

Carlton Street Footbridge - Update April 2021 Page 1 v1

Over the past 2 weeks, the “overlook” area in Riverway Park and the MBTA right-of-way area along Carlton Path have been cleared of trees. This will allow heavy equipment to access the CSF for dismantling.



Monmouth Court is the entrance to MBTA right-of-way for equipment



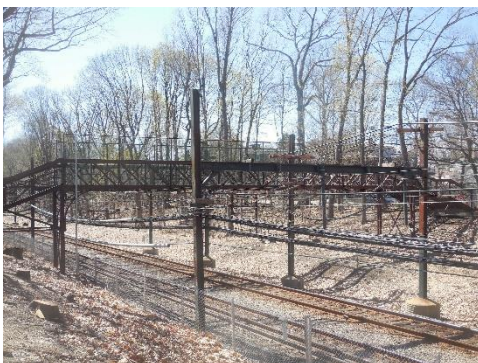
Tree removal in MBTA right-of-way on Carlton Path



View from Boston side of Riverway Park of tree removal



Trees to remain are well-protected



Tree and brush removal offers a rare view of the original 1894 footbridge

Prepared by Hugh Mattison, Town Meeting Member Pct. 5 and longtime CSF advocate,
4/15/2021

Email: hmattison@aol.com

Carlton Street Footbridge – Update May 2021 Page 1 v2

Over the past month, the MBTA right-of-way area along Carlton Path has been cleared of trees. Fencing along the park side has been installed. Bridge and foundation removal is planned for June 12-20 by a crane operating from the Riverway Park side of the MBTA tracks. See overview here: <https://www.youtube.com/watch?v=93coZWUj7xY>



Trees and brush have been cleared on north side for access by heavy equipment



Timbers provide shielding around signals and catenaries for safety



Rusted treads will be removed and replaced with new treads

Carlton Street Footbridge – Update May 2021 Page 2



MBTA fencing along D line right-of-way (ROW) has been replaced with concrete barrier topped with chain link fence



Decorative ironwork will be restored



In this photo (c. 1912), the steel footbridge spans the Boston & Albany Railroad tracks.

In a 2010 testimony to the Mass. Dept. of Transportation (MassDOT), Gov. Dukakis stated “ The Carlton Street bridge has been a monument of civic neglect.”

Carlton Street Footbridge – Update May 2021 Page 3

Over the past two weeks, the MBTA right-of-way area along Carlton Path has been cleared of trees. A temporary roadway has been installed along the MBTA right-of-way for use of heavy equipment. Rivets are being replaced with bolts between sections to allow for efficient removal on “Moving Day”. See overview here: https://www.youtube.com/watch?v=_vN7qGRzpLE



Temporary roadway along MBTA track will allow for heavy equipment



Timbers and concrete Jersey barriers support plywood sheathing to protect against MBTA high voltage power lines



Worker replaces rusted rivets with bolts which can be easily removed when bridge is dismantled.



Heads of rusted rivets are removed with a pneumatic rivet buster using a chisel bit and punch bit. Bolts can be easily removed when bridge is dismantled.

Prepared by Hugh Mattison, Town Meeting Member Pct. 5 and longtime CSF advocate,
5/27/2021

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Carlton Street Footbridge Update – Sept. 2021 Page 1 v4

Summer is over, progress continues. Concrete forms on the park side are almost completed.



Project Site Manager for Aetna Bridge Co. double-checks the alignment for the cement steps soon to be poured.



Wooden forms have been constructed for the park side steps.



Rebar (reinforcing bar) is used to increase the tensile strength of the concrete, helping to resist cracking and breaking.

Carlton Street Footbridge Update – Sept. 2021 Page 2



The first of 3 trucks arrives with 10 cubic yards of cement for the park side steps.



The chute is in place, and the concrete slurry is running. A total of 22 cubic yards will be used for the steps. Excess mixed concrete may be used for Jersey barriers.



Pouring the wet concrete is a team effort – Aetna Bridge Co., MassDOT, and Brookline Engineering all join in the effort.

Carlton Street Footbridge Update – Sept. 2021 Page 3



“Doka” steel concrete forms will be removed in about a week, exposing the finished 13-foot wide stairway..



Extensive ramps will be supported by concrete forms which have already been constructed on the park side.



Work on concrete stairways, and a series of concrete bases using 310 cubic yards of cement is practically complete. These will support over 200 feet of metal ramps, creating a fully accessible entry to Riverway Park.

Carlton Street Footbridge Update – Sept. 2021 Page 4



Work on site for the winter will be paused. In Rhode Island, the steel main and stairway trusses will be welded and sandblasted over the winter.



In Coventry, RI the steel trusses await restoration.



Prepared by Hugh Mattison, Town Meeting Member Pct. 5 and longtime CSF advocate
9/16/2021
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Carlton Street Footbridge Update – June 2021 Page 1 v3

To prepare for “Moving Day”, more pruning, partial levelling of the semi-circular “Overlook”, and bracing of the main truss was added. The MBTA original schedule for closure was advanced by a week to accommodate the Red Sox schedule; therefore, the preparation for removal was also shortened by a week.



Saturday at 8am. The Brookline side of Riverway Park is closed to the public; the only places to view the activity is from the Boston side of the Muddy River, or from Carlton Street.



Sparks flying, stair treads are cut out by Aetna welders. Treads will be replaced with durable wood decking



Rusted treads will be scrapped

Carlton Street Footbridge Update – June 2021 Page 2



In Riverway Park, a stairway railing, dangling a guide rope, soars above the red oaks to be placed on a waiting flatbed truck.

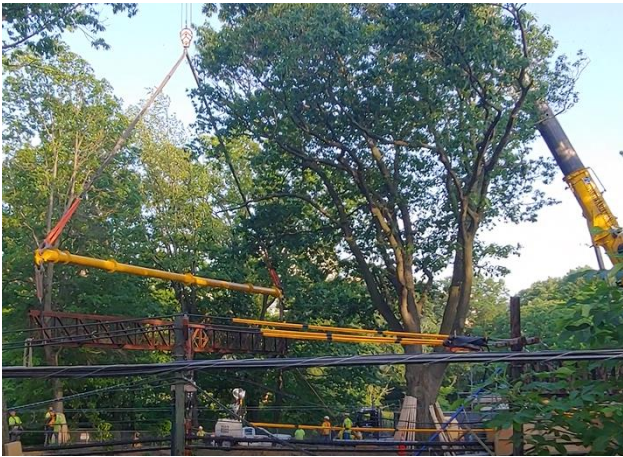


The staccato jackhammer rat-a-tat of a pneumatic rivet buster using a chisel bit pops the heads off the last few stubborn rivets on a main truss.



Aided by a forklift, the braces supporting the last main truss are removed.

Carlton Street Footbridge Update – June 11 2021 Page 3



The last main truss is airborne, suspended from a 100' boom, is gingerly maneuvered around a large red oak to



Early evening – With the Sears Building as a backdrop, a truck backs out of Riverway Park onto Park Drive. Travel route is The Riverway to Brookline Ave. to Route 9 to Route 128/95 to Coventry RI where it will be restored.

Carlton Street Footbridge Update – June 11 2021 Page 4



Early evening - Truck passes under Parker Street bridge in Newton on the way to Rhode Island.



Work will now start on removing the old foundation and preparing new footings for the ramps..

Prepared by Hugh Mattison, Town Meeting Member Pct. 5 and longtime CSF advocate,
6/11//2021 Email: hmattison@aol.com

Carlton Street Footbridge Update – Sept. 2021 Page 1 v4

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Carlton Street Footbridge Update – Sept. 2021 Page 2



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Carlton Street Footbridge Update – Sept. 2021 Page 3



“Doka” steel concrete forms will be removed in about a week, exposing the finished 13-foot wide stairway..



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Carlton Street Footbridge Update – Sept. 2021 Page 4



Work on site for the winter will be paused. In Rhode Island, the steel main and stairway trusses will be welded and sandblasted over the winter.



In Coventry, RI the steel trusses await restoration.



Prepared by Hugh Mattison, Town Meeting Member Pct. 5 and longtime CSF advocate
9/16/2021
Email: hmattison@aol.com

Carlton Street Footbridge Update – Dec. 2021 Page 1 v4

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Carlton Street Footbridge Update – Dec. 2021 Page 3



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Carlton Street Footbridge Update – Dec. 2021 Page 4



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Prepared by Hugh Mattison, Town Meeting Member Pct. 5 and longtime CSF advocate
12/16/2021
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In Brookline, foundation work for the stairs and ramps for accessibility has been completed.

In Coventry RI , truss restoration has been underway throughout the winter. Here, consultants review the welded bonds which will then be independently ultrasonically tested.



Spring, 2022

- Resume footbridge site work anticipated in early April, 2022, pending the delivery of accessible ramp components mid to late April, 2022.
- Coordinate access and deliveries with the Army Corps of Engineers/Charter Construction team who will be working at Riverway Park, extending from Park Drive through the Town line, parallel to the multi-use park path

Summer, 2022

- Complete truss and stair restoration
- Blast, prime and paint historic truss and stair modules
- Assemble bridge and stair modules fully at Coventry site for transportation to Brookline
- Complete assembly of North and South ramps at site
- Program firm dates with the MBTA for crane operation to re-set bridge above the Greenline

Carlton Street Footbridge Update – March. 2022 Page 2



Fall, 2022

- Pending gubernatorial approval, MBTA may authorize a piggy-back option for continuous footbridge work at a shared cost during D-Branch maintenance surge shutdowns in September/October.
- Re-set bridge and stair modules at site
- Complete bridge decking and lighting at bridge and site
- Complete South ramp
- Site restoration



In Coventry, welding of main truss and stairways continues.

Prepared by Hugh Mattison, Town Meeting Member
Pct. 5 and longtime CSF advocate
3/22/2022

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Photos by Bill Smith, Construction Project Coordinator,
Brookline DPW – Engineering & Transportation

Carlton Street Footbridge – Update Oct. 2022 Page 1



Remember this? The Carlton Street Footbridge, a blight on Olmsted's Riverway Park, an abandoned formal entrance from the Longwood neighborhood and boarded up for 45 years. Contentious debates and endless reports and meetings for the last 20+ years over restoration will finally be resolved.



Photo by Hugh Mattison

A new day – in this case it started at 11PM on Oct. 13 when the 550 ton crane to lift a restored main span arrived at the Park Drive entrance to Riverway Park. Over the next 4 hours, 3 flatbed trailers with ballast would back down the pedestrian path for 2/10 mile to the bridge site.



Photo by Hugh Mattison

5AM – the main span arrives from Coventry, RI where it has been undergoing restoration for the last 15 months.

Carlton Street Footbridge – Update Oct. 2022 Page 2



With extreme care, the 12'-wide main span is backed down the 12'-wide path.



Photo by Hugh Mattison

As dawn approaches, the crane is in place. Under floodlights, the main span is lifted.



Photo by Hugh Mattison

Up over the 80' red oaks, this could almost be termed a "flying bridge".

See tinyurl.com/csf-flyingbridge

Carlton Street Footbridge – Update Oct. 2022 Page 3



Guy ropes are used to maneuver the span through the trees. Fortunately, there was little wind.



Photo by Hugh Mattison

By 8:00 AM, the main span of the bridge has been lowered. Welders from Aetna Bridge Co. now work to fit the ends of the span into the vertical steel posts.



Photo by Hugh Mattison

This is the most critical point – if it doesn't fit, they can't take it back! The painstaking work of adding steel re-enforcement plates and re-welding the horizontal ends to fit the vertical posts must meet the final test.

Carlton Street Footbridge – Update Oct. 2022 Page 4



Well, everything did fit – finally. Two days later, the wooden decking is almost complete – just in time for the end of the week-long pause in MBTA service.



Drone photos display a “new” bridge, and a new life of service.

For a bird’s-eye view, see tinyurl.com/csf-birdseyeview

Next steps: complete restoration of the stairways, the south ADA ramp, and landscaping.

Prepared by Hugh Mattison, Town Meeting Member, Pct. 5

Email: hmattison@aol.com

10/20/2022

Carlton Street Footbridge – Update Feb. 2023 Page 1 v7

At dawn a few days ago, the north stairway for the Carlton Street Footbridge was trucked from Coventry, RI.

This is the last major component of the historic 1894 bridge over the Riverside "D" line MBTA track which has been restored over the last 1.5 years. Steps, landscaping and pavement will be installed this spring, with opening expected by June.

The footbridge was first closed in 1976 for lack of maintenance.

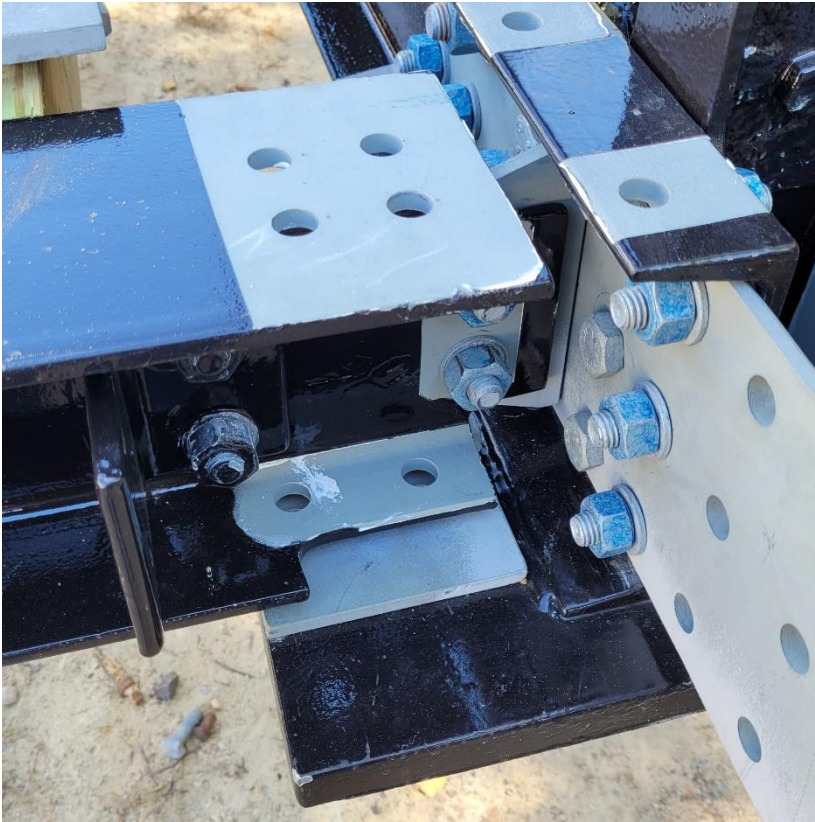
More background: tinyurl.com/csf-movingday



Main span is lifted high above the oak trees into place. October 2022

See tinyurl.com/csf-flyingbridge and drone video tinyurl.com/csf-birdseyeview

Carlton Street Footbridge – Update Feb. 2023 Page 2



Reconstruction is complex. In Coventry RI, all the pieces must be labelled, welded, tested for strength, holes drilled for new $\frac{3}{4}$ " galvanized bolts, sandblasted to remove rust, primed, coated with an epoxy paint, and a coat of urethane added for weather resistance.

Then it all has to fit when installed on site in Brookline.



Bolts must be installed and "torque tested", indicated here by the blue lines on the bolt heads.

Carlton Street Footbridge – Update Feb. 2023 Page 3



Main span in position awaiting installation of ramps and stairways. This restoration is about 2' higher to meet MBTA requirements. The bridge has been lengthened to accommodate the insertion of 6'-wide ADA ramps on each end.

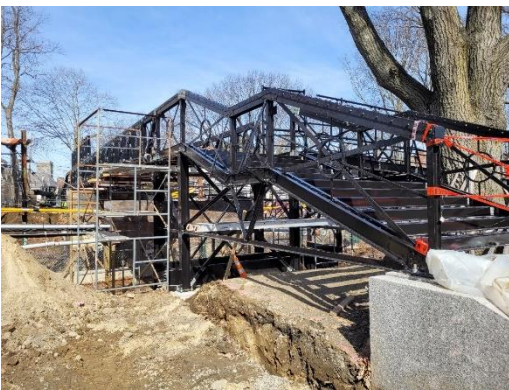


A large forklift maneuvers part of the north (Colchester Street) stairway into position.

Carlton Street Footbridge – Update Mar. 2023 Page 1 v8

We are entering the final phase of restoration of the 1894 Carlton Street Footbridge which connects Brookline's Longwood neighborhood with Riverway Park in Olmsted's Emerald Necklace.

Much of the work until now has been involved with less visible infrastructure; borings to test the soil, cement footings for stairways, columns and ramps, protection of MBTA catenary power lines, and of course re-finishing the original steel bridge itself in Coventry, RI by Aetna Bridge Co. Project completion is planned for June.



5' deep trench allows installation of electric wiring for lighting at the south stairway on the park side.



A 13' cast aluminum Acorn Light Pole (Bostonian style) with polyester powder-coat gloss black finish has just been installed.



1" conduit is installed for lighting

Carlton Street Footbridge – Update Mar. 2023 Page 2



6'-wide ADA-compliant ramps are up to 100' long on the south (park) side.



Truss repair gusset plates - are used to connect beams and columns together. Here, bolts are being tightened to strengthen connections.



Grading of the “overlook” configuration with a semi-circular path leading to the bridge is starting this week.

Carlton Street Footbridge – Update Mar. 2023 Page 3



Gravel will serve as the base for the pathways.



Meanwhile, Brookline DPW Engineering Division starts to survey Carlton Path from Carlton Street to Monmouth Court for reconstruction.

Carlton Street Footbridge – Update Apr. 2023 Page 1 v9

Restoration of this 1894 Carlton Street Footbridge connecting Brookline's Longwood neighborhood with Riverway Park in Olmsted's Emerald Necklace is almost complete.



What a difference a generation makes.

This 2001 photo shows the derelict bridge entrance at Colchester and Carlton Streets. Contentious political debate and the tortuous funding process delayed the actual start of restoration until 2022.



Early in April, the north (street-side) stairway arrived from Coventry, RI, now strengthened with new welds, sandblasted, primed and painted anew, was lifted and bolted into place by Aetna Bridge ironworkers.

Carlton Street Footbridge – Update Apr. 2023 Page 2



Grading of the “overlook” configuration with a semi-circular path leading to the bridge has been completed.



On the south (park) side, paving of the 9'-wide path is complete.



Paving the north (Carlton Street) side is practically finished.

Carlton Street Footbridge – Update Apr. 2023 Page 3



The semi-circular path - similar in design to Allerton Overlook in Olmsted Park - graded to ADA standards, leads from the bridge to the Muddy River path. A landscape plan has been created to soften the extensive pedestrian ramping.

Most of the trees and shrubs, selected to survive dry spells and that require low maintenance, have been used in the other Muddy River parks.

Trees: Black Tupelo, Red Oak

Shrubs: Oakleaf Hydrangea, Witch Hazel, Sweet Fern, Goldfinger cinquefoil, Fragrant Sumac, Pink Azalea and Viburnum



In May, one of the final tasks is to install the wood treads and risers on the stairway.

Carlton Street Footbridge – Update May 2023 Page 1 v10

Restoration of this 1894 Carlton Street Footbridge (CSF) connecting Brookline's Longwood neighborhood with Riverway Park in Olmsted's Emerald Necklace should be complete within a month.



Final touchup of paint starts with a 2-part epoxy primer. The final coat, also a 2-part epoxy, is then applied.

In 2010, samples were removed from north side stairway surfaces that had been protected from weathering. These were analyzed microscopically to match the original paint.



120' of 6'-wide ramp is installed on the park (south) side and 91' on the street (north) side. Railings are welded and primed before final painting.

A total of over 1,600 square feet of aluminum grating is used for the ramps.

Carlton Street Footbridge – Update May 2023 Page 2



An Aetna worker installs conduit for the electric line that will power the light fixture and police call box in the park.



Granite steps lead to the restored stairway. Grout will be applied to all the seams to guard against moisture.

Carlton Street Footbridge – Update May 2023 Page 3



An Aetna carpenter starts to cut the board for the decking, tread and risers.

These are being constructed using ipe, (pronounced epy), a teak-like Brazilian hardwood known for its durability and insect resistance.

Ipe used in the CSF restoration cost over \$30,000. Ipe is also often used for park benches.



“Measure twice, cut once”. On the Carlton Street side, the concrete pavement must slope to allow proper drainage and prevent ice.

Carlton Street Footbridge – Update June 2023 Page 1 v11

Restoration of this 1894 Carlton Street Footbridge (CSF) connecting Brookline’s Longwood neighborhood with Riverway Park in Olmsted’s Emerald Necklace is taking shape. Progress is more visible with each day.



The carpenters, painters, electricians and welders, mostly from the Fall River-Providence area, have packed their tools; the trailer, backhoes, floodlights and forklifts have moved on to other bridges (likely much larger). The 4 oaks and grass are planted, and the Olmsted vision from 1894 is taking shape. More plantings will follow within 2 weeks.



The north (Carlton Street) end is complete. Railings are installed, and the “runnel” for bicycles will soon be placed. (The bridge is still an active worksite for some punch list items, so there’s no public access – yet.)



On the right, the newly paved Carlton Path connecting Carlton Street to Monmouth Court, is now open. The extensive ADA ramp on the left rises from street level to bridge.

Prepared by Hugh Mattison, Town Meeting Member Pct. 5 and longtime CSF advocate,

6/15/2023

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Carlton Street Footbridge – Update July 2023 Page 1 v14

Restoration of this 1894 Carlton Street Footbridge (CSF) connecting Brookline’s Longwood neighborhood with Riverway Park in Olmsted’s Emerald Necklace will be finished in July.



Carpenters have completed installing the stairs on the north (street) stairway.



Landscaping of the “Overlook” across the widest section of Riverway Park has been completed. Oakleaf hydrangea will serve as a screen for the ramps, while other shrubs - sweet fern, azaleas, cinquefoil, dogwood, witch hazel and viburnum – will enhance this Olmsted-designed landscape.



Prepared by Hugh Mattison, Town Meeting Member Pct. 5 and longtime CSF advocate,
7/4/2023

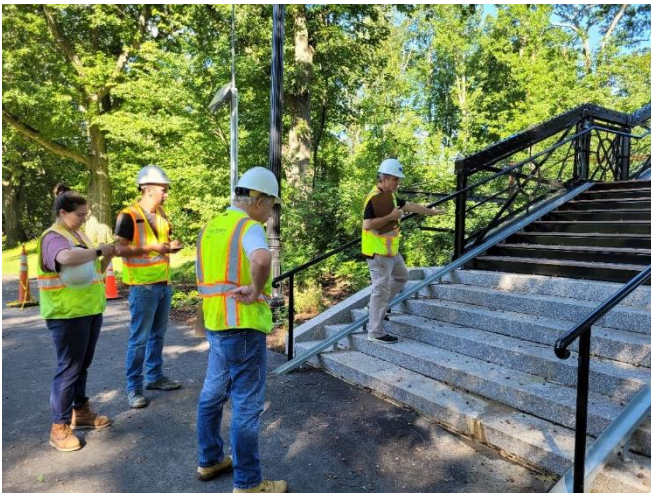
Email: hmattison@aol.com

Carlton Street Footbridge – Update August 2023 Page 1 v13

Restoration of this 1894 Carlton Street Footbridge (CSF) connecting Brookline’s Longwood neighborhood with Riverway Park in Olmsted’s Emerald Necklace was completed on August 11. An official re-opening celebration is planned for Sunday, September 17.



This panoramic image captures the gentle slope of the stairway and the main truss over the MBTA tracks.



Officials from Brookline Engineering, Aetna Bridge Co., MBTA, and Mass DOT, gather to make final inspections.



The chain-link fencing around the worksite is rolled up and stored in a trailer

Carlton Street Footbridge – Update August 2023 Page 2



Longtime neighbors and supporters gather on the just-opened bridge to enjoy the view and offer mutual congratulations for this restoration.



The first cyclist to use the bridge on her ride from JP to B.U. stops to chat and express appreciation.



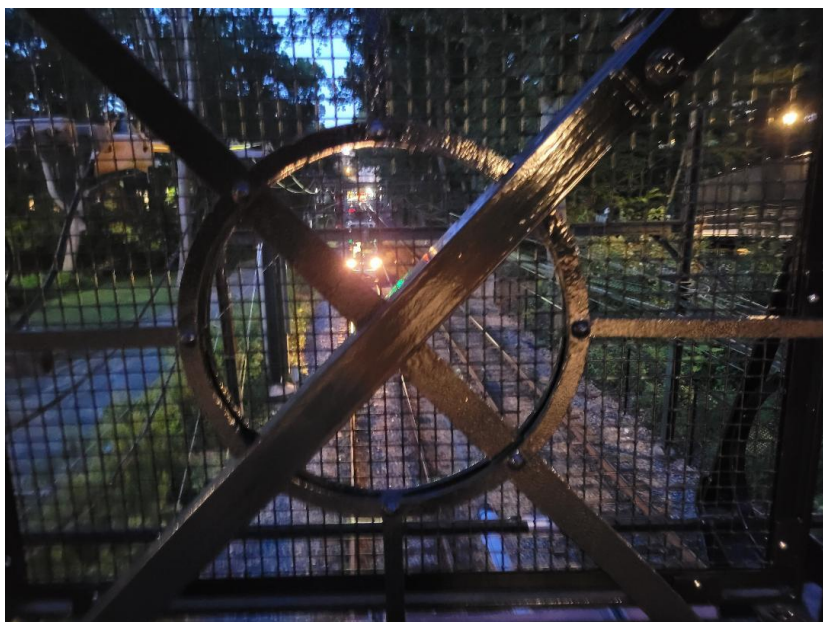
This little bridge has wide appeal. Here, a couple with a stroller pause to view an MBTA trolley passing underneath.

Carlton Street Footbridge – Update August 2023 Page 3



LED lights, set to turn on in the fading light, cast a warm glow over the wooden decking.

Looks sort of romantic, doesn't it?



Decorative ironwork, newly-restored, frames an MBTA train heading for Riverside.

After 47 years of closure, this little footbridge is ready once again to serve Brookline.

Prepared by Hugh Mattison, Town Meeting
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8/12/2023

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