

# FRP LOOKBOOK

## Pedestrian Bridge Decking



CREATIVE  
COMPOSITES  
GROUP





# State Route 28 Shared Use Path

Lake Tahoe, NV



One million annual visitors use 11 miles of two-lane, mountainside road to view Lake Tahoe. Nevada DOT created a safe, shared-use path using thirty-two (32) prefabricated FRP bridges on steep hillsides that could not accommodate ground paths. The lightweight, prefabricated bridges were installed quickly at night to minimize traffic disruption on the only road access along the lake. The path was opened in June 2019.



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Deck size	1,386 ft by 11 ft	Thickness	5 in
Area	15,523 ft <sup>2</sup>	Weight	8.8 psf
Panel dimension	Multiple	Superstructure spacing	N/A

A photograph of a cyclist riding on a bridge. The bridge has a concrete path with a yellow line and a metal railing. In the background, there is a large, dark, rectangular structure, possibly a building or a bridge section. The sky is overcast. A blue overlay covers the left side of the image, containing text.

# Anacostia West

Washington, DC

The Anacostia River Walk Trails are along both sides of the Anacostia River in Washington, DC. Two pedestrian bridges span railroad tracks to connect the trails in the park area. The bridges have S-shapes that gracefully address the trail layout and minimize the span length over the tracks. The West bridge opened in April 2012.



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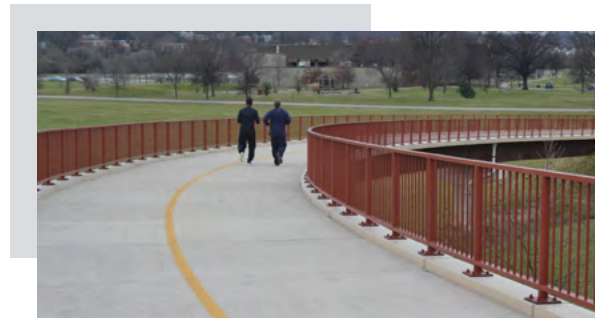
Deck size	685 ft by 16.25 ft	Thickness	3.6 in
Area	11,130 ft <sup>2</sup>	Weight	9 psf
Panel dimension	8.3 ft by 16.25 ft	Superstructure spacing	9 ft



# Anacostia East

Washington, DC

The Anacostia River Walk Trails are along both sides of the Anacostia River in Washington, DC. Two pedestrian bridges span railroad tracks to connect the trails in the park area. The bridges have S-shapes that gracefully address the trail layout and minimize the span length over the tracks. The East bridge opened for use in June 2013.



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Deck size	1,132 ft by 16.25 ft	Thickness	3.6 in
Area	18,400 ft <sup>2</sup>	Weight	9 psf
Panel dimension	8.3 ft by 16.25 ft	Superstructure spacing	9 ft

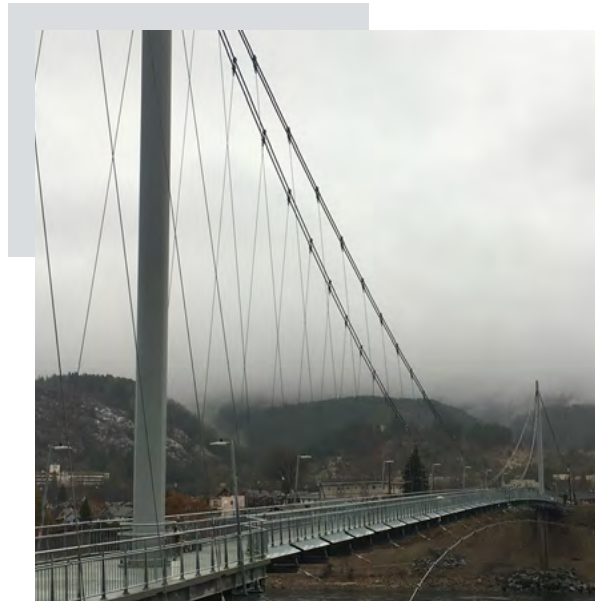


# Columbia River Skywalk

Trail, BC



When the City of Trail, British Columbia closed a century old vehicle bridge, they recognized an opportunity to construct a new pedestrian bridge. The Skywalk was engineered to support foot traffic, a cycling route, an emergency vehicle with a trailer and utilities. In addition to reducing installation time and costs, low maintenance made the FRP pedestrian deck a budget-friendly, high-strength solution. The bridge opened in December 2016.



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Deck size	Span Section: 722 ft by 13.1 ft Tower Section: 180 ft by 23 ft	Thickness	3.1 in to 5.7 in
Area	13,613 ft <sup>2</sup>	Weight	8.35 psf
Panel dimension	13.1 ft by 8.2 ft	Superstructure spacing	8.2 ft



# Neponset River Greenway

Boston, MA



Neponset River Greenway, on the Boston and Milton shore of the Neponset River, is a miles-long, waterfront multi-use trail. A 1,060-foot-long Canopy Walk carries users through an existing mature oak grove over the rail line to Mattapan Station and Mattapan Square. Already hosting over 10,000 riders, walkers, and runners each day, the award-winning Corridor is expected to see usage more than double. The deck was installed in November 2016.



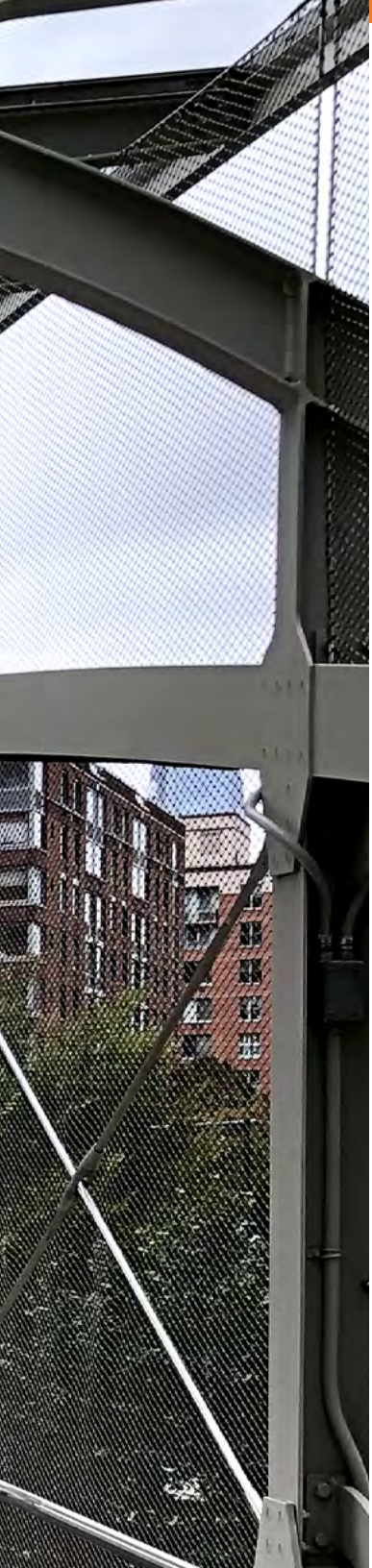
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Deck size	Canopy Walk: 1,060 ft by 10 ft Access Ramp: 265 ft by 8 ft	Thickness	3.5 in to 5.3 in
Area	12,720 ft <sup>2</sup>	Weight	9 psf
Panel dimension	18.1 ft by 10 ft	Superstructure spacing	6 ft maximum



# West Thames

Manhattan, NY



This showcase bridge in lower Manhattan allows pedestrians to safely cross over West Street. The bridge has a lenticular truss structure and a glass roof. The deck includes functional features such as curbs, mass dampers for the overall bridge and access panels for utilities.



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Deck size	219 ft by 15.9 ft	Thickness	4 in to 5.5 in
Area	3,482 ft <sup>2</sup>	Weight	8.4 psf
Panel dimension	12.9 ft by 12.9 ft	Superstructure spacing	6.5 ft



# Wolf Trap National Park

Vienna, VA

A three-span pedestrian bridge was needed to connect sections of the park by spanning ten lanes of highway and one rail line that are the main access to Dulles Airport. A lightweight deck was required so fully assembled truss bridges could be quickly erected at night with only 15 minutes of road closure per span. The bridge was installed in March 2012.



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Deck size	Three spans-150 ft, 170 ft, 138 ft by 15.5 ft	Thickness	3.5 in
Area	7,100 ft <sup>2</sup>	Weight	6.85 psf
Panel dimension	8.3 ft by 15.5 ft	Superstructure spacing	4.25 ft

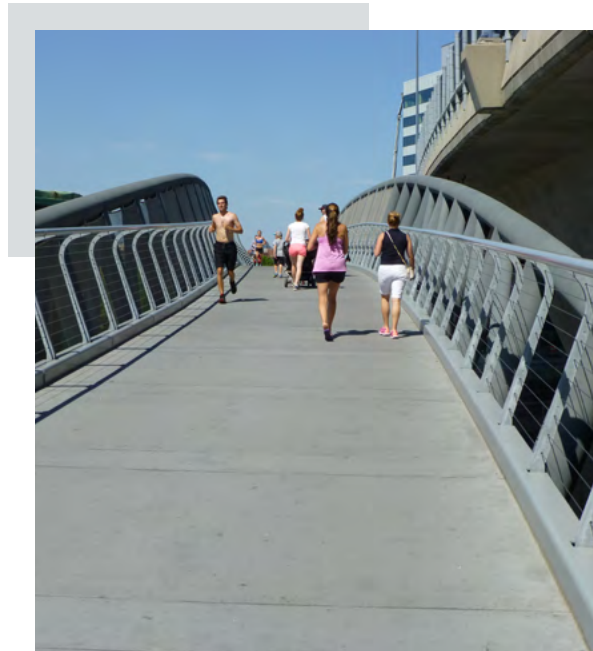


# North Bank Bridge

Boston, MA



A signature pedestrian bridge connects two parks and bicycle trails on the north bank of the Charles River across from downtown Boston. The FRP deck contributes to superstructure properties of the bridge. The bridge has compound curvature so deck panels have a curved shape. The deck was installed in May 2012.



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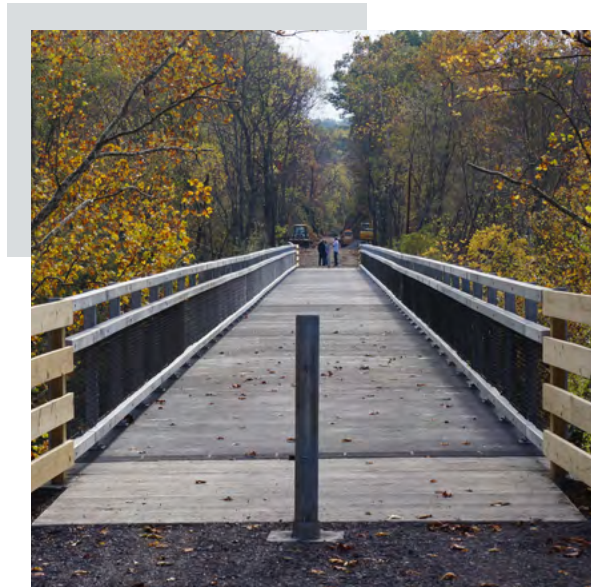
Deck size	690 ft by 12 ft	Thickness	5 in
Area	8,280 ft <sup>2</sup>	Weight	11 psf
Panel dimension	10.3 ft by 12 ft	Superstructure spacing	10.3 ft



# H&BT Rail Trail

Broad Top, PA

The Huntingdon and Broad Top Mountain Railroad and Coal Company was established in 1853 to provide a short line rail link from Huntington to Bedford to support local coal producers. At the height of its operation, the rail stretched 72 miles and included a trestle bridge built in the 1860s to carry the train over the Juniata River. Broad Top Township chose the prefabricated FRP FiberSpan™ bridge deck product to renovate the H&BT Rail Trail trestle bridge. The fifteen prefabricated panels simplified installation done by county personnel. The deck was installed in July 2014.



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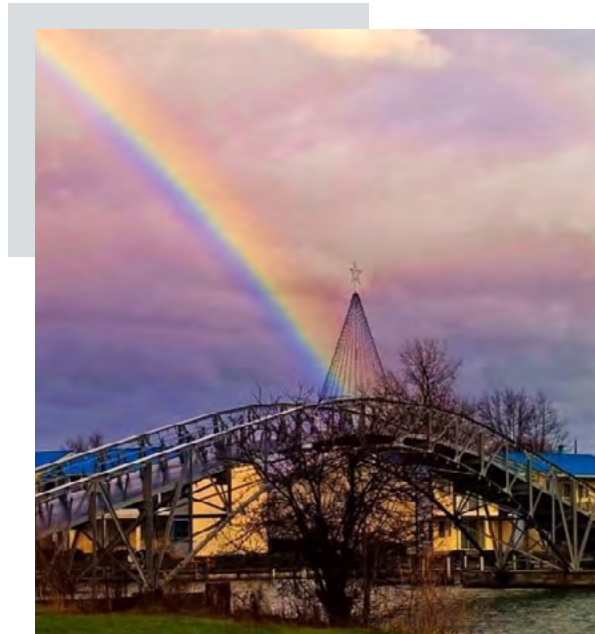
Deck size	350 ft by 13 ft	Thickness	5 in
Area	4,550 ft <sup>2</sup>	Weight	7 psf
Panel dimension	23.33 ft by 13 ft	Superstructure spacing	10 ft



# Sandy Beach

Indian Lake, OH

Part of “Ohio’s Million Dollar Playground,” the Sandy Beach Bridge has been an icon for residents in and around Indian Lake and Logan County for nearly a century. Connecting pedestrians with both sides of the amusement park, bridge traffic came to a halt in the 1960s when the park fell into disrepair. The Indian Lake Area Historical Society raised the necessary funds to rehabilitate the bridge with a new FRP deck and re-opened the bridge in August 2014.



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Deck size	175 ft by 12 ft	Thickness	5 in
Area	2,100 ft <sup>2</sup>	Weight	5.5 psf
Panel dimension	Up to 14.33 ft by 13 ft	Superstructure spacing	14.33 ft

# Piedra Lisa

Albuquerque, NM

16 FT. 1 IN.



After a brush fire destroyed the wood bridge and deck, a quick replacement was needed so pedestrians could cross over a multi-lane highway. Large prefabricated FRP deck panels were easily erected and greatly reduced construction time. The deck was installed in May 2014.



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Deck size	459 ft by 7.83 ft	Thickness	3.5 in
Area	3,595 ft <sup>2</sup>	Weight	5.5 psf
Panel dimension	40 ft by 7.83 ft	Superstructure spacing	7.4 ft

A wooden truss bridge spans across a river. The bridge has a dark brown metal truss structure and a wooden deck with a railing. The river is calm, reflecting the bridge and the surrounding trees. The background shows a dense forest of bare trees on a hillside under a clear sky.

# Cuyahoga Valley National Park

Cleveland, OH



When the previous rehabilitation of this structure lasted less than ten years, the FHWA engineers at Eastern Federal Lands decided to go with the longest lasting deck product available: FRP decking. Truss rehabilitation included cleaning and coating and replacement of stringers. To minimize the construction costs, the FRP deck was slid into place from the end spans so railings could remain in place. Teak color was selected for the overlay to blend best with the surroundings. The deck was installed in March 2016.



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Deck size	213 ft by 8 ft	Thickness	2.5 to 3 in
Area	1,752 ft <sup>2</sup>	Weight	7 psf
Panel dimension	21.25 ft by 8 ft	Superstructure spacing	2.6 ft



# Huffman Bike Path

Fairborn, OH

The Huffman Prairie Bicycle Path bridge connects Greene County's extensive bicycle/ pedestrian trail system with Wright Brothers' historical sites in the Dayton area. The owner wanted a no-maintenance deck to reduce annual operating costs. The bridge was installed in April 2007.



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Deck size	142 ft by 12 ft	Thickness	2.4 in
Area	1,704 ft <sup>2</sup>	Weight	4 psf
Panel dimension	35 ft by 12 ft	Superstructure spacing	5 ft

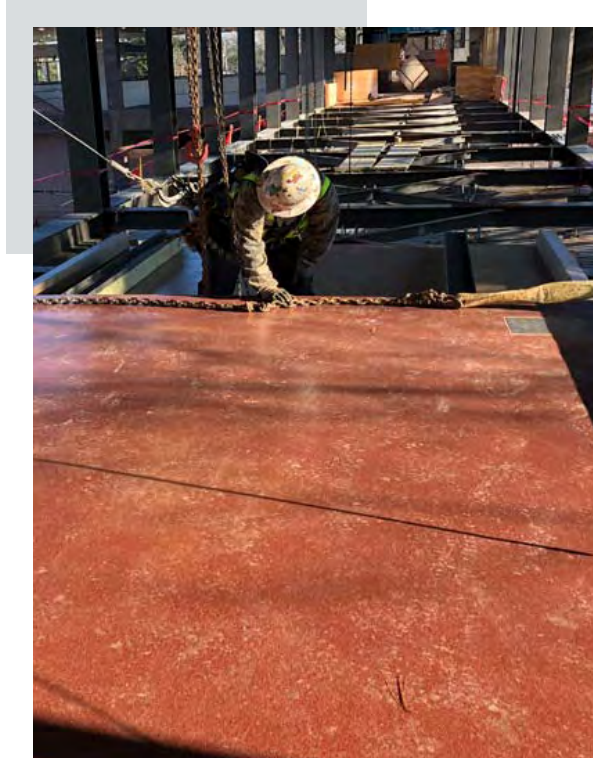


MARTA

# Marta Inman Park

Atlanta, GA

The Marta Inmann Park North Station in Atlanta, currently has a south bridge. The bridges make transportation between the stations easy, and will also help with parking.



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# Cheney Rails-to-Trails Pedestrian Bridge

Manchester, CT

The Cheney Rail Trail follows part of the corridor of the South Manchester Railroad. The new FRP bridge deck serves as a key connection for pedestrians and bicyclists that want to travel along the renovated rail-trail. The project called for a walkway installation on an existing steel truss bridge.



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Fiber reinforced polymer (FRP) decking has become the material of choice for all types of bridges because it is versatile and long-lasting. With the design flexibility of engineered FRP composites, we can fabricate deck systems to meet any loading and geometry requirements. Maximum structural capacity is made possible with unique continuous fiber reinforcements that deliver performance metrics superior to those of other composite products on the market.





Owners and users can enjoy the benefits of FRP decking whether the product is used on a small park bridge or a large vehicle bridge in a high traffic area. Advantages include:

### **Lightweight Construction**

An FRP deck is 80 percent lighter than a reinforced-concrete structure. FRP's weight reduction reduces strain on the bridge's structure and makes installation easy, fast, and affordable.

### **Design Flexibility**

FRP can be engineered with ideal structural properties to handle almost any load. We also offer our FRP material in customizable panels, which makes easy installation possible regardless of a bridge's shape or size.

### **Safe Waking/Driving Surface**

Our polymer aggregate overlays are non-slip; can withstand snow plows and come in many colors.

### **Corrosion-Resistant**

FRP surfaces resist degradation from all common corrosive and abrasive influences including deicing chemicals and UV exposure.

### **Maintenance-Free**

Because FRP is corrosion resistant, the material has a substantially longer working life than wood and concrete decking. You can expect your FRP deck to last at least 75 years with minimal maintenance.

### **Life Cycle Cost Savings**

The ability to virtually eliminate maintenance also comes with a financial incentive. Labor and material cost savings gleaned from zero service make FRP the right choice for any project.

Creative Composites Group provides a comprehensive range of standard and customized FRP products to meet your project needs. Looking for more information about how we can help bring your project to life? [Contact our staff](#) of expert engineers today.

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## Your Single Source for Innovatively Engineered Bridge Decking Using Fiber Reinforced Polymer Composites

Advance your products and projects beyond the limitations of traditional concrete, steel, and wood by leveraging the combined strength of Creative Composites Group. We are a leader in technical innovation that is backed by the industry's most comprehensive FRP manufacturing group for infrastructure.

As Creative Composites Group, we can help you engineer and manufacture pedestrian bridges and decking to meet the needs of future generations.

We offer comprehensive engineering, design and consultation for FRP bridge decks. Our manufacturing capabilities include the broadest range of engineered FRP solutions to build your ideal projects. That's possible only with our proven engineering processes, end-to-end collaboration, service and support resources. Since FRP composites last longer than conventional materials they often have a lower lifetime cost when you consider longer service life and low to no maintenance costs.

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Creative Composites Group is committed to becoming a trusted business partner who is keenly interested in your project's success. CCG works alongside your team, from owners and design engineers to contractors. We will help you develop and customize FRP decking solutions that meet the most demanding structural design and aesthetics requirements.

Contact us for your next engineered FRP pedestrian bridge decking. We'd be thrilled to discuss it with you.

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