



Chocolate Mill Bridge Lighting
Roosevelt Avenue Bridge in Pawtucket and Central Falls

Completed: 05/04/13

James Toomey
Coordinator, Sustainable Tourism Lab
Pawtucket, RI



A program of:



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Project Summary

The creation of the Chocolate Mill Overlook in May of 2012 made way for a breathtaking view that had not been easily seen for many years. Stripping away the layers of invasive species and cleaning up the Blackstone River banking that runs parallel to Charles Street in Central Falls exposed the historic tri-arched Roosevelt Avenue Bridge. This stone bridge was constructed in 1910 as a part of the “City Beautiful” movement with the intention of demonstrating “that [the] community was progressive, tasteful, and prosperous”¹. This style of bridge is one of many that span the Blackstone River throughout Rhode Island.

With the bridge now in view the community decided to continue to build upon the momentum of design that would further draws attention to the area. With that in mind it was proposed to frame bridge’s archways with bright, attention-grabbing LED lights. This document outlines how you can see these lights today as you stand at the wonderfully landscaped Chocolate Mill Overlook each and every evening.



View of Roosevelt Avenue Bridge from the Chocolate Mill Overlook, Central Falls, RI

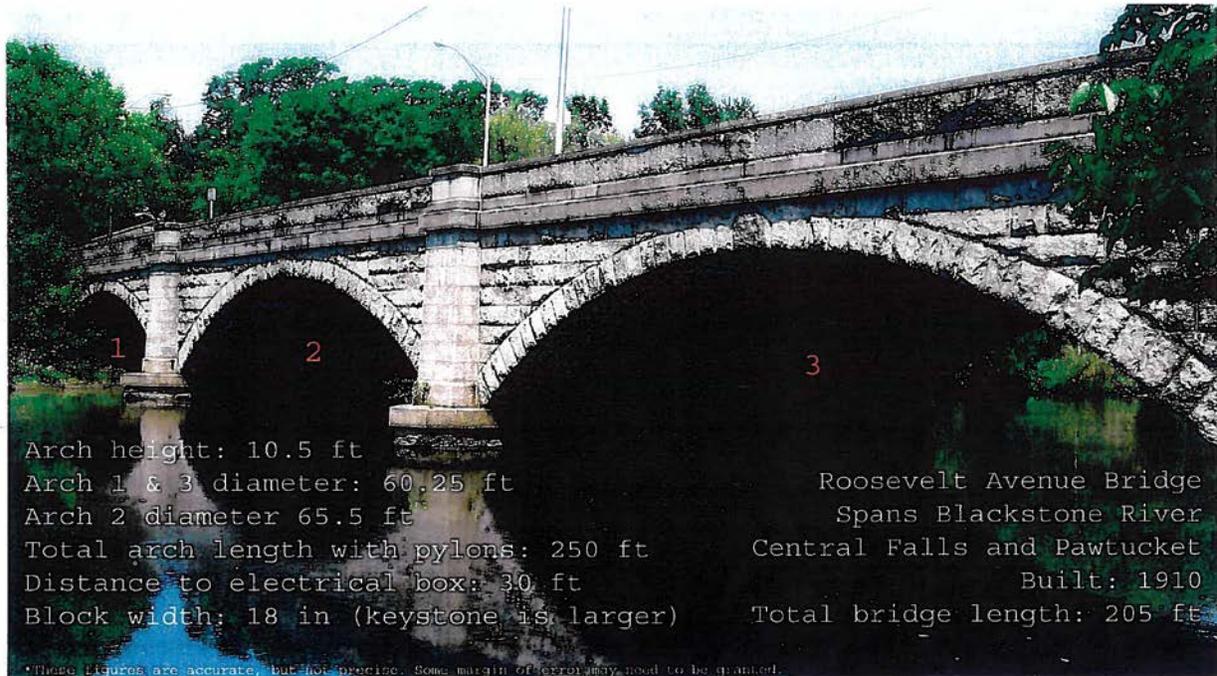
Project Operations

In order to achieve the goal of attaching these archway lights, a small committee was formed. Led by the Sustainable Tourism Laboratory, the committee’s focus was to research the materials to be used, fundraise, and develop an installation plan.

Measurements were taken of the bridge’s dimensions by members of the team to tabulate cost estimates. Once these figures were gathered, proposals were requested from lighting designers and electrical contractors. Original research efforts led to designs and financial figures that were not feasible and beyond the available budget. After a meeting with Joseph Nield, the director of Public Works in the City of Central Falls, the committee was made aware of a lighting product system that was to be used to light the historic Cogwell Tower in Jenks Park in Central

¹ Rhode Island Department of Transportation; (pg. 54, 1990) “Highway Bridges of Rhode Island”

Falls. This system was the solution as it was a single stringer of commercial grade weather resistant LED lights that could easily be strung continuously across the span of the bridge using a single power outlet.



To secure power for the lights, it was observed that adjacent to the Roosevelt Avenue Bridge was a Narragansett Bay Commission (NBC) pumping station. This building has an existing electrical supply of which the bridge lights could be tied in to. After discussions with representatives at NBC, an agreement was met to use power from the building with the caveat that the bridge light stringer would draw electricity from a completely separate circuit. This way, in the case that a surge occurred and the circuit is tripped it would not interfere with normal operations of the NBC pumping station.

Fundraising took place throughout the community to generate the necessary resources for this project. Thanks to generous donations from M. Barboza & Sons Roofing and Sheet Metal Company, Forget-Me-Not Gallery, Tai-O Corporation, and the City of Central Falls the necessary funds were raised.

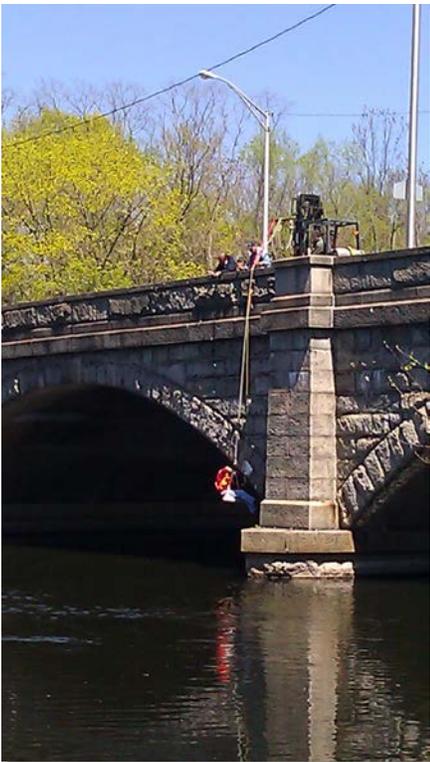
The Roosevelt Avenue Bridge is under the ownership of the City of Pawtucket; therefore a proposal was developed to secure support from the City. This proposal was brought before the city council and support was granted on April 24, 2013 allowing the project to proceed.

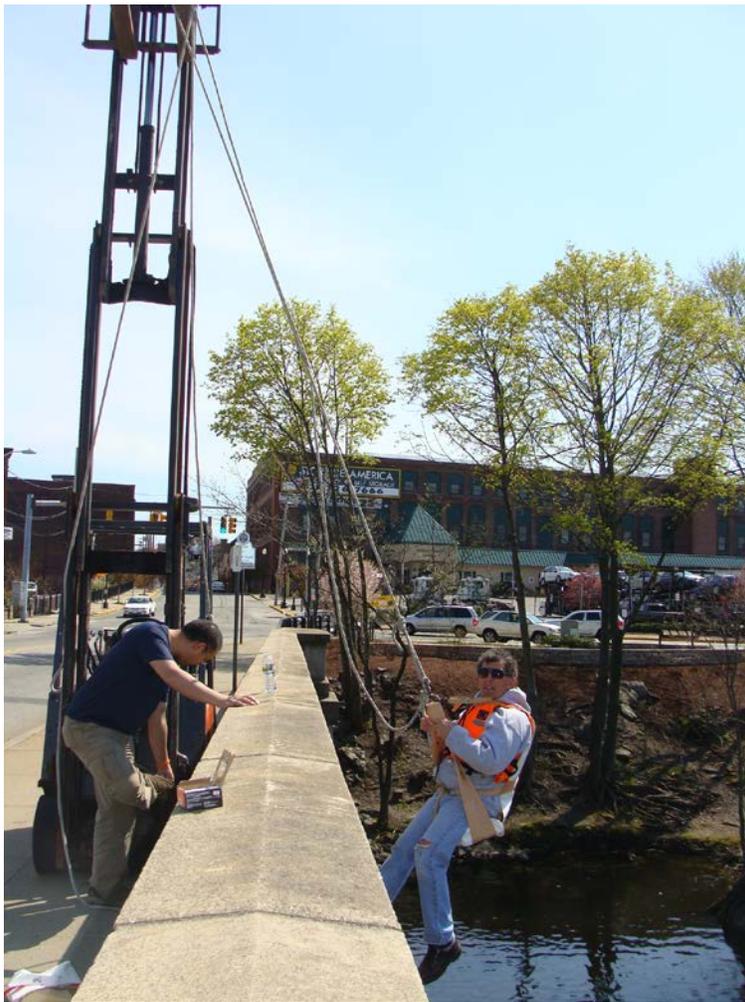
Installation

The lights were installed over the duration of half a dozen sessions that typically ranged between two to four hours. The installation team was comprised of Bob Billington, Jevon Chan, Sunny Ng, Qingya Wang, Austin Savarino, Mitchell Marks, Zamir Zaki, Pierre Chan, Louis Yip, and James Toomey. Positions in the team incorporated a fork lift driver, an installation technician, and several assistants to help with preparing and transferring the materials over the bridge railing to the technician.

The method used to install the lights consisted of running balls of plumber's putty, roughly the size of quarters, every six to eight inches across the span of the bridge. From there, bare airplane cable was immediately attached. After the putty had completely dried (one to two days) another session was scheduled to zip tie the light stringer to the airplane cable. (Another method was using ceiling disks to hold a small piece of aluminum wire that could then be twisted to hold the light stringer across the bridge.)

Electrical work for this project was done by Michael McBurney of McBurney Electric and Jevon Chan of Tai-O. McBurney was responsible for adding the time clock and running outlet materials to the bridge, while Chan was in charge of making the finishing splices after the lights were installed.





Materials

- Black Commercial Grade Stringers
- 9 LED Warm White S14 Medium Base Bulbs
- Bare airplane wire
- Plumber's epoxy putty
- Ceiling disks
- Aluminum wire
- Zip ties
- Electrical supplies (see page 8)
- Bos'n roughneck chair
- Marine grade rope



McBurney Electric Inc.

Established 1919

130 Benedict Street

Pawtucket, Rhode Island 02861

401-725-5078

May 3, 2013

Blackstone Valley Tourism

175 Main Street

Pawtucket, RI 02961

Attn: Bob Billington

Job: 5/1/13 Install outlet for bridge lights

Stock:

1-weatherproof time clock

1-1 pole circuit breaker

1-ground fault receptacle

1-20 amp single pole switch

2-weatherproof bell boxes

2-weatherproof covrs

10'-1/2" ridgid conduit

5-1/2" ridgid nipples

10'-1/2" EMT tubing

2-1/2" EMT elbows

2-1/2" EMT couplings

2-1/2" EMT connectors

2-1/2" compression connectors

1-1/2" compression couplings

4-1/2" EMT clips and anchors

5-1/2" ridgid galvanized couplings

120'-12-THHN wire

9-wirenuts

Permit

Labor:

Letter of Support

The Chocolate Mill Bridge Lighting project was supported by both the cities of Pawtucket and Central Falls, and the Rhode Island Historical Preservation & Heritage Commission.



STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

HISTORICAL PRESERVATION & HERITAGE COMMISSION

Old State House • 150 Benefit Street • Providence, R.I. 02903-1209

TEL (401) 222-2678
TTY (401) 222-3700

Fax (401) 222-2968
Website www.preservation.ri.gov

April 17, 2013

Mr. Robert D. Billington, President
Blackstone Valley Tourism Council
175 Main Street
Pawtucket, RI 02860

Re: Roosevelt Avenue Bridge Lighting

Dear Mr. Billington:

Thank you providing information about proposed lighting for the historic Roosevelt Avenue Bridge in Pawtucket. As described in your letter dated April 16, 2013, the project will have no adverse effect to the historic stone arch bridge. In the future, if the lighting ceases to be operational, the lights and any epoxy residue should be removed from the bridge.

Yours very truly,

A handwritten signature in cursive script that reads "Edward F. Sanderson".

Edward F. Sanderson, Executive Director
State Historic Preservation Officer

Agreement with NBC

The Narragansett Bay Commission
One Service Road
Providence, Rhode Island 02905

401 • 461 • 8848
401 • 461 • 6540 FAX
TTY (RI RELAY OPERATOR) 711

<http://www.narrabay.com>



Vincent J. Meselella
Chairman

Raymond J. Marshall, PE.
Executive Director

April 30, 2013

Robert Billington, President
Blackstone Valley Tourism Council
175 Main Street
Pawtucket, RI 02860

Re: Chocolate Overlook Park – Roosevelt Avenue Bridge Lighting Agreement

Dear Mr. Billington:

This letter serves as an agreement by and between the Narragansett Bay Commission (NBC) and Blackstone Valley Tourism Council (Blackstone) to allow Blackstone to obtain electrical power for their LED lighting on the Roosevelt Ave. Bridge from NBC's meter station located in the parking lot of 660 Roosevelt Avenue, Pawtucket, RI.

The parties hereby agree as follows:

1. NBC shall allow Blackstone to tie in an electrical connection to its meter station and install a time clock in its meter station located in the parking lot at 660 Roosevelt Avenue to provide electrical power for LED lights on the Roosevelt Avenue Bridge.
2. Blackstone shall pay NBC monthly for their electricity usage, which shall consist of all amounts over \$12.00, which is NBC's current monthly fee.
3. Blackstone shall be responsible all expenses and liabilities with regard to the installation, inspection, and maintenance of their lights, time clock, and other fixtures.
4. If Blackstone should require access to the Building, Blackstone shall contact Meg Goulet, NBC Interceptor Maintenance Manager, at (401) 461-8848 ext. 302 during normal business hours.
5. The parties signing below hereby represent that they are duly authorized to enter into this agreement.

For Narragansett Bay Commission

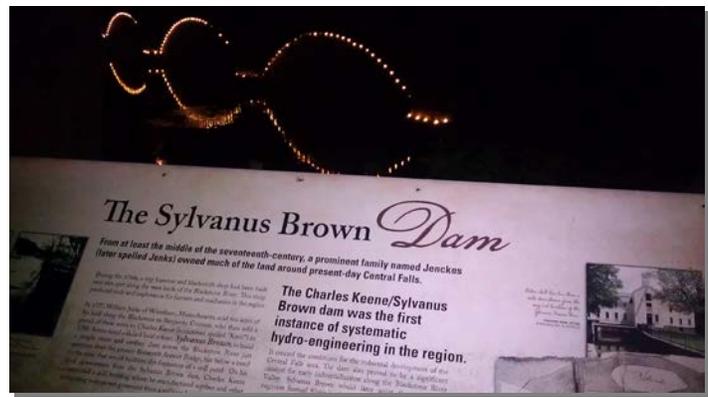
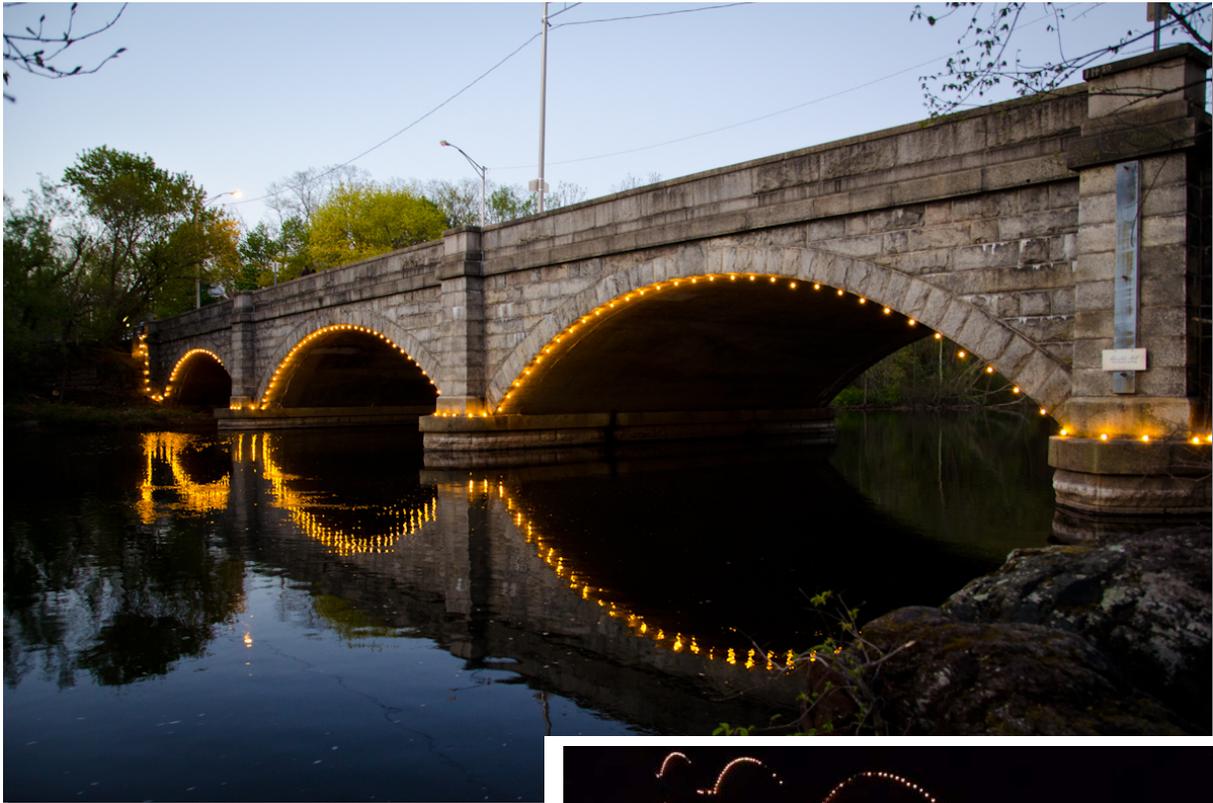
Ray Marshall, Executive Director
Narragansett Bay Commission
One Service Road
Providence, RI 02905

For Blackstone Valley Tourism Council

Robert Billington, President
Blackstone Valley Tourism Council
175 Main Street
Pawtucket, RI 02860

Project Completion

On Saturday, May 4th, 2013, the Chocolate Mill Bridge archway lights were officially illuminated at precisely 8 PM after a boisterous countdown. The lighting ceremony was a part of a larger public event, the Fifth Annual Cherry Blossom Festival, which was held on the corner of Roosevelt Avenue and Charles Street in Central Falls.



Lighting Event Celebration

The lighting celebration was billed as the main event at the Fifth Annual Rhode Island Cherry Blossom Festival. In attendance were many local citizens and business owners, the 2013 Rhode Island Cherry Blossom Princess, and out-of-town guests. Attendees at this event enjoyed complementary kayak trips, food trucks, and trivia, music, and karaoke from WRİK Entertainment. Congressman David Cicilline, Mayor James Diozza, Aaron Hertzberg of the Pawtucket Foundation, and Bob Billington of Blackstone Valley Tourism Council all made comments on the impact a project like the Chocolate Mill Bridge lighting can have on its community.



8pm

Chocolate Mill Overlook Bridge Lighting

First bridge lighting over the Blackstone River, as part of the 2013 Rhode Island Cherry Blossom Festival, celebrating the ongoing revitalization of the Blackstone River Valley. The lighting is dedicated to the thousands of factory workers of the Blackstone Valley.

Lighting Sponsors

Blackstone Valley Tourism Council
M. Barboza & Sons Roofing
City of Central Falls
Forget Me Not Gallery
Narragansett Bay Commission
RI Trucking Association
Tai-O, Inc.

Festival Donors

Central Falls Provision
City of Pawtucket
Consulate General of Japan in Boston
Keep Blackstone Valley Beautiful
Keep America Beautiful
McBurney Electric
Storage America
Students of Management 200-Bryant University
Tai-O, Inc.
UPS
WRİK Entertainment

Festival Committee

Dr. Robert Billington, Blackstone Valley Tourism Council
Geraldine Barelay-King, Blackstone Valley Tourism Council
Jolene Cabral, Blackstone Valley Tourism Council
Aaron Hertzberg, Pawtucket Foundation
Vickie Huang, ATC Promotions, Inc.
Sunny Ng, Tai-O, Inc.
James Toomey, Blackstone Valley Tourism Council
Louis Yip, Tai-O, Inc.



Acknowledgements

- City of Central Falls
- City of Pawtucket
- M. Barboza & Sons Roofing and Sheet Metal Company
- Bob Billington, Blackstone Valley Tourism Council
- Jevon Chan, Tai-O Corporation
- Pierre Chan, Tai-O Corporation
- Forget-Me-Not Gallery
- Megan Goulet, Narragansett Bay Commission
- Lixin Li, Johnson & Wales intern
- Joanne Maceroni, Narragansett Bay Commission
- Mitchell Marks, Johnson & Wales intern
- Michael McBurney, McBurney Electric
- Sunny Ng, Tai-O Corporation
- Joseph Nield, City of Central Falls Public Works Department
- Austin Savarino, Johnson & Wales intern
- James Toomey, Blackstone Valley Tourism Council
- Qingya Wang, Johnson & Wales intern
- Louis Yip, Tai-O Corporation
- Zamir Zaki, Johnson & Wales intern