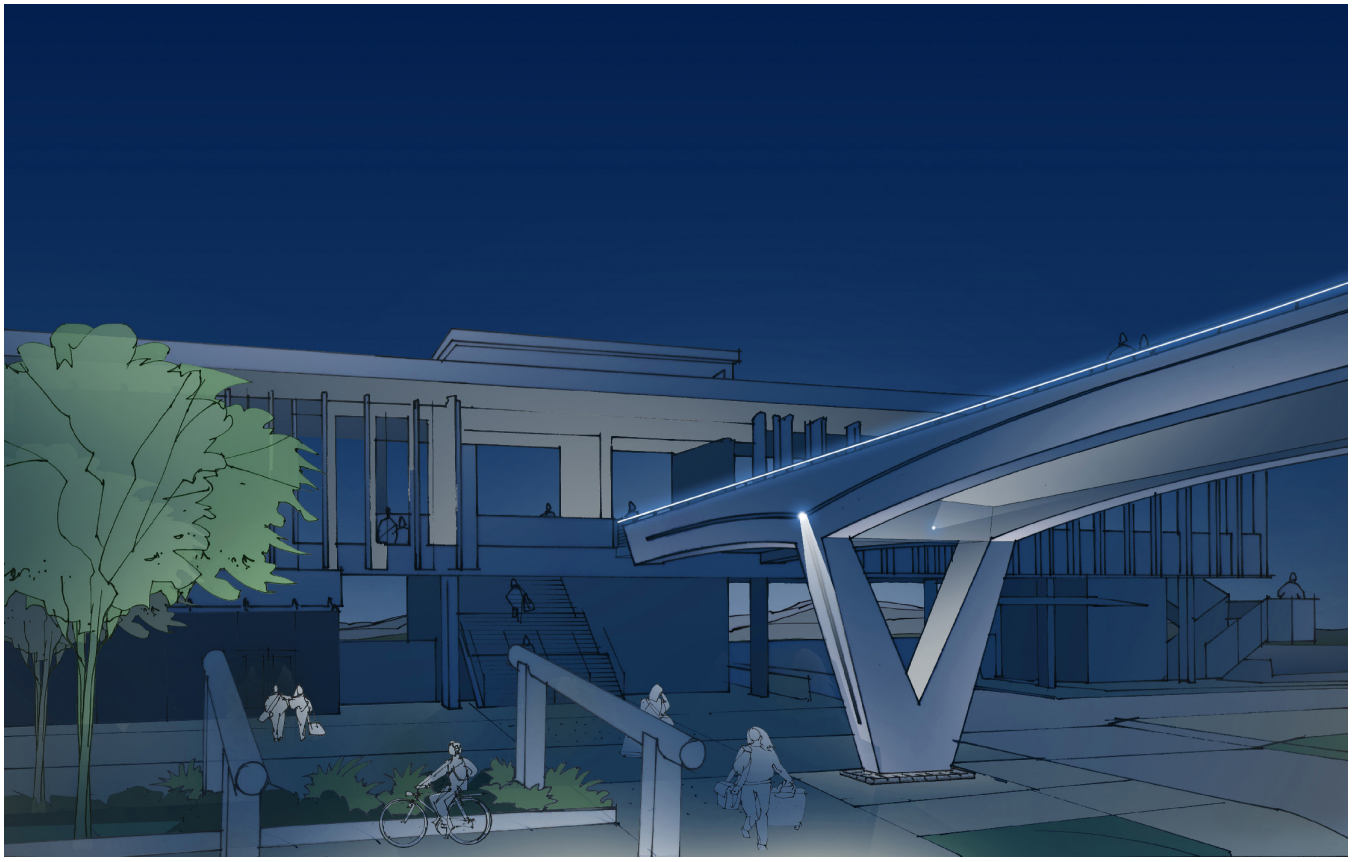
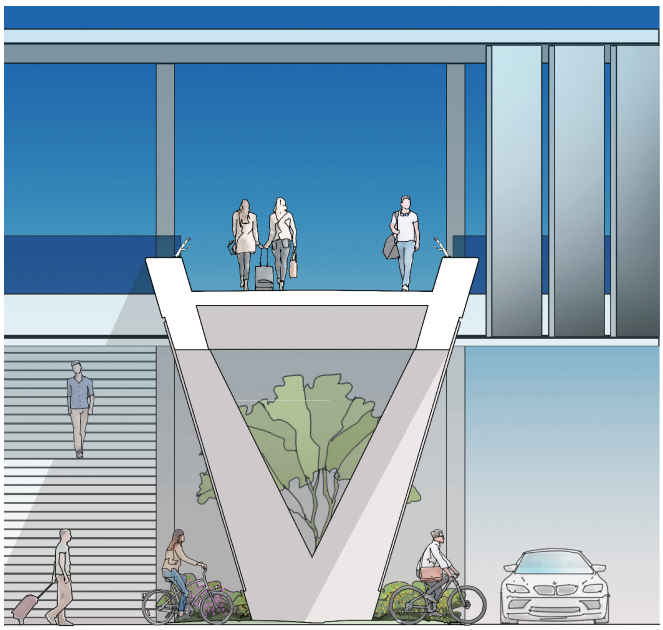
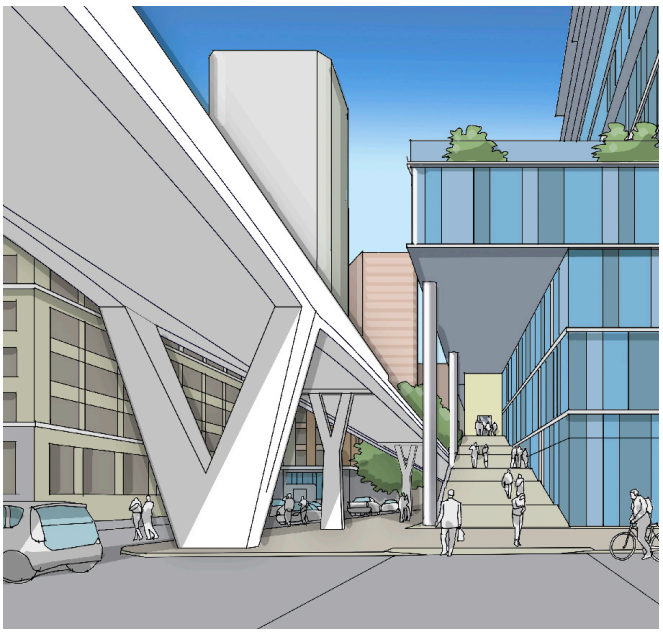
Bridge Details and Aesthetic Enhancements

- Tapered V-shaped sculptural concrete piers.
- Aesthetic lighting enhances the bridge at night by highlighting the bridge profile from a distance.
- Curved stainless steel railing details for visual appeal.
- Use of architectural rustications to improve bridge proportions and visual slenderness.
- Consistent light-gray color of all bridge components to unify the overall appearance.







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Northern Avenue Bridge
BOSTON, MA

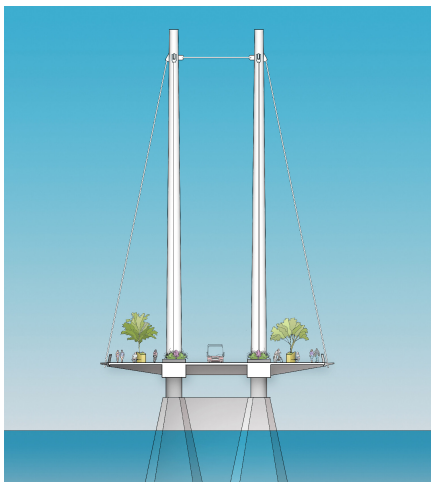
Year of Project Completion: N/A

Type: **Suspension**

Services: **Conceptual Design**

Cost: **$40 Million**

The new Northern Avenue Bridge will replace a century-old truss movable bridge over the Fort Point Channel. The new bridge will include wide sidewalks and cycle tracks with beautiful views of the harbor. The design of the elegant suspension bridge and overall architecture is inspired by the marine environment and multiple sail boats in the area. The dramatic single tower suspension bridge will create a new gateway to the waterfront and a dramatic statement in the cityscape.
The new bridge will also include curved overlooks and open space near the center navigation span with seating and landscaping for users to enjoy views of the harbor and the city. In addition, the bridge will also potentially carry emergency vehicles in the future. The bridge will be illuminated at night becoming a beacon in the area which will be memorable and asset to the waterfront.



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Bridge Details and Aesthetic Enhancements

- First single-tower contemporary suspension bridge in the region.
- Use of inclined stainless steel railings with horizontal cables to create open views of the waterfront.
- Tapered vertical steel towers inspired by the masts of traditional ships in the harbor.
- Catenary cable system that complements the marine environment.
- Aesthetic lighting enhances the bridge at night.

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