



Rapid Recovery Plan

2021

Natick, MA



This plan has been made possible through technical assistance provided by the Baker-Polito Administration's Local Rapid Recovery Planning program.



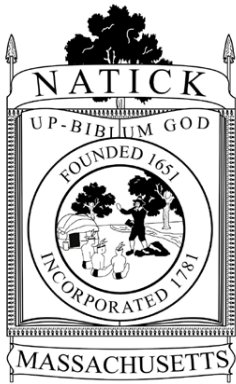
The Local Rapid Recovery Planning (RRP) program is a key part of the Baker-Polito Administration's Partnerships for Recovery Plan, the strategy established to help communities stabilize and grow the Massachusetts economy as a result of the economic impacts brought on by COVID-19. The plan invests \$774 million in efforts to get people back to work, support small businesses, foster innovation, revitalize downtowns, and keep people in stable housing.

In addition to the planning program, recovery efforts include a Small Business Relief Program administered by the Massachusetts Growth Capital Corporation. This program, which concluded in May 2021, provided more than \$687.2 million to over 15,000 businesses across the Commonwealth, with a focus on businesses located in Gateway Cities, among demographic priorities, or operating in sectors most impacted by the pandemic. Cities, towns, and non-profit entities are using Regional Pilot Project Grant Program funding for recovery solutions that seek to activate vacant storefronts, support regional supply chain resiliency, and create small business support networks. To promote recovery in the tourism industry and support the ongoing My Local MA marketing initiative encouraging residents to support their local economies by shopping, dining and staying local, another \$1.6 million in grants were awarded through the new Travel and Tourism Recovery Grant Pilot Program. Through April 2021, MassDOT's Shared Streets and Spaces Grant Program has invested \$26.4 million in municipal Shared Streets projects to support public health, safe mobility, and renewed commerce.

In support of the overall recovery strategy, the Administration made \$9.5 million in awards for 125 communities to create Local Rapid Recovery Plans, through the MA Downtown Initiative Program. These plans address the impacts of COVID-19 on local downtowns and small businesses by partnering with Plan Facilitators and Subject Matter Experts to pursue locally-driven, actionable strategies.

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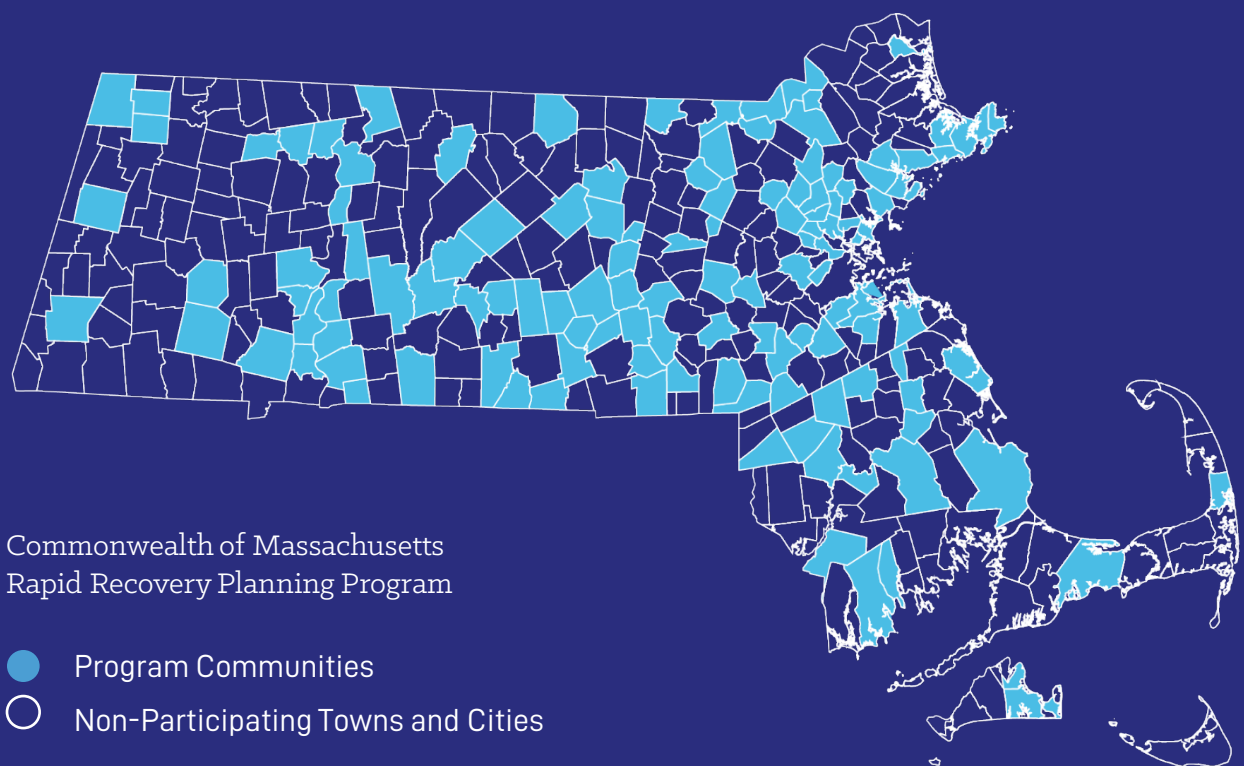
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125 communities participated in the Rapid Recovery Plan Program

52 Small Communities
51 Medium Communities
16 Large Communities
6 Extra Large Communities

Mass Downtown Initiative distributed nearly \$10 million across 125 communities throughout the Commonwealth to assess impacts from COVID-19 and develop actionable, project-based recovery plans tailored to the unique economic challenges in downtowns, town centers, and commercial districts.



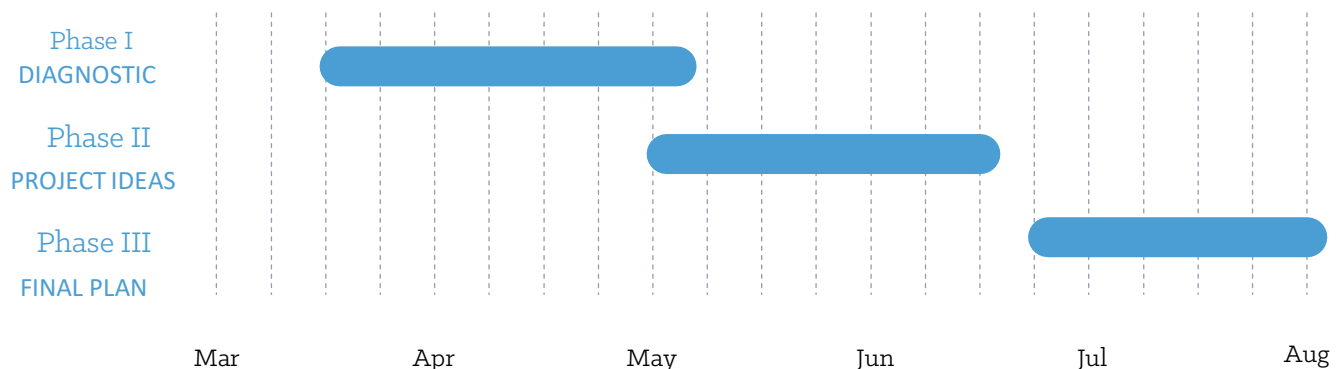
Rapid Recovery Plan (RRP) Program

The Rapid Recovery Plan (RRP) Program is intended to provide every municipality in Massachusetts the opportunity to develop actionable, project-based recovery plans tailored to the unique economic challenges and COVID-19 related impacts to downtowns, town centers, and commercial areas across the commonwealth.

The program provided technical assistance through Plan Facilitators assigned to each community applicant (e.g., city, town, or nonprofit entity) and Subject Matter Experts who supported the development of ideas for project recommendations and shared knowledge through best practice webinars and individual consultations.

Communities and Plan Facilitators were partnered through the program to assess COVID-19 impacts, convene community partners to solicit project ideas and provide feedback, and develop project recommendations. The following plan summarizes key findings from the diagnostic phase of the program and includes a range of priority project recommendations for the community.

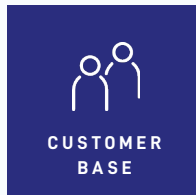
Each Rapid Recovery Plan was developed across three phases between February-August 2021. Phase 1 - Diagnostic, Phase 2- Project Recommendations, Phase 3 - Plan.



In Phase 1: Diagnostic, Plan Facilitators utilized the Rapid Recovery Plan Diagnostic Framework that was adapted from the award-winning Commercial DNA approach as published by the Local Initiative Support Corporation (LISC) in "Preparing a Commercial District Diagnostic", and authored by Larisa Ortiz, Managing Director, Streetsense (RRP Program Advisor).

The framework was designed to ensure methodical diagnosis of challenges and opportunities in each community, and to identify strategies and projects that aligned with the interests and priorities of each community. The framework looks at four areas of analysis: Physical Environment, Business Environment, Market Information, and Administrative Capacity - each equipped with guiding questions to direct research conducted by Plan Facilitators.

Rapid Recovery Plan Diagnostic Framework



Who are the customers of businesses in the Study Area?

How conducive is the physical environment to meeting the needs and expectations of both businesses and customers?

What are the impacts of COVID-19 on businesses in the Study Area? How well does the business mix meet the needs of various customer groups?

Who are the key stewards of the Study Area? Are they adequately staffed and resourced to support implementation of projects? Are the regulatory, zoning, and permitting processes an impediment to business activity?

Following the diagnostic in Phase 1, Plan Facilitators, in close coordination with communities, developed and refined a set of recommendations that address priority challenges and opportunities. These project recommendations are organized in clear and concise rubrics created specially for the Rapid Recovery Plan Program. Project recommendations are rooted in a set of essential and comprehensive improvements across six categories: Public Realm, Private Realm, Revenue and Sales, Administrative Capacity, Tenant Mix, Cultural/Arts & Others.



Public Realm



Private Realm



Tenant Mix



Revenue/Sales



Admin Capacity



Cultural/Arts



Other

Executive Summary

Executive Summary

Strategic public investments and solid partnerships have Natick poised to make a strong economic recovery out of the COVID-19 pandemic

Natick Center has a rich history and culture. It is occupied with a mix of commercial, retail, cultural, residential, and civic uses. Municipal properties downtown include Town Hall and the Common, Morse Institute Library, and the Police and Fire Stations. While Natick Center has an abundance of revitalized historic buildings, it is also experiencing new growth with several proposed and recently completed housing and mixed-use developments.

The MBTA Commuter Rail services Natick Center and ranks in the top 25% of busiest commuter rail stations. The MBTA has embarked on a renovation project to improve rider experience and ensure compliance with accessibility standards. The projected completion of this \$36M project is 2022. The Town has an abundance of public parking spaces – approximately 1,500 – both on-street and in public parking lots. There is a pay-to-park system in place with a parking app, meters, and at a kiosk.

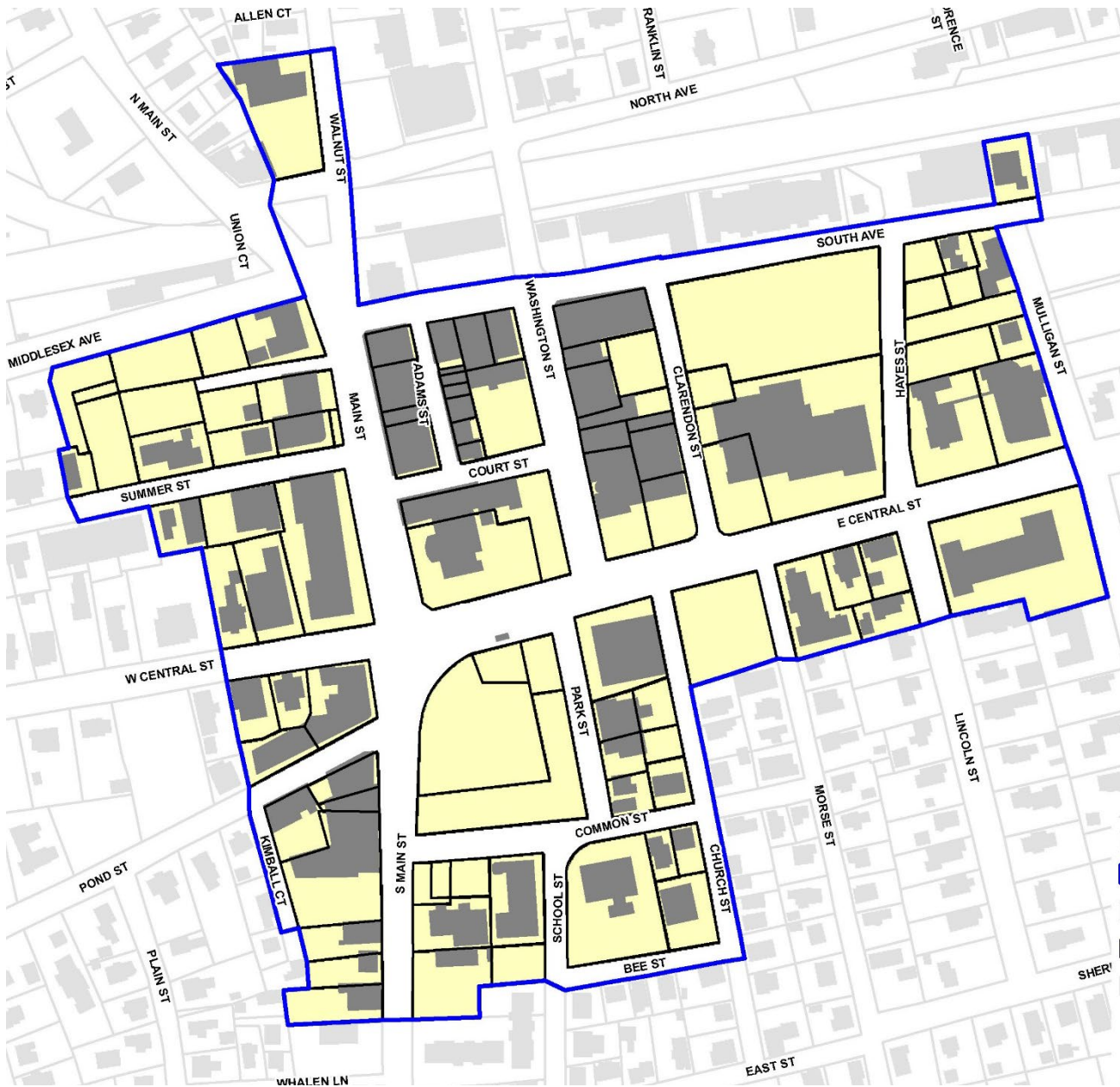
The LRRP study area encompasses the Natick Center Cultural District. Based on assessor's information, there is approximately 63,000 square feet of ground floor retail space and 24,000 square feet of ground floor office space in the district. In addition, there are approximately 85 storefronts. The business community has weathered the storm well, with only six vacancies counted in the district – most in a building on Washington Street where a mixed-use development is proposed. It is important to note that the square footage above only represents ground floor area. There are many multi-story commercial buildings accounting for much more space. Based on field inspections in April and May 2021, the Natick Center Cultural District has 157 businesses. This is comparable to the 161 businesses calculated through the ESRI and Infogroup platform (2020 Total NAICS11-99 Businesses).

Through the diagnostic phase of this project, a business survey was conducted to measure the impact of COVID-19 on business operations. Generally, respondents to the survey stated they suffered impacts such as a decline in revenue, reduced operating hours/capacity, business closures (temporary or permanent), incurred expenses to implement safety measures, established alternative modes to sell and deliver products, employee layoffs, and stopped/deferred rent or mortgage payments.

The Town has been responsive to working with partners to assist businesses in recovery efforts. In April 2021, the Massachusetts Office of Business Development awarded the communities of Ashland, Framingham, and Natick with a \$250,000 Business Marketing Technical Assistance Grant, funding a new program to help struggling small businesses in the region. The grant focused on connecting business owners with marketing professionals on branding, website presence, point of sale creation, and social media guidance. The Town, through its Community and Economic Development Department, has also helped local Natick businesses access over \$5 million in state small business COVID grants and over \$100,000 in federal COVID micro-enterprise assistance grants since 2020.

In addition, the Town was proactive in implementing a temporary outdoor dining program to alleviate the impact of COVID-19 on downtown restaurants. On-street public parking spaces were recaptured in designated areas near restaurants in the district. The Town provided protective barriers and the restaurants were responsible for the tables and chairs.

Finally, the Natick Center Cultural District is a public-private partnership, managed by Natick Center Associates, working in concert with the Town, to promote Natick Center as a hub for arts, culture, and the creative economy. The partnership continues to work together to enhance the public realm through public art, creative installations, and special events. As the pandemic forced people to turn outdoors, the Natick Center Cultural District continued to promote social-distanced events and activities.



Natick Center Cultural District - Study Area Map Source: BSC Group

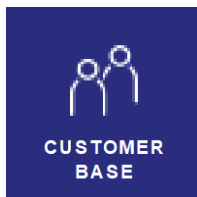
Natick Center's Recovery will depend on the Town's ability to further enhance the public realm, build capacity, create great public art, and make economic development a priority

Based on the economic development goals stated in Natick 2030+ Master Plan, Natick Economic Development Study and Action Plan, Natick Center Plan, and the Natick Center Creative Placemaking Strategy, coupled with the impacts of the COVID-19 pandemic on the business community and the findings of the LRRP diagnostic phase, the ten (10) project recommendations listed below will be discussed in greater detail later in this report.

Recommendation	Project Category
1. Illuminate the Town Common Through Placemaking	Public Realm
2. Incorporate Light Based Public Art into Wayfinding	Public Realm
3. Lead with Lighting at Town-Owned Parking Lots	Public Realm
4. Create a Small Business Incentive Program for Façade, Signage, and Lighting	Private Realm
5. Partner with Property Owners on an Architectural Lighting Program	Private Realm
6. Build the Capacity of the Natick Center Cultural District	Revenue / Sales
7. Expand Outdoor Dining and Retail Sale Opportunities	Revenue / Sales
8. Update Outdoor Lighting Specifications in Zoning	Administrative Capacity
9. Support Economic Development Goals by Increasing Administrative Capacity	Administrative Capacity
10. Install Light Based Public Art at Adams Street	Cultural / Arts

Diagnostic

Key Findings



A well-educated population of Gen-Xers

The downtown study area in Natick is home to only 175 residents, while the total population of Natick is 36,757. The population in the study area is well-educated - 70% of residents aged 25+ have earned a bachelors degree or higher, and 96% of residents age 25+ have completed at least high school or a GED equivalent. Median household income in the study area is \$95,700, which is slightly lower than the rest of Natick overall at \$120,600. Median household income in Natick is higher compared to the neighboring communities of Framingham, Cohituate, Weston, Wellesley, Sherborn, and Dover. The median age in the study area is 41, slightly lower than the Town as a whole (42.7). Twenty-four percent of the population in the study area is under the age of 19 while 15% is 65 years or older.

The downtown study area of Natick was established along Route 135 (East Central Street) and Route 27 (Main Street), making it a highly trafficked area with many businesses and restaurants built along the main thoroughfare. There is a large public art presence in Natick Center, open space at the Town Common, and civic institutions such as Town Hall, Library, The Center for the Arts Natick (TCAN), and the Post Office. There are a few religious institutions and a Montessori School also located in the study area.

Source: ESRI Demographic Indicators, 2020



High traffic levels but walkable streets

The three main roadways in the study area are East Central Street, South Avenue, and Main Street. East Central Street is a primary roadway in Natick, which is well traveled with 15,000 vehicles traveling the route daily (MassDOT, 2019 Traffic Counts). Main Street (North of East Central Street) has about 9,200 vehicles using the roadway daily (MassDOT, 2019 Traffic Counts). The third major roadway in the study area is South Avenue (East of Main Street), which has about 12,400 vehicles using the roadway daily (MassDOT, 2019 Traffic Counts). The level of traffic is an incentive that could be utilized to capture users and boost the local economy of the area.

The public realm scoring exercise done through this project found that the study area is in good condition and meets the basic needs of the public. All the public realm categories were graded at B (out of A, B, C, or F), indicating that while the area could be improved, it is not in need of a complete overhaul.

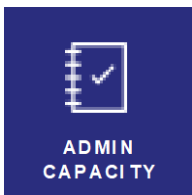


Arts and culture is a driving force for business

Natick's study area is predominately a commercial district that includes retail, restaurants, and offices. Upper floors of buildings are often occupied by professional services such as health and wellness providers, architects, web designers, and artisans and makers. Ground-floor storefronts represent approximately 63,400 square feet of retail space and 24,100 square feet of office space according to Town Assessor's information. Six of the 86 storefronts were identified as being vacant during April 2021 site visits. Following a survey to businesses in the area, 89% of respondents said their business had been affected by COVID-19, and 67% were still operating under reduced hours, reduced capacity, or remained temporarily closed. Fifty-six percent of respondents experienced either a temporary or permanent closure of their business due to COVID-19.

The number of businesses in operation within the study area is 157. Retail Services represent the highest proportion of businesses in Natick Center (33%), followed by Personal Services (22%), Non-profit/Community Services (22%), Arts, Entertainment, Recreation, and Fitness (11%), and Finance and Insurance (11%).

Based on the survey taken of local business owners, there is strong desire for the Town to create more opportunities for outdoor dining and selling; to focus on amenity improvements for public transit users / bicyclists; and make changes to public parking availability, management, or policies. Other strategies business owners felt were important to COVID-19 recovery efforts include improvements in safety/cleanliness, and improvements to public spaces/seating areas.



Town capacity is bolstered through partnerships

The Community and Economic Development (CED) Department has accomplished much with limited staff. Skilled in the pursuit of grant funding, CED staff work in partnership with the Natick Center Cultural District on downtown revitalization efforts such as wayfinding, traffic calming, placemaking, and outdoor dining.

The Natick Center Cultural District assists the Town in economic development efforts through promoting the Town's creative economy, as well as its arts and culture scene through special events and programming.



Highlights from the Physical Environment

PUBLIC REALM IMPROVEMENTS TO SUPPORT ECONOMIC RECOVERY

The Town's goals for this LRRP program were focused on the following efforts:

1. To maintain/increase the number of visitors, customers, and diners to Natick Center's shops, restaurants, and businesses during the COVID-19 pandemic, reassuring them that Natick Center is a safe place.
2. To extend the use of art in Natick Center's public and private spaces to make it a more interesting, welcoming, and enjoyable place to frequent.
3. To use outdoor art to accentuate public streetscape and pedestrian safety improvements.

Building off the 2019 Natick Center Placemaking Strategy and Natick 2030+ Master Plan, the Town is working to boost the downtown businesses recovery from pandemic-related losses, with an emphasis on:

1. Supporting a safe and active street life in Natick Center by investing in sidewalks, crosswalks, bike facilities, signage improvements, and promoting sidewalk cafes and outdoor spaces.
2. Enhancing the pedestrian environment in Natick Center to attract visitors and new businesses and to support arts and entertainment venues.
3. Developing a consistent system of wayfinding that connects open spaces, trail networks, transportation resources, and cultural amenities throughout the town.

Specifically, the Town would like to use temporary/permanent lighting as artwork that helps make the district a safer, more interesting, welcoming, and vital place for visitors and residents to visit and patronize local shops, businesses, restaurants, cultural facilities, and public spaces. During the diagnostic phase, stakeholders stated that the downtown is dark at night, which leads to a perception that it is not safe.

Lighting, when done correctly, makes people feel safe and comfortable. It illuminates a building or space and makes it more vibrant. A well-lit public space at night makes it come alive. Directed lighting aids in pedestrian orientation, reveals hazard points, and reduces accidents. It has been proven to attract more visitors, for longer amounts of time, and contributes to increased revenues.

IMPACT OF COVID

As COVID-19 impacts communities across the U.S. and throughout the world, it has highlighted the importance and role that public space plays in a community. Public space is an essential part of economic stability, recreation, and public health. Humans are social creatures, and public spaces offer the opportunity to engage in social behavior. Thus, public spaces encourage interaction in a safer way during the pandemic. Throughout the pandemic, public spaces have offered a gathering place and a sense of shared experience and civic engagement and promoted easier social distancing and active and healthy lifestyles. When stores shuttered, people turned to the outdoors – parks, playgrounds, public plazas. Streets were transformed into vibrant pedestrian ways through effective placemaking strategies. Public parking spaces became highly utilized, and often wildly popular, outdoor dining areas. Municipalities, like Natick, were able to pilot projects that would not have been possible under normal circumstances, to resounding success.



Moran Park/Square, Natick Center Source: BSC Group



Greenspace in front of Morse Library Source: BSC Group

Walkability to Downtown Parks, Plazas, and Public Spaces

TOWN COMMON

The Natick Common was acquired for \$250 from Ruel Morse in 1841. This land was acquired as a town park with the potential to build a future Town Hall on site. The Civil War Monument was erected on the Common on 1866 and the current Town gazebo, listed on the National Register of Historic Places, was erected in 1985. Town Common is the main gathering space downtown and hosts many special events throughout the year.

MORAN PARK/SQUARE

Dedicated to Dennis Moran, an army corporal killed in the Second Battle of the Marne during WWI. Moran Park/Square is a war memorial that also serves as a plaza connection to the pedestrian bridge over the MBTA Commuter Rail line.

ADAMS STREET ALLEY

Adams Street is a narrow street that is one block off from Main Street running between South Ave. and Court Street. It serves as a back entrance to those buildings fronting Main Street. Home to The Studios at 3 Adams St., it serves as an attraction for temporary placemaking and public art initiatives.



Art Installation – Adams Street Alley Source: Town of Natick



Highlights from the Business Environment

ANCHORS/DESTINATIONS

The Natick Center Cultural District has several anchors and destinations. The core of Main Street is part of a National Register Historic District. The Clark's Block Building, built in 1872, spans an entire block in length and is a 43,000 SF, three-story mixed-use office and retail building.

The Center for Arts Natick is a cultural center to the MetroWest region. Attendees can watch performances, literary events, and art exhibitions in this historic firehouse building. Carefully restored as a theater, art gallery, and community center, TCAN is a major downtown destination.

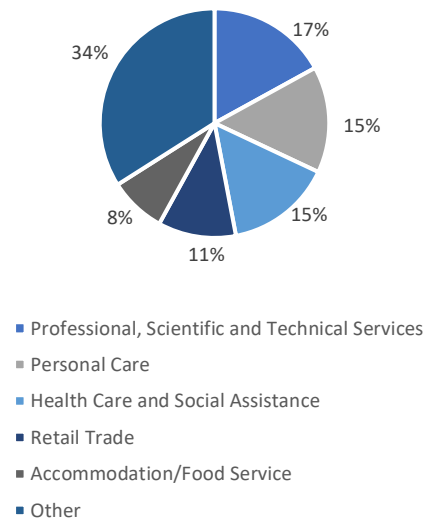
Additional destinations in downtown include Town Hall, Morse Institute Library, and the Town Common.

NODES/CLUSTERS

When the Town of Natick pivoted to implement temporary outdoor dining regulations, it identified four locations to serve restaurants in adjacent buildings. These areas were selected because of the clusters of restaurant and retail space in nearby.

In addition to the ground floor retail storefronts selling clothes, gifts, and other goods and services on Main Street in the Clark's Block building, the upper floors house several artists, crafters, and makers.

Mix of Businesses







Mix of Businesses by NAICS category Source: BSC Group



Retail storefront at Clark's Block Building Source: BSC Group

Project Recommendations

Illuminate the Town Common Through Placemaking

Category	 Public Realm
Location	Natick Center Cultural District/Census Tracts 3825, 3822
Origin	Town Common is main community gathering space. Special events occur during the day, but the Town would like to pursue additional events at night.
Budget	 Low Budget/Medium Budget (depending upon design, fabrication, installation); Funding: MassDOT Shared Streets and Spaces; ARPA funding (TBD); Commonwealth Places, MassDevelopment; CDBG; Foundation support; Crowdfunding (Patronicity); NEFA; Art Place America; National Association of Realtors Placemaking Grants; Mass. Cultural Council
Timeframe	 Short-term (Less than 5 Years)
Risk	 Low - Political will; Funding availability; Design/implementation costs; Community interest (by residents and businesses); Legal and liability concerns; Damage to installations
Key Performance Indicators	Event attendee numbers; number of events; average users per day; change in sales at area businesses during events; overall user sentiment of the district; user sentiment obtained through polling; Increase in visitors and first-time users to the corridor
Partners & Resources	Town representatives, MAPC, Metrowest Chamber of Commerce, local property owners and small businesses, residents, local contractors/suppliers (to source project materials and build), placemaking consultant
Diagnostic	<p>As communities adjust and respond to the impacts of COVID-19, the Commonwealth's administration has been focused on supporting local economic recovery through placemaking. A key challenge identified during the Natick LRRP process is the desire to creatively illuminate Natick Center at night. Placemaking, through light-based public art, would help make the Common at attraction (not just a walk-through) at night.</p> <p>COVID-19 has highlighted the importance of public spaces to economic stability, recreation, and public health of a community. Public spaces offer a gathering place and sense of shared experience, active living and civic engagement, and easier social distancing. Post-pandemic, the use of public spaces will remain important to the health and economic well-being of a community.</p> <p>Finally, respondents to the LRRP business survey suffered from a decline in business, and 77% encountered less foot traffic into their businesses. Most respondents felt that improvement of public spaces and seating areas was an important strategy for supporting businesses and improving the commercial district.</p>

Action Item

Engage the Community: Invite the community to offer their inspiration, examples, and ideas as to how to illuminate the Town Common.

Develop: Develop a conceptual design of a creative lighting plan for the Natick Common (uplighting, hanging, streetlight fixtures, location of installations, landscaping). Determine activation locations and methods for illumination.

Plan: Identify/Obtain funding sources and a project implementation timeline. Determine permanency of installations and determine what success looks like prior to any project implementation.

Partner: Partner with business and community organizations, including the Natick Center Cultural District.

Find: Find appropriate lighting designers and include them in the process. If necessary, issue a Request for Qualifications. Also consult with suppliers and fabrication/installation contractors to identify cost/process.

Implement: Demonstrate impact through a temporary pilot project (i.e., Art in the Park, Night Edition). Create a series of special events surrounding the project.

Build: Build off momentum for future efforts. Obtain feedback and adapt efforts for future programming.

Expand: Consider expansion to build an illuminated network of light-based art at other locations in Natick Center (i.e., Natick Public Library, Moran Park, pedestrian bridge, MBTA platform).



Town Common Source: BSC Group

Process

1. Preliminary Design Framework

- Define both functional and artistic goals for the project. (Functional goals include supporting the street/space and personal safety. Artistic goals include storytelling to enhance cultural assets, branding, community connection, and connections to history.)
- Explore current lighting and identify deficiencies and opportunities to address them.
- Determine type of lighting to be used and identify expectations for any design (color, brightness, spacing, scale, etc.)
- Address technical requirements and any challenges to address, e.g., electricity, mounting, timing, sequencing.
- Obtain necessary permissions from building owners and any permitting approvals.

2. Funding to Design and Implement:

Create a budget and secure necessary funding to implement the project.

3. Procure Professional Assistance:

The Town and Natick Center Cultural District partnership will procure a Lighting/Artistic Designer to create a pilot placemaking project. This project can be one part, or many.

- The selected designer will create a design for approval by the partnership.
- Design will be presented to the public to generate excitement.
- Design will be implemented.

4. Hold a Special Event to unveil the project:

Provide ongoing hype about the space to continue to attract attention and use (social media, town website, NCCD website, local business promotion). Obtain feedback through surveys and tailor future events based on feedback and lessons learned.

Any renovation or reconstruction relative to the existing gazebo on the Common should take this recommendation into consideration.

Sea Lights at Cape Ann Museum



Location

Gloucester, MA

Sea Lights at Cape Ann Museum, Gloucester, MA

“Sea Lights” presented by LuminArtz, wowed attendees in the courtyard of the Cape Ann Museum. This new annual event featured images projected onto the building and atmospheric music controlled by moving lighted blocks.

The facade of Cape Ann Museum was transformed into a magical display of “Sea Lights” created and animated by local artists.

<https://luminartz.org/sealights>

Solar Forest, Cambridge, MA

Solar Forest was a dynamic and interactive outdoor light installation designed by Vanessa Till Hooper in collaboration with Alice Chun creator of the Solar Helix lantern. The installation featured 360 lanterns donated by SoLight Design. Each lantern featured a solar panel that charged each day and illuminated each night.

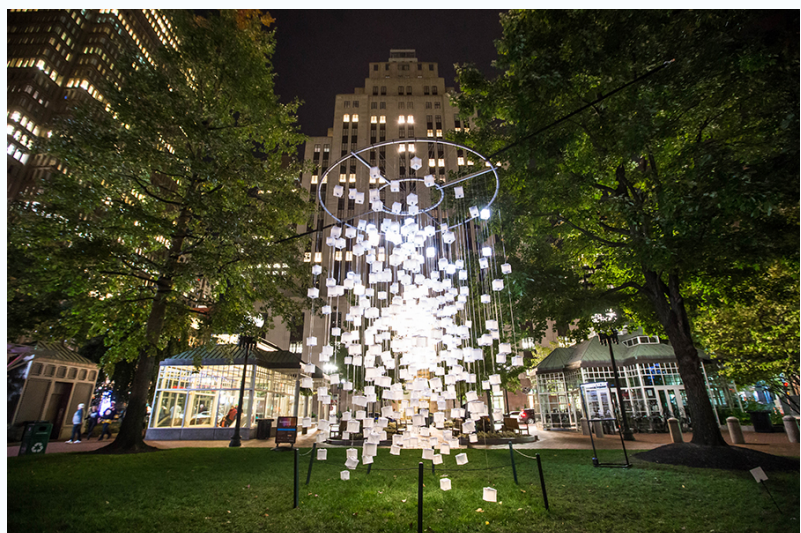
The sculpture was designed to be rigged between trees, illuminating the park at night without any power source other than the sun. A temporary outdoor lighting installation, it highlighted the global need for clean, non-polluting light. Once decommissioned, the lanterns were shipped to a rural community in Puerto Rico and Virgin Gorda left without power after the devastation of Hurricane Maria in September 2017.

<https://luminartz.org/solarforest>



Sea Lights





Source: LuminArtz



Solar Lights

Source: LuminArtz

Incorporate Light Based Public Art into Wayfinding

Category	 Public realm
Location	Natick Center Cultural District/Census Tracts 3825, 3822
Origin	During the diagnostic process, it was noted how dark Natick Center is at night. Feedback and data collected during this phase indicated that Natick Center could benefit from additional and improved lighting at night.
Budget	 Medium to High depending on project elements; Funding: Mass. Cultural Council, Mass. Office of Travel & Tourism, ARPA Travel, Tourism, & Outdoor Recreation, National Endowment for the Arts Our Town Program, MassDevelopment, Patronicity (crowdfunding)
Timeframe	 Medium Term
Risk	 Political will; community interest/partners; funding limitations; support/coordination with utility companies, property owners, businesses, professional consultants, and other stakeholders
Key Performance Indicators	Improved aesthetic, better lighting, increased accessibility/safety, increase in visitors, # of public art installations/events, increase in downtown pedestrian activity, increase in downtown sales/receipts, # collaborative marketing relationships with recreational venues
Partners & Resources	Town (Planning/DPW), Natick Center Cultural District, Natick Center Associates, Metrowest Chamber of Commerce, Utilities (NSTAR), Property Owners/Businesses, Wayfinding Consultant, Lighting Designer
Diagnostic	<p>The COVID-19 pandemic has had a dramatic impact on the way in which a community interacts in public spaces. The incorporation of light-based public art as part of the Town's wayfinding program will enhance the public realm, increase safety at night, and promote evening activity in Natick Center.</p> <p>COVID also changed driving and shopping behaviors, including a shift toward online shopping, delivery, and curbside pickup, programs that large national chains were able to utilize their considerable resources to quickly implement. Respondents to the LRRP business survey stated a decrease in foot traffic and a decrease in sales due to business closures and State issued restrictions. In order to attract people back to the downtown and support small business recovery, streetscape improvements, including wayfinding and public art, will encourage more people to stop and patronize the businesses in the district.</p>

Action Item

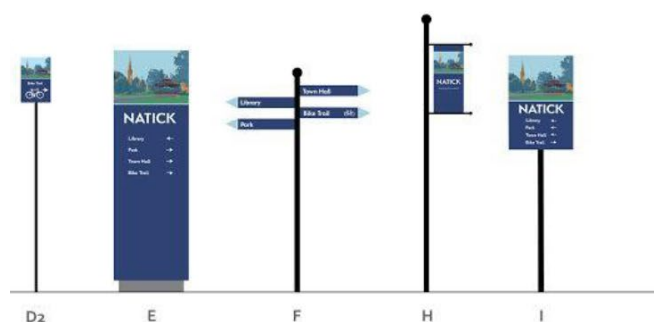
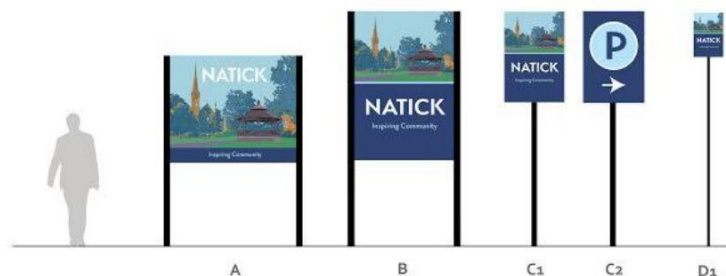
The Town would like to incorporate light-based public art as part of its wayfinding program. Understanding streetlights may not be a sufficient source of lighting at night for pedestrians, the Town would like to explore opportunities to illuminate public realm elements at night in a creative way, taking advantage of public art installations, town monuments, and architectural features to aid in branding Natick Center.

Build: Build off what currently exists. In May 2021, the Select Board approved a conceptual design for a wayfinding system. This was a base system for signage. **Incorporate additional elements such as illumination, public art, asphalt art, and even potentially interactivity or augmented reality into the proposed system.**

Procure: Procure professional services from consultants/design teams with experience in branding, wayfinding, light-based installations, illumination, and fabrication.

Plan: Finalize design of all elements. Determine materials and methods. Consider incorporating the senses - visual, tactile, auditory. Construct a prototype. Incorporate placemaking efforts to blend seamlessly with wayfinding elements. Complete cost estimates. Assess costs, prioritize elements, and value engineer, if necessary. Secure funding for various elements, layering sources as needed.

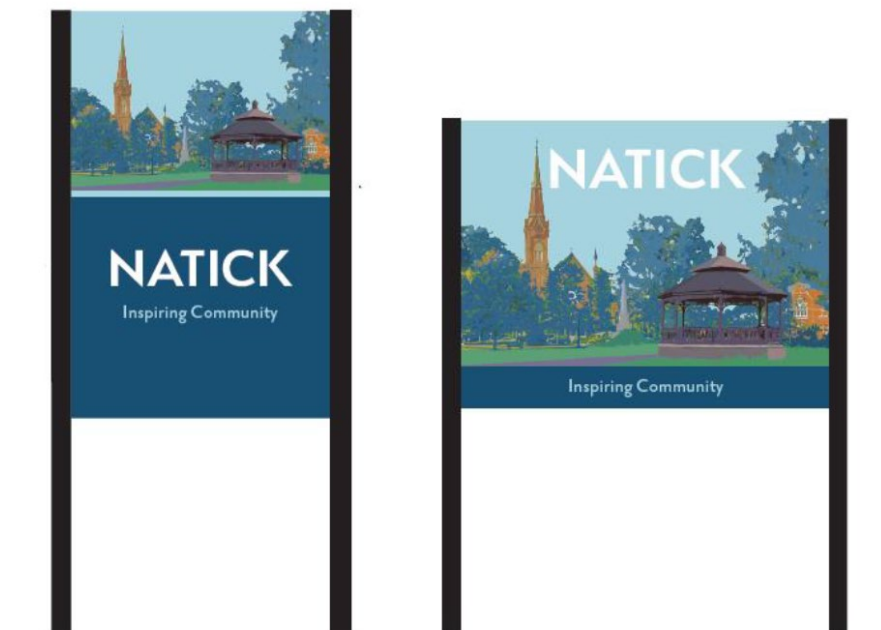
Construct: Implement the system in a holistic and integrated way. Program can be phased or constructed in one mobilization.



Process

The process consists of developing a holistic wayfinding plan that not only consists of signage, but also weaves public art, lighting elements (i.e., glow in the dark paint, solar lighted planters, LED glass towers, illumination), and key institutional architecture features into the design in a safe and accessible way. Steps include:

1. Engage the community and ensure all stakeholders are involved in the process. A public/private partnership will ensure that the team is nimble in its approach to fundraising and grant writing.
2. Engage in an RFQ process to select a design team.
3. Take conceptual design through to schematic design and then construction documents.
4. Test a prototype.
5. Ensure funding is in place.
6. Select a fabricator through an RFP or solicitation of quotes.
7. Commence construction.
8. Market and generate media coverage to spread the word and attract attention to Natick Center – day and night. Use social media and organization websites to promote the project.



Proposed Wayfinding Concept for Natick

Source: Favermann Design

Boston Children's at Brookline Place



Location

Brookline, MA

Project Overview

Selbert Perkins Design's recent work with Boston Children's Hospital has focused on improving the Main Campus arrival experience. This includes signage along Longwood Avenue in collaboration with Mikyoung Kim. The Pedestrian bridge, designed by Elkus Manfredi and Patient Family Parking Garage by Payette feature art, wayfinding, and donor recognition inspired by DNA sequencing. The environmental art strategy includes a 3-story dimensional mural and backlit photo-mosaic of a child's face made up of hundreds of photos of staff and families collected during the 150th anniversary of the hospital. SPD continues to help Boston Children's improve the experience with patient room art and roof designs visible from inpatient rooms in collaboration with Shepley Bulfinch.

<https://selbertperkins.com/projects/boston-childrens-hospital/>



Boston Children's at Brookline Place Source: Selbert Perkins







Brookline Place Parking Garage Source: Selbert Perkins

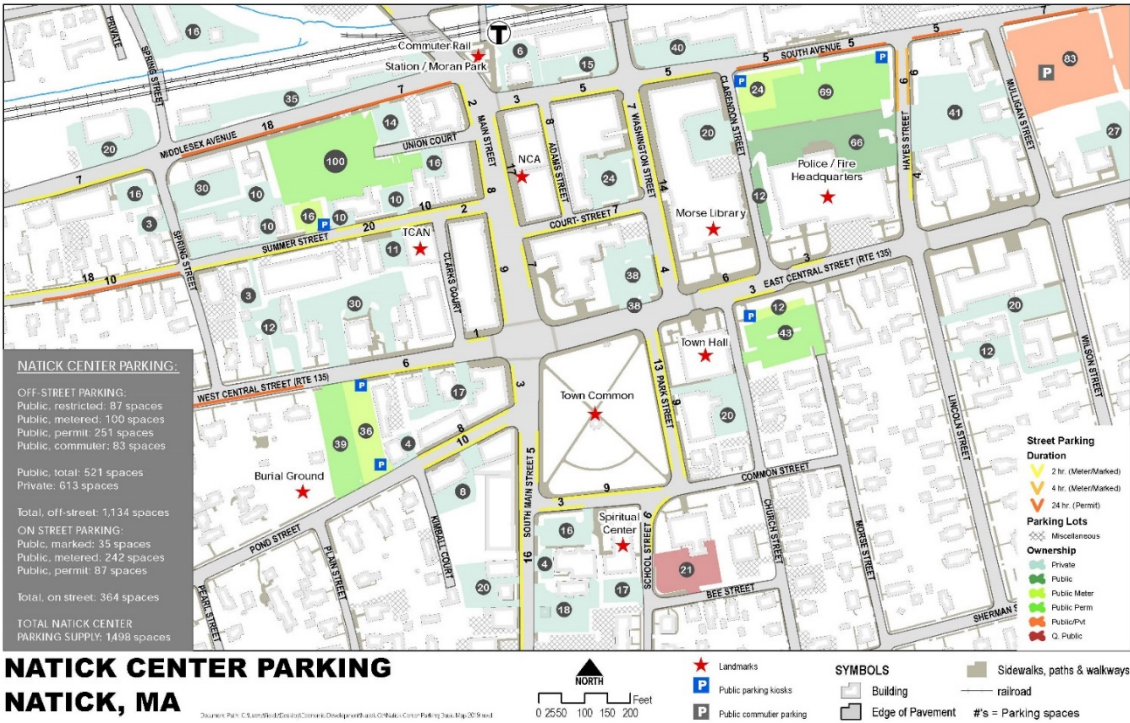


Illuminated Wayfinding Signage Source: Selbert Perkins

Lead with Lighting at Town-Owned Parking Lots

Category	 Public Realm
Location	Adams Street/Census Tract 3822
Origin	During the diagnostic phase, stakeholders expressed concern over how dark the Town-owned parking lots were at night, leading to a perception of concern for safety.
Budget	 Medium to High; Funding sources: Town appropriation, Mass. Cultural Council, Shared Streets/Spaces, creative DIF program, crowdsourcing campaign (Patronicity), NEFA
Timeframe	 Short-term (less than 5 years)
Risk	 Political will; legal and liability concerns; community interest; partners; financing limitations; support/coordination with utility companies
Key Performance Indicators	Improved aesthetic, better lighting, increased accessibility/safety, increase in parking lot use at night

Partners & Resources	Town (Planning/DPW/Fire), Natick Center Cultural District, Utilities (potentially); Lighting Designer/Fabricator
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Town of Natick Downtown Parking Map

Diagnostic

Prior to and throughout the COVID-19 pandemic, the Town of Natick has been focused on supporting a safe and active street life in Natick Center by enhancing the pedestrian environment to increase the number of visitors, customers, and diners frequenting the area. In addition, the Town wishes to extend the use of art in Natick Center's public and private spaces to make it a more interesting, welcoming, and enjoyable place to visit, shop, dine, and do business.

The COVID-19 pandemic has had a dramatic impact on how the public realm is perceived and used. Natick Center offers plentiful public parking. However, for users at night, these lots tend to be dark and uninviting, leading businesses to close earlier for lack of foot traffic. Lighting improvements will help promote a vibrant commercial corridor, especially at night.

The Town of Natick has thought creatively about the use of its public space and has laid the groundwork to elevate and promote its public spaces through recent master planning and placemaking efforts. At the forefront of its pursuit of enhanced public spaces, the Town is focused on promoting artistic lighting for wayfinding and placemaking.

The character of Natick Center is lost at night, and dark parking lots create a public safety concern. The downtown public parking lots offer a unique opportunity for a creative lighting approach that will enhance the public realm, connect with wayfinding, and provide safe spaces for users.

Action Item

Determine a Preliminary Design Framework: Discuss the project goals, define success, and how to measure it. Identify project partners and proponents and create an outreach/marketing plan.

Assess Existing Conditions: Conduct field work and identify where utilities and electrical capacity to inform the design basis. Complete a lighting study to identify where dark and bright spots are located, and complete background research on similar examples.

Create a Concept: The Town and Natick Center Cultural District should work with a lighting designer/lighting fabricator to sketch out feasible and creative concepts to the lighting infrastructure and equipment needed. Identify technical requirements and any challenges or barriers to implementation.

Identify a Budget and Funding Sources: Create a financial plan dependent upon conceptual plan. Seek funding for the installation. The budget will fluctuate based on the experience on the number of pieces needed, size and scale of the system, and the schedule for fabrication and installation.

Procure Design/Fabrication Services for Light-Based Public Art: Procure a lighting artist/designer through a Request for Qualifications process. The selected designer will create a pilot placemaking project within Adams Street Alley.



Existing public parking area in Natick Source: BSC Group

Process

1. Preliminary Design Framework

- Define both functional and artistic goals for the project. (Functional goals include supporting the street/space and personal safety. Artistic goals include storytelling to enhance cultural assets, branding, community connection, and connections to history.)
- Explore current lighting and identify deficiencies and opportunities to address them.
- Identify unique opportunities to use existing landscape (e.g., concrete retaining walls)
- Determine type of lighting to be used and identify expectations for any design (color, brightness, spacing, scale, etc.).
- Address technical requirements and any challenges to address, e.g., electricity, mounting, timing, sequencing, technology.
- Obtain necessary approval and permits.

2. Funding to Design and Implement

- Create a budget based on a range of options.
- Secure necessary funding to implement the project, or a phase of the project (e.g., one parking lot at a time or all lots at once).

3. Procure Professional Assistance

The Town and Natick Center Cultural District partnership will procure design and fabrication services. This will move the project forward from conceptual to schematic design and will result in design development documents.

- The selected designer will create a design for approval by the partnership. As part of the design, lighting equipment will be identified with a recommended implementation process.
- Connect to ongoing wayfinding and placemaking efforts.
- Pilot an element of the project to ensure any challenges are addressed in advance of full-scale installation.
- Design will be presented to the public to generate excitement.

4. Fabrication and Installation of Designed System

Designer will work with fabricator to create the final approved design. Fabricator to install when installations are constructed.

5. Hold a Special Event to unveil the project.

Provide ongoing hype about the space to continue to attract attention and use (social media, town website, NCD website, local business promotion). Connect to other events happening at the same time to promote walkability of Natick Center at night. Or if project is completed at all lots at once, have a night-time scavenger hunt event to get people walking and interacting with each parking lot!



Existing public parking lot at Town Hall in Natick *Source: BSC Group*

Nicollet Mall



Location

Minneapolis, MN

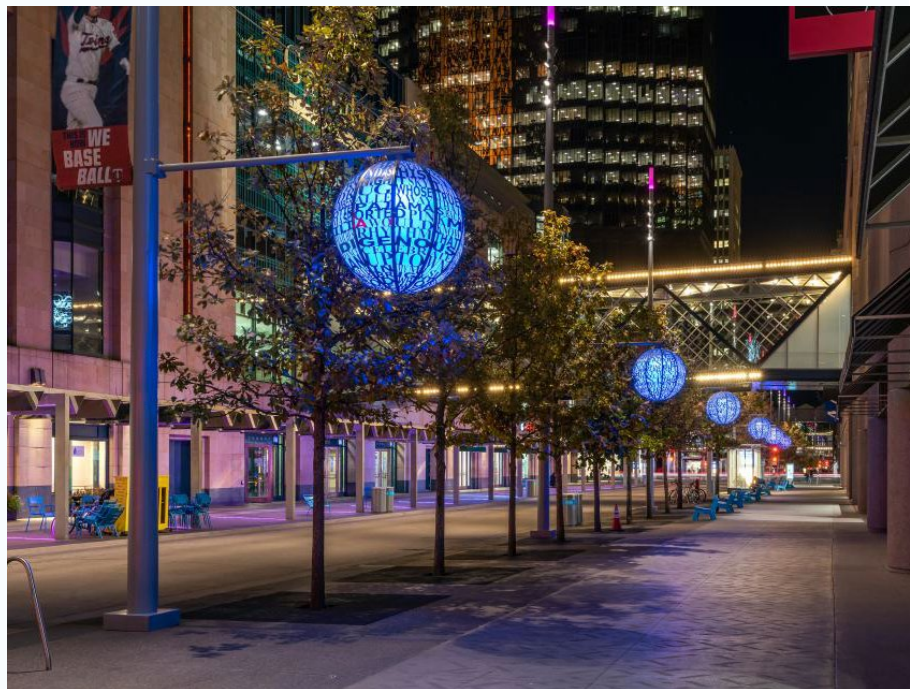
Project Overview

The commercial heart of Minneapolis is undoubtedly The Nicollet Mall. This 50-year-old pedestrian and transit street in Minneapolis's heart was created in 1965 to lure shoppers downtown and away from the growing popularity of enclosed malls.

After a multi-year renovation project that saw the refurbishment of everything from utilities to site illumination, the mall reopened in the fall of 2017. It now features a two-block-long outdoor corridor of programmable lights known as the Light Walk. Designed by James Corner Field Operations, the Light Walk and the new outdoor areas have not only reinvigorated the space, they have made it a destination, an exciting place for the public to gather and participate in a variety of informal and programmed events, festivals, performances, and markets. The Light Walk itself is a series of tall, upturned C-shaped linear light stems that use Lumenpulse Lumenfacade RGB luminaires to downlight the walkway beneath them. This allows a sense of "light from above" while still providing color and illumination on the well-used walkway. A walk becomes an experience under the Light Walk.





The Nicollet lighting system, which includes the Light Walk, the Nicollet Lanterns, and the streetlight beacons, creates an experiential element to the area. The Light Walk, which uses Lumenpulse Lumenfacade luminaires, and Nicollet Lanterns (which use Lumenpulse Lumendome luminaires) bring light, color, and movement to the space. The new lighting scheme's crown jewel, the Light Walk, mimics the light and sky reflections at the sidewalk level. The Lumenpulse Lumenbeam luminaires used throughout offer architectural and general lighting support within the new design.

The dynamic color-changing abilities of the Lumenpulse luminaires provide support to numerous events throughout the year. The Nicollet Mall also allows lighting scene requests for civic celebrations and events. The interactive, accessible, and inviting new lighting design in the Nicollet Mall's outdoor areas are inspiring, they are bringing a vibrant new interest in the area to light.



Lighting example at Nicollet Mall

Create a Small Business Incentive Program for Façade, Signage, and Lighting

Category		Private Realm
Location	Natick Center Cultural District/Census Tracts 3825, 3822	
Origin	During the diagnostic process, it was noted that storefronts within Natick Center could be spruced up. This included windows, signage, awning, facades, and lighting.	
Budget		Low Budget (Individual); Medium Budget (Program); Sources of Funding: Town funding (general or set-aside); ARPA (potentially); private/ nonprofit/foundation, CDBG, special taxing districts (e.g., TIFs), NPS historic funding For Zoning/Planning efforts: One Stop for Growth; District Local Technical Assistance
Timeframe		Short-term (Program development 1-12 months; Implementation 12-24 months)
Risk		Medium Risk - Political will; Funding; Community interest; Legal and liability concerns; Regulatory and permitting; Reluctance on businesses to participate; Displacement of existing businesses; Increased property values/rent
Key Performance Indicators	Creation/funding for program, # of applicants, # completed projects, amount of private investment generated, increase property values, increase tax revenues, increase in business sales, # of projects maintained over time, increase in visitors	
Partners & Resources	Town (Planning, Economic Development), Private Property Owners, Local Business Owners, Natick Center Associates, Natick Center Cultural District, Metrowest Chamber of Commerce	
Diagnostic	<p>According to the LRRP business survey, 89% of businesses reported being impacted by COVID. Businesses experienced the following impacts:</p> <ul style="list-style-type: none"> • Reduced operating hours/capacity • Business closure (temporary/permanent) • Decline in revenue • Incurred expenses to implement safety measures • Employee layoffs • Established alternative mode to sell and deliver products. 	<p>More than half of survey respondents stated neutrality or dissatisfaction with the condition of private buildings, facades, storefronts, and signage. Most felt renovation of storefronts/buildings facades was an important strategy for supporting businesses and improving the commercial district. Nicely lit interior storefronts, up lighting, and decorative string lights could enhance the walkability and safety at night and encourage visitors to stop and window shop – or visit a store if it is still open.</p> <p>Private realm improvements are a vital pathway to improving the physical environment and visitor experience in the commercial district. Depending on the scope of the program and eligible improvements, a façade, signage, and lighting improvement program can also support businesses seeking to implement additional COVID-19/public health and safety improvements such as new doors, walk-up service windows, outdoor seating, signage, and more.</p> <p>Finally, COVID-19 has exacerbated this problem. Due to the impact on business revenue, business owners are less likely to make capital improvements to their facades because with reduced operating capacity and other carrying costs, they do not have funding available.</p>

Action Item

When developing any type of small business assistance program, proponents should strongly consider:

Identify Administrative Capacity to Implement: Ensure that there is a dedicated staff person to administer the program.

Build Community Support: Early engagement with property and business owners is crucial. Seek to build relational capital to gain credibility and community support as program enhancements are developed. Stakeholders should be involved early in the process and the program should take into consideration small business' needs and identify specific ways the program can help.

Determine Program Details and Funding Options: Explore and secure funding for the program. Many communities utilize CDBG funding for small business incentive programs, but other types of funding are available. Also consider funding amounts for individual projects. Funding amounts must be adequate such that the cost to participate does not outweigh the funding provided.

Develop Program Guidelines: Include specific design guidelines for the program. In this instance, a visual guide should be created for applicants to understand the Town's vision for the program depicting examples of preferred designs, including dimensions, styles, locations, and types of signs/improvements. Decide whether illustrations become part of zoning regulations or a separate document.

Offer Design Services: The Town may also benefit from offering participants a design professional or fabricator to engage with. Many programs include design services as a benefit of program participation. During this period of COVID recovery, funds may be available for this type of small business assistance. Collaboration with local artists or Stonehill College students may provide mutual benefit to artists/designers and program participants. Atlanta's BeltLine façade improvement program partners local artists/makers with businesses to complete capital improvements (See Best Practice).

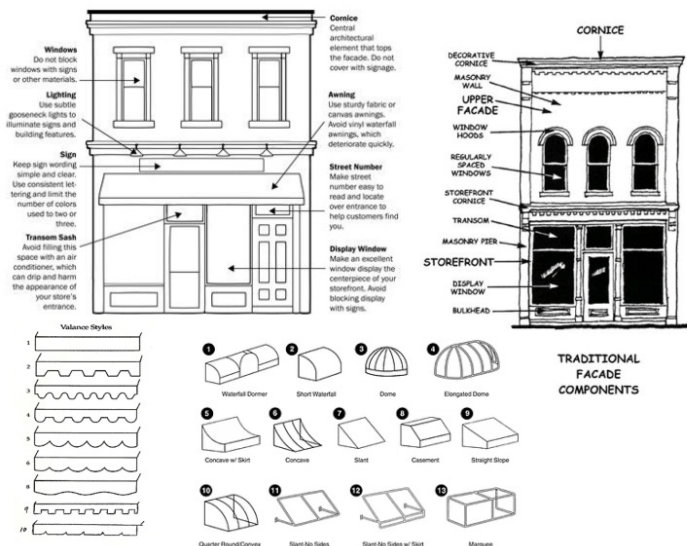
Art Inclusion: The inclusion of art into this program can enhance the overall character and experience in the public and private realm. External, art-focused improvements visible to the public right of way may be considered for inclusion. In Turners Falls, MA, a publicly supported mural program is available for artists and businesses to participate in.

Advertise the Program: PSAs, social media, and a prominent location on the Town's/partners' websites can increase awareness of the program and participation. Word of mouth and project visibility has been shown to be one of the most important ways to promote these programs.

Town Approval of Any Change in Regulations: If changes to the zoning bylaw are proposed, they will need to be approved by the Planning Board and at Town Meeting.

Process

1. Engage: Solicit input on what property owners and businesses would like for a program. This is the time to discuss eligible projects, the application process, funding models and limits, and any assistance awardees might want or need.
2. Plan: Explore feasibility of program elements identified by the Town, stakeholders, and best practices. Arrange for funding mechanisms (e.g., allocation of ARPA funds, if applicable), develop program guidelines and paperwork, and engage any new program partners such as artists or design professionals.
3. Advertise: Create town webpage containing program information. Cross market with partners such as Natick Center Associates/Natick Center Cultural District, Metrowest Chamber of Commerce, on social media, and through PSAs.
4. Implement: Solicit project participants and administer the program.
5. Evaluate and Decide Future: Determine program metrics (e.g., business sales, property value, vacancy rate, public/private investment) and measure at appropriate time intervals. Seek feedback from program participants; and utilize feedback to improve and market the program.



Example of Façade Improvement Plan Source: City of Creedmoor

Key Features of a Storefront and Façade Improvement Program

There are many variables to consider when creating a storefront and façade improvement program, from planning and program structure to funding and eligibility to overall program administration. Key questions to consider: Who runs the program? What is the program budget and how much can an applicant receive? What improvements are eligible? Who can apply? What is the application process? What is the approval process? How and when do applicants receive funding? How do you get community support/buy-in for the program? How will the program be advertised, implemented, and evaluated? Are there design guidelines in place to set expectations and ensure a level of consistency and quality to storefronts and facades?

Administration – Most storefront and façade programs are developed and managed by organizations with a vested interest in civic improvements, including municipalities, business district management entities, community development corporations, chambers of commerce, redevelopment authorities or economic development corporations, regional planning organizations, community foundations, bank consortiums, or any combination thereof.

Funding Structure – Depending on the source of funding, the program can be structured as a grant or a loan. There are various options, including: Matching Grant – Applicant receives a certain percent of the investment through a grant, to a set maximum (For instance, a 1:1 grant is a dollar-for-dollar match); Grant with a Set Dollar Amount per Improvement (e.g., \$1,000 allowance for signage); Loan (low-interest, zero-interest) – Revolving fund enables future funding cycles upon payback; Loan (forgivable) – Creates an incentive for improvements to be maintained over time; Mixed-Funding option

Funding Amounts – Amounts vary based on program, but programs researched ranged from \$2,500 - \$35,000 dependent upon use, location, planned improvements, funding available, and level of private investment.

Eligibility/Requirements – Eligibility requirements vary by program and priorities, but include consideration of location, age of building, use, priority business preferences (minority and women-owned businesses, low-moderate income status, job creation, etc.), ownership (business owner needing property owner sign-off), lease arrangements (above a certain amount of time left on a lease), and type of improvement.

Types of Improvements – Most programs allow for improvements to signage, lighting, windows, doors, entryways, roof, awning/canopy, and paint. Other eligible improvements may include design fees, landscaping, and parking lot improvements. HVAC, interior renovation, non-permanent fixtures, security systems, and equipment purchases are generally considered ineligible. Some funding programs allocate additional monies for improvements to historic restoration.

COVID-19 Impacts – Particularly related to the impacts of COVID-19, improvements to help reduce the transmissibility of the virus should be considered as eligible for funding. This flexibility could afford improvements such as replacement of doors or window systems, outdoor seating structures, the installation of a walk-up service window, and additional signage, markings, or partitions as needed for social distancing and directional purposes.



Façade Example – Natick Center Source: BSC Group

Benefits of a Small Business Incentive Program

- Strengthens locally owned businesses through increased business sales and through new customers
- Contributes to area revitalization through increased property values, higher tax base, improved marketability of a space, and motivation for other property owners or businesses to make improvements
- Contributes to a sense of community and enhances character of a community
- Improves the public realm, increased safety, accessibility, and pedestrian comfort
- Provides more attractive retail environment and stimulates additional private investment

Atlanta Beltline

PRIVATE
REALM

Location

Atlanta, GA

Project Overview

Formed in 2005, Atlanta BeltLine Partnership is a nonprofit organization charged with the implementation of the Atlanta BeltLine Project. The Atlanta BeltLine is a sustainable redevelopment project that will ultimately connect 45 intown neighborhoods via a 22-mile loop of multi-use trails, modern streetcar, and parks – all based on railroad corridors that formerly encircled Atlanta. When completed, it will provide first and last mile connectivity for regional transportation initiatives and put Atlanta on a path to 21st century economic growth and sustainability.

The Atlanta BeltLine, Inc. (ABI) Business Façade pARTnership Grant partners local artists and maker professionals with the local business community to complete capital improvements to the façade of a business site. The program is designed to catalyze business growth within the BeltLine Tax Allocation District (TAD) that spans the BeltLine corridor.

Grants of up to \$40,000 are available and vary depending on the cost to implement the approved capital improvement design. Once business participants are selected, a call for artist and maker professionals, featuring the façade improvement project opportunities, is announced. Artist partners are invited to submit proposals that showcase the business' proximity to the BeltLine by providing a new BeltLine-facing façade, implementing a COVID-related adaptation to the storefront, or other façade improvement resulting in the attraction of new tenants, investment, and customers to the districts. Artist partner proposals are reviewed by subject-matter experts from ABI and receive input from the corresponding business participant.

<https://beltline.org/the-project/economic-development-commercial-real-estate/business-facade-partnership-grant-program/>



Kris Dunbar and his wife, Michelle, opened [A/C Clutch Bicycle Shop](#) as a full service bicycle shop servicing the Westside of Atlanta, an area that had not had a bicycle shop for over 40 years.

ARTIST PARTNER

Rose Smith and Morgan Myles
[Website](#)



A/C Clutch Bicycle Shop

Pilot
FAÇADE IMPROVEMENT
PROGRAM 2019



Nestled between Grant Park and East Atlanta, [Red's Beer Garden](#) is the first of its kind in Benteen Park, Atlanta. Step off the Southside BeltLine and grab a beer from around the world – or from a brewery down the road.

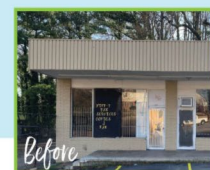
ARTIST PARTNER

Lily Reeves
[Website](#)
[Instagram](#)







Red's Beer Garden

Pilot
FAÇADE IMPROVEMENT
PROGRAM 2019



Partner with Property Owners on an Architectural Lighting Program

Category	 Private Realm
Location	Natick Center Cultural District/Census Tracts 3825, 3822
Origin	During the diagnostic process, stakeholders expressed an opinion that Downtown Natick is dark at night, leading to a perception that it is not safe.
Budget	 Medium to High; Town Funding; MA Cultural Council, private/nonprofit/foundation, special taxing districts (e.g., TIFs), NPS historic funding, MOTT
Timeframe	 Short Term (Less than 5 years)
Risk	 Medium Risk - Political will; Funding; Community interest; Legal and liability concerns; Regulatory and permitting; Reluctance on businesses to participate; Displacement of existing businesses; Increased property values/rent
Key Performance Indicators	Creation/funding for program, # of applicants, # completed projects, amount of private investment generated, increase property values, increase tax revenues, increase in business sales, # of projects maintained over time, increase in visitors
Partners & Resources	Town (Planning, Economic Development), Private Property Owners, Local Business Owners, Natick Center Associates, Natick Center Cultural District, Metrowest Chamber of Commerce
Diagnostic	<p>According to the LRRP business survey, businesses reported being impacted by COVID, referencing impacts such as reduced operating hours/capacity, business closures (temporary/permanent), declines in revenue, incurred additional expenses to implement safety measures, employee layoffs, and the need to establish alternative modes to sell and deliver products.</p> <p>More than half of survey respondents stated neutrality or dissatisfaction with the condition of private buildings, facades, storefronts, and signage. Most felt renovation of storefronts/buildings facades was an important strategy for supporting businesses and improving the commercial district. Nicely lit interior storefronts with uplighting would beautify and welcome visitors to the streets and enhance the walkability and safety at night. Visitors would feel safer and even be encouraged to stop and window shop – or visit a store if still open.</p> <p>Many of the buildings in Natick Center were built between 1875 and 1900, after a devastating fire in 1874. The downtown core hosts multiple red brick buildings with beautiful architectural features. As a result, the Natick Center Historic District was listed on the National Register of Historic Places in 1977. This program will provide an opportunity for the Town to not only highlight the unique architecture of Natick Center, but also provide a sense of safety and security.</p>

Action Item

When developing any type of financial assistance program, proponents should:

Identify Administrative Capacity to Implement: Ensure that there is a dedicated staff person to administer the program.

Build Community Support: Early engagement with property owners is crucial. Explain the concept for the program and the impact it could have on the downtown. Seek to build relational capital to gain credibility and community support as program enhancements are developed. Stakeholders should be involved early in the process and the program should take into consideration their needs and identify specific ways the program can help.

Determine Program Details and Funding Options: Complete research on similar programs. Develop a budget and idea of costs for various fixtures. Develop guidelines for the program based on Town's goals. Explore and secure funding for the program. Consider funding amounts for individual projects. Funding amounts must be adequate such that the cost to participate does not outweigh the funding provided. Identify eligibility and grant conditions.

Create Design Guidelines: Include specific design guidelines for the program. Project participants should understand the Town's vision for the program.

Advertise the Program: PSAs, social media, and a prominent location on the Town's/partners' websites can increase awareness of the program and participation. Word of mouth and project visibility has been shown to be one of the most important ways to promote these programs. Create a special event, such as a night-time walking tour to experience the program's impact, once implemented.



Before and After of the Center for Arts Building



Source: Natick Arts – Historic Firehouse



View of Town Hall – excellent opportunity for architectural uplighting

Source: BSC Group

Process

1. Research similar programs implemented elsewhere.
2. Conduct outreach to those program administrators for ideas on funding, process, challenges, etc.
3. Create a framework for a program in Natick.
4. Engage property owners and build community support for the initiative.
5. Reach out to companies that specialize in exterior lighting to discuss the program and obtain cost estimates.
6. Find funding for the program.
7. Finalize the program guidelines, including design guidelines and application.
8. Work with property owners to gain commitments to participate.
9. Implement the program.
10. Market the impact!



Natick Center at night – Buildings barely visible from a distance

Source: BSC Group

Springfield Architectural Lighting Program



Location

Springfield, MA

Project Overview

This program, in partnership with DevelopSpringfield, is designed to assist property owners located within the Springfield Business Improvement District (SBID). The Lighting Program will provide assistance to eligible property owners by supplementing and/or providing initial installation of Architectural Lighting to improve the physical appearance of buildings in the SBID. These guidelines are meant to foster identities for the SBID as a distinctive place to shop, visit, work, and live.

The three goals of the Architectural Lighting Program are:

- To highlight historical architecture within Springfield's downtown metro area.
- To provide a corridor of light for night-time visitors to the downtown area.
- To provide a level of comfort to visitors, increasing foot traffic and therefore economic growth.

The Springfield BID allocated \$400,000 in funding to assist with uplighting for eight (8) buildings in the city's downtown. For the first year of this program, the SBID sponsored buildings at 75% of the cost of all lighting and installation.

<https://springfielddowntown.com/about-the-bid/business-resources/>

DESIGN GUIDELINES

Projects are intended to reflect principles of good design, and the ultimate goal of creating a distinctive identity for Springfield. Applicants are required to meet with a representative from the SBID prior to acceptance of their application. Once the application is received and screened by a program administrator, you will be contacted to set up an appointment to discuss the project with the SBID.

Buildings will be assessed on a case-by-case basis. This program will roll out throughout Springfield Downtown in an organized fashion, aiming to create corridors of light. The attached map shows quadrants of the SBID area. If your building is not chosen for installation immediately, it is likely due to the quadrant system, and we will reconsider your application as the program moves forward.





This program is aimed towards building owners, who must sign on to maintain and operate the newly installed lighting fixtures for a minimum of five years. Lights will be installed with a photo cell, which will automatically operate the lights from dawn to dusk. All installed lights will utilize LED technology and will operate at a minimal cost to the building owner. Installation of architectural Lighting will be completed by a contractor assigned by the SBID and will be at 75% cost to building owners, and all lighting rebates will be made out to the SBID.

https://springfielddowntown.com/wp-content/uploads/2014/07/Architectural-Lighting_Application_081314.pdf



Architectural Lighting Program, Springfield, MA Source: MassLive

Build the Capacity of the Natick Center Cultural District

Category	 Revenue / Sales
Location	Natick Center Cultural District/Census Tracts 3825, 3822
Origin	Natick Center Cultural District is primarily focused on attracting people to the downtown through special events and programming. Focused on culture, community, and the creative economy, it is membership driven, and receives an annual funding allocation from the Town.
Budget	 Medium Budget; Funding: beautification/landscaping (sponsorships, private), MA Downtown Initiative, MassDevelopment Real Estate Technical Assistance Program, ARPA funds, small business training, MA Office of Travel & Tourism, MA Cultural Council, special tax assessment (BID/DIF), parking benefit district
Timeframe	 Medium-Term
Risk	 Low to Medium – Depends on approach to capacity building. Risks include political will, inability of town to continue annual allocation, long-term sustainability, reliance on grants/membership dues, no dedicated funding mechanism, will benefit from business and property owner participation/engagement
Key Performance Indicators	# businesses & property owners participating, expanded program model/objectives defined, financial sustainability, appropriate staff support
Partners & Resources	Natick CED, Natick Center Associates, Natick Center Cultural District, Property Owners, Business Owners, Artists
Diagnostic	<p>The COVID-19 pandemic significantly impacted downtown businesses. It has been well documented that small businesses, dining, cultural attractions, residential developments, and tourist destinations experienced loss of employment, revenue, customer base, and foot traffic. Downtowns with active downtown organizations were able to pivot and respond to this crisis to help their small businesses weather the storm. Many downtowns have realized that a sustainable district management entity is positioned to help downtowns recover from COVID and prepare for the future.</p> <p>The Natick Center Cultural District (NCCD) is governed by an Executive Committee and a Board of Directors, staffed by an Executive Director and an Outreach Coordinator. Its strategic goals are interdependent and connected – to increase capacity for arts and cultural development, enhance Natick Center as a community gathering place, foster economic development in Natick Center and the community overall, and ensure the long-term stability and success of the cultural district.</p> <p>One objective of the NCCD's long-term stability goal is to identify a consistent revenue stream to fund the organization over the long term. Currently, the NCCD seeks Mass. Cultural Council grants, foundation grants, corporate/ business sponsorships, individual donations, visitor fees and Town of Natick funding. These funds are not self-sustaining. As the NCCD works to renew its five-year Strategic Plan, it can consider and evaluate whether the current structure is still the most appropriate operational model moving forward.</p>

Action Item

Evaluate: Evaluation of the district management model is recommended. Assess existing framework of the NCCD and complete a SWOT analysis. Identify appropriate levels of staffing. Review the NCCD strategic plan, operating budget, and expenses and measure the successes and progress made. Are there services missing that the NCCD/NCA would like to incorporate? Is there funding that could be captured? Are there economic development goals that are not being adequately addressed that a district management organization can undertake?

Engage: Engage the public and complete extensive outreach and community education to explore current structure, program priorities, financial sustainability, and organizational models. Reach out to property owners and businesses to gauge interest and willingness to participate in various district management models. Distribute a survey to residents, businesses, landowners, institutions, and other stakeholders to obtain insight and community preferences.

Explore: Learn from other communities. Outreach to different communities with different models to see what has worked and what has not. Models include voluntary organizations such as “Friends of” Groups and Business Associations, or self-sustaining approached such as Business Improvement Districts and Parking Benefit Districts. Build connections for peer review and sharing. Discuss the various models and determine which approach is most appropriate to pursue based on Town/NCCD priorities.

Recommend: Based on a cost benefit analysis, recommend the best approach that builds the capacity for the Natick Center Cultural District, with a preference for a dedicated source of funding to obtain more staff and address more issues.

Process

1. Conduct a needs assessment and an analysis on the existing structure of the NCCD. What works? What could be made better? What is missing? What are the challenges? What are the opportunities?
2. Outreach to the community.
3. Lead with Economic Development. Create an argument for economic development. The Town has recently completed several planning initiatives, including an Economic Development Analysis, Natick Center Plan, Creative Placemaking Strategy, and a Comprehensive Master Plan (Natick 2030+). Economic development is a major component in each of these plans. Prioritize it, allocate the appropriate resources, and remain dedicated to finding the right district management model for the community.
4. Assess/Adapt the framework. Select an approach and build the case for it.
5. Build broad public support.
6. Test the feasibility.
7. Determine a budget.
8. Establish a fee formula (if part of process).
9. Receive necessary approvals from partners.
10. Develop any necessary legal contracts/paperwork/partnerships.
11. Initiate operations.



Artwork in the Cultural District

Source: Natick Center Cultural District

Management District Models

The specific Management District Model is determined by organizers in the community. There is no correct answer to this question, and organizers should explore which one has the best opportunity for success. The chart below briefly describes different models for consideration.

MANAGEMENT ENTITY	DISTRICT DELINEATION	REVENUE SOURCES
BIDS	Contiguous area within which property owners pay to develop, fund and execute supplemental services to benefit economic and social vitality of district	Self-sustaining through fees; reauthorized every 5 years, Grants and fundraising
VOLUNTARY DOWNTOWN ORGANIZATIONS	Volunteer program model addressing design, organization, promotion and economic vitality	Not self-sustaining; state grants, municipal contributions and fundraising
COMMUNITY DEVELOPMENT CORPORATIONS	Engages residents and businesses to undertake sustainable community development efforts in rural, urban and suburban. Geared to benefit low/moderate income.	Not self-sustaining; state grants, foundations and donations
PARKING BENEFIT DISTRICTS	Geographically defined district in which parking revenues are dedicated to related improvements. Can be a stand-alone or part of existing downtown organization.	Self-sustaining through parking revenue fees

A Guide for Establishing BIDs

Source: <https://www.mass.gov/doc/2020-revised-business-improvement-district-manual/download>

Downtown Management Districts

Communities of all sizes want their downtowns to be vibrant destinations with a strong mix of business, retail, entertainment, dining, educational, recreational, cultural and residential activity. Smart communities develop and implement strategic activities and adopt management district organizations to help them achieve these goals. When property owners partner with their municipality to leverage the downtown through a well-managed and sustained effort, the downtown becomes an economic driver for the overall community.

There are several different types of Management District Models for communities to consider. Each community must decide which model is the best fit for it, taking into consideration various factors, such as political support, property owner involvement, other stakeholder participation and desired programmatic activity. The fundamental components for any organization are the development of a shared vision, program of work, sustainable resources to fund the activities, and ongoing professional management.

COMMON ELEMENTS

While each type of organization has differences, there are common elements that apply to any management district. These are:

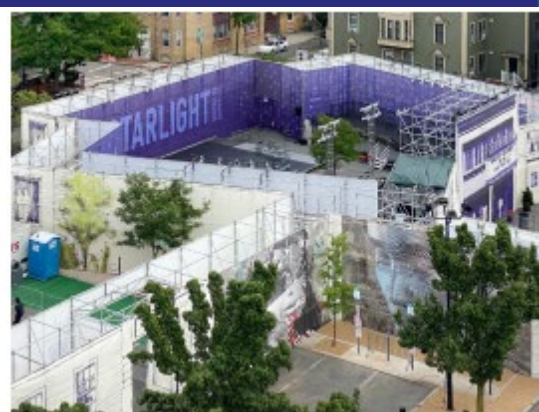
- Defined boundaries
- Strategic plan
- Supplemental services and programs
- Dedicated staff/volunteers
- Managed by stakeholders
- Strong relationship with city/town
- Advocacy and voice for district

TYPICAL MANAGEMENT DISTRICT SERVICES

Each community will decide what priority services and programs will be undertaken by their management organizations. This flexibility enables communities to customize their programs to address the greatest needs and opportunities for their downtowns. The ability to be nimble and creative is an attractive consideration for many stakeholders engaged in forming a downtown management district organization.

TYPICAL DOWNTOWN DISTRICT SERVICES

- Marketing and promotions
- Retail
- Business/housing development
- Beautification/maintenance
- Transportation/parking
- Arts and cultural programming
- Place-making
- Advocacy/communications
- Safety/hospitality



Photos: Central Square (Cambridge) BID's facilitated "return to Central Square" marketing and event programming during COVID-19

Best Practice

Business Improvement District Case Studies



REVENUES & SALES

Location

Hudson, Cambridge, Hyannis

Hudson, MA



THE BASICS

Organizational Model	501c3
Formally Authorized	2017; Renewal, 2022
Budget	\$172,700
Revenue Sources	BID fees, grants and events
Property Parcels	120; Voting entities, 84
FEE FORMULA:	
Property owners pay for the BID services based on the following fee formula:	
• Commercial	0.035% X assessed value
• Residential	0.02% X assessed value
• Mixed-use	Commercial - 0.035% X assessed value
	Residential - 0.02% X assessed value
• Nonprofits/Public	Negotiated agreements/MOU
Size	47.8 acres
2017 Vacancy Rate in BID	11%
2019 Vacancy Rate in BID	5%

Central Square (Cambridge, MA)



THE BASICS

Organizational Model 501c3
Formally Authorized June 2019; Renewal, 2024
Budget \$1,448,000
Sources: BID fees, grants, event revenue, contracts

Property Parcels 98; Voting entities, 73

FEE FORMULA:

Commercial property owners pay for BID services on a formula determined by assessed value based on size, type and ownership.

Charitable, religious, educational, government and other properties exempt from taxation have a Memorandum of Understanding or other negotiated agreements. Residential properties are exempt from fee. (Refer to page 6 for a complete description of the fee formula.)

Size **83 acres**

Vacancy and Value
Vacancy Rate when formed in 2019 0.01%
2019 Assessed Value in BID \$1,489,000,000

Hyannis, MA



THE BASICS

Organizational Model 501c6, 1999; 501c3
Community Development Corporation, 2019
Formally Authorized 1999; Renewal, 2023
Budget \$300,000
(Sources: BID fees, grants and event revenue)
Property Parcels 110 votes, 133 properties

FEE FORMULA:

Property owners pay for BID services based on the following formula:

- All real properties are assessed at .003 percent X assessed value.
Cap of \$4,000 on any property.
- Residential and nonprofit properties are exempt from the fee.





Size: 82 acres

VACANCY AND VALUE

1999 Vacancy Rate in BID, 18%
2019 Vacancy Rate in BID, 5%
1999 Assessed Value in BID, \$60,000,000
2019 Assessed Value in BID, \$107,000,000

https://www.massdevelopment.com/assets/what-we-offer/BID/HowToCreateABID_2020_CaseStudy_Hudson.pdf
https://www.massdevelopment.com/assets/what-we-offer/BID/HowToCreateABID_2020_CaseStudy_CentralSquare.pdf
https://www.massdevelopment.com/assets/what-we-offer/BID/HowToCreateABID_2020_CaseStudy_Hyannis.pdf

Expand Outdoor Dining and Retail Sales Opportunities

Category	 Revenue / Sales
Location	Natick Center Cultural District/Census Tracts 3825, 3822
Origin	Respondents to the LRRP Business Survey stated that COVID had a significant impact on revenue, foot traffic, and operations. Businesses expressed that they would like to see more opportunities for outdoor dining and selling.
Budget	 Low – No additional cost to Town; cost for outdoor dining amenities varies by business; Funding: Private, MassDOT Shared Street/Spaces, ARPA/MOTT Travel, Tourism, & Outdoor Dining, Commonwealth Places, MA Growth Capital Grants and Loans, Town Funding
Timeframe	 Short Term (Less than 5 years) – Rapid implementation
Risk	 Medium Risk – Political will; Community interest/partners; Financing limitations; Legal and liability concerns; permitting process; Safety
Key Performance Indicators	Improved Pedestrian Retail Environment (Speed of Cars Before and After, Number of Crashes, Perception Survey); Support Social-Distance-Safe Local Dining and Spending (Number of Seats Added, Sales, # of restaurants participating, increase sales, # of retailers with sidewalk sales)
Partners & Resources	Town (CED, Police, Fire, Health, DPW, Building Dept.), Business Community, Natick Center Associates, Natick Center Cultural District
Diagnostic	<p>The COVID-19 pandemic tested the resilience and adaptability of Natick's business community, particularly restaurants and retail establishments. Businesses were forced to close their indoor spaces to customers due to local restrictions related to the COVID-19 as evidence that increased rates of transmission happened indoors. As a result of lack of customers, many businesses struggled to cover costs.</p> <p>The Town worked to streamline the outdoor dining permitting process in 2020, working quickly to create and implement emergency outdoor dining regulations. To provide restaurants with socially distanced outdoor dining space, the Town reclaimed a few on-street parking spaces so that the local businesses could continue serving and attracting customers in a safer way. The Town provided the barricades and Edison style bulb lighting, and the restaurants were responsible for tables and chairs. Natick Center Cultural District also found ways to engage creative placemaking elements into the process to support local artists during the economic struggles of the pandemic.</p> <p>Understanding potential benefits to long-term community and economic development, many businesses and communities now seek to make permanent the temporary outdoor dining and retail options that have sprouted up in their commercial areas.</p>

Action Item

Natick is supportive of outdoor dining and seeks to help businesses safely and efficiently obtain the necessary approvals. Natick offers a streamlined temporary outdoor dining permitting process and a designated point person to coordinate with. This practice should continue after the temporary provisions expire. Key considerations include:

- Enacting permanent ordinances
- Providing clear design guidelines
- Compliance with ADA
- Seasonality/Operation of portable heating units
- Consumption of alcohol
- Use of public spaces
- Enforcement
- Parking Requirements per seats
- Equitable access for all businesses wanting to participate

Zoning Code Changes

Zoning code and bylaw changes can make outdoor dining and retail options permanent throughout a municipality or in selected geographic areas or zones. Some considerations should be: What boards and committees must review any proposed changes, and what time is needed to do that? Allow enough time to enact permanent changes before any municipal emergency/COVID-19 outdoor dining and retail programs expire. Do you wish to encourage year-round dining? Which temporary outdoor dining/retail measures or program elements do you wish to retain? What additional guidelines or elements do you wish to add to a permanent program?

Public Engagement

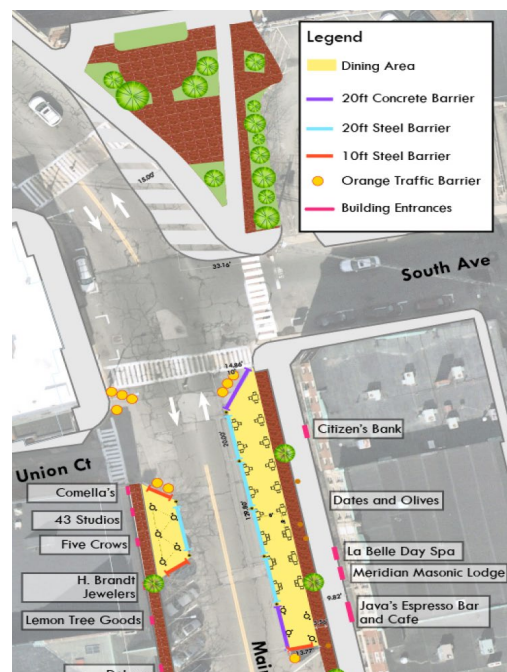
Continued outreach to businesses to determine interest in continuing to offer outdoor dining to patrons. Conduct a public engagement session to ensure community support is still popular. Explore expansion of the program into a social zone/shared streets program. See best practice for this recommendation.

Process

1. Provide an update on outdoor dining status to the community.
2. Engage the public to solicit feedback on the program currently in place.
3. Evaluate the program.
4. Identify actions needed to make the program permanent.
5. Rewrite relative zoning and/or regulations on outdoor dining.
6. Submit proposed changes for relevant approvals.
7. If approved, implement.
8. Consider ways to improve/expand the program, if desired.



Tables set up at a food establishment.
Source: BSC Group



A designated outdoor dining area in Natick Center
Source: BSC Group

Outdoor Dining/Retail Community Toolkit



REVENUES
& SALES

Toolkit made available by MA Department of Housing and Community Development, MA Executive Office of Housing and Economic Development and prepared by Civic Moxie

Toolkit available at: <https://www.mass.gov/doc/outdoor-dining-retail-toolkit/download>

Outdoor dining and retail options in local commercial districts blossomed during the early days of the COVID-19 Pandemic as towns and cities made a quick pivot to respond to the needs of businesses and residents. Understanding potential benefits to long-term community and economic development, many businesses and communities now seek to make permanent the temporary outdoor dining and retail options that have sprouted up in their commercial areas.

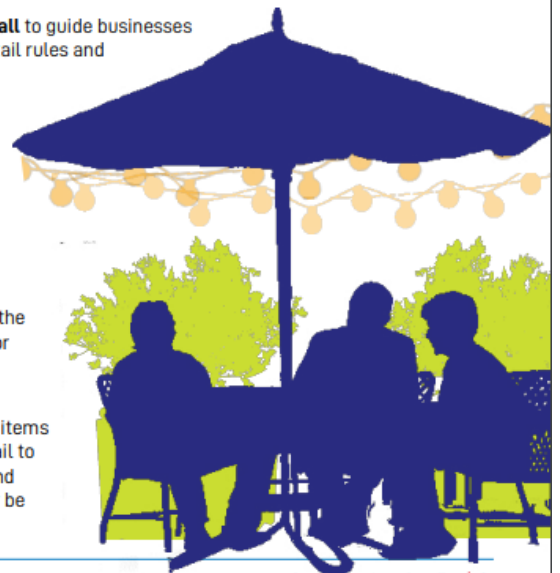
This Toolkit responds to this need. In the Local Rapid Recovery Program, questions of outdoor dining and retail – enacting permanent ordinances, providing clear design guidelines, offering assistance on use of materials and perhaps even bulk purchasing, compliance with ADA, and navigating local and state regulations – have been among the most common issues raised during the planning process. Businesses want certainty before investing capital in furniture, construction, and equipment. Communities want to ensure outdoor dining and retail options are created with some semblance of aesthetic order and that they meet safety standards. This Toolkit presents the most common questions in the LRRP and provides a guide for each community to move forward in creating its own set of guidelines for businesses and internal streamlining of requirements.

We want to...

STREAMLINE THE PROCESS FOR BUSINESSES TO CREATE OUTDOOR DINING/RETAIL UNDER EXISTING STATE REGULATIONS.

When we say “streamline the process,” it can include all or some of the following goals:

- (A) Offer a **single application** for businesses to apply for permits and licenses to provide outdoor dining and retail.
- (B) Offer an **online application** to help businesses save time.
- (C) Provide a **checklist of all requirements**.
- (D) Provide a **liaison at City or Town Hall** to guide businesses through the outdoor dining and retail rules and requirements.
- (E) Create a **short-track or condensed timeline** for permitting and approvals by coordinating Town or City inspections and reviews.
- (F) Provide **clear design guidelines and other requirements** that take the guesswork out of providing outdoor dining and retail.
- (G) Offer **bulk purchasing** of common items needed for outdoor dining and retail to get better prices for businesses and standardize select items that may be hard or confusing to source.



Outdoor Dining/Retail Toolkit | 9

Update Outdoor Lighting Specifications in Zoning

Category	 Administrative Capacity
Location	Natick, MA
Origin	As the Town continues to seek ways to improve the lighting of downtown Natick to make the area more appealing and vibrant at night, the outdoor lighting standards in its zoning are due for an update. This idea evolved during project recommendation discussions.
Budget	 Low to Medium. Depending on approach, costs will vary. Funding: Town Funding, District Local Technical Assistance, One Stop for Growth (MA Downtown Initiative, Technical Assistance Grant; Community Planning Grant).
Timeframe	 Short-term
Risk	 Political will; community interest; developer buy-in; Funding availability; Perceived need
Key Performance Indicators	Improved aesthetic; better pedestrian lighting with more even lighting levels and with less glare; increased number of lighting installations that support the town's goals related to accessibility/safety, wayfinding, and placemaking; increase in visitors; # of public art installations/events; decreased light trespass and light pollution.
Partners & Resources	Town (Planning/DPW), Natick Center Cultural District, Property Owners/Businesses, Artist Community, and Area Lighting Designers (potentially)

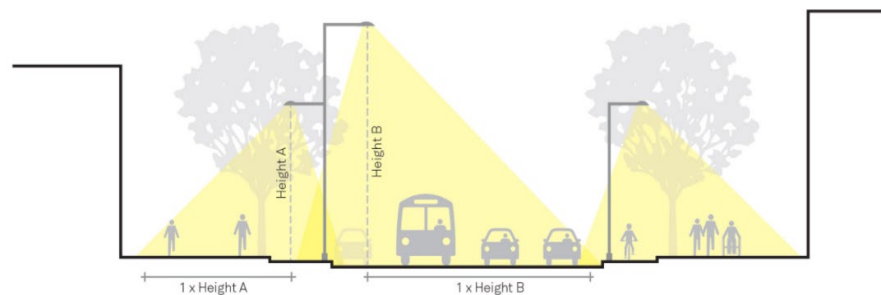
Temperatures, Colors, and Ambience

A consistent approach to color temperature should be applied throughout the lighting plan, although different color temperatures can be used to signify different users or types of travel. 3000 Kelvin (K) is often used for pedestrian paths and 5000K for vehicular paths.



Edinburgh, Scotland
Ambient environment created with street lights and storefronts.

Light Cone. The light cone has roughly the same diameter as the height of the fixture from the ground. The height will therefore determine the maximum suggested distance between two light poles to avoid dark areas.



The spacing between light poles is typically 2.5–3 times the height of the fixture. A single row of light poles might be sufficient for a narrow street, while wider streets will require multiple rows.

Light Zoning Guides; Source: Global Designing Cities Initiative

Diagnostic

The COVID-19 pandemic has had a dramatic impact on the way in which a community interacts in public spaces. Several locations within Natick Center afford the opportunity for the installation of large-scale, light-based public art to enjoy. In addition, architectural features on historic buildings can be enhanced at night through a creative lighting strategy. By enhancing the public realm with lighting, the Town is creating a safe, attractive space for visitors and businesses at night. This project provides artists with an opportunity to display work and enhance the public realm, contribute to the local creative economy, and make downtown a destination.

The town's zoning could be improved to better support the town's strategy of improving outdoor lighting to make the downtown more vibrant. There are several potential limitations to the existing lighting provisions. The current zoning standards in section V-I outdoor lighting require submission of a detailed lighting plan for many situations but fail to set standards for acceptable light levels. Most effective lighting bylaws will set specific light levels (measured in foot candles or lumens) for various contexts and uses. The bylaw also does not provide exemptions for artistic installations or temporary lighting installations. While the section's purpose statement references energy efficiency, the section does not set standards for energy efficiency. In fact, showing its age, the section does not mention LEDs when it describes types of lamps.

There is a growing body of research showing the negative impacts of excessive lighting on human health, wildlife, and the visibility of the night sky. Both the purpose of the outdoor lighting section and its standards could be updated to better address dark sky principles. Among those is to limit lighting to the bare minimum, to customize light levels to land use context, and to ensure that light on the blue end of the spectrum is limited. For an example of dark sky provisions, see the proposed outdoor lighting bylaw for Pepperell. (Kelly Beatty of the International Dark-Sky Association provided this bylaw as an example of an effective dark sky bylaw for Massachusetts. It should be noted it recently failed to be adopted.)

In addition, provisions in section V-H, Signs and Advertising Devices, of the zoning bylaw could be interpreted to restrict some artistic lighting installations with moving lights. The definition of a "sign" in Section V-H.B.1 of the bylaw reads (emphasis added):

- "Sign - Any letter, word, symbol, drawing, picture, design, device, article or subject that advertises, calls attention to or indicates any premises, persons, products, business or activities, whatever the nature of the material and manner of composition or construction."



Natick Center storefront at night Source: BSC Group

If an artistic lighting installation is interpreted to meet this definition, then the following standards would apply:

- Illumination (a) No sign shall contain any part which moves or flashes or be animated in any way. (b) No sign shall be illuminated more than thirty (30) minutes after closing, or before 8:00 A.M. on any day except for signs of business which are legally carrying on business before 8:00A.M. which may be illuminate while said businesses are actually open to receive the public.

The following provisions do potentially allow a Special Permit that could apply to artistic installations:

- Signs identifying police or fire stations and residences of medical doctors, hospitals, nursing homes, and other such signs as the Special Permit Granting Authority may authorize, may be illuminated at other hours if the Board finds that the nature and use of the premises is such that illumination should be permitted in the public interest. (c) All illumination of signs must be so arranged as to prevent glare onto any portion of any public way or other adjacent property.

Even if the Special Permit provisions apply, requiring a Special Permit seems excessive for installations that are intended to implement the town's downtown strategy.

Updating the standards related to outdoor lighting in the Town's zoning bylaw would be a relatively easy and low-cost action to implement Natick's goal of making downtown more vibrant at night and supporting the viability of downtown businesses. At the same time, changes could better address negative impacts of lighting in other parts of town with a focus on maintaining community character, providing the minimum lighting needed for pedestrian comfort and safety, and minimizing the negative impacts of lighting on human health and wildlife.

Action Item

Revise provisions related to outdoor lighting in the Town's zoning bylaw. Lighting standards in the Town's zoning bylaw should be revised to meet the following goals: providing functionally adequate lighting for pedestrians with even light levels and a minimum of glare, improving the perception of safety downtown, using lighting for artistic effects and to assist with wayfinding, minimizing light pollution and light trespass, and coordinating lighting in the public and private realms.

There are potentially two approaches to this project.

1. Approach 1: Design then Regulate

The first is to hire a lighting designer to create a lighting plan for downtown Natick. The plan would designate appropriate light levels, fixtures, and locations throughout the downtown including designating which locations deserve special lighting treatments. The lighting plan would provide detailed information for zoning updates, including what light levels and characteristics are acceptable in various locations. It would provide specific guidance to coordinate future public and private improvements. For example, by showing, where future public lighting installations are intended, private development could help installation, either by installing the public lighting as a community benefit, or by coordinating private lighting installations with planned public installations.

2. Approach 2: Regulate without a Design

The second approach is to use a more typical method for zoning bylaw updates: Research bylaws adopted by other communities, develop an understanding of the basic parameters of lighting and how to regulate it, develop bylaw updates that set basic parameters for lighting, adopt the bylaw, and then negotiate with applicants as needed to ensure coordination of the public and private realm.

The first approach provides a clear plan for making public improvements to lighting in Natick's downtown over time and provides detailed parameters for private lighting to ensure coordination. The design-first approach is typical of a form-based approach to zoning and has been beneficial to many communities. By providing specific guidance to applicants, this method would likely both have better outcomes and would result in reduced time negotiating lighting in permitting review. However, this option has a cost to it.

The second approach would not provide an overall lighting guidance plan, making it more difficult to achieve the goal of consistent and even lighting downtown punctuated by special or artistic lighting where warranted to serve wayfinding and placemaking goals. To meet the town's goals, it would require successful negotiations with applicants over time and sensitive use of incremental city projects. It could also result in reactive changes to the zoning in the future. On the plus side, this approach would likely have less upfront cost and the timeline to adopt zoning changes would likely be shorter.

Process

The Town will have to determine which approach it wishes to pursue. Both have advantages and disadvantages.





Approach 1: Design then Regulate

1. Create a working group.
2. Ensure funding to support this effort is available.
3. Draft a RFP/Q for professional consulting services.
4. Select a consultant.
5. Consultant will review any relevant background data and complete an existing conditions lighting plan and analysis.
6. Consultant will prepare a recommendations package for the Town's review and consideration.
7. The Town will provide feedback, and consultant will finalize recommendation package to submit for Town approval process.
8. Approval to zoning changes obtained by relevant boards and commissions as well as at town meeting.
9. Finalize approved zoning changes. If part of scope, consultant will prepare an illustrative guide to aid those in the design/permitting process.
10. Town will provide guidance based on the approved lighting design regulations to all petitioners relative to zoning during permitting process.

Approach 2: Regulate without a Design

1. Town planning staff to develop an understanding of the basic parameters of lighting and how to regulate it by researching bylaws and best practices adopted by other communities.
2. Consult lighting designers and design publications.
3. Planning staff to mark-up existing zoning with recommended proposed changes based on research.
4. Develop a draft bylaw based on preferred characteristics of reference bylaws.
5. Review the bylaw with lighting experts, property owners, design professionals, and potential project proponents.
6. Test the bylaw on several sites, and/or previous project applications
7. Conduct a public process to gather feedback about the bylaw.
8. Revise the bylaw as needed.
9. Bring the bylaw through the adoption process.
10. Publicize the new bylaw.
11. During permitting process, Town will negotiate with applicants as needed to ensure conformity with zoning and coordination of the public and private realm.
12. Monitor lighting installation. (This is a crucial step that is often neglected, partly because most building inspectors do not work at night. It may be necessary to create a citizen task force to do the monitoring.)
13. Evaluate and adjust zoning language as required.

Support Economic Development Goals by Increasing Administrative Capacity

Category	 Administrative Capacity
Location	Natick Center Cultural District/Census Tracts 3825, 3822
Origin	With economic growth a priority of the Town, having a dedicated economic development coordinator would alleviate the burden on existing staff and free up capacity to create and administer new economic development programs (proposed as part of this LRRP effort).
Budget	 Medium Budget - \$50,000-\$200,000: Funding: include town appropriation, ARPA (potentially) State grants (Community Compact), tax incentive programs (e.g., DIF), consortium funding.
Timeframe	 Short Term
Risk	 Low-Risk: Political will; Community interest/partners; Financing limitations and/or sustainable funding sources.
Key Performance Indicators	Position funded; Strategies developed (business assistance, marketing, branding); Number of businesses helped through outreach, coordination, and direct assistance; Increase in # of businesses in town / business involvement in local affairs; Creation / funding of business programs (storefront and façade improvement / microloan programs); Amount of dollars secured / distributed; Growth in local commercial tax base.
Partners & Resources	Natick Center Associates/Natick Center Cultural District, MetroWest Chamber of Commerce; Business Community; Town Staff/Boards/Committees; MAPC
Diagnostic	<p>The rapid recovery planning process has identified a few economic development initiatives requiring capacity to implement. To be successful, the Town must work closely with businesses and property owners in Natick Center to help them recover from the pandemic and thrive in the post-pandemic economic context.</p> <p>The COVID-19 pandemic has revealed that businesses have limited capacity to steward a commercial corridor and that businesses in the corridor need the support of Town government to advance collaborative efforts. Establishing a town position dedicated to supporting existing businesses, attracting new businesses, and spearheading small business incentive programs and economic development initiatives would contribute greatly to an improved business climate, provide capacity for capital improvement projects, and signal to businesses that the Town values them and takes their concerns seriously.</p>

Action Item

A key challenge identified is a lack of capacity at the town level. The Senior Planner currently supports current planning, long range planning, community development/housing, and economic development. While there is a general planner/conservation agent, a development permitting planner, a part-time project manager, and three administrative staff (shared between building inspections, community development and to support 12 board/commissions), economic development has been emphasized in several recent planning documents (Natick 2030+, Natick Center Plan, Creative Placemaking Strategy, Economic Development Study). With economic development as a priority, the Town should consider adding professional planning staff to allow the Senior Planner to focus more on economic development efforts.

An economic development practitioner could assist the Town with the following:

- **Liaison to Business Community:** Serve as the point person for business engagement and business development. Be a point of contact for the town as a resource and ombudsman to businesses. Businesses have a direct point of contact to help problem solve and alleviate any concerns. As the liaison, this person will regularly visit businesses and be visible in the community.
- **Small Business Assistance:** Focus on business engagement to understand local business needs, issues, and opportunities; help to devise strategies and create partnerships. Provide an avenue for businesses to come together, further strengthening the relationship between the town, Natick Center Associates, MetroWest Chamber of Commerce, and the business community. Provide a direct point of contact to help problem solve and alleviate any concerns and help with permitting, marketing, and promoting businesses.
- **Business Attraction/Retention/Recruitment:** Increased capacity will create an opportunity to attract and retain businesses growing the employment base in town, adding tax revenue, and providing needed goods and services. Work with property owners and real estate developers to seek new business opportunities for vacant parcels/commercial buildings. Collaborate with local partners, regional, and state leaders to create business development opportunities and innovative programs (e.g., façade improvements, pop-up shops, creative economy, start-up/microloan funding, restaurant week, etc.)

Process

1. Identify Funding and Successfully Advocate for the Creation of a Position: Once funding is identified, the creation of a position should be recommended by the Town Administration and be approved at Town Meeting.

2. Formalize Job Description. The Town should create a job description detailing the responsibilities of an economic development position: The main goal of such a position is to hire someone who can help find ways to support existing businesses and bring in new businesses that serve the needs of the community and create job opportunities. These responsibilities could include, but not be limited to, business outreach and assistance, coordination with business/community groups, project management, grant writing, data collection and analysis, and business attraction/retention efforts. Additional efforts could include advocating for funding and creative partnerships; identifying alternative, creative funding sources (other than from the general fund) to implement initiatives, coordinating with economic development partners, understanding the zoning and regulatory processes and helping other town staff problem-solve issues/concerns, provide technical assistance, advocate for the regulatory process, and create a business retention program to strengthen the local business economy.

3. Initiate the Hiring Process: Post the job description, advertise, interview, and make a job offer.



Dedicated Economic Development Position could help fill vacancies
Source: BSC Group







Dedicated Economic Development Position could help improve signage
Source: BSC Group

CHALLENGES

- Funding to support a position long-term. If town funding is not available, consider alternative opportunities such as shared positions with regional entities or other towns.
- Ensuring position provides fair and equitable distribution of time/resources for all responsibilities.
- Setting expectations too high or being unrealistic with responsibilities allocated to this position.
- Managing competing goals/ expectations and maintaining ongoing and continued communication between staff, stakeholders, businesses etc.

Install Light Based Public Art at Adams Street

Category	 Cultural / Arts
Location	Adams Street/Census Tract 3822
Origin	Adams Street offers an interesting and slightly hidden opportunity to create large-scale public art installations between buildings on both sides of the street. Derived from Natick Center Placemaking Strategy and conversations with town officials and the Natick Center Cultural District.
Budget	 Medium - \$50,000 - \$200,000; Funding sources: Town appropriation, Mass. Cultural Council, Shared Streets/Spaces, creative DIF program , crowdsourcing campaign (Patronicity), NEFA
Timeframe	 Short-term
Risk	 Political will; legal and liability concerns; community interest; partners; financing limitations; support/coordination with utility companies; and site ownership.
Key Performance Indicators	Improved aesthetic, better lighting, increased accessibility/safety, increase in visitors, # of public art installations/events, # of event attendees
Partners & Resources	Town (Planning/DPW/Fire), Natick Center Cultural District, Utilities (potentially), Property Owners/Businesses, and Artist Community
Diagnostic	<p>Prior to and throughout the COVID-19 pandemic, the Town of Natick has been focused on supporting a safe and active street life in Natick Center by enhancing the pedestrian environment to increase the number of visitors, customers, and diners frequenting the area. In addition, the Town wishes to extend the use of art in Natick Center's public and private spaces to make it a more interesting, welcoming, and enjoyable place to visit, shop, dine, and do business.</p> <p>The COVID-19 pandemic has had a dramatic impact on the way in which a community interacts in public spaces. Throughout the pandemic, public spaces have offered a gathering place, a sense of shared experience and civic engagement, easier social distancing, and active and healthy lifestyles. When stores shuttered, people turned to the outdoors – parks, playgrounds, public plazas. Public spaces offered a sense of normalcy in extraordinary circumstances.</p> <p>The Town of Natick has thought creatively about the use of its public space and has laid the groundwork to elevate and promote its public spaces through recent master planning and placemaking efforts. At the forefront of its pursuit of enhanced public spaces, the Town is focused on promoting shared streets and artistic lighting for wayfinding and placemaking.</p> <p>Adams Street offers a unique opportunity for a large-scale, light-based public art installation for both residents and visitors to enjoy. In addition, this project provides local artists with an opportunity to display work and enhance the public realm, contribute to the local creative economy, and provide a destination attraction for the downtown.</p>

Action Item

Determine a Preliminary Design Framework. Discuss the project goals, define success, and how to measure it. Identify project partners and proponents and create an outreach/marketing plan.

Assess Existing Conditions. Conduct field work and identify where utilities and electrical capacity are in the alley to inform the design basis. Locate fixtures and wall-packs. Complete a lighting study to identify where dark and bright spots are located.

Create a Concept. The Town and Natick Center Cultural District should work with a lighting and artistic designer to sketch out feasible and creative concepts to implementing light-based public art displays using the Adams Street Alley as a pilot project. Identify technical requirements and any challenges or barriers to implementation.

Identify a Budget and Funding Sources. Create a financial plan dependent upon conceptual plan. Seek funding for the project. For budgets related to art, events and other placemaking elements, expect a wide range in cost. The budget will fluctuate based on the experience of the artist, length of installation, equipment needed, needs of the client, scale of the placemaking program, and schedule for fabrication and installation.

Procure Design/Fabrication Services for Light-Based Public Art. Procure a lighting artist/designer through a Request for Qualifications process. The selected designer will create a pilot placemaking project within Adams Street Alley.



View of Adams Street Alley

Source: BSC Group

Process

1. Preliminary Design Framework:

- Define both functional and artistic goals for the project. (Functional goals include supporting the street/space and personal safety. Artistic goals include storytelling to enhance cultural assets, branding, community connection, and connections to history.)
- Explore current lighting and identify deficiencies and opportunities to address them.
- Determine type of lighting to be used and identify expectations for any design (color, brightness, spacing, scale, etc.).
- Address technical requirements and any challenges to address, e.g., electricity, mounting, timing, sequencing.
- Obtain necessary permissions from building owners and any permitting approvals.

2. Funding to Design and Implement: Create a budget and secure necessary funding to implement the project.

3. Procure Professional Assistance: The Town and Natick Center Cultural District partnership will procure a Lighting/Artistic Designer to create a pilot placemaking project.

- The selected designer will create a design for approval by the partnership. As part of the design, lighting equipment will be identified with a recommended implementation process.
- Design will be presented to the public to generate excitement.
- Design will be implemented.

4. Hold a Special Event to unveil the project: Provide ongoing hype about the space to continue to attract attention and use (social media, town website, NCD website, local business promotion).



Best Practice

Gallery Alley



CULTURAL/
ARTS

Location

Lincoln, NE

Project Overview

Gallery Alley in Lincoln, NE came to fruition as a result of the City building a parking garage at the south end of the alley and it seeing heavy foot traffic afterwards.

The city was seeking a better lighting outcome to increase safety in the alley – both real and perceived. The project evolved into a destination for light-art and a place to showcase local artist talent.

The cost for this project was quoted at \$143,000. Conceived in 2013, the project was completed in 2016.

<https://www.ies.org/lda/alley-of-the-arts/>



View of Gallery Alley

Source: Clark and Enersen

Appendix



TOWN OF NATICK SME CONSULTATION

By: The Musicant Group

To: Heather Gould, Jeanette Tozer and Ted Fields
From: The Musicant Group
Ella Rasp, Project Manager | Planning & Design
Re: SME Consultation for Lighting Projects for Adams Street and Natick Center

Thank you for the opportunity to work with you on the lighting initiatives in Natick. Our notes and recommendations are below. Please feel free to contact us if you have any questions or would like to work with The Musicant Group further on implementing any of these initiatives.

Project Understandings

Natick would like to initiate several lighting projects to further placemaking initiatives and make Natick a more welcoming and exciting place to be.

(1) Natick would like to implement a creative lighting program for public parking lots in Natick Center to enhance the public realm at night and aid in the Town's economic development goals to strengthen the local economy. The character of Natick Center is lost at night, and dark parking lots create a public safety concern. A creative lighting program will provide an opportunity for a more strategic approach to lighting Natick Center, supporting wayfinding, and promoting evening activity through creative lighting.

(2) Adams Street serves as the back alley to several businesses on Main Street. Adams Street offers an interesting and slightly hidden opportunity to create large-scale public art installations between buildings on both sides of the street, whether through canopies or lighting. The Town and Cultural District, working with a lighting and artistic designer, would like to sketch out feasible and creative solutions to implement a light-based public art display in Adams Street. The Town would like examples of projects (including a range of costs for budget purposes, ideas for funding, and how to obtain artists). In addition, the Town would like to understand challenges to such projects and receive guidance on lessons learned from successful projects.

Preliminary Design Frameworks

Goal setting - define both functional and artistic goals for the project

Functional - how can lighting support the function of the street or space?

- Personal safety
- Street crossings

Artistic - lighting can hold a lot of emotion and mood to people (compare this to theatrical lighting). While urban lighting is different from theatrical lighting, it can still help to promote a powerful narrative for your area.

- Where do you want people to focus?
- How can your lighting tell the story? What is the main narrative and supporting narrative?
 - Enhancing cultural assets, city branding, community connection, connections to history
- What elements of the landscape and what pathways are high, medium and low importance.

Types of lighting - break down according to a spatial framework (ex: Kevin Lynch) and hierarchy

Spatial Framework - understand how light can be a tool for your area. What spaces do you want to focus on? Entry points, pathways, destinations.

- Landmarks
- Nodes
- Edges
- Districts
- Area lighting
- Pathway lighting
- Landscape lighting

Hierarchy - what is the spotlight, what is the background lighting?

- Engage the goals, narrative, experience and mood that define the spaces light is in
- What is the appropriate scale?

Spacing - technical guidance in the Resources section below

- How high up is the lighting? Pedestrian scale vs. street lighting
- How much space is the light meant to cover?
- DON'T bury street lighting in tree canopies but DO uplight interesting trees

Technical challenges - address sooner rather than later to keep cost in check

- Electricity - where it will be accessed and any cost participation if not provided publically
- Mounting - will existing mount points be used or will new ones be needed?

Lighting Projects for Placemaking

The following project examples can serve as inspiration or case studies for potential strategies in Natick Town Center.

Creating the New Hennepin Avenue Experience: Avenue of Light: Public Art

Theater districts are known for their marquees - and Hennepin Avenue is no different. These brightly lit highly visible signs announce the excitement within their structures and in the public realm. Some examples that we have seen where light was used creatively and (relatively) cheaply to delightfully enliven spaces are:



Pong, at Northern Spark 2012



Keith Lemley, Soap Factory, 2012

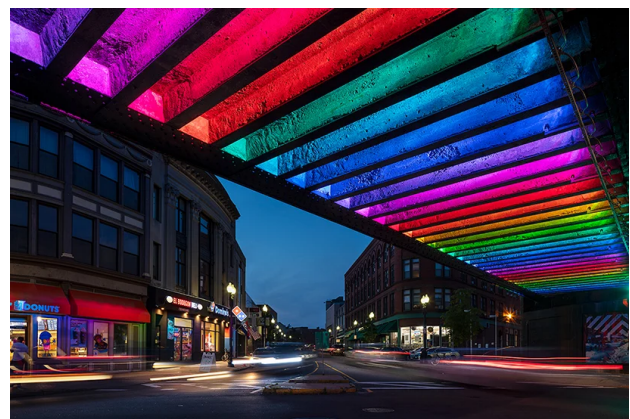


Grand Central Station Kaleidoscope

Goals

- 1) Create a must-experience series of unique light installation experiences
- 2) Generate local and national publicity for Hennepin Avenue – driving new visits and ticket sales
- 3) Create unique ownership opportunities for all users of Hennepin Avenue

Beyond Walls Overpass Neon Lighting - Lynn, MA



<https://www.designboom.com/architecture/beyond-walls-urban-lynn-massachusetts-04-12-19/>

Goals

- 1) Add light to a dark underpass beneath a real line to both decrease vehicular accidents and diminish crime.
- 2) Create a vibrant landmark in downtown Lynn, where people feel more safe and welcome.

Nicollet Mall - Minneapolis, MN

<https://www.jthlighting.com/project/nicollet-mall>

<https://www.lumenpulse.com/projects/334/nicollet-mall>



Mirrors reflecting lighting provides an interactive element (you can see yourself in the installation).



Uplighting of trees.



Poetry lantern lighting engages the community and utilizes existing street lights for hanging. Could have a design competition for which designs to put on the lanterns.

Example: We are working on a utility box wrap project in which we requested submissions from the community (including children's drawings). Those submissions are being used by an artist to create a final design for implementation.

Goals

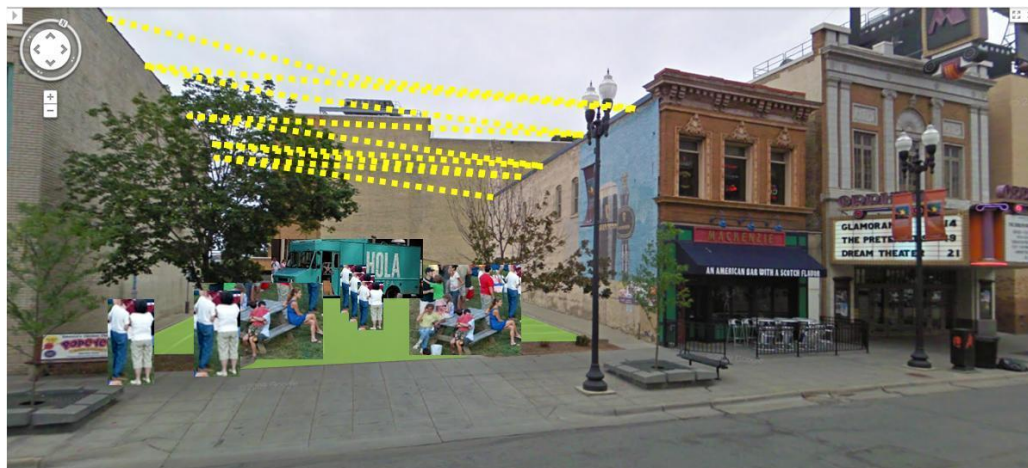
- 1) Create a must-see experience on the pedestrian mall.
- 2) Increase safety
- 3) Create interactive experiences to engage the community

Creating the New Hennepin Avenue Experience - “The Lot” – A New Public Place

“The Lot” – the new best place to be and be seen in Downtown



Before



After

The Hennepin Avenue Theater Trust controlled parking lot on Hennepin Avenue adjacent to the Orpheum Theater provides the greatest amount of opportunity to experiment and host a number of the initiatives due to its:

- High visibility
- Proximity to the theater
- Attractive sense of enclosure
- Proximity to significant daytime population

Goals

1. Utilize HTT site-control to create a unique staging ground for innovative public space programming
2. Leverage HTT site control to pilot activities and concepts that can be rolled out along the entire Avenue
3. Create a new destination node of activity along Hennepin Avenue during the day and evening

Lighting Events

Projection Mapping

Projection Mapping is a creative lighting technology to produce immersive images on 3D surfaces. "Projection Mapping uses everyday video projectors, but instead of projecting on a flat screen (e.g. to display a PowerPoint), light is mapped onto any surface, turning common objects of any 3D shape into interactive displays." ~<http://projection-mapping.org>. Cities are using this technology to create interesting immersive light events.



Sydney Opera House

https://vimeo.com/45835867?utm_campaign=2470763&utm_source=affiliate&utm_channel=affiliate&cjevent=02c0adb6167011ec81a8ec910a82b82c&clickid=02c0adb6167011ec81a8ec910a82b82c



Fern Alley, San Francisco, CA

<https://lightform.com/projects/fern-alley>

There are many other examples of projection mapping on the Internet.

Nighttime Festivals

Adding nighttime or overnight festivals to a space, with some festival lighting remaining after the event, is a great way to activate space. This could be applicable in your town center or in the alleyways, depending on the size of the event.

Northern Spark: Minneapolis holds a yearly overnight festival called Northern Spark. Many ideas for lighting initiatives can be found there. The Northern Spark festival is just one of the projects of Northern Lights MN. http://northern.lights.mn/platform_group/northern-spark/

illuminate South Loop: illuminate South Loop is another Northern Lights MN program, a wintertime activation. The three-day event showcased a variety of interactive art installations and performances designed and produced by Minnesota and international artists. The event featured large-scale brilliantly illuminated art installations and performances, as well as bonfires, warm drinks, and food. <http://northern.lights.mn/platform/illuminate-south-loop/>

Obtaining Artists / Contractors

Quality responses for artists require you to provide them guide rails for their creativity to be expressed. Two possible ways to pursue a lighting artist opportunity:

- a competitive proposal process (artist/contractor submits an idea created specifically for this project)
- an open call for a qualified response (artist/contractor submits their qualifications and past work that demonstrates ability to serve this project).

Proposal-based processes give you more to select from with defined outcomes, but they are a high barrier to entry and do not support emerging or as diverse of artists. An open call process focuses on creating low barriers to entry so that new work is not requested from artists prior to their selection for the project. You can receive high quality projects from either approach, but it depends on whether it is more important for your project to work with an established firm or create opportunities for less advantaged artists to participate.

Outline Content for Proposal Request or Call:

1. Project overview and locations - include purpose and vision for the impact of the project and a sense of scale so that the respondent understands the level of engagement and undertaking you are seeking
2. Role of the artist + role of the City [client] - define what role you anticipate them playing in the process, whether it be full creative direction to consultation with City engineers
3. Project duration and level of effort/deliverables - this information helps them understand how to appropriately fit the project into their other commitments
4. Timeline - the known timeline milestones and expectations for completion of the work
5. Compensation or Quoting Requirements - Lay out either the artist grant available for the project or the requirements of the quote that they should submit for the project (not to exceed amounts).

- Include the breakdown estimates for design vs. installation. This could be a hard number or percentages of the total budget.
 - Indicate whether you are seeking an artist for the full project (you would expect the artist to procure the contractor for installation and lead installation), or whether the artist is contracted for design only (the City would procure the contractor for installation; the artist is to *design* to the installation budget).
6. How to apply - Proposal process requires delivery of a pitch for the specific project or space. Low burden call for artist process requires submission of resume/qualifications, examples of prior work, and required contact/demographic information.

Key Item to Note: Some artists may be qualified to design and produce the lighting installation, but most will be able to produce **designs only** and will either have a contractor they've worked with before or be able to provide the necessary details to receive quotes from contractors in the community.

Framework for getting bids from a lighting contractor: Once an artist has produced a lighting concept and it has been approved by the project stakeholders, you may need to take it to a lighting contractor for a bid to produce. The artist is typically responsible for developing the necessary documents to get bids from a contractor. The more defined the design is when sent to the contractor, the more cost effective the bid will be because it saves the contractor the time required to troubleshoot issues like mounting and electrical connections. Get at least 3 bids, or whatever is required by local regulations.

Timeline and Cost Estimates

Phase 1: Planning

Define the goals, spatial framework and hierarchy which the project contributes toward. See above.

- Minimum: 1 month if there is existing planning on lighting
- Maximum: 6 months if holding several community input opportunities on overall lighting strategy for downtown
- Cost: Internal capacity or contract for lighting strategy plan

Phase 2: Call for Artists or Proposals

Develop a call process that matches the goals of the project - either a call for proposals or artists.

- Minimum: 6 weeks to rapidly develop the call and put it out for 4 week circulation (only recommended for a low barrier call for artists)
- Maximum: 3 months to shop the project around to multiple community artists or lighting contractors and build interest in a more intensive proposal opportunity
- Cost: Internal capacity

Phase 3: Design Development

Work with selected proposal or artist to create and refine a lighting design. Share with local stakeholders and receive feedback.

- Minimum: 6 weeks if a longer call for proposals has led to a nearly ready design proposal that just needs to be refined through stakeholder feedback and technical specs
- Maximum: 6 months if a shorter call process was chose, you will likely need more time for development of the design
- Cost: internal capacity and compensation for design development to artist or contractor

Phase 4: Quotes for Installation, Refinement and Installation

Timing and cost depends on the complexity of the design and the materials selected.

Cost Estimates

Cost is highly variable depending on scale as well as customization. Some very broad numbers for early estimates:

- \$10,000-\$60,000 for nodes, “moments”
- \$100,000-\$300,000 for larger area, entire corridor

Resources

Global Designing Cities Initiative Street Lighting Guidance -

<https://globaldesigningcities.org/publication/global-street-design-guide/utilities-and-infrastructure/lighting-and-technology/lighting-design-guidance/>

Project for Public Spaces Street Lighting - <https://www.pps.org/article/streetlights>

SF Street Lighting Guide -

<https://www.sfbetterstreets.org/find-project-types/streetscape-elements/street-lighting/>

Freestanding light example -

<https://www.designboom.com/technology/philips-freestreet-lighting-design/>

Downtown Lynn -

<https://www.designboom.com/architecture/beyond-walls-urban-lynn-massachusetts-04-12-19/>

Projection Mapping - <http://projection-mapping.org>, <https://lightform.com/>

Northern Lights MN - <http://northern.lights.mn/our-work/>

LRRP – Placemaking for Towns & Cities

Placemaking; Project Rubric Guide

Per the DHCD's Local Rapid Recovery Plan, each applicable city or town is required to submit a standardized set of metrics in a rubric format. The information below should help plan facilitators and municipal staff determine their responses for the relevant metrics.



Budget & Funding Sources

For budgets related to art, events and other placemaking elements, expect a wide range in cost. The budget will fluctuate based on the experience of the artist, length of installation, equipment needed, needs of the client, scale of the placemaking program, and schedule for fabrication and installation.

Placemaking (\$20,000 – \$300,000K)

- Fee to rent sculpture \$5K- \$30K (each)
- Freestanding sculpture \$25K- \$200K (each)
- Murals \$10K – \$35K
- Projection Mapping (event, building exterior) \$15K - 50K
- Facade lighting \$10K - \$50K per building, plus installation costs
- Rear Projection (temporary, inside empty storefronts) \$3K - \$10K
- Streetscape Elements (artistic bench, trash/recycling, etc) \$3K - \$15K (each)
- Temporary art installation (Poetry, Yarnbomb, etc) \$2K – 15K (each)
- Utility Box Art Program \$5K – 20K (1 – 2 K stipend each)

We recommend the following funding sources:

<https://www.massdevelopment.com>

<https://massculturalcouncil.org>

<https://www.nefa.org>

Further resources can be found by researching the DCHD's crowdsourced list of funding and grant opportunities at the link below:

<https://airtable.com/embed/shrh5rVQMbVbpYLKF/tblk00qQMPM2JPpie>

LRRP – Placemaking for Towns & Cities

Timeframe

On average, you will need to plan 3 - 6 months in advance for a custom art installation and 6 - 9 months for permanent custom fabricated elements. Temporary art programs or those that involve a pre-made object such as utility boxes, benches, or rubbish containers that can be given to artists may be accomplished in a shorter timeframe, but a minimum of two months is recommended.

If a call-for-art or request for qualifications (RFQ) is how you will select your artists/designers, please leave an additional 2 - 3 months, allowing 4 - 6 weeks for responses once the call is released.

Risks

Art and Placemaking projects are typically considered low risk, especially murals and temporary installations. Larger sculpture presents more risk as people may interact with them, even if signs are posted not to touch. A basic contract to indemnify the host organization is typically used. This will need to come with an assurance to the artist that the Town/City will do it's due diligence to protect the work.

Another instance of risk comes with installation, where unforeseen obstacles will prevent artwork from being installed in a planned location. Fabrication install teams will usually provide a secondary solution should an issue arise.

Key Performance Indicators

Public surveys can be used to vote for design options or rate the completed art/placemaking project and used as Key Performance Indicators (KPI). Another KPI would be poll business owners on the impact these placemaking efforts had on their sales and foot traffic.





Local Rapid Recovery Plan
Best Practices & Recommendations; Placemaking
Town of Natick

LRRP – Placemaking for Towns & Cities

This guide has been developed by Selbert Perkins Design for use in completing Project Rubrics assigned by the Local Rapid Recovery Program (LRRP). The goal of the document is to elaborate on best practices, deliverables, & process in relation to any Placemaking development under the DCHD's LRRP Program.



Placemaking Best Practices

- Whenever possible, invite the local community to participate. This will develop a sense of ownership and connection to the project. Ways to engage can include the following:
 - Invitation to apply
 - Vote on the theme or final selection (in person or online)
 - Participatory art installations (artist-led)
 - Submit images to include
 - Events to celebrate and/or meet the artists
- When doing a call for artists, a Request for Qualifications (RFQ) is recommended over a Request for Proposals (RFP). This allows artists to submit previous projects with budgets and references, rather than submitting and a budget for a piece that has not been designed.
- For major installations 50K and up, you will want to conduct a RFQ and select 3 – 5 qualified finalists to pay a (\$2K – 5K) stipend to for their preliminary concept. The community can vote to make the final selection.
- Be sure to credit your artists and pay them, even if it is just a small stipend.
- Incorporate light whenever possible, especially in parks, to make them safe and inviting.
- Temporary installations are often easier to get approved. This is a good way to test out the response before making a big investment.
- Include insurance requirements (1MM +) and use a simple contract with indemnification to protect you from damage to the work or injury.

LRRP – Placemaking for Towns & Cities

Our Recommendations for the Town of Natick



On 9/10/21, Cory DePasquale & Jessica Finch of Selbert Perkins Design met with a group of representatives from the town of Natick & their LRRP partner BSC Group to discuss a revitalized brand for the town. During our discussion, a few points were made that our team would like to elaborate on.

- Use lighting to encourage a walkable downtown. Engage with a design firm to clarify a lighting plan, and then further the discussion by consulting a supplier and installation contractor.
- Consider how the lighting plan will be divided - building facades, general outdoor spaces, lighting landscaping and sculptures.
- Identify a priority list for the locations you've selected in your lighting plan. If the estimated cost of the overall plan begins escalating, use the priority list to eliminate lower priority locations to preserve some budget.
- Engage your DPW to determine if they would be suitable as an electrical installation contractor.



**PUBLIC
REALM**



September 10, 2021

Lighting as Placemaking

Selbert Perkins Design



Natick Center



Agenda

Lighting Types:

- Architectural lighting
- Projection Mapping
- Wayfinding
- Streetscape
- Light-based art/events

Architectural Lighting



Case Study

- Permanent Light Fixtures – White or RGB LED



Projection Mapping



Case Study

- Masary Studios "Vessels", Fall River, MA



Wayfinding



Case Study

- City of Louisville, KY



Case Study

- 888 Boylston, Boston, MA



Case Study

- Boston Children's at Brookline Place, Brookline, MA



Streetscape



Case Study

- 4th Street Lights, Santa Monica, CA



Case Study

- Bethesda Row, Bethesda, MD



Lighting Events



Case Study

- Rockport Illuminations Festival



Case Study

- Winter Lights





**PUBLIC
REALM**



SELBERT
PERKINS
DESIGN

Thank you

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September 24, 2021

To: Heather K. Gould, AICP
Director of Planning
BSC Group
33 Waldo Street
Worcester, MA 01608

From: Dillon Sussman
Senior Associate
Dodson & Flinker, Inc.
40 Main Street, Suite 101
Florence MA, 01062

Subject: Subject Matter Expert Consultation for Natick Project Recommendation—Outdoor Lighting in Zoning

Dodson & Flinker were selected by the Rapid Recovery Program to serve as a Subject Matter Expert for Natick's Rapid Recovery Plan. We were asked to improve the preliminary project sheet for the recommendation, Zoning Revisions for Outdoor Lighting, and to provide examples of effective lighting bylaws for comparison to Natick's standards. The Subject Matter Expert consultation was held on August 31, 2021. It was attended by Ted Fields, Senior Planner, Natick Community and Economic Development, Heather Gould, Plan Facilitator from BSC Group and Dillon Sussman, Subject Matter Expert, from Dodson & Flinker.

Ted Field explained the context of the RRP plan's zoning recommendation. The town has identified outdoor lighting as a key component of downtown improvements. In particular, the town is interested in using lighting to improve perceptions of safety downtown, increase the legibility of the downtown, and use artistic lighting installations to draw residents and visitors. There are two alleys that provide opportunities for artistic lighting installations and the town has had three calls for public art. In addition, the town has been installing Edison string lights downtown, which have been well received.

Ted explained that the Outdoor Lighting section of the zoning bylaw is old and that it needs to be reviewed and updated to ensure that it supports the town's lighting goals. He is particularly concerned that it may restrict artistic lighting installations downtown.

Dodson & Flinker reviewed the outdoor lighting and sign sections of Natick's zoning bylaw. We compared Natick's provisions to the lighting provisions for several other Massachusetts communities. Based on the review, we have made general recommendations for improvements to Natick's bylaw and the process for implementing them. See the attached revised project sheet. Also see the attached case study summary and excel sheet regarding zoning standards for lighting. We have provided an example of a dark sky bylaw because we expect dark skies will be of interest when Natick's outdoor lighting provisions are updated. Finally, in response to town's

interest in artistic lighting installations, we have provided a set of examples of creative lighting installations in Massachusetts municipalities.

Thank you for the opportunity to work on this exciting project.

Sincerely,

A handwritten signature in black ink that reads "Dillon Sussman". The signature is written in a cursive, slightly stylized font.

Dillon Sussman, Senior Associate
Dodson & Flinker, Inc.

LIGHTING REGULATION COMPARISONS AND CASE STUDIES RRP SME CONSULTATION FOR NATICK, LIGHTING IN ZONING

Dodson & Flinker

9/23/21

Contents

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Concord	4
Northampton	6
Somerville	8

Overview

As a source of comparison for Natick’s lighting regulations, we examined regulations from four other municipalities in Massachusetts - Cambridge, Concord, Northampton, and Somerville. We selected these regulations based on their comprehensive scope and example of different approaches within different municipal contexts. While some elements vary, these regulations reveal more similarities than differences, and offer a few key takeaways for Natick. Below is an overview of key areas of comparison. Please refer to the individual descriptions and adjoining matrix for further details.

Form of Regulation

Natick and all four comparison municipalities have standards for lighting in their zoning code, though some municipalities also relied on auxiliary documents. In Natick, Northampton, and Somerville, zoning includes a dedicated section with extensive guidance. In Cambridge, the zoning code provides brief guidance on lighting within Article 7. Signs and Illumination, but the City uses a stand-alone ordinance on outdoor lighting to guide development review decisions, even though this ordinance was never adopted. In Concord, lighting standards in the zoning code are limited to off-street parking, and the Town provides more extensive guidance in a separate “Administrative Policies and Procedures” document. Whether as a stand-alone code or as part of zoning, a dedicated section on outdoor lighting allows municipalities to outline goals, standards, and applicability in greater detail.

Applicability & Variation in Standards

All of the regulations, including Natick’s, describe districts and/or uses where the regulations apply as well as where they do not. The four comparison cities also provide tables outlining variation in the specific standards by district and/or use, such as different maximums of light output for different types of luminaires in different districts in Somerville. Natick may consider if this added guidance is useful.

Intent & Purpose

All of the regulations state goals for public safety, energy efficiency, and controlling light trespass in a section titled “Intent”, “Purpose”, or “Goals”. Natick and two of the four other municipalities also mention goals for cost effective lighting and preserving the town’s aesthetics and character. All of the four comparison municipalities mention goals to limit light pollution in the night sky, or preserve “dark skies”, which Natick does not.

Standards

The standards themselves reveal more similarities than differences. All of the regulations specify maximum heights of luminaires at around 15-20 feet, except for Cambridge, at 12-14 feet, and standard cutoff angles at 90 degrees from the base of the luminaire. While shielding standards vary in approach - Natick, Cambridge, and Concord state a lumen threshold before shielding is required, while Northampton and Somerville state a uniform standard with specific exceptions - they appear aimed at similar results.

A few key differences include how the regulations approach light trespass and glare. As mentioned above, other than Natick, the municipalities provided tables outlining maximum light output in lumens or footcandles for different districts and/or uses, in a level of detail that may be helpful for the review process. Additionally, Somerville provides specific guidance on backlighting, uplighting, and glare (BUG) in a table; the only other municipality to mention specific standards for BUG is Northampton, which prohibits uplighting. A significant administrative element is that Cambridge, Somerville, and Northampton list exemptions to the lighting standards, including for temporary festivities, reducing the likelihood of regulatory barriers for special events. Finally, all of the cities except for Northampton have a specification about the color of light, but with different standards in CRI (color rendering index) or color temperature (measured in kelvins).

Format

Each municipality presents their standards in text organized in labeled sections and subsections. The addition of tables by all of the municipalities other than Natick further facilitates the ease of reference, and may be a useful addition. Three of the municipalities, including Natick, provide a definitions section. Northampton is the only municipality that provides images as guidance for specific standards.

Takeaways

Natick’s outdoor lighting section of its zoning bylaws provides a dedicated guidance on the Town’s goals and standards for lighting. The standards are specific for elements such as luminaire height, shielding, and color temperature, but do not include much guidance on light output or backlighting, uplighting, and glare (BUG). Additionally, by not outlining variations in standards for different districts or uses, and by not exempting certain temporary or uses, the regulations may not provide flexibility to meet some of its lighting goals. In particular, the clear and comprehensive regulations of Somerville may offer a useful template for updating Natick’s lighting code.

Cambridge

Primary Regulations

- A. Zoning: Article 7. Signs and Illumination - 7.20 Illumination
- B. Stand-alone code: DRAFT Ordinance, Ch 15. Outdoor Lighting Ordinance (not adopted)

Summary

Cambridge's approach to lighting is unique in relying upon an ordinance that was never officially adopted by the city. The Chapter 15.22 Outdoor Lighting ordinance was drafted in 2016 to address issues of "glare, light trespass, and skyglow" identified by a lighting task force and was modeled after International Dark Sky Association standards¹, but was not enacted due to lack of political support. Nevertheless, according to a city planner, the ordinance still serves as key guidelines during site plan review, and supplements the minimal guidance in the zoning ordinance.²

A notable feature of Cambridge's approach is that it outlines a set of "Prescriptive Standards" for elements of light fixtures that vary by location and type (Figure 1), but allows for deviations for lighting installations that meet performance standards in alignment with the U.S. Green Building Council's LEED v4 BD+C rating system. The standards also provide a set of exemptions, including "Temporary lighting or seasonal lighting", that allow flexibility for festive events.

Figure 1. Cambridge Prescriptive Standards

Outdoor Lighting Category	Maximum Initial Lumens Per Light Fixture	Maximum Height	Shielding and Direction
Unshielded or partly shielded light fixture (general)	315	12 feet above the surface of the area to be illuminated	Not applicable
Unshielded or partly shielded light fixture located in a front yard between the building and street	630	12 feet above the surface of the area to be illuminated	Not applicable
Fully shielded or shielded directional light fixture for entries, walkways, open spaces or buildings	1,050	12 feet above the surface of the area to be illuminated	Must be fully shielded or directed away from all properties that are abutting or located directly across a street
Fully shielded or shielded directional light fixture for automobile surface parking areas, driveways or outdoor loading bays	1,260	14 feet above the surface of the parking area, driveway or loading bay	Must be fully shielded or directed away from all properties that are abutting or located directly across a street

¹ Cambridge Community Development Department:

<https://www.cambridgema.gov/CDD/Projects/EconDev/lightingordinancetaskforce>

² Interview with Jeff Roberts, Director of Zoning and Development, City of Cambridge, on 9/3/21

Concord

Primary Regulations

- A. Zoning: 7.7 Off-street Parking, Loading, and Design Standards - 7.7.3.11 Lighting
- B. Stand-alone code: Administrative Policies & Procedures (APP) # 38 - Municipal Outdoor Lighting Policy and Guidelines

Summary

Concord's lighting regulations reflect a concern with preserving the town's historic character. Similar to Cambridge, the Town supplements a basic set of zoning guidance with an auxiliary document, referred to as an "Administrative Policy and Procedure", or APP. The APP states a policy of providing the "minimum amount of lighting necessary"³ to accomplish goals of safety and to "display the beauty of town buildings and public spaces at night."⁴ The APP does this by identifying "lighting zones" that represent rural, residential, and commercial areas with different degrees of ambient light (Figure 2). The policy then specifies the light output and color rendering index (CRI) for different uses within each of these zones, including three historic areas (Figure 3).

With the smallest population of the municipalities reviewed and several historic areas, Concord emphasizes specificity over flexibility in its regulations. It is the only municipality other than Natick that sets limits on hours of operation, and it does not outline exemptions, other than "Special local circumstances affecting safety, security, light pollution, or aesthetic considerations."⁵ Nevertheless, the Town also cites goals for achieving its goals in a "uniform and equitable manner across town"⁶ and lists cost burdens as an additional condition for deviating from the standards.

Figure 2. Concord Lighting Zones

3.1. Lighting Zones

As a framework for lighting decisions, this policy identifies three lighting zones, as follows:

Zone 1: Areas with intrinsically dark landscapes. Examples are parks, open land, conservation land, farms, and undeveloped land bordering Route 2.

Zone 2: Areas of low ambient brightness. These include most residential areas. Roadways may be lighted to suit the character of the residential area and the amount of traffic in the area.

Zone 3: Areas of medium ambient brightness. These are commercial areas, including busy intersections and pedestrian crosswalks, parking lots, and light-industrial areas.

³ 3 Concord APP #38 – Municipal Outdoor Lighting Policy and Guidelines, 2. Town Lighting Policy (p.1)

⁴ Concord APP #38 – Municipal Outdoor Lighting Policy and Guidelines, 1. Purpose (p.1)

⁵ Concord APP #38 – Municipal Outdoor Lighting Policy and Guidelines, 5. Exceptions (p.7)

⁶ Concord APP #38 – Municipal Outdoor Lighting Policy and Guidelines, 2. Town Lighting Policy (p.1)

Figure 3. Concord light output standards

Location	Lighting Zone	Eavg (fc)	Emin–Emax (fc)	Minimum CRI
Roadways in commercial areas	3	0.6	0.2–1.2	65
Roadways in residential areas	2	0.2	0.1–0.3	65
Roadways in rural areas*	1	0.1	0–0.3	65
Pedestrian crossings in commercial areas	3	1.0	0.5–1.5	65
Sidewalks in commercial areas	3	0.6	0.2–1.0	65
Parking lots	3	0.5	0.1–1.0	65
Floodlit buildings, monuments (measured vertically)	3	6.0	2.0–10.0	65
Historic Area A	3	0.6	0.2–1.2	80
Historic Area B	3	0.6	0.2–1.0	80
Historic Area C	1,2	0.1	0.0–0.5	65

Northampton

Primary Regulations

Zoning: 350-12.2 Lighting

Summary

Similar to Natick, Northampton's lighting regulations are embedded in its zoning code as a dedicated section, and like Cambridge and Somerville, its standards are informed by the International Dark Sky Association. Northampton's lighting goals emphasize controlling light trespass and glare for the purposes of limiting light pollution and reducing "harsh shadows and blind spots" that affect safety.⁷ They also mention conserving energy. To meet these goals, Northampton outlines separate standards for site lighting, spot lighting, and street lighting, each differentiated by district, material, and street type (Figures 4-6). Northampton also is the only municipality to include images in its guidance (Figure 7).

While articulating very specific standards for controlling lighting, Northampton also provides room for festive lighting. Its footcandle thresholds are generally higher than Concord (averages above 1 footcandle for most districts, compared with averages below 1 footcandle in Concord), and though the City prohibits uplighting, it allows properties in its commercial districts to use luminaires with no cutoff feature for a "decorative purpose", with site plan approval.⁸ Additionally, Northampton includes an exemption from the standards for temporary lighting for festivals.

Figure 4. Northampton site lighting output standards

(6) Site lighting output standards by district:

Zoning District	Maximum (footcandle)	Site Average¹ (footcandle)	Footcandle at Property Line
RR/SR/SC	0.8	NA	0
URA/URB/URC	3	1	0
GB/EB/NB/CB/PV	5	2	0
HB	5	2.5	0
GI and OI	3	1	0

⁷ Northampton Zoning, Section 350-12.2. Lighting, A.(1), (2) (p.1)

⁸ Northampton Zoning, Section 350-12.2. Lighting, C.(2)(a) (p.3)

Figure 5. Northampton spotlighting output standards


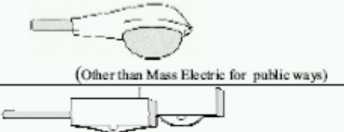

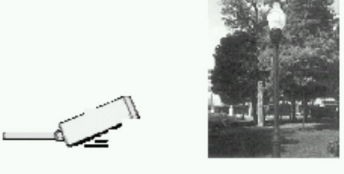

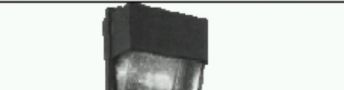


- (7) Lighting directed on buildings and wall signs shall conform to these output standards for commercial uses. (Maximum footcandles shown for various surface coloring/texture). These standards are in addition to those designated in Subsection C(6) above and shall not result in lighting that exceeds those allowed on the site as described in Subsection C(6).

Surface Types	Adjoining Residential Districts	Business Districts
	(footcandles)	(footcandles)
Light (reflective) surfaces	5	15
Medium-light surfaces	10	20
Medium-dark surfaces	15	30
Dark (absorbing) surfaces	20	50

Figure 6. Northampton street lighting output standards

- (10) Pole heights for streets shall not be greater than 25 feet in commercial areas and 16 feet for new residential streets, unless exempt public ways. Streetlights shall conform to the pole standards above and shall conform to these light output standards:
- (a) Commercial streets average between 0.8 footcandle to one footcandle;
 - (b) Local and collector streets average 0.3 footcandle to 0.8 footcandle.

Figure 7. Northampton allowed and prohibited shielding

Fixtures with Adequate Cutoffs – <i>ALLOWED</i>	Light Fixtures with No Cutoff – <i>PROHIBITED</i>
	
Fixtures with Adequate Cutoffs – <i>ALLOWED</i>	Light Fixtures with No Cutoff – <i>PROHIBITED</i>
	
Wall Packs:	
 Shielded	 un shielded
Residential Fixtures	
 solid top glass globe globe	 Flood light

Somerville

Primary Regulations

Zoning: 10. Development Standards - 10.7 Outdoor Lighting

Summary

Somerville's zoning ordinance includes a dedicated section on outdoor lighting that, like Cambridge and Northampton, emphasizes reducing light pollution and energy consumption while maintaining safety. The code outlines standards for light output in a table that lists different contexts, such as entrance lighting and spot lighting, for different districts (Figure 9). A second table similarly outlines thresholds for backlights, uplights, and glare (BUG), distinguishing between mounting heights and orientation of the light fixtures (Figure 10). Through this use of tables, the code communicates many standards in a small space that can easily be referenced.

Accompanying these tables is a single page of text that clearly describes the purpose, applicability, and standards. Like Cambridge, Somerville's exemptions to its standards allow for festive lighting, such as holiday lighting, temporary lighting for performance areas, lighting for public monuments and civic spaces, and low voltage landscape lighting.⁹ In presenting standards for a dense urban context with several uses and needs, the code provides both clarity and flexibility.

Figure 9. Somerville light output standards

⁹ Somerville Zoning, 10.7 Outdoor Lighting, 3. Applicability (p. 452)

	NR	UR	MR3	MR4	MR5	MR6	HR	FAB
Individual Luminaires								
Unshielded Luminaires at Principal Entrances	630 LUMENS	630 LUMENS	--	--	--	--	--	--
Unshielded Luminaires, any other locations	315 LUMENS	315 LUMENS	--	--	--	--	--	--
Fully Shielded Luminaires	1,260 LUMENS	1,260 LUMENS	--	--	--	--	--	--
Landscape Lighting (total)	1,050 LUMENS	1,050 LUMENS	--	--	--	--	--	--
Landscape Lighting, Low Voltage (total)	525 LUMENS	525 LUMENS	--	--	--	--	--	--
Shielded Directional Flood Lighting	1,260 LUMENS	1,260 LUMENS	--	--	--	--	--	--
Total Site Lumens ¹								
Lumens/sf Impervious Surface Area (per square foot of illuminated area)	2.50 LUMENS	2.50 LUMENS	2.50 LUMENS	2.50 LUMENS	5.00 LUMENS	5.00 LUMENS	5.00 LUMENS	5.00 LUMENS
Building Entrances/Exits (per door, installed within twenty (20) feet of the door)	+2,000 LUMENS	+2,000 LUMENS	+2,000 LUMENS	+2,000 LUMENS	+4,000 LUMENS	+4,000 LUMENS	+4,000 LUMENS	+4,000 LUMENS
Building Facades (per square foot of illuminated facade, for luminaires aimed at the facade)	+8/sf	+8/sf	+8/sf	+8/sf	+16/sf	+16/sf	+16/sf	+16/sf
Outdoor Cafes (per square foot of cafe area, within two (2) mounting heights of the luminaires)	+5/sf	+5/sf	+5/sf	+5/sf	+10/sf	+10/sf	+10/sf	+10/sf
Outdoor Displays (per square foot of outdoor sales area, within two (2) mounting heights of the luminaires)	+8/sf	+8/sf	+8/sf	+8/sf	+16/sf	+16/sf	+16/sf	+16/sf

¹ In the NR & UR districts, total site lumens is applicable only to Apartment Buildings and non conforming buildings

Figure 10. Somerville BUG standards

	NR	UR	MR3	MR4	MR5	MR6	HR	FAB	CC	CI	CB	CIV	ASQ	NP	PSR	TU
Backlight ¹																
Greater than 2 MOUNTING HEIGHTS from property line.	B4	B4	B4	B4	B5	B5	B5	B5	B5	B5	B5	B5	B5	B5	B5	B5
One (1) to less than two (2) MOUNTING HEIGHTS from property line ² and ideally oriented.	B3	B3	B3	B3	B4	B4	B4	B4	B4	B4	B4	B4	B4	B4	B4	B4
0.5 to 1 MOUNTING HEIGHTS from property line ² and ideally oriented.	B3	B3	B3	B3	B3	B3	B3	B3	B3	B3	B3	B3	B3	B3	B3	B3
Less than 0.5 MOUNTING HEIGHT to property line ² and ideally oriented.	B0	B0	B0	B0	B1	B1	B1	B1	B1	B1	B1	B1	B1	B1	B1	B1
Uplight																
Allowed uplighting rating	U2	U2	U2	U2	U3	U3	U3	U3	U3	U3	U3	U3	U3	U3	U3	U3
Allowed percentage light emission above 90 degrees for STREET or area lighting.	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Glare ¹																
Allowed Glare Rating	G2	G2	G2	G2	G3	G3	G3	G3	G3	G3	G3	G2	G3	G3	G3	G3
Any LUMINAIRE not ideally oriented with 1 to less than 2 MOUNTING HEIGHTS to any property line ² of concern.	G1	G1	G1	G1	G1	G1	G1	G1	G1	G1	G1	G1	G1	G1	G1	G1
Any LUMINAIRE not ideally oriented with 0.5 to less than 1 MOUNTING HEIGHTS to any property line ² of concern.	G0	G0	G0	G0	G1	G1	G1	G1	G1	G1	G1	G1	G1	G1	G1	G1
Any LUMINAIRE not ideally oriented with less than 0.5 MOUNTING HEIGHTS to any property line ² of concern.	G0	G0	G0	G0	G0	G0	G0	G0	G0	G0	G0	G0	G0	G0	G0	G0

¹ An 'ideally oriented' LUMINAIRE must be mounted with its backlight portion of the light output oriented perpendicular and towards the property line of concern.

² An additional five (5) feet may be added to this calculation for any property line ABUTTING a CIVIC SPACE. Any property line ABUTTING a THOROUGHFARE may be considered to be located at the centerline of the THOROUGHFARE for the purpose of determining compliance with maximum BUG ratings.

Municipality	Natick	Cambridge	Concord	Northampton	Somerville
2019 Population (US Census, Population Estimates Program)	36,050	118,927	18,918	28,451	81,360
Primary Lighting Regulations	Zoning: V-I Outdoor Lighting	Zoning: Article 7. Signs and Illumination - 7.20 Illumination Article 19. Project Review Guidance: Drafted ordinance, Ch 15.22 Outdoor Lighting (never adopted)	Zoning: 7.7 Off-street Parking, Loading, and Design Standards - 7.7.3.11 Lighting Administrative Policies & Procedures (APP): APP 38 - Municipal Outdoor Lighting Policy and Guidelines	Zoning: 350-12.2 Lighting	Zoning: 10. Development Standards - 10.7 Outdoor Lighting
Regulations					
Zoning	x	x	x	x	x
Design Guidelines			Administrative Policies & Procedures (APP)		
Stand Alone Code		Drafted ordinance, Ch. 15.22 (never adopted)			
Lighting Plan	Required	Required to qualify for alternative performance standards		May be requested by Planning Board	
Applicability	Outdoor lighting in all districts except for: - Lots where primary use is 1-2 family dwellings - Street lighting - Traffic lighting - Other public safety lighting on streets	Zoning: Residence A, B, C, and C-1 districts (7.20 Illumination) Drafted ordinance: All outdoor lighting, including new lighting and replacement lighting (Section 15.22.050, B. Applicability)	Zoning: Off-street parking APP: "...This policy applies to all municipal outdoor lighting installations, including illumination of roadways, sidewalks, municipal buildings, public parking lots, public spaces, and municipal signs." (2. Town Lighting Policy)	"Any use permitted zoning either by right or through any type of zoning relief in any district" unless granted a waiver (Zoning - 350-12.2.C. Standards)	"This section is applicable to all outdoor lighting fixtures, except for the following" (see Exemptions, below) (3. Applicability, a.) Standards for total site lumens apply to all districts; standards for individual luminaires apply only to less dense residential districts
Variation in Standards		Vary by use	Vary by "Lighting Zones", location, and Historic Districts (see Figures 2 & 3)	Vary by district and use (site lighting, spot lighting, and street lighting)	Vary by district and use
Intent & Purpose					

Municipality	Natick	Cambridge	Concord	Northampton	Somerville
Stated Intent	"...to: enhance public safety and welfare by providing for adequate and appropriate outdoor lighting, provide for lighting that will complement the character of the town, reduce glare, minimize light trespass, and reduce the cost and waste of unnecessary energy consumption." (V-I, 1. Purpose and criteria)	Zoning: "Any permanent lighting [...] shall be continuous, indirect, and installed in a manner that will prevent direct light from shining onto any street or adjacent property." (7.20 Illumination) Drafted ordinance: "...to regulate outdoor lighting, as defined in this Ordinance, in the City, the intent being to permit an amount of outdoor lighting that is appropriate to allow for the safe use and enjoyment of outdoor areas, while also mitigating potential nuisance in the form of light trespass and glare to abutters and the public at large, reducing light pollution, and promoting energy conservation." (Section 15.22.020, Purpose)	Zoning: - Safety and security - Control of glare, spillover, and distribution of light skyward APP: "...public safety and convenience, security of buildings, and to display the beauty of town buildings and public spaces at night" (1. Purpose of Municipal Outdoor Lighting) "...to provide the minimum amount of lighting necessary to accomplish these purposes in a uniform and equitable manner across town, consistent with the goals of energy efficiency, cost effectiveness, and aesthetic appropriateness." (2. Town Lighting Policy)	"(1) ...to establish light standards that result in lighting systems that are designed, constructed, and installed to control glare and light trespass, minimize obtrusive light, conserve energy and resources while maintaining safety, visibility, security of individuals and property, and curtailing the degradation of the nighttime visual environment... (2) ...By directing light where it is needed and only the intensity necessary to serve the intended purpose, these standards will prevent glare and its harsh shadows and blind spots." (A. Goals)	"a. To increase night sky visibility, improve nighttime vision and the color rendition of outdoor light, and reduce the impacts of outdoor lighting for people and wildlife. b. To conserve energy and reduce the consumption of electricity for lighting purposes." (1. Intent)
Public Safety	x	x	x	x	x
Aesthetics & Character	x		x		x
Limit Light Trespass; Reduce Glare	x	x	x	x	x
Energy Efficiency	x	x	x	x	x
Cost Efficiency	x		x	x	
Dark Skies		x	x	x	x
Standards	Zoning	Drafted ordinance	APP	Zoning	Zoning
Height of Luminaire /Pole	≤ 20'	12' - 14' (see Figure 1)	≤ 20' for parking lots ≤ 15' for fixtures that do not meet cut-off requirements	≤ 25' for parking lots ≤ 16' for business and residential districts	
Light Output		Lumens vary by use (see Figure 1)	Footcandles vary by lighting zones and location (see Figure 3)	Footcandles vary by district and use (see Figures 4-6)	Lumens vary by district and use (see Figure 9)
Shielding; Control of Glare & Light Trespass	Shielding required for all luminaires with 2,000+ lumens All lamps, regardless of lumens, require cutoff devices to prevent light trespass onto abutting lots or streets; Lighting Plan requires rating of light intensity at ground level, measured in foot candles	Shielding required for ≥ 1,050 lumens (see Figure 1)	Shielding required for ≥ 2000 lumens	Shielding required for all outdoor lighting with some exceptions (see Figures 7 and 8)	Shielding required for all outdoor lighting with some exceptions: - principal entrance lights - low voltage lighting - shielded directional flood lighting (not visible from adjacent properties) - open flame gas lamps - lights with vacancy sensors
Cut-off Angles	90 degrees from base	90 degrees from base: "all light emitted by the light fixture... is projected below the horizontal plane through the light fixture's lowest light-emitting part" (15.22.030 Definitions, E. Fully shielded light fixture)	90 degrees from base, except for luminaires "intended solely to illuminate a free-standing sign or the walls of a building" (3.3 Control of Glare and Light Trespass)	90 degrees from base for general site lighting; 45 degrees from above base for spotlighting	90 degrees from base for most lighting (see exceptions for Shielding, above)

Municipality	Natick	Cambridge	Concord	Northampton	Somerville
BUG (Backlight/Uplight/Glare)			"Glare from existing free-standing acorn-style lamps should be reduced by using less bright lamps." (3.3 Control of Glare and Light Trespass)	Uplighting prohibited	BUG ratings vary by district and use (See Figure 10)
Color Temperature	≥ 50 CRI	≤ 3,500 Kelvins	Historic Areas A & B: ≥ 80 CRI All other areas: ≥ 65 CRI		≤ 3,000 Kelvins; ≥ 65 CRI
Neon, Flashing					
Hours of Operation	Prohibited 11PM-6AM, with exceptions		New or substantial replacement of outdoor lighting prohibited 12-6AM, with exceptions		
Exemptions	Special Permits granted for "extraordinary need for security"; hazardous conditions; minor adjustments; technical infeasibility (Zoning, 7. Special Permits)	Lighting for: 1. Public ways; 2. Public parks or public art; 3. Public monuments; the national flag; 4. Architectural lighting designated by Cambridge Historical Commission; 5. Architectural lighting of National Register of Historical Places; 6. Signs (regulated by Article 7); 7. Temporary lighting for theatrical performance or TV; 8. Temporary lighting for construction; 9. Underwater lighting for swimming pools; 10. Temporary, seasonal lighting; 11. Hospital emergency departments; 12. Emergency conditions; 13. As required by federal, state, or local laws & regulations; (15.22.050, H. Exemptions from Applicability) Other Administrative Exemptions for "unreasonable hardship" (15.22.060)	With approval from Town Manager: - Special circumstances affecting "safety, security, light pollution, or aesthetic considerations" - Lifetime cost considerations (5. Exceptions)	Airport (Zoning, 350-12.2.D. Exemptions)	Lighting for: i. Public ways or easements for civic spaces; ii. Signs (see §10.9. SIGNs): iii. Public monuments; iv. Holiday lighting; v. Emergency equipment and work conducted in the interest of law enforcement or for public health, safety, or welfare; vi. Underwater lighting; vii. Temporary lighting for theatrical, television, performance areas and construction sites; and viii. "Low voltage landscape lighting controlled by an automatic device that is set to turn the lights off at one hour after the site is closed to the public" (3. Applicability)
Temporary Exemptions	Lamp Color standards do not apply to temporary decorative lighting	See Exemptions # 7, 8, and 10 above.		Festivals/ fairs (Zoning, 350-12.2.D. Exemptions)	See Exemptions iv. Holiday Lighting and vii. Temporary lighting, above
Format	Zoning	Drafted ordinance	APP	Zoning	Zoning
Text organized by sections with labels	x	x	x	x	x
Tables		x	x	x	x
Defintions	x	x		x	
Images				x	
Other Notes		Installations exceeding Prescriptive Standards must comply with Performance Standards (Section 15.22.050, G. Performance Standards)	APP adopted in 2001		Somerville has a Dark Sky Policy that closely resembles lighting regulations in Zoning

Outdoor Lighting Bylaw for Pepperell, Massachusetts

Pepperell LAN Committee, version: 4.3, 04/29/2020

1. Authority

- 1.1. This Bylaw is adopted by the Town of Pepperell pursuant to its authority under M.G.L. Chapter 40, Section 21, as reasonable and necessary for the protection of the health and welfare of the citizens of the Town of Pepperell.

2. Purpose

The Town of Pepperell hereby finds and determines that the welfare and enjoyment of Pepperell is associated with its rural character, including its nighttime ambience. It is recognized that light pollution, as defined in this Bylaw, is a nuisance to the residents of Pepperell as it negatively impacts human health and contributes to the loss of our night-sky heritage. Preserving and protecting the night sky enhances the general well-being of residents, as well as the use and enjoyment of property, through the use of appropriate lighting practices. Current and future outdoor lighting systems should be designed, constructed, installed, and maintained to:

- 2.1. Minimize *light pollution* to the greatest extent possible, especially blue light, resulting from the use of outdoor lighting, as it causes negative effects on human health, road visibility, the well-being of nocturnal organisms such as turtles, fish, bats, pollinators and other insects and reduces agricultural yields;
- 2.2. Protect residents from unwanted light, *light trespass*, that negatively affects the enjoyment of property, disrupts the natural circadian rhythm of humans, wildlife and agriculture, as well as being a form of energy waste;
- 2.3. Control *glare* to ensure safe navigation for motorists and pedestrians, as well as increasing the safety and security of Pepperell;
- 2.4. Minimize *skyglow*, to preserve the residents of Pepperell's ability to see the Milky Way galaxy against a dark sky;
- 2.5. Provide adequate light for the safe performance of outdoor tasks at night;
- 2.6. Promote efficient and cost-effective lighting to conserve energy, thereby reducing carbon emissions and costs to the citizens of Pepperell.

3. Applicability

- 3.1. General applicability. All exterior lighting installed in Pepperell after the effective date of this Bylaw shall be in conformance with the requirements established by this Bylaw and any other applicable bylaws of the Town.
- 3.2. Existing lighting. All outdoor lighting fixtures that were lawfully installed prior to the effective date of this Bylaw, but that do not comply with the requirements of this Bylaw, are declared to be legal non-conforming luminaires. All legal non-conforming luminaires may continue to be used and maintained after the adoption of this Bylaw, but shall be subject to the Nuisance and General Curfew sections of this Bylaw and shall be brought into compliance with the requirements of the Bylaw upon the first to occur of any of the following:

- 3.2.1. A determination by the Building Inspector or Building Inspector's designee that the luminaire constitutes a hazard to public safety or otherwise constitutes a lighting nuisance;
- 3.2.2. More than fifty (50) percent of the total assessed value or square footage of a structure, as determined from the records of the Assessors and/or the Building Inspector, is repaired, altered, reconstructed or renovated;
- 3.2.3. A certificate of occupancy is requested for a property which has, prior thereto, not been used or occupied for at least six (6) months; or
- 3.2.4. The replacement of any nonconforming luminaire with new lighting equipment, except a replacement of only lamps or bulbs.

To the extent applicable, the luminaire shall be brought into compliance prior to issuance of a certificate of occupancy.

- 3.3. Lighting Plans. All applications for a building permit for construction that will include exterior lighting shall include lighting plans showing location, type, height, *Correlated Color Temperature (CCT)*, lumen output, (*BUG*) rating (if applicable), shielding description, and the number of all proposed luminaires. The applicant shall provide sufficient information to verify that lighting conforms to the provisions of this Bylaw. The Building Inspector shall have the authority to request additional information in order to confirm compliance with the provisions of this Bylaw.
- 3.4. Priority of Bylaw Provisions. In case of conflict between any of the provisions of this Bylaw, the most restrictive shall apply.

4. Performance Requirements

- 4.1. Shielding. Unless exempted elsewhere in this Bylaw, all exterior luminaires and/or lamps with initial lumens exceeding 450 lumens shall be *fully shielded*. See *Figures 1 and 2 for examples of fully shielded and unshielded luminaires*.
- 4.1.1. Maximum allowed amounts of unshielded lighting. On no parcel of property shall the amount of allowed unshielded lighting exceed, in the aggregate, 1000 lumens.
- 4.2. Nuisance. No exterior luminaire installed within the Town of Pepperell shall create a lighting nuisance in the form of *light trespass, glare or skyglow*.
- 4.2.1. Light trespass. The maximum illumination level at a property line shall not exceed 0.1-foot candle, as measured at grade, except where abutting non-residential, or other non-sensitive uses. For a non-residential use on property which abuts a public right-of-way, or another property the use of which is non-residential, outdoor lighting must be designed so that the illumination at the property boundary line does not exceed 1.0 foot-candles, as measured at grade. Sensitive uses include all residential uses, land subject to a conservation restriction under Massachusetts law, and land designated as part of the Wild and Scenic River System under the federal Wild and Scenic Rivers Act. When outdoor lighting is to be placed adjacent to a sensitive use, shielding or

redirecting of the luminaire may be necessary to comply with this standard. The measurement for compliance may be made by the Building Inspector or the Building Inspector's designee.

- 4.2.2. Glare. Glare is declared to be a lighting nuisance when it constitutes a hazard to public safety along a public way or causes intense discomfort to occupants of adjacent properties. This determination will be made by the Building Inspector or Building Inspector's designee through a site visit and a visual inspection and/or night-time photograph.
- 4.2.3. Skyglow. No new permanent exterior lighting shall change the overall brightness or color of the night sky in the Town of Pepperell. The effect of the lighting in both on and off states may be verified with photographs or by use of a calibrated light meter.
- 4.3. After hours operation. For all non-residential buildings, all exterior lighting shall be extinguished by 11 P.M. or within one (1) hour of the end of scheduled or licensed business hours, whichever occurs later. Exceptions shall apply for:
 - 4.3.1. Businesses whose normal and legal operating hours are twenty-four (24) hours per day;
 - 4.3.2. Lighting the purpose of which is to facilitate safety and security along driveways, walkways, parking lots and building entrances. This includes lighting used to prevent accidents, as well as protect buildings and property stored outdoors. This exception shall be applied so as to not interfere with the essential functions of municipal and public works sites.
 - 4.3.2.1. To preserve the natural nighttime environment and minimize energy waste, said lighting shall be turned off or dimmed when not in use for safety and security purposes. If lighting is controlled by a motion sensor, it must have an on-time of no more than 10 minutes per activation, and the motion detector shall be adjusted so that normal movement of vehicles and traffic along a street or public right of way shall not cause its activation.
- 4.4. Spectrum management. The emission of light by all new luminaires, lamps and bulbs shall be controlled for spectral output (color appearance) according to the following specifications found on the product or its packaging:
 - 4.4.1. The correlated color temperature (CCT), measured in Kelvin (K), of the light shall not exceed 2700 K. The warmest possible color temperature (lowest Kelvin value) should be chosen. If a 2700 K or lower product is unavailable, a 3000 K product may be used except as otherwise required in this Bylaw.
- 4.5. Streetlights and other elevated lighting.
 - 4.5.1. This section applies to Town-owned, Town-installed and any other non-residential lighting installed at least 12 feet above the intended area of illumination. Said lighting shall conform to the Lighting Fixture Height standards below and shall conform to the following requirements:
 - 4.5.1.1. The illuminance shall not exceed the values contained in the current edition of the *IESNA RP-8 handbook on best practices for roadway, walkway and parking lot lighting*. The measurement shall be made with

a photometer placed horizontally on the ground at points within the area of illumination.

- 4.5.1.2. Using the BUG rating, as provided by the manufacturer, a luminaire should be selected with the lowest possible number, ideally 0 or 1. Values of 3 or above are expressly prohibited.
- 4.5.1.3. Effort should be made to source lighting with a CCT lower than the maximum permitted value of 2700 K.
- 4.5.1.4. If a municipal or utility company lighting project is proposed that involves the retrofit or replacement of streetlights or the addition of more than ten (10) elevated luminaires with at least 2000 initial *lumens*, then the Board of Selectmen or its designee must seek public comment prior to installation so as to help mitigate unforeseen negative impact. Specifically, for streetlights, as part of the public comment process the project proponent must provide a demonstration installation of at least three (3) luminaire options.

4.5.2. Lighting Fixture Height:

Fixture type :	Maximum height of luminaire or lamp from intended area of illumination (feet):
Streetlights and roadway	25
Parking area	16
Walls, building surfaces	12

- 4.6. Allowed illuminance values. *Illuminance* resulting from all non-residential lighting installations shall conform to the relevant edition of the recommended practices of the *IESNA* current at the time of installation.
- 4.7. Illuminated Signs. The following restrictions shall apply:
 - 4.7.1. Externally illuminated signs shall be lighted only from the top of the sign, with fully shielded luminaires designed and installed to prevent light from spilling beyond the physical edges of the sign.
 - 4.7.2. Internally illuminated signs shall be subject to all of the following requirements, except when operated by Town or state entities:
 - 4.7.2.1. Luminance levels. Luminance levels during permitted operating hours shall not exceed 100 *nits* (see definition of *Luminance*). For electronic displays, this figure is as measured under conditions of a full white display.
 - 4.7.2.2. Luminous surface. The luminous surface area of an individual sign shall not exceed 12 square feet.
- 4.8. Service Station Canopies. All luminaires mounted or recessed into the lower surface of motor vehicle service station canopies shall be fully shielded and utilize only flat lenses or windows. Shielding must be provided by the luminaire itself, and not by surrounding structures such as canopy edges. Illuminance values shall neither fall below *IESNA*-recommended minimum values, nor exceed the recommended maximum values.

- 4.9. Outdoor accent lighting. Lighting of landscaping, monuments, plaques, flagpoles and similar installations shall be fully shielded, and focused directly at the target so that the lamp is not visible from abutting streets or abutting lots.

5. Prohibitions

The use of the following types of outdoor lighting is prohibited, except as specifically exempted in this Bylaw:

- 5.1. Outdoor floodlights or spotlights pointed above the horizontal plane running through the lowest light-emitting portion of a luminaire with respect to grade.
- 5.2. Searchlight, sky beam, and similar lighting, except as required by public safety personnel during emergency conditions.
- 5.3. Any light that dynamically varies its output by intermittently fading, flashing, blinking, or rotating. This type of lighting includes strobe lighting.
- 5.4. Any luminaire involving the use of lasers, mercury vapor lamps, neon lamps, or quartz lamps.
- 5.5. Lighting on publicly-owned properties subject to a conservation restriction under Massachusetts law, or on publicly-owned properties within one thousand (1,000) feet of any property subject to such a conservation restriction.

6. Exemptions

The following are exempt from compliance with all provisions of this Bylaw, except as noted:

- 6.1. Residential holiday, string, festoon, and similar decorative lighting.
- 6.2. Lighting required by law to be installed on motor vehicles.
- 6.3. Emergency lighting, only for as long as emergency conditions so identified by public safety personnel continue to exist. This includes the activities of law enforcement, fire and other emergency services.
- 6.4. Lighting employed during repairs of roads, utilities and similar infrastructure, including unshielded lighting, provided that such lighting is deployed, positioned and aimed such that the resulting glare is not directed toward any roadway.
- 6.5. Any form of lighting whose use is mandated or otherwise governed by any legal jurisdiction superior to that of the Town of Pepperell.
- 6.6. Temporary lighting required to save life, limb or property from imminent peril, provided that use persists only during the hours of the peril.
- 6.7. Temporary lighting for events sponsored by the Town or for which a Town license or other approval has been issued, such as concerts, fairs, and festivals.
- 6.8. Athletic fields are exempt from Shielding, Lighting Fixture Height and Spectrum management requirements, but are subject to all other provisions of this Bylaw.

7. Enforcement

- 7.1. Administrative guidance. The Building Inspector is authorized to promulgate one or more interpretive documents to aid in the administration and enforcement of this

Bylaw. The owner of any lot or property on which a luminaire or sign subject to this Bylaw is located or proposed to be located shall have the burden of demonstrating that the existing or proposed luminaire or sign complies with the standards established by this Bylaw. The manufacturer's specification sheet may be used to establish the lumen level of a luminaire, CCT and, if required, to verify the use of fully shielded fixture design. Illumination levels may be verified through the use of manufacturer's photometric data sheet(s) and/or photometric site drawing or through on-site calibrated light meter light level readings. A site visit at night by a representative of the Town for purposes of a visual observation and/or photograph may be required to determine compliance.

- 7.2. Violations. It shall be unlawful to install or operate any outdoor lighting luminaire in violation of any provision of this Bylaw. This Bylaw may be enforced by the Building Inspector and any Town police officer.
- 7.3. Relief and Penalties. The Building Inspector is authorized and empowered to institute and maintain, in the name of the Town, any and all enforcement proceedings seeking injunctive relief and any other appropriate remedy, including fines and penalties. Violation of this Bylaw shall be subject to a penalty of \$100.00. Each day that a violation exists shall be deemed a separate offense. This Bylaw may be enforced through the non-criminal disposition method as provided in M.G.L. c. 40D, § 21D and/or an order to cease and desist until the violation is remedied.

8. Definitions

- 8.1. *BUG rating system*: A simple lighting classification system (IES TM-15-11) by the Illuminating Engineering Society (IES) and the International Dark-Sky Association (IDA) to describe the light pollution contributions from outdoor luminaires, including for street and parking lot lighting. Each letter is attached to a number ranging from 0 (ideal) to 5 (unacceptable). B describes backlight that often contributes to *light trespass*. U describes uplight, which contributes to *skyglow*, which limits a person's ability to see the stars. G represents *glare* or "forward light," which makes it difficult for people to see and thus makes roadways more dangerous and security lighting less effective.
- 8.2. *Correlated Color Temperature (CCT)*: A specification of the color appearance of the light emitted by a lamp, measured in Kelvin (K). CCT values are typically provided in lighting manufacturer data sheets. For example, high pressure sodium streetlights are approximately 2000 K and warm-white bulbs are 2700 K.
- 8.3. *Fully shielded*: Means that an outdoor luminaire is constructed so that, in its installed position, all of the light emitted by the luminaire is projected below the horizontal plane that passes through the lowest light-emitting part of the luminaire. See Figures 1 and 2.

8.4.

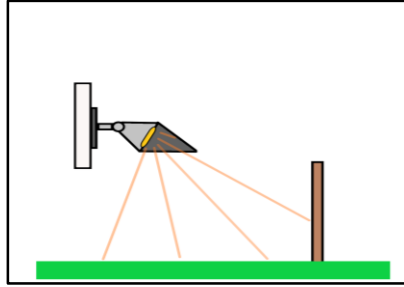


Figure 1: Fully shielded lighting that is not causing light trespass, glare or skyglow for adjacent property. In the absence of a barrier between properties, the luminaire can simply be pointed more towards the ground to satisfy the requirements of the Bylaw.



Figure 2: Examples of acceptable and unacceptable lighting fixtures / luminaires. The intent of this figure is to demonstrate that “acceptable” lighting eliminates or reduces glare by hiding the light emitting portion of the bulb or lamp, not that the general style of fixture is prohibited.

- 8.5. *Glare*: Intense and blinding light emitted by a lamp that reduces visibility and creates visual discomfort and/or momentary blindness.
- 8.6. *Illuminance*: Density of luminous flux (the rate of transfer of energy) incident on a surface, often measured in foot-candle (fc or lumens/ft²). Example, Full Moon casts 0.01 fc.
- 8.7. *Illuminating Engineering Society of North America (IESNA)*: A recognized authoritative body on the science and application of lighting that publishes and promotes recommended practices for a variety of specific lighting applications.
- 8.8. *Lamp*: The bulb or other light-emitting portion of a luminaire, not inclusive of any reflective or refractive optics used to direct light.
- 8.9. *Light pollution*: Any adverse and/or obtrusive effect of the use of outdoor light at night. Also, any inappropriate or excessive use of artificial light.
- 8.10. *Light trespass*: Any light emitted by a luminaire that shines directly or indirectly beyond the property on which the luminaire is installed and increases the illuminance above the the original (natural) illumination level as measured at the lot line in footcandles.
- 8.11. *Lumen*: Brightness or unit of luminous flux; the flux emitted within a unit solid angle by a point source with a uniform luminous intensity of one candela (the SI unit of luminous intensity).
- 8.12. *Luminaire*: A complete lighting assembly, consisting of a lamp, housing, optic(s), and other structural elements, but not including any mounting pole or surface.
- 8.13. *Luminance*: The amount of light that passes through, is emitted, or reflected, from a particular area, and falls within a given solid angle. The SI (International System of Units) unit of luminance is candela per square meter (cd/m²), also known as a *nit*.
- 8.14. *Skyglow*: a glow in the night sky deriving from an artificial source.

CREATIVE LIGHTING PROJECT CASE STUDIES

Dodson & Flinker

Updated 9/23/21

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ARTISTIC INSTALLATIONS

Overview

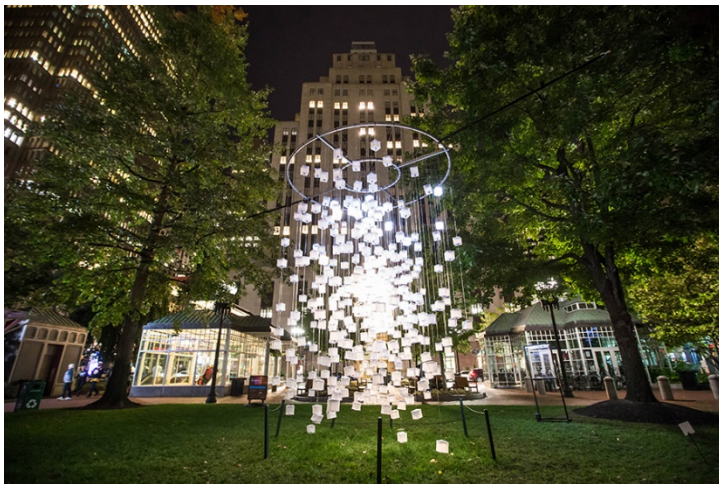
Examples of artistic lighting installations demonstrate the versatility of lighting to activate urban space at a variety of scales and budgets.

- Range in scale from individual site and low budget (Cambridge, Peabody, Salem) to a larger-scale, coordinated project throughout a city (Pittsfield, Lawrence).
- Create an opportunity for inspired creativity and individual expression by artists while addressing safety and economic needs for pedestrian lighting and activating downtown space
- Most projects used color, either as uplighting to draw attention to architecture (Pittsfield, Lawrence), or programmed overhead lighting to see a place in a new light (Lynn, Salem).
- Few projects faced regulatory barriers, though uplighting and spotlighting projects took care in their placement to not affect surrounding properties
- Lynn's ambitious project on MBTA overpasses faced scrutiny for using rail line property

Cambridge
Project
“Solar Forest”



Source: LuminArtz



Source: LuminArtz



Source: LuminArtz

Summary

Temporary and small scale solar powered light exhibit in city park

Partner Organizations

LuminArtz; SoLight Design

Lighting Design & Installation

Studio HHH; Alice Chun

Status

Launched in 2017

Temporary

Cost & Funding

Regulatory Considerations

Zoning, Article 7. Signs and Illumination does not apply

Drafted ordinance, Ch 15.22 Outdoor Lighting (never adopted) allows exemptions for public art

Sources

<https://luminartz.org/solarforest>

Lynn
Project
“Lynn Lights”



Source: Beyond Walls



Source: Beyond Walls



Source: Beyond Walls

Summary

Lynn addressed inadequate downtown lighting beneath railroad underpasses by partnering with a placemaking non-profit to install colorful LED lighting. Pro bono work from several design firms as well as matching funding from MassDevelopment helped produce an ambitious, award-winning permanent installation at minimal cost to the city, and has resulted in reported increases in downtown foot traffic.

Partner Organizations

Beyond Walls; Lynn Main Streets

Lighting Design & Installation

Lam Partners; Payette Architecture; Port Lighting Systems; Phillips Color Kinetics; BALA Engineering

Status

Completed in 2018

Cost & Funding

\$255,000

- \$50,000 (initial crowd funding)
- \$80,665 (Patronicity – additional crowd funding)
- \$130,000 (MassDevelopment, Commonwealth Places - matching funding)

(https://www.patronicity.com/project/beyond_walls#!/)

Regulatory Considerations

Zoning Ordinance regulates lighting for off-street parking (9.4 Design Standards for Off-Street Parking Facilities), which did not require permits for the project (Wilson, 2021). As the lighting was located under an MBTA rail line overpass, MBTA real estate and rail operations regulations required multiple separate approvals, including for Railroad Protective Liability Insurance.

Sources

The Atlas (2021). "Lynn revitalizes their downtown with dynamic LED lights". Retrieved from: <https://the-atlas.com/projects/lynn-revitalizes-their-downtown-with-dynamic-led-lights-4>

Beyond Walls (2021). "Lynn Lights". Retrieved from: <https://www.beyond-walls.org/lynnlights>

Wilson, AI, CEO of Beyond Walls (2021). Phone interview on 9/10/21.

American Institute for Architects (2021). "Beyond Walls". Retrieved from: https://www.aia.org/showcases/6378993-beyond-walls/?utm_campaign=hna21-regional-urban-design-001members&utm_medium=email&utm_source=real-magnet

Peabody
Project
Peabody Parklet



Source: Retonica

Summary

A temporary installation at a minimum budget shows what can be done with simple uplighting on hanging fabric or bubble wrap on available street space.

Partner Organizations

Retonica

Lighting Design and Installation

Retonica

Status

Temporary; moving

Cost & Funding

\$25

Regulatory Considerations

None required

Sources

<https://www.retonica.com/work>

Dodson & Flinker

Pittsfield
Project
“Berkshire Lightscapes”



Source: Berkshire Lightscapes



Source: Berkshire Lightscapes



Source: Berkshire Lightscapes

Summary

Inspired by the vision of a Pittsfield resident, Berkshire Lightscapes was created in 2017 to draw more attention to historic buildings and public spaces in downtown Pittsfield. The project received funding from local donations matched by MassDevelopment, and has lit three buildings and three public plazas in its first phase, and inspired private building owners to light three other buildings. The project mostly uses programable LED uplighting on buildings, and intends to continue its work in a second phase.

Partner Organizations

Berkshire Lightscapes; Downtown Pittsfield Cultural Association

Status

Permanent; ongoing

Cost & Funding

\$117,000+

- \$52,000 (Patronicity crowd-funded)
- \$50,000 (MassDevelopment, Commonwealth Places – matching funding)
- \$15,000 (Pittsfield Beautiful)

Regulatory Considerations

The project triggered no regulatory barriers, and property owners did not require any permits to install the lighting.

Zoning:

Article 23-4 District Regulations, 4.315 Performance Standards, E.3. Lighting, Glare and Heat
Exterior lighting including, but not necessarily limited to, lighting of exterior walls or buildings from any external light source, lighting of parking areas, walk and drives shall be arranged in such a manner as to direct light away from adjacent lots and public ways.

Sources

Berkshire Lightscapes (2021). Retrieved from:

Lafayette, Peter (2021). President of Berkshire Lightscapes,

<https://downtownpittsfield.com/2018/03/berkshire-lightscapes-secures-a-50000-matching-grant-opportunity-to-implement-artistic-led-lighting-in-downtown-pittsfield/>

<https://www.iberkshires.com/story/60048/Pittsfield-City-Hall-Lit-Up-With-Kinetic-Lights.html>

Salem
Project
Higginson Alley Lights



Source: thingstodoinsalem.com



Source: WMWMSalem.com

Summary

Salem activated a downtown alley through programmable LED hanging lights created by local artists.

Partner Organizations

Dodson & Flinker

Salem Public Art; Creative Collective; Salem Electrical Dept

Lighting Design and Installation

Retonica; Available Light

Status

Installed in 2019; intended to be permanent

Cost & Funding

~\$11,000

- \$6,400 Community Development Block Grant
- \$4,500 Salem Public Art Commission

Regulatory Considerations

Required approval from residents and business owners

Sources

<https://www.creativecollectivema.com/projects/2021/2/12/salem-winterlude-winter-places-project>

<https://amssvs.com/2020/12/14/light-creativity-to-highlight-safe-outdoor-shopping-opportunities-in-salem/>

<https://salem.wickedlocal.com/news/20190115/salem-flips-switch-on-latest-public-art-piece>

<https://www.salem.com/planning-and-community-development>

HOLIDAY LIGHTING

Overview

Perhaps the most common form of decorative lighting in Massachusetts, holiday lighting is a temporary way to activate downtown space during the winter. The most common techniques are to wrap trees and/or buildings with LED string lights (Northampton), though larger projects include lighting projections and uplighting on buildings (Worcester).

Northampton

Project

Downtown Holiday Lights



Source: Historic Northampton - <https://www.historicnorthampton.org/past-programs.html>



Source: Sam Masinter, DNA - <https://www.facebook.com/northamptondna/photos/photo-credit-sam-masinter/915269875270828>



Source: WHMP - <https://wrsi.com/news/160061-few-donate-to-downtown-northampton-lights-program>

Summary

Northampton's annual lighting event offers a useful example for how a downtown association can create a regular events incl

- Downtown Holiday Stroll
- Annual downtown light event

Partner Organizations

Downtown Northampton Association
Greater Northampton Chamber of Commerce

Lighting Design and Installation

Renew Holiday Lighting

Status

Annual for past several decades

Starts the Saturday after Thanksgiving and ends after the 2nd Friday in February (with the Ice Art Festival)

Cost & Funding

\$25,000

- City of Northampton

Downtown Northampton Association

Regulatory Considerations

Due to the limited glare, trespass, and light pollution of LED string lighting, the event does not trigger any municipal lighting restrictions.

350.12.2 Lighting

H. Exemptions

Sources: See Images

Worcester

Project

Worcester Festival of Lights



Source: LuminArtz



Source: LuminArtz

Summary

A large-scale city initiative to illuminate several public buildings and spaces through projects, uplighting, and illuminated objects, in conjunction with musical performances.

Partner Organizations

Masary Studios (Music)

Lighting Design and Installation

LuminArtz

Status

Annual event between

Cost & Funding

Unknown

Regulatory Considerations

Unknown

Sources: LuminArtz

LOW COST BUSINESS DISTRICT LIGHTING

Overview

Downtown business districts can also activate space through simple and low cost lighting installations. Recent initiatives to activate the streetscape and enhance outdoor dining during Covid have resulted in many installations, often using string lights or hanging lights.

Springfield

Project

Downtown Lighting



Source: Springfield Business Improvement District

Summary

String lights intended to enhance outdoor dining space, initiated by the Springfield Business Improvement District.

Partner Organizations

Springfield Business Improvement District

Status

Temporary

Cost & Funding

- Springfield Business Improvement District-unknown funding amount
- Shared Streets Grant—unknown funding amount

Regulatory Considerations

None required; Asked permission from local property owners; no complaints from upper story residents.

Sources

<https://springfielddowntown.com/summer-is-not-over-yet-come-dine-in-downtown/>
<https://www.springfield-ma.gov/planning/index.php?id=hist-list>