

LOWELL WATERWAYS VITALITY INITIATIVE ACTION PLAN

A report of the Lowell Heritage Partnership and City of Lowell



The Lowell Heritage Partnership
Caring for Architecture, Nature, and Culture

Prepared by Solomon Office



CREDITS

The Waterways Vitality Action Plan was conceived and funded by Lowell Heritage Partnership (LHP) in collaboration with the City of Lowell. Essential support was provided by Enterprise Bank, Lowell National Historical Park, Greater Merrimack Valley Convention & Visitors Bureau, Greater Lowell Community Foundation, UMass Lowell Innovation Hub, Mill No. 5, and private donors. Additional participants are named on page 30.

The graphics and layout of this Action Plan were developed by Solomon Office.

FOR MORE INFORMATION:

Lowell Heritage Partnership
P.O. Box 8744
Lowell, MA 01853

www.lowellheritagepartnership.org/next
lowellheritagepartnership@gmail.com

February 2017
Copyright © Lowell Heritage Partnership
All Rights Reserved

Front and back cover photographs by James Hogan

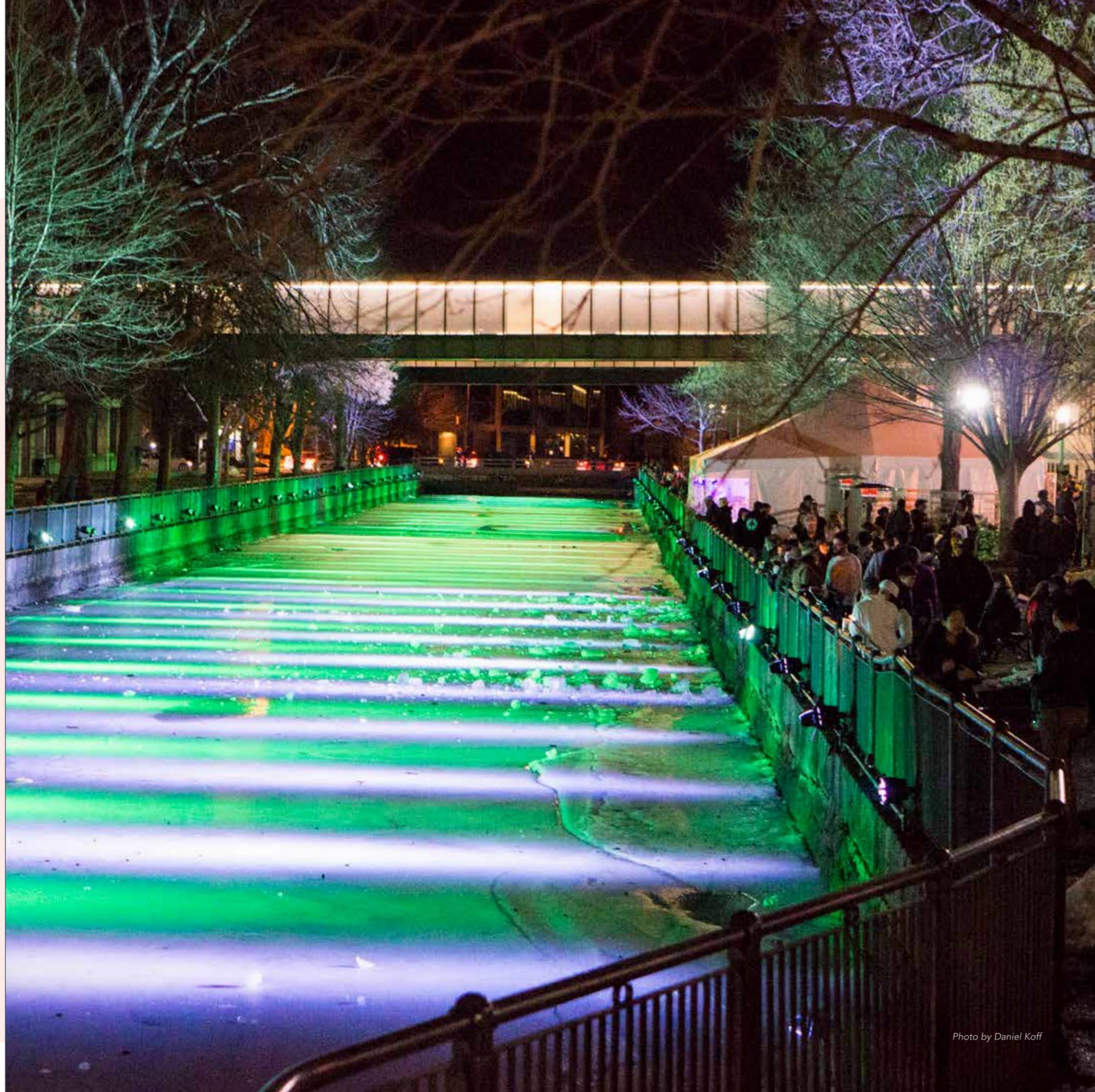


Photo by Daniel Koff



OVERVIEW

PROCESS

Through an extensive community planning process, a consensus emerged that certain water-related areas offer the best potential to become vibrant locations all year. A range of placemaking ideas compiled by the planners inspired the artistic renderings in this report. Recommendations are intended to enhance key areas of the national landmark 5.6 mile canal system and call attention to Lowell's most underappreciated resource – its waterways.

MISSION STATEMENT

The mission of the **Lowell Waterways Vitality Initiative** is to enhance the everyday experience of people in Lowell by making the city's historic waterways more accessible, active, and vibrant.

INTRODUCTION

HISTORY

Water was the catalyst for the founding of Lowell in the 1820s. Its canal system generated power for the mills and later served as the city's competitive advantage in the 1970s. At that time the community advocated for state and national parks to celebrate the heritage of America's most significant planned industrial city. Congress authorized a study of Lowell's historical and cultural assets that led to the establishment of Lowell National Historical Park in 1978, which was preceded by Lowell State Heritage Park in 1975. The canal system, owned and operated by Enel Green Power, continues to generate hydroelectric power.

Lowell has become an international model for urban revitalization thanks to its adaptive reuse of historic structures and its innovative cultural programs. In the past 40 years, \$1 billion has been invested in preservation projects, setting the stage for the city's next substantial initiative. The historic canal system, a National Engineering Landmark, is owned and operated by Enel Green Power, and continues to generate hydroelectric power. The community consensus is that the waterways and their settings offer an extraordinary opportunity as a major urban amenity.



"I wanted people to have a positive association with their environment. Our greatness comes from our adaptive reuse."

— Patrick J. Mogan, "Father" of Lowell National Historical Park

"The Lowell canal system is an engineering marvel and urban lifestyle gem, and we will make it shine in a way that everyone will want to see it."

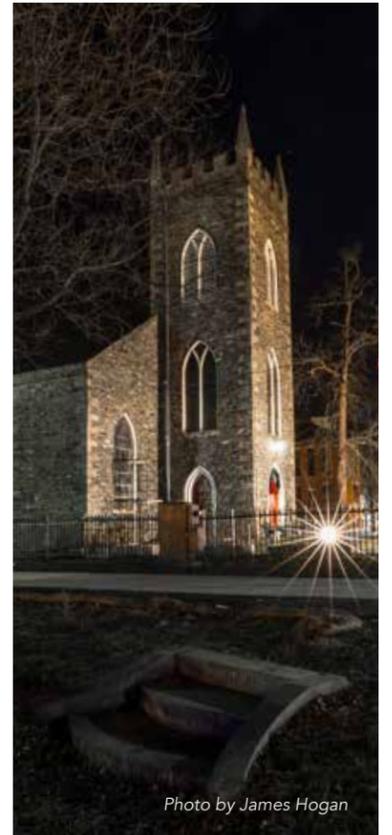
— Kevin Murphy, City Manager, Lowell

PROJECT BACKGROUND

In January 2016, more than 100 people gathered at the Luna Theatre in Mill No. 5 to witness the Lowell Heritage Partnership and City of Lowell present a vision of what the waterways could become if the best ideas and required resources came together. The idea gained momentum at the 2016 Winterfest when City leaders switched on colorful permanent lights on the Merrimack Canal at Lucy Larcom Park. The LHP brought like-minded community people together and hired Daniel Solomon Koff of Solomon Office to shape a plan for animating the waterways.

Next, as a result of a generous pledge of funding, the project expanded to embrace two historic bridges and the Merrimack River. An additional endeavor envisions the lighting of multiple downtown properties and works of art to complement the waterfront developments. Working groups met to fill in the outlines of the plan. In September 2016, a pilot lighting display at the Swamp Locks gatehouse and lock chambers drew 300 people to the Hamilton Canal Innovation District. City officials and those attending were called to "Light Up the Locks," and a commitment was made towards a broad program of lighting and expanded events.

By revitalizing its waterways and related historic structures, Lowell can increase economic development and enhance its cultural profile in a sustainable and inclusive way. This plan shows how the waterways can become more active and exciting for residents and visitors. Essential to the making of the city, the rivers and canals remain vital assets for present and future generations.



MAIN GOALS

- 1) Create an economic, cultural, and environmental improvement strategy along the waterways that complements Lowell's **historic character**
- 2) Design **lighting** features to enhance attractiveness, visibility, and safety
- 3) Work with property owners and partners to encourage waterside areas for **retail, restaurants, galleries**, and other compatible uses
- 4) Produce more **events** to make the city more distinctive and attractive
- 5) Soften concrete and brick areas with **gardens and artwork**
- 6) Improve way-finding signs to make the waterways **more accessible**



Inspired by the City's Merrimack Canal lighting, property owners have begun to light key properties in the vicinity. Pictured here is the tower on the historic firehouse on Palmer Street.

PUBLIC PARTICIPATION TO DATE



JANUARY 28
Presentation at Luna Theater



FEBRUARY 11
First community planning session



FEBRUARY 19 & 20
Winterfest lights, Lucy Larcom Park



MARCH 10
Second community planning session



JULY 7
Community engagement, First Thursdays



JULY 29, 30, & 31
Community engagement, Lowell Folk Festival



SEPTEMBER 1
"Light Up The Locks," Swamp Locks



SEPTEMBER 28
Mural lighting, New England Quilt Museum



For a schedule of implementation and next steps, see Page 30

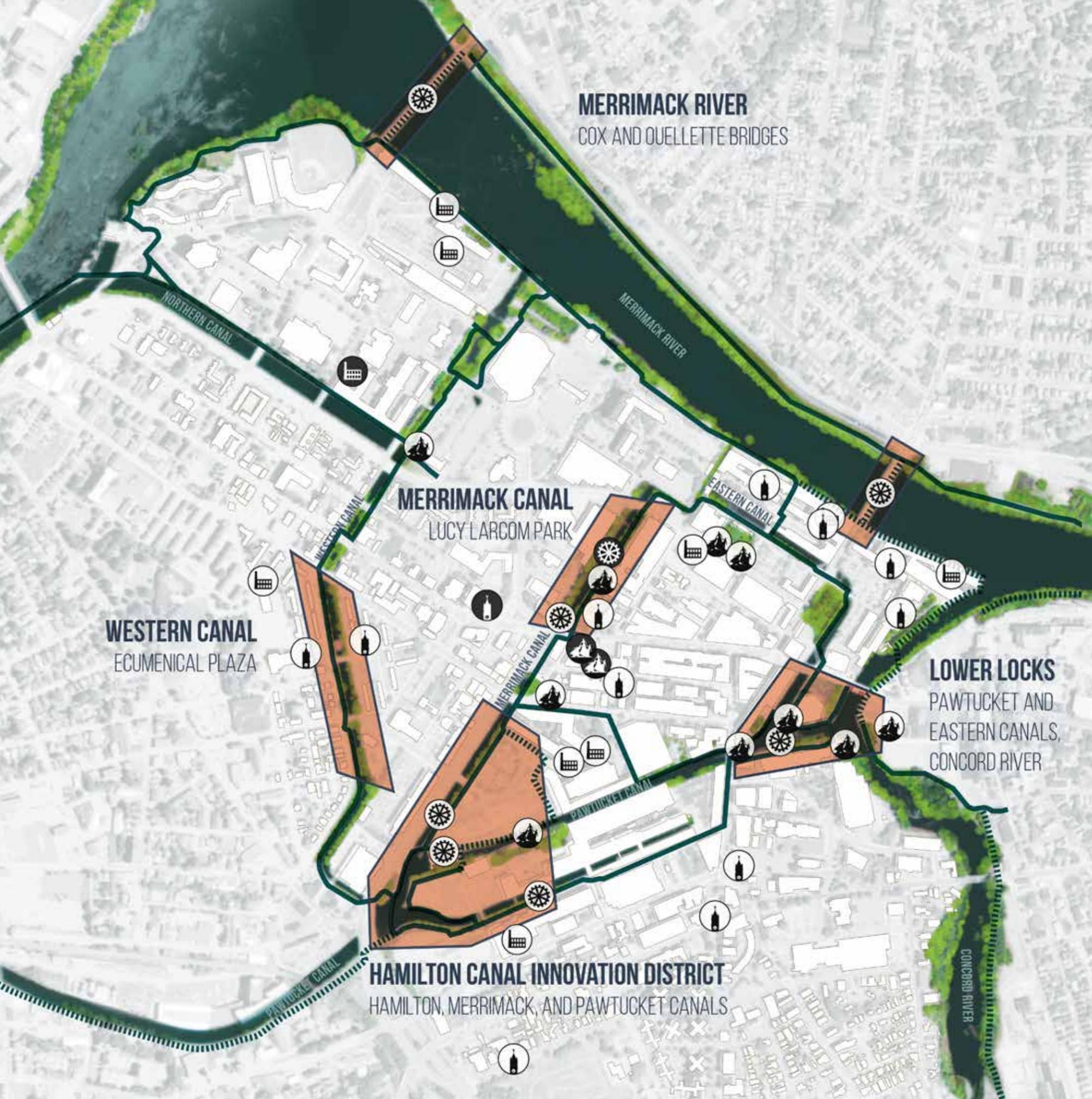
IMPLEMENTATION

KEY LOCATIONS AND FEATURES

The key locations and features that have been identified in this plan follow the recommendations set forth in the City of Lowell Master Plan, Sustainable Lowell 2025. These objectives include: "Promote waterfront access and development downtown." The tasks consist of surveying property, evaluating assets and opportunities, identifying potential impediments to redevelopment, and establishing regulations for waterfront businesses. The plan also calls for events, lighting displays, water sprays, and environmental art.

The following pages contain drawings in which artistic license was used to illustrate how activation strategies may appear. The drawings are not meant to suggest the exact shape or location of any project. Actual designs and activities will be refined in consultation with partners and stakeholders.

"The canal system in Lowell is unique because of its historical importance, its grand scale, and its technological complexity... At Lowell, science, perhaps for the first time in history, exerted a regular and profound influence on technology."
 — Dr. Patrick Malone, Congressional testimony, August 1974



ACCESSIBLE SITES

- Focus Area
- Path: Existing
- Path: Proposed

LIGHTING FEATURES

- EXISTING | PROPOSED
- Historic Structures
 - Public Art
 - Smokestacks
 - Towers



MERRIMACK CANAL

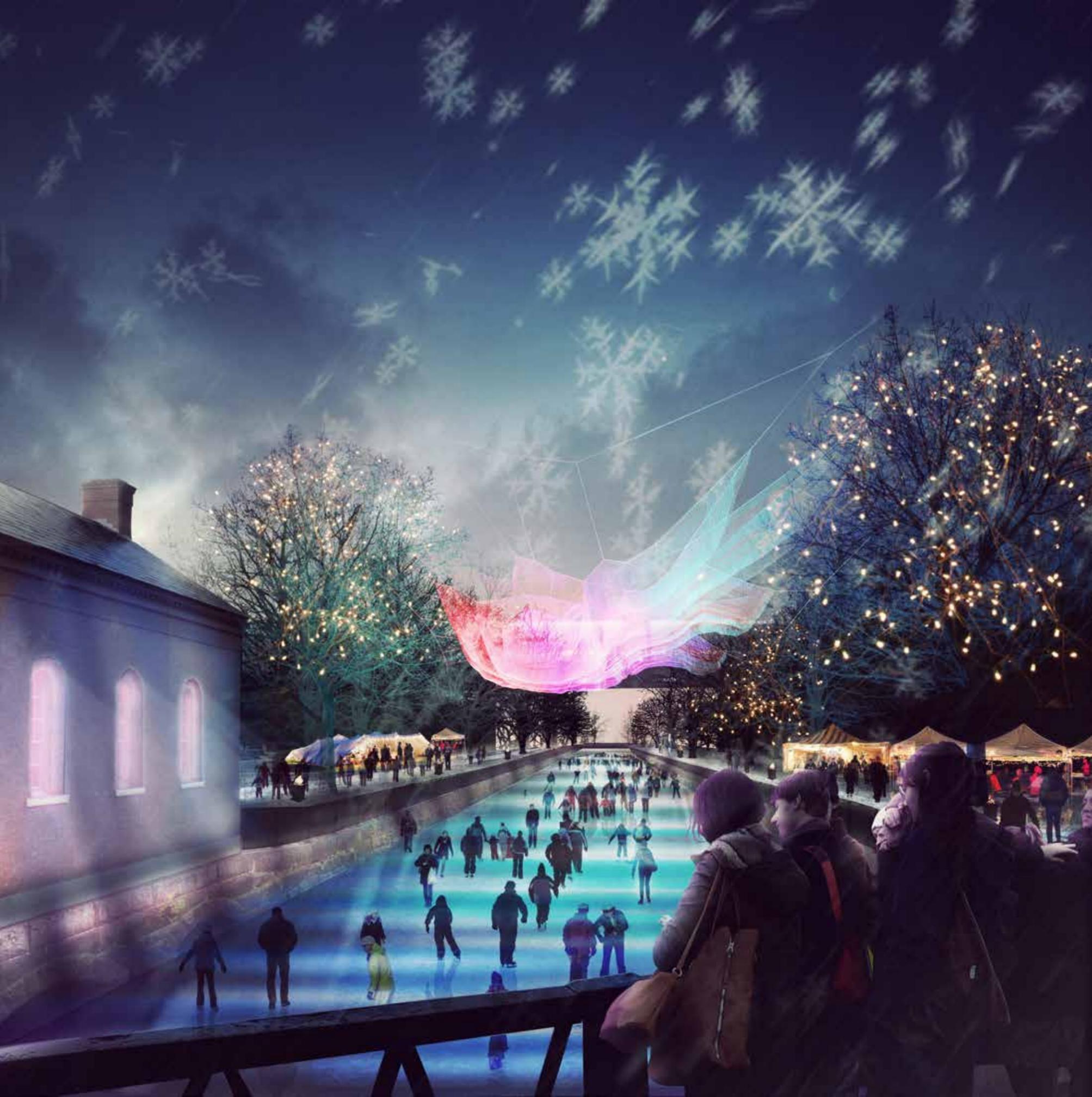
LUCY LARCOM PARK – A SUMMER'S DAY

Bounded by the Merrimack Canal and adjacent to Lowell High School, with an historic trolley passing along the canal bank, Lucy Larcom Park can be a highly active gathering place year-round. Additionally, the park may be expanded to the north side of the canal on a temporary basis for festivals and events. Examples of similar park areas that contribute to the vitality of urban life (allowing for differences in scale) are the Navy Pier in Chicago, Bryant Park in New York City, and the Riverwalk in San Antonio, Texas. The Merrimack Canal once generated power for Lowell's largest mill. The loss of adjacent boarding houses is credited with starting the city's preservation movement. The centrally located downtown park on occasion is filled with displays, vendors, and people such as during the Lowell Folk Festival and Winterfest. The goal is to make this a magnet for daily activity because of links to the Merrimack Street commercial corridor, as well as Boarding House Park and the Boott Cotton Mills Museum, a high school serving thousands of students, and the potential for year-round recreational, tourist, and other activities.

RECOMMENDATIONS

- Add tables and chairs with game boards
- Construct a small stage
- Develop pop-up displays and vendor booths
- Build a portable climbing wall, set up book and art carts, and make a seasonal information kiosk
- Convert the canal gatehouse to a welcome center with space for community and commercial uses





MERRIMACK CANAL

LUCY LARCOM PARK – A WINTER'S NIGHT

The Merrimack Canal has great four-season potential. This includes the possibility of skating on the canal, on artificial surfaces, or on nearby skating paths as seen recently on Boston's Government Center Plaza. An illuminated gatehouse and family-friendly features will complement the City of Lowell's lighting of the canal and other park upgrades.

RECOMMENDATIONS

- Illuminate the gatehouse and pedestrian path
- Add warming station for families
- Allow pop-up displays, vendor booths, and other activities
- Place fire pits in the park during events
- Create skating opportunities on or aside of on the canal
- Install temporary public art along the canal or from the elevated walkways at the high school

"Going forward, what we're interested in doing is utilizing the canal system to the greatest extent possible."

— Mayor Edward Kennedy, City of Lowell





WESTERN CANAL

ECUMENICAL PLAZA

Two elegant churches in Gothic Revival and Byzantine styles frame one of the earliest urban redevelopment projects of Lowell's revitalization period. The grounds of St. Patrick Church (1853) and Holy Trinity Greek Orthodox Church (1908) are connected by Ecumenical Plaza, a 1970s-era brick platform over the Western Canal. Physically and symbolically linking two sections of the historic Acre neighborhood with its multicultural population, the Plaza was pictured as a new public space. Its potential has not been fully realized.

This plan reimagines the canal and park-side experience from a community and visitor point of view. With engaged community partners, neighbors, and church-goers, the Plaza can be lively. Possibilities include gardens, farm markets, ethnic crafts vendors, buskers, fairs, and festivals.

RECOMMENDATIONS

- Prepare the venue for regular and special events
- Work with neighborhood organizations to generate involvement and input
- Use church edifices for colorful projections during festivals
- Explore architectural lighting opportunities for St. Patrick's Church and Holy Trinity Greek Orthodox Church
- Maintain and improve plantings along canal banks
- Organize water-based events and ceremonies around canals
- Encourage vendors and performers to use the space





HAMILTON CANAL INNOVATION DISTRICT

PAWTUCKET, HAMILTON, AND MERRIMACK CANALS

Lowell's largest redevelopment tract is positioned at the southern gateway to the downtown and represents a unique opportunity to renew Lowell's dedication to innovation. The view of the massive brick mills is the first place visitors encounter the scene of Lowell as America's most significant planned industrial city.

The Swamp Locks, one of most distinctive features in the city, was named after the wetlands that were formed by the confluence of canal segments. Today's parking lots are slated to give way to available building parcels and additional open space opportunities.

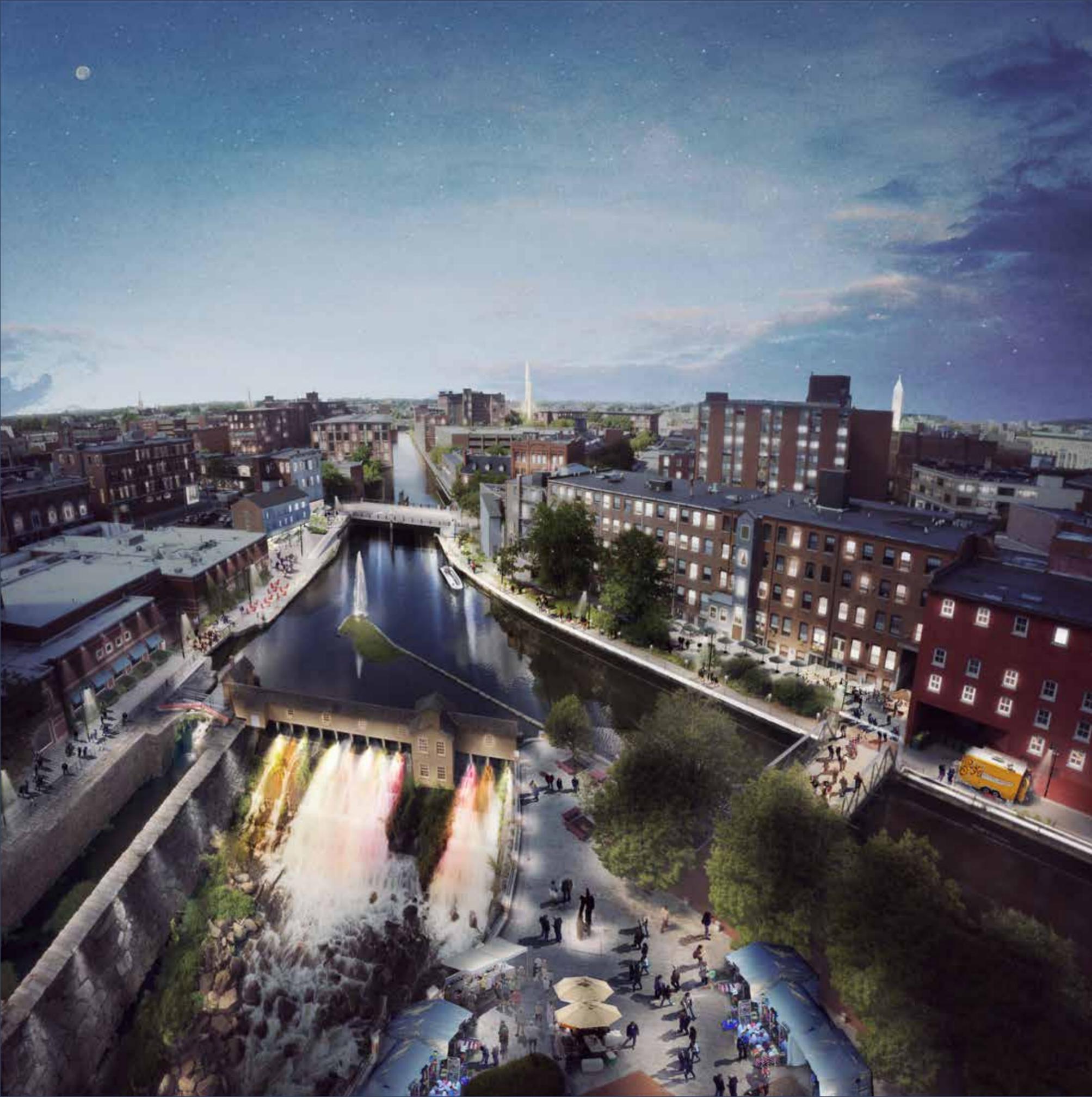
The City's ambitious economic development plans include several large structures and an area for a parking garage. The Commonwealth is building a \$200 million trial court at the eastern edge of the district. UMass Lowell has moved into 110 Canal Street, establishing an Innovation Hub and Medical Device Development Center.

The adjacent Utopian Park has shown its potential with nighttime events (food trucks, performers, and more) organized by Made in Lowell. On September 1, 2016, the Lowell Heritage Partnership, City officials, and community collaborators produced a spectacular one-night lighting display complete with entertainment, food trucks, and artwork that reinforced the site's potential.

RECOMMENDATIONS

- Install permanent lighting along the locks, gatehouse, and other areas with historic infrastructure
- Install water features to call attention to the junction
- Expand boat tours including potential commercial uses
- Offer incentives for canal-side outdoor dining and activities
- Make connections to Mill No. 5 and Western Avenue Studios
- Preserve green space and sight lines to Industrial Canyon
- Enhance pedestrian promenades along canals
- Complement historic mill structures such as the "ghost bridge" over Jackson Street with temporary and permanent public art





LOWER LOCKS

PAWTUCKET AND EASTERN CANALS, CONCORD RIVER

Urban designer and author Jeff Speck singled out the Lower Locks in the Lowell Downtown Evolution Plan. The Lower Locks, he writes, “has the potential to fundamentally transform Lowell into a city of the first rank.”

The massive complex of gates, locks, and spillways is dramatic. Prodigious granite walls rise up from the base of the locks within sight of the confluence of the Concord River. An elegant gatehouse perches atop the locks, masking the serene mill pond above the sheets of water pouring down to the canal bed.

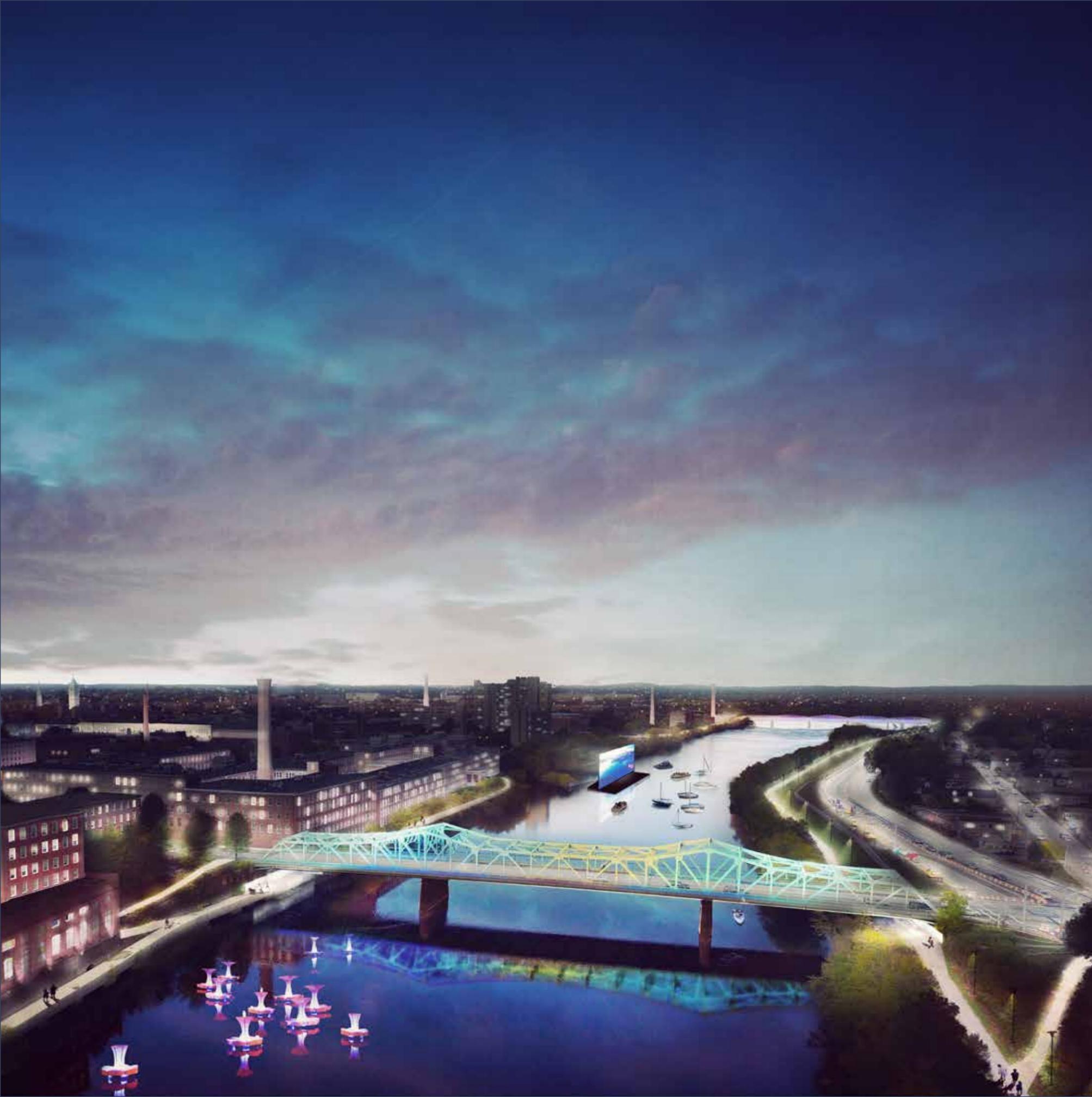
The Pawtucket Canal was originally built as a transportation canal in 1796 to route goods around the Pawtucket Falls on the Merrimack River. But with the construction of the Lower Locks in 1823, the canal was incorporated into a water control system to power mills.

Today, the spectacular setting is framed by the downtown campus of Middlesex Community College and the UMass Lowell Inn & Conference Center. The presence of two institutions of higher education offers a wealth of opportunities for active use as well as options for regular and special events.

RECOMMENDATIONS

- Light the locks, gatehouse, walls, and walkways
- Maintain and illuminate works of public art
- Offer incentives for water-side cafés and eateries
- Make locations available for vendors
- Improve access for pedestrians and people with disabilities
- In addition to the National Park Service canal boats, consider adding a water taxi port
- Improve historic properties where Central Street meets the Pawtucket Canal





MERRIMACK RIVER

JOHN E. COX AND JOSEPH R. OUELLETTE MEMORIAL BRIDGES

A major goal of the Lowell Waterways Vitality Initiative is to light these two landmark bridges in a fashion that will heighten their visibility and further develop linkages on both sides of the river for recreational, pedestrian, and social uses. Already striking works of industrial America, these structures will gain value when illuminated in a new and dramatic way.

The Cox Bridge, informally called the Bridge Street Bridge, is a “rare example of a small-scale through truss cantilever” design. It has three main spans and is 474 feet long. This bridge connects the core of Downtown to the Centralville neighborhood and like its steel cousin, the Ouellette Bridge, is a highly visible major artery.

Upriver from the Cox Bridge, the Ouellette Bridge is nearby LeLacheur Park, where the minor league Lowell Spinners, a Red Sox affiliate, play their games. The Ouellette Bridge connects westerly portions of Centralville to what was once known as Little Canada, UMass Lowell’s East Campus, and the downtown. The 780-foot bridge has five spans in a pin-connected style.

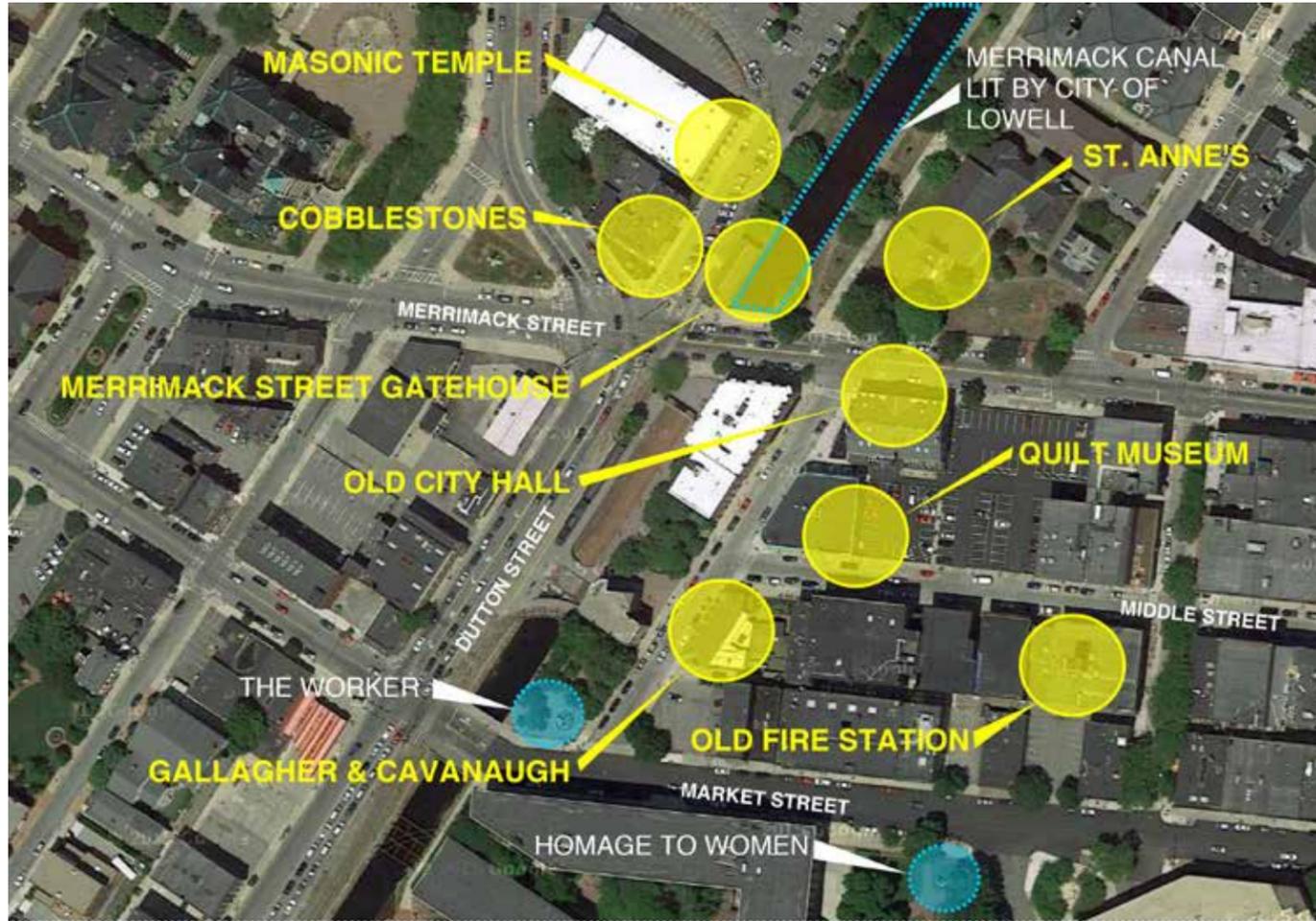
Writing about the Ouellette Bridge, historicbridges.org states: “This bridge is among the most beautiful bridges in the country...It is the longest lenticular truss bridge in the country and also is in first place for most number of lenticular spans, which is five.”

RECOMMENDATIONS

- Light up bridges, pedestrian paths, and Riverwalk extension
- Light up river facades of Boott Mills and Massachusetts Mills
- Add temporary public art and additional river features
- Consider water taxi port locations and more active uses
- Connect Centralville and Downtown through activities, events, and park and pedestrian improvements



MERRIMACK CANAL LIGHTING DISTRICT



Inspired by the City's Merrimack Canal permanent lighting additions, business and property owners have begun to light key buildings and structures near the Merrimack Canal. Some of the properties that are proposed for illumination are highlighted in the map above.

Other candidates for lighting will be part of later phases. Discussions are ongoing with Lowell National Historical Park and the Lowell Historic Board to set criteria for these and additional districts.

Lowell is fortunate to have great resources in design, products, and trades that have fostered this aspect of the lighting initiative. The goals of this effort are to highlight Lowell's outstanding architecture and sites and to extend the day, enhancing the business and residential climate as well as contributing to public safety.

DEMONSTRATION PROJECTS



Wannalancit Mills annual smokestack lighting, 2015
Photo by Kevin Harkins



Lowell Walks, 2016
Photo by Fred Faust



ARTventures by Jay Hungate, Brush Gallery Artists, Jim Higgins, Jerry Beck, Pete Pedulla, and local community members, 2007
Photo by Jim Higgins



Veils of Color by Barbara Pool, Pawtucket Canal, 2016
Photo by James Hogan

"With a little effort, one could readily transform the huge mills, thus illuminated, into palaces lighted up for festival occasions"

— John Greenleaf Whittier, "The Lighting Up," 1843

PLACEMAKING IN THE USA



Lawn on D, Boston, MA, 2015

Photo by Bianca Mauro



WaterFire, Providence, RI

Photo by John Simonetti



Tom Tom Festival, Charlottesville, VA, 2013

INTERNATIONAL PRECEDENTS



Naviglio Grande, Milan, Italy



Lyon Light Festival, France c. 1643



Badeschiff Pool on the Danube River, Vienna, Austria, c. 2006



The Pool by Jen Lewin Studio, Istanbul Light Festival, Turkey, 2015



Flying Dutchman by Visual Skin, Amsterdam Light Festival, Netherlands, 2015

PROPOSED BUDGET

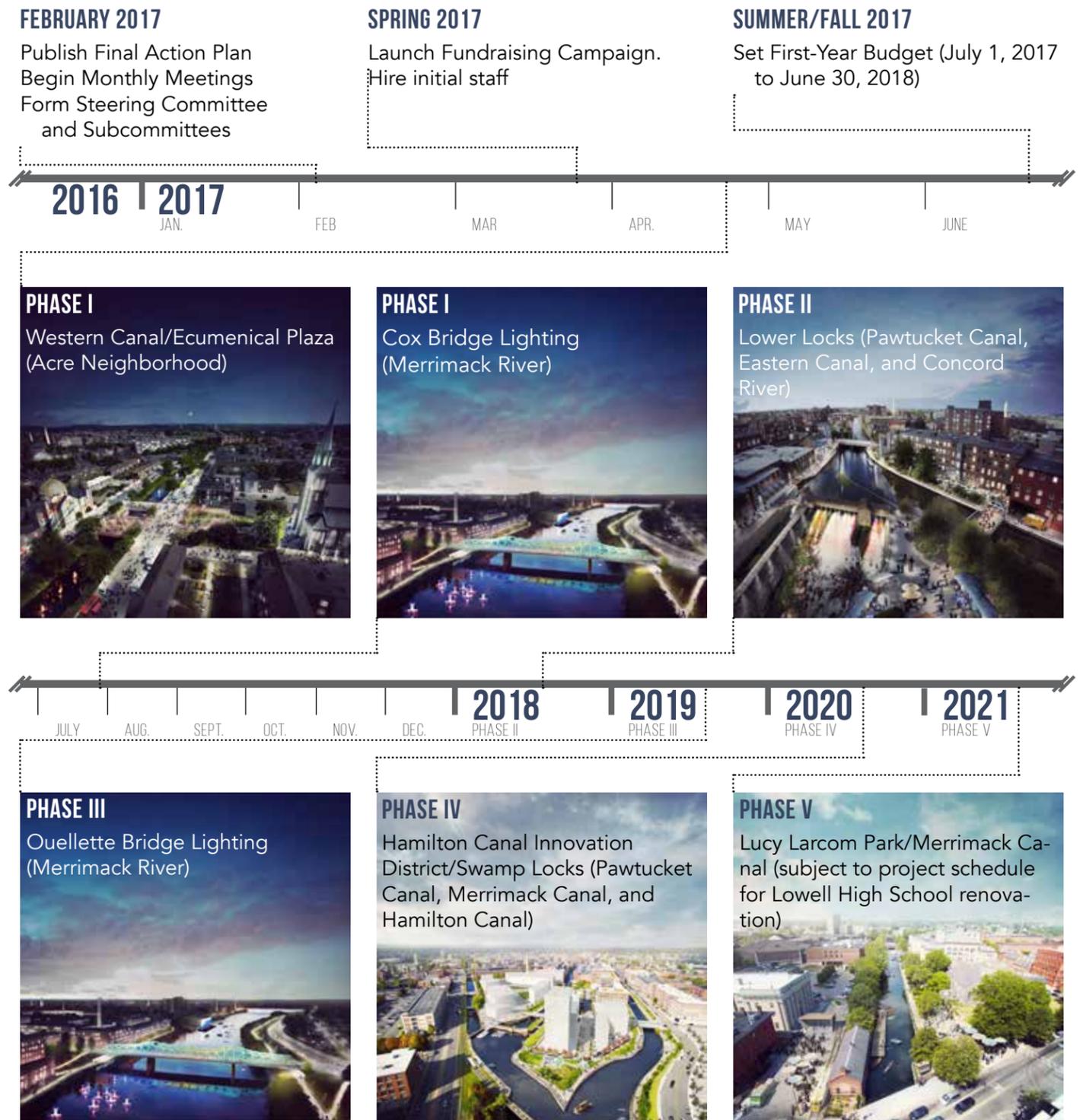
CAPITAL BUDGET – RIVERS	2017	2018	2019	2020	2021
RIVERS (RIVERWALK BY CITY)					
COX BRIDGE	\$500,000				
OUELLETTE BRIDGE		\$500,000			
OTHER, RIVER			\$200,000	\$200,000	
SUBTOTAL	\$500,000	\$500,000	\$200,000	\$200,000	

CANAL					
EXTEND CANAL IMPROVEMENTS	\$100,000	\$100,000	\$100,000	\$100,000	
CANAL LIGHTING/DOWNTOWN DISTRICTS	\$200,000		\$200,000		\$200,000
CANAL ACCESS/SIGNS (BY OTHERS)	\$355,000				
CANAL BEAUTIFICATION/GREENSCAPE		\$50,000	\$50,000	\$50,000	\$50,000
CANAL ECON. DEV. LOANS	LDFC/CITY	LDFC/CITY	LDFC/CITY	LDFC/CITY	LDFC/CITY
SUBTOTAL	\$555,000	\$150,000	\$350,000	\$150,000	\$350,000
ANNUAL TOTAL	\$1,055,000	\$650,000	\$550,000	\$350,000	\$350,000
FIVE YR. PERIOD, CAPITAL AVAILABLE OR COMMITTED					\$2,955,000 \$(1,055,000)

OPERATING BUDGET	2017	2018	2019	2020	2021
OFFICE AND ADMINISTRATION	\$20,000	\$35,000	\$50,000	\$50,000	\$50,000
PERSONNEL					
DIRECTOR/FUNDRAISER	\$40,000	\$60,000	\$62,000	\$64,000	\$66,000
OTHER STAFF		\$40,000	\$42,000	\$44,000	\$46,000
MARKETING		\$20,000	\$30,000	\$40,000	\$50,000
EVENTS/LHP AND OTHERS	\$25,000	\$50,000	\$75,000	\$100,000	\$125,000
CONSULTING/MISC.	\$40,000	\$50,000	\$50,000	\$50,000	\$50,000
ANNUAL TOTAL	\$125,000	\$255,000	\$309,000	\$348,000	\$387,000
FIVE YR. PERIOD, OPERATING					\$1,424,000

PREPARED BY THE LOWELL HERITAGE PARTNERSHIP
12/11/2016

ACTION STEPS AND TIMELINE



This plan recommends that events occur in each focus area every year even as the infrastructure improvements are made as funds are available. With all physical improvements, sustainable maintenance plans will be essential.

ACKNOWLEDGMENTS

PROJECT PARTNERS

City of Lowell

Mayor Edward Kennedy
Vice Chair Daniel Rourke
Councilor Corey Belanger
Councilor Rodney Elliott
Councilor John Leahy
Councilor James Leary
Councilor Rita Mercier
Councilor James Milinazzo
Councilor Bill Samaras
City Manager Kevin Murphy
Department of Planning and Development
Department of Cultural Affairs & Special Events

Congressional Representative

Congresswoman Niki Tsongas

Lowell State House Delegation

Senator Eileen Donoghue
Representative Tom Golden
Representative Rady Mom
Representative David Nangle

Solomon Office and Associates

Daniel Solomon Koff, Project Lead & Action Plan Designer
Stephanie Bracconier, Architectural Illustrator
Grga Basic, Map-maker
Nick Vandenberg, Animator
Jamie Boudreau, Airgoz Photography

Recommendations of this initiative complement the following earlier reports:

The Brown Book, 1976
The Canalway, A Proposal. Canalway Task Force, June, 1985
Preservation Plan, Lowell Historic Preservation Commission, 1980
Preservation Plan Amendment, Lowell Historic Preservation Commission, 1990
Lowell: The Flowering City, Project Anthopolis Charrette & Human Services Corporation, 1996
Advisory Services Panel Report, Lowell Massachusetts, Urban Land Institute, 2003
Open Space Plan, City of Lowell DPD, 2005
On the Cultural Road, Mt. Auburn Associates & Lowell Plan, 2007
Hamilton Canal District Master Plan, City of Lowell, Trinity Financial, Icon Architecture, 2007
Lowell Downtown Evolution Plan, Speck & Associates LLC, AECOM, Rock Maple Studios, 2010
Sustainable Lowell 2025, Office of the City Manager, 2013
UMass Lowell 2020 Strategic Plan Update, UMass Lowell, 2015

LOWELL HERITAGE PARTNERSHIP

Board of Directors

Deb Belanger
Jane Calvin
Phala Chea
Yun-Ju Choi
Veronica Demers
Fred Faust
Gray Fitzsimons
James Gaffney
Barbara Gilbert
Pauline Golec
Gordon Halm
Janet Leggat
Bill Lipchitz
Richard Lockhart
Paul Marion
Tobias Marx
Martha Mayo
Charles Nikitopoulos
James Ostis
Nancy Pitkin
Sovanna Pouv
Todd Smith
Sayon Soeun
Stephen Stowell
Marie Sweeney
Sean Thibodeau
Amy Elizabeth Uebel

Ex-Officio Members

Peter Aucella
Celeste Bernardo

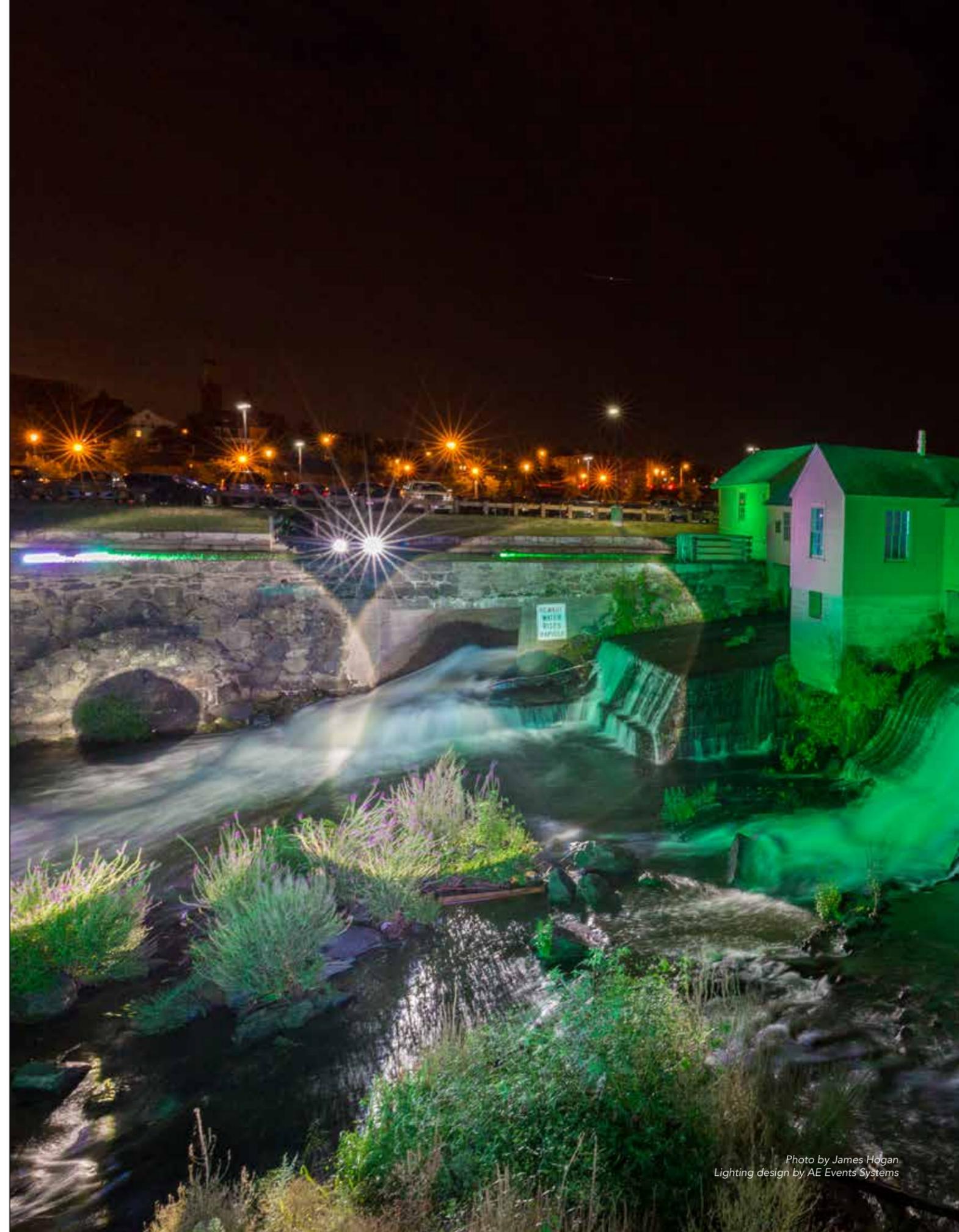


Photo by James Hogan
Lighting design by AE Events Systems