



REQUEST FOR PROPOSALS

Item Description: Providence Illumination Plan

Procurement/ MinuteTrag#: 43676

Date to be Opened: February 26, 2024

Issuing Department: Department of Planning and Development

QUESTIONS

- Please direct questions relative to the bidding process, how to fill out forms, and how to submit a bid (Pages 1-10) to Purchasing Agent Chevel Burgess.
 - Email: purchasing@providenceri.gov
 - Please use the subject line "Solicitation Question"
- Please direct questions relative to the Minority and Women's Business Enterprise Program and the corresponding forms (Pages 9-13) to the MBE/WBE Outreach Director for the City of Providence, Grace Diaz
 - o Phone: (401) 680-5766
 - Email: gdiaz@providenceri.gov
 - Please use subject line "MBE WBE Forms"
- Please direct questions relative to the specifications outlined (beginning on page 15) to the issuing department's subject matter expert via email only prior to February 20, 2024 at 11:59 PM.
 - o Chris Martin, Principal Planning
 - o Email: crmartin@providenceri.gov
 - Please use subject line "Providence Illumination Plan"

PRE-BID CONFERENCE

There will be a <u>non-mandatory</u> pre-bid conference on **February 14, 2024 at 10am EST**. Please RSVP to <u>crmartin@providenceri.gov</u>. The meeting will be virtual via Teams: <u>Click here to join the meeting</u>

Meeting ID: 242 774 644 24 / Passcode: jGiW5t

https://teams.microsoft.com/l/meetup-

join/19%3ameeting NmZmYjBiZTgtOGM4ZS00YzZjLTlkM2YtY2FmNjQ2N2NjY2Zl%40thread.v2/0?context=%7b% 22Tid%22%3a%22561baac9-45d8-4ace-90d5-f642ceb985af%22%2c%22Oid%22%3a%2284eeddcb-a064-4b6e-8504-d4ca0a66ac3e%22%7d





INSTRUCTIONS FOR SUBMISSION

Bids may be submitted up to **2:15 P.M.** on the above meeting date at the **Department of the City Clerk. Room 311, City Hall. 25 Dorrance Street, Providence**. At 2:15 P.M. all bids will be publicly opened and read at the Board of Contract Meeting in Conference Room 305, on the 3rd floor of City Hall.

- Bidders must submit 2 copies of their bid in sealed envelopes or packages labeled with the captioned Item Description and the City Department to which the solicitation and bid are related and must include the company name and address on the envelope as well. (On page 1).
- If required by the Department, please keep the original bid bond and check in only one of the envelopes.
- Communications to the Board of Contract and Supply that are not competitive sealed bids (i.e. product information/samples) should have "**NOT A BID**" written on the envelope or wrapper.
- Only use form versions and templates included in this solicitation. If you have an old version of a form do not recycle it for use in this bid.
- The bid envelope and information relative to the bid must be addressed to:

Board of Contract and Supply
Department of the City Clerk – City Hall, Room 311
25 Dorrance Street
Providence. RI 02903

**PLEASE NOTE: This bid may include details regarding information that you will need to provide (such as proof of licenses) to the issuing department before the formalization of an award.

This information is NOT requested to be provided in your initial bid by design.

<u>All bids submitted to the City Clerk become public record.</u> Failure to follow instructions could result in information considered private being posted to the city's Open Meetings Portal and made available as a public record. The City has made a conscious effort to avoid the posting of sensitive information on the City's Open Meetings Portal, by requesting that such sensitive information be submitted to the issuing department only at their request.



BOARD OF CONTRACT AND SUPPLYCITY OF PROVIDENCE, RHODE ISLAND

BID PACKAGE CHECKLIST

Digital forms are available in the City of Providence Purchasing Department Office or online at http://www.providenceri.gov/purchasing/how-to-submit-a-bid/

The bid package **MUST** include the following, in this order:

- Bid Form 1: Bidder's Blank as the cover page/ 1st page (see page 6 of this document)
- Bid Form 2: Certification of Bidder as 2nd page (see page **7** of this document)
- Bid Form 3: Certificate Regarding Public Records (see page 8 of this document)
- Bid Form 4: Affidavit of City Vendor (see pages 9 and 10 of this document)
- Bidder's Proposal/Packet: Formal response to the specifications outlined in this RFP, including details
 related to the good(s) or service(s) being provided. Please be mindful of formatting responses as
 requested to ensure clarity.
- Financial Assurance, if requested (as indicated on page 5 of this document under "Bid Terms")

All of the above listed documents are REQUIRED. (With the exception of financial assurances, which are only required if specified on page 5.)

***Failure to meet specified deadlines, follow specific submission instructions, or enclose all required documents with all applicable signatures will result in disqualification, or in an inability to appropriately evaluate bids.

NOTICE TO VENDORS

- 1. The Board of Contract and Supply will make the award to the lowest qualified and responsible bidder.
- 2. In determining the lowest responsible bidder, cash discounts based on preferable payment terms will not be considered.
- 3. Where prices are the same, the Board of Contract and Supply reserves the right to award to one bidder, or to split the award.
- 4. No proposal will be accepted if the bid is made in collusion with any other bidder.
- 5. Bids may be submitted on an "equal in quality" basis. The City reserves the right to decide equality. Bidders must indicate brand or the make being offered and submit detailed specifications if other than brand requested.
- 6. A bidder who is an out-of-state corporation shall qualify or register to transact business in this State, in accordance with the Rhode Island Business Corporation Act, RIGL Sec. 7-1.2-1401, et seq.
- 7. The Board of Contract and Supply reserves the right to reject any and all bids.
- 8. Competing bids may be viewed in person at the Department of the City Clerk, City Hall, Providence, immediately upon the conclusion of the formal Board of Contract and Supply meeting during which the bids were unsealed/opened. Bids may also be accessed electronically on the internet via the City's Open Meetings Portal.





- 9. As the City of Providence is exempt from the payment of Federal Excise Taxes and Rhode Island Sales Tax, prices quoted are not to include these taxes.
- 10. In case of error in the extension of prices quoted, the unit price will govern.
- 11. The contractor will **NOT** be permitted to: a) assign or underlet the contract, or b) assign either legally or equitably any monies or any claim thereto without the previous written consent of the City Purchasing Director.
- 12. Delivery dates must be shown in the bid. If no delivery date is specified, it will be assumed that an immediate delivery from stock will be made.
- 13. A certificate of insurance will normally be required of a successful vendor.
- 14. For many contracts involving construction, alteration and/or repair work, State law provisions concerning payment of prevailing wage rates apply (RIGL Sec. 37-13-1 et seq.)
- 15. No goods should be delivered, or work started without a Purchase Order.
- 16. Submit 2 copies of the bid to the City Clerk, unless the specification section of this document indicates otherwise.
- 17. Bidder must certify that it does not unlawfully discriminate on the basis of race, color, national origin, gender, gender identity or expression, sexual orientation and/or religion in its business and hiring practices and that all of its employees are lawfully employed under all applicable federal, state and local laws, rules and regulations. (See Bid Form 2.)





BID TERMS

- Financial assurances may be required in order to be a successful bidder for Commodity or Construction and Service contracts. <u>If either of the first two checkboxes below is checked, the specified assurance</u> <u>must accompany</u> a bid, or the bid will not be considered by the Board of Contract and Supply. The third checkbox indicates the lowest responsible bidder will be contacted and required to post a bond to be awarded the contract.
 - a) A certified check for \$____ must be deposited with the City Clerk as a guarantee that the Contract will be signed and delivered by the bidder.
 - b) A bid bond in the amount of ___ per centum (%) of the proposed total price, must be deposited with the City Clerk as a guarantee that the contract will be signed and delivered by the bidder; and the amount of such bid bond shall be retained for the use of the City as liquidated damages in case of default. Any person signing a bid bond as an attorney-in-fact shall include with the bid bond an original, or a photocopy or facsimile of an original, power of attorney.
 - c) A performance and payment bond with a satisfactory surety company will be posted by the bidder in a sum equal to one hundred per centum (100%) of the awarded contract.
 - d) ⊠No financial assurance is necessary for this item.
- 2. Awards will be made within **sixty (60) days of bid opening**. All bid prices will be considered firm, unless qualified otherwise. Requests for price increases will not be honored.
- 3. Failure to deliver within the time quoted or failure to meet specifications may result in default in accordance with the general specifications. It is agreed that deliveries and/or completion are subject to strikes, lockouts, accidents and Acts of God.

The following entry applies only for COMMODITY BID TERMS:

4. Payment for partial delivery will not be allowed except when provided for in blanket or term contracts.

The following entries apply only for CONSTRUCTION AND SERVICE BID TERMS:

- 5. Only one shipping charge will be applied in the event of partial deliveries for blanket or term contracts.
- 6. Prior to commencing performance under the contract, the successful bidder shall attest to compliance with the provisions of the Rhode Island Worker's Compensation Act, <u>RIGL 28-29-1</u>, et seq. If exempt from compliance, the successful bidder shall submit a sworn Affidavit by a corporate officer to that effect, which shall accompany the signed contract.
- 7. Prior to commencing performance under the contract, the successful bidder shall, submit a certificate of insurance, in a form and in an amount satisfactory to the City.





BID FORM 1: Bidders Blank

- 1. Bids must meet the attached specifications. Any exceptions or modifications must be noted and fully explained.
- 2. Bidder's responses must be in ink or typewritten, and all blanks on the bid form should be completed.
- 3. The price or prices proposed should be stated both in **WRITING** and in **FIGURES**, and any proposal not so stated may be rejected. **Contracts exceeding twelve months must specify annual costs for each year.**
- 4. Bids **SHOULD BE TOTALED** so that the final cost is clearly stated (unless submitting a unit price bid), however **each item should be priced individually**. Do not group items. Awards may be made on the basis of **total** bid or by **individual items**.
- 5. All bids MUST BE SIGNED IN INK.

Name of Bidder (Firm or Individual):		
Contact Name:		
Business Address:		
Business Phone #:		
Contact Email Address:		
Agrees to bid on (Write the "Item Description" here):		
If the bidder's company is based in a state <u>other than Rho</u> service of process that is located <u>within</u> Rhode Island	 <u>de Island,</u> list name and contact information for a local agent for	
Delivery Date (if applicable):		
Name of Surety Company (if applicable):		
Total Amount in Writing*:		
Total Amount in Figures*:		
* If you are submitting a unit price bid, please insert "U	Init Price Bid"	
Use additional pages if necessary for additional biddin	g details.	
	Signature of Representation	

Title



BOARD OF CONTRACT AND SUPPLY CITY OF PROVIDENCE, RHODE ISLAND

BID FORM 2: Certification of Bidder

(No	on-Discrimination/Hiring)				
Up	oon behalf of	(Firm or Individual Bidding),			
Ι,		(Name of Person Making Certification),			
bei	ing its	(Title or "Self"), hereby certify that:			
1.	. Bidder does not unlawfully discriminate on the basis of race, color, national origin, gender, sexual orientation and/or religion in its business and hiring practices.				
2.	All of Bidder's employees have been hired in compliance with all applicable federal, state and local laws, rules and regulations.				
l af	ffirm by signing below that I am duly authoriz	ed on behalf of Bidder, on			
this	sday of	20			
		Signature of Representation			

Printed Name



BOARD OF CONTRACT AND SUPPLY CITY OF PROVIDENCE, RHODE ISLAND

BID FORM 3: Certificate Regarding Public Records

Upon k	pehalf of	(Firm or Individual Bidding),
l,		(Name of Person Making Certification),
being i	ts	(Title or "Self"), hereby certify an
unders	tanding that:	
2.3.4.	(RFQ's), documents contained with public record upon receipt by the Ci Contract and Supply (BOCS) meeti The Purchasing Department and the conscious effort to request that sens department and only at request if vervendor's bid. The requested supplemental inform such details may result in disqualific If sensitive information that has not defined supplemental information p submitted to the City Clerk, the City bears no liability associated with the The City of Providence observes a in the bidding packet may not be supplemental to the City Clerk.	issuing department for this RFP/RFQ have made a tive/personal information be submitted directly to the issuing rification of specific details is critical the evaluation of a ation may be crucial to evaluating bids. Failure to provide ation, or an inability to appropriately evaluate bids. Here requested is enclosed or if a bidder opts to enclose the for to the issuing department's request in the bidding packet of Providence has no obligation to redact those details and information becoming public record. Substituting the instance of the instance of the discretion of the issuing department at the discretion of formation, such as pricing terms, from becoming public.
l affirm	by signing below that I am duly auth	orized on behalf of Bidder, on
this	day of	
		Signature of Representation
		oignature of representation

Printed Name



BOARD OF CONTRACT AND SUPPLYCITY OF PROVIDENCE, RHODE ISLAND

WBE/MBE Form Instructions

The City of Providence actively seeks Minority and Women business enterprises to participate in bids to meet the City's procurement needs. Pursuant to the City of Providence Code of Ordinances, Chapter 21, Article II, Sec. 21-52 (Minority and Women's Business Enterprise) and Rhode Island General Laws (as amended), Chapter 31-14, et seq. (Minority Business Enterprise), Minority Business Enterprise (MBE) and Women's Business Enterprise (WBE) participation goals apply to contracts.

The goal for Minority Business Enterprise (MBE) participation is **10%** of the total bid value. The goal for Women's Business Enterprise (WBE) participation is **10%** of the total bid value. The goal for combined MBE/WBE participation is **20%** of the total bid value.

Only businesses certified with the State of Rhode Island as minority and/or women business enterprises are counted towards the City's goals. Eligible minority or women-owned businesses are encouraged to seek certification from the State of Rhode Island Minority Business Enterprise Compliance Office at: http://odeo.ri.gov/offices/mbeco/

Note: MBE certification with the State of Rhode Island on the basis of Portuguese heritage is not currently recognized by the City of Providence's MBE program.

Bid Requirements:

All Bidders: All bidders must complete and submit the **MBE/WBE Participation Affidavit** indicating whether or not they are a state-certified MBE/WBE and acknowledging the City's participation goals. Submission of this form is required with **every bid**. Your bid will not be accepted without an affidavit.

Bidders who will be subcontracting: Bidders who will be subcontracting must submit the **Subcontractor Disclosure Form** as part of their bid submission. All subcontractors, regardless of MBE/WBE status, must be listed on this form.
Business NAICS codes can be found at https://www.naics.com/search/. Awarded bidders are required to submit **Subcontractor Utilization and Payment Reports** with each invoice.

Waiver Requests:

If the percentage of the total amount of the bid being awarded to MBE or WBE vendors is less than 20% (Box F on the Subcontractor Disclosure Form) and the prime contractor is not a Rhode Island State-certified MBE or WBE, the Bidder must complete the MBE/WBE Waiver Request Form for review. Waivers will be considered on a case by case basis.

No waiver will be granted unless the waiver request includes documentation that demonstrates that the Bidder has made good faith efforts to achieve the City's stated participation goals. Waivers must be reviewed and signed by the City of Providence's MBE/WBE Outreach Director, Grace Diaz, or her designee. Department Directors cannot recommend a bidder for award if this form is applicable and absent. If the bid does not meet the participation goals of the City of Providence and a waiver is not filed with the signature of the MBE/WBE Outreach Director or her designee, the bid will not be accepted.

Verifying MBE/WBE Certification

It is the responsibility of the bidder to confirm that every MBE/WBE named in a proposal and included in a contract is certified by the Rhode Island Minority Business Enterprise Compliance office. The current MBE/WBE directory is available at the State of RI MBE Office, One Capitol Hill, 2nd Floor, Providence, RI, or online at http://odeo.ri.gov/offices/mbeco/mbe-wbe.php. You can also call (401) 574-8670 to verify certification, expiration dates, and services that the MBE/WBE is certified to provide. Note: MBE certification with the State of Rhode Island on the basis

of Portuguese heritage is not currently recognized by the City of Providence's MBE program.



BOARD OF CONTRACT AND SUPPLYCITY OF PROVIDENCE, RHODE ISLAND

Form Instructions:

Access all bid forms from http://www.providenceri.gov/oeo/ or http://www.providenceri.gov/purchasing/minority-women-owned-business-mbewbe-procurement-program/. **Download** the forms as blank PDFs. Once saved on your computer, fill them out using the Adobe program. The fillable PDFs must be completed in Adobe in order to be saved property. Google Chrome and similar platforms do not allow for the forms to be saved as filled PDFs. Therefore, please download the blank forms to your computer, then fill them out and save.

Assistance with Form Requirements

Examples of completed forms can be found on the City of Providence website at http://www.providenceri.gov/oeo/ or http://www.providenceri.gov/purchasing/minority-women-owned-business-mbewbe-procurement-program/.

Contract Requirements:

Prime contractors engaging subcontractors must submit the **Subcontractor Utilization and Payment Report** to the City Department's Fiscal Agent with every invoice and with request for final payment. This form is not submitted as a part of the initial bid package.

For contracts with duration of less than 3 months, this form must be submitted along with the contractor's request for final payment. The form must include all subcontractors utilized on the contract, both MBE/WBE and non- MBE/WBE, the total amount paid to each subcontractor for the given period and to date. During the term of the contract, any unjustified failure to comply with the MBE/WBE participation requirements is a material breach of contract.

Questions?

For more information or for assistance with MBE/WBE Forms, contact the City of Providence MBE/WBE Outreach Director, Grace Diaz, at mbe-wbe@providenceri.com or (401) 680-5766.





MBE/WBE PARTICIPATION AFFIDAVIT Item Discussion (as seen on RFP): Prime Bidder: Prime Bidder (Company) Phone Number: Which one of the following describes your business' status in terms of Minority and/or Woman-Owned Business Enterprise certification with the State of Rhode Island? ____MBE ____WBE Neither MBE nor WBE By initialing the following sections and signing the bottom of this document in my capacity as the contractor or an authorized representative of contractor, I make this Affidavit: It is the policy of the City of Providence that minority business enterprises (MBEs) and women business enterprises (WBEs) should have the maximum opportunity to participate in procurements and projects as prime contractors and vendors. Pursuant to Sec. 21-52 of the Providence Code of Ordinances and Chapter 31-14 et seα, of the Rhode Island General Laws (as amended), MBE and WBE participation goals apply to contracts. The goal for Minority Business Enterprise (MBE) participation is 10% of the total bid value. The goal for Women's Business Enterprise (WBE) participation is 10% of the total bid value. The goal for combined MBE/WBE participation is 20% of the total bid value. Lacknowledge the City of Providence's goals of supporting MBE/WBE certified businesses. Initial If awarded the contract, I understand that my company must submit to the Minority and Women's Business Coordinator at the City of Providence (MBE/WBE Office), copies of all executed agreements with the subcontractor(s) being utilized to achieve the participation goals and other requirements of the RI General Laws. I understand that these documents must be submitted prior to the issuance of a notice to proceed. Initial I understand that, if awarded the contract, my firm must submit to the MBE/WBE Office canceled checks and reports required by the MBE/WBE Office on a quarterly basis verifying payments to the subcontractors(s) utilized on the contract. Initial If I am awarded this contract and find that I am unable to utilize the subcontractor(s) identified in my Statement of Intent, I understand that I must substitute another certified MBE and WBE firm(s) to meet the participation goals. I understand that I may not make a substitution until I have obtained the written approval of the MBE/WBE Office. Initial If awarded this contract, I understand that authorized representatives of the City of Providence may examine the books, records and files of my firm from time to time, to the extent that such material is relevant to a determination of whether my firm is complying with the City's MBE/WBE participation requirements. Initial I do solemnly declare and affirm under the penalty of perjury that the contents of the foregoing Affidavit are true and correct to the best of my knowledge, information and belief. Signature of Bidder **Printed Name**

Date

Company Name





SUBCONTRACTOR DISCLOSURE FORM

Fill out this form only if you WILL SUBCONTRACT with other parties. If you will not subcontract any portion of the proposed bid, do not fill out this form.

rime Bidder:			Primar	ту	
AICS		Cod	e:		·····
em Description (as seen on RFP):					
lease list all Subcontractors bel nd the dollar amount to be subcon ate-certified MBE/WBE firms is lo ttps://www.naics.com/search/	tracted. Plea	ase check	off MBE and	WBE where applica	able. The directory of all
Proposed Subcontractor	МВЕ	WBE	Primary NAICS Code	Date of Mobilization	\$ Value of Subcontract
					\$
					\$
					\$
					\$
					\$
					\$
A. MBE SUBCONTRACTED AMOUNT: B. WBE SUBCONTRACTED AMOUNT:					\$
					\$
C. NON MBE WBE SUBCONTRACTED AMOUNT:					\$
D. DOLLAR AMOUNT OF WORK DONE BY THE PRIME CONTRACTOR:					\$
E. TOTAL AMOUNT OF BID (SUM OF A, B, C, & D):				\$	
F. PERCENTAGE OF BID SUBCONTRACTED TO MBEs AND WBEs. (Divide the sum of A and B by E and multiply result by 100).					
ease read and initial the following state varded to MBE or WBE vendors is les BE, you must fill out the MBE/WBE irector. Initial Required.	s than 20% (E	Box F) and	the prime cont	ractor is NOT a Rhod	e Island State-certified MBE or



BOARD OF CONTRACT AND SUPPLYCITY OF PROVIDENCE, RHODE ISLAND

MBE/WBE Waiver Request Form

MBE/WBE Outreach Director

Fill out this form only if you are subcontracting and did not meet the 20% MBE/WBE participation goal. State-certified MBE or WBE Prime Bidders are NOT REQUIRED to fill out this form.

Submit this form to the City of Providence MBE/WBE Outreach Director, Grace Diaz, at gdiaz@providenceri.gov, for review **prior to bid submission**. This waiver applies only to the current bid which you are submitting to the City of Providence and does not apply to other bids your company may submit in the future. **In case a waiver is needed**, **City Department Directors should not** recommend a bidder for an award if this form is not included, absent or is not signed by the city of Providence MBE/WBE director.

Prime Bidder:	Contact Email and Phone:		
Company Name, Address: Project/ Item Description (as s	seen on RFP):	Trade:	
		d/or WBE companies you conta e MBE/WBE company could no	
MBE/WBE Company Name	Individual's Name		Why did you choose not to work with this company?
requesting a waiver of	% MBE/WBE (20% mi subcontract any task ass	ociated with the fulfillment of this	20% of the total bid value. I am Subcontractor Disclosure Form). If s contract, a good faith effort will be
Signature of Prime Contractor Authorized Representative	-/ Duly Printe	d Name	Date Signed
Signature of City of Providence	ee Printe	d Name of City of Providence	 Date Signed

MBE/WBE Outreach Director





SUPPLEMENTAL INFORMATION

If the issuing department for this RFP determines that your firm's bid is best suited to accommodate their need, you will be asked to provide proof of the following prior to formalizing an award.

An inability to provide the outlined items at the request of the department may lead to the disqualification of your bid.

This information is <u>NOT</u> requested to be provided in your initial bid that you will submit to the City Clerk's office by the "date to be opened" noted on page 1. This list only serves as a list of items that your firm should be ready to provide on request.

<u>All bids submitted to the City Clerk become public record</u>. Failure to follow instructions could result in information considered private being posted to the city's Open Meetings Portal and made available as a public record.

You must be able to provide (requested after an award is approved by the Board of Contract and Supply):

- Business Tax ID
- Certificate of Good Standing with the Rhode Island Secretary of State
- Safety and COVID Plan: The Consultant must provide the City with a copy of its Health and Safety Program, as required per OSHA, and must include current COVID-19 testing and screening procedures for the Consultant's employees.
- **Proof of Insurance:** The Consultant shall maintain the following insurance until termination of this Agreement and require the same insurance coverage for all of their subcontractors or consultants:
 - Commercial General Liability with policy limits of not less than One Million Dollars (\$1,000,000) for each occurrence and One Million Dollars (\$1,000,000) in the aggregate for bodily injury and property damage.
 - Automobile Liability covering vehicles owned, hired and non-owned vehicles used, by the Consultant with policy limits of
 not less than One Million Dollars (\$1,000,000) per accident for bodily injury, death of any person, and property damage
 arising out of the ownership, maintenance and use of those motor vehicles, along with any other statutorily required
 automobile coverage.
 - The Consultant may achieve the required limits and coverage for Commercial General Liability and Automobile Liability through a combination of primary and excess or umbrella liability insurance, provided such primary and excess or umbrella liability insurance policies result in the same or greater coverage as the coverages required under Commercial General Liability and Automobile Liability, and in no event shall any excess or umbrella liability insurance provide narrower coverage than the primary policy. The excess policy shall not require the exhaustion of the underlying limits only through the actual payment by the underlying insurers.
 - Workers' Compensation at statutory limits.
 - Employers' Liability with policy limits not less than One Million Dollars (\$1,000,000) each accident, Five Hundred Thousand Dollars (\$500,000) each employee, and One Million Dollars (\$1,000,000) policy limit.
 - Professional Liability covering negligent acts, errors and omissions in the performance of professional services with policy limits of not less than Two Million Dollars (\$2,000,000) per claim and in the aggregate.
 - Additional Insured Obligations: To the fullest extent permitted by law, the Consultant shall cause the primary and excess
 or umbrella polices for Commercial General Liability and Automobile Liability to include the City of Providence and
 Providence Public Building Authority as an additional insured for claims caused in whole or in part by the Consultant's
 negligent acts or omissions. The additional insured coverage shall be primary and non-contributory to any of the City's or



BOARD OF CONTRACT AND SUPPLYCITY OF PROVIDENCE, RHODE ISLAND

Providence Public Building Authority's insurance policies and shall apply to both ongoing and completed operations.

• The Consultant shall provide certificates of insurance to the City that evidence compliance with the requirements listed herein. All insurance coverages shall be approved in advance by the City and all carriers shall be admitted to do business in the State in which the Project is located and shall have a rating of A-VII or better by A.M. Best Company. All insurance, except professional liability coverage, should name the City of Providence and Providence Public Building Authority as an additional insured, include waiver of subrogation in favor of City, and provide that coverage is primary and non-contributory to any other valid and collectible insurance available to the City. As to professional liability coverage, that coverage shall provide to compensate the City for all negligent acts, errors or omissions by the Consultant, its firms, its agents, employees and consultants arising out of this agreement. Said professional liability coverage shall have a deductible not exceeding \$100,000 per occurrence. Professional liability coverage shall remain in effect for at least three (3) years from date of Substantial Completion.

BID PACKAGE SPECIFICATIONS

Introduction

The City of Providence seeks services from a qualified planning and lighting design or design-build consultant firm(s), which will be known as the "Consultant", to provide a robust public realm lighting and activation plan to increase pedestrian safety and enhance the pedestrian experience during night-time hours in Downtown Providence. The Downtown Lighting Enhancement Project seeks to improve lighting in various locations with insufficient lighting throughout downtown Providence using standard and dynamic full color spectrum illumination of the public realm including walkways, facades, and other street elements. This project aims to prioritize a people-focused, high-quality built environment conducive for socializing, participating in the local economy, and enhancing the pedestrian experience. The City seeks to ensure that safety, security, aesthetics, accessibility and maintenance are factored into and addressed in placemaking projects.

A preferred plan will include input and guidance in lighting that enhances public safety in a downtown setting. Although the primary goal of the Project is increasing safety, the City also seeks to enhance the attractiveness of downtown Providence through this project. With this in mind, the City encourages submissions that range from traditional or standard streetscape lighting infrastructure to creative lighting concepts that still accomplish the overarching safety goal.

Background

In 2020, the City contracted with the consultant team of Arup, Stimson and Ultramoderne to provide community engagement, conceptual design, and preliminary (30%) engineering services as part of an **Imagine Downtown PVD** community planning and design process. The scope drafted a unified vision for Kennedy Plaza, the Rink, Waterplace Park, and the Riverwalk to make these spaces more inclusive, safe, sustainable, and well-connected to one another. This vision builds upon work completed with a diverse group of stakeholders over the past decade.

The lighting design strategy for this previous effort was crafted to focus on the following key elements:

- Design features that use light to define a visual consistency for Downtown
- Lighting technology and integration with other services to create a connected design solution
- Human-scale lighting elements that engage, inspire, and energize visitors to the area
- · Light as a means of enhancing the sense of safety, security and visibility

Part of this effort included recommendations for various types of lighting throughout the project area. The consultant will further refine these lighting concepts, principles and criteria through design development to construction contract documents.





Scope 1 - Public Space Illumination

The consultant team shall build upon the City's **Imagine Downtown PVD** community planning and design process, which ran from December 2020 through May 2021, https://imaginedowntownpvd.com/ and resulted in several proposals for long term physical changes to activate Greater Kennedy Plaza and Waterplace Park. The initiative was and produced 30% design concept documents, including those related to "Lighting." The relevant section is also incorporated into this RFP document as "Exhibit A."

While initially focusing on the Downtown area, the City intends to use the design and lighting plan to expand along additional corridors and nodes in select locations in subsequent phases. The preferred plan will include a kit of parts that can be replicated along future project areas to create a cohesive feel throughout all of Downtown and other locations throughout the City. This kit of parts should take into consideration previous planning and design efforts recently completed by the City and build upon those existing plans and recommendations as detailed within.

This scope includes design of street and pedestrian lighting, park illumination, building façades statuary & artwork and acknowledgement of key icons and gateways in the Downtown area.

Tasks of work includes, but is not limited to:

Scope 1 - Streetscape Illumination

Poles, Power & Equipment

- Assessment of existing inventory of installed posts and poles, luminaires, their connections and power supplies and components to be done in consultation with local utility company stakeholders.
- Analysis of power capacity of existing electric supply and distribution (coordinate with Rhode Island Energy).
- Design and specification of pole and post elements or identification of existing "off the shelf" poles and posts that can be incorporated into concept and/or modified to accommodate illumination strategies.
- Poles and posts should be sturdy, durable and adaptable.
- Base plate design should be suitable for installation on existing light pole foundations, bases and bolting configurations allowing flexibility of installation at multiple locations.
- Design and specification of any required new, or modification to existing components, including, but not limited to: power boxes, service pedestals, cabinetry, panels, transformers, splice boxes, handholes, conduit, cabling, switches, outlets, controls and appurtenances.
- Coordinate any and all metering requirements with RI Energy.

Lighting & illumination

- Assessment of existing lamps, lights and fixtures to incorporate and/or modify to comply with overall lighting strategies.
- Specification of static and dynamic, full color spectrum lamps, lights and fixtures.
- Design of ambient, accent and decorative lighting strategies.
- Design of lighting control strategies, specification of controllers, software and other relevant applications.
- Proposed lighting should include infrastructure to allow for programming of varying light patterns as well as audio capabilities.
- Conceive lighting as an "Art Installation" utilizing projection mapping and curated light installations. See Providence's "Art in City Life Masterplan," page 10—PVD Projections for reference.
- Coordination with 3rd party arts, lighting and placemaking organizations, stakeholders and advocates.
- Consultants are encouraged to consider the best practices put forward by the International Dark Skies Association for increasing lighting without polluting natural night skies.





<u>Audio</u>

• Design of audio strategies and specification of speakers and related audio equipment.

All elements and components should be durable, exterior-grade, weather-proof, corrosion resistant. Provide cost estimates and, if needed, alternatives to implement to budget.

Scope 2 - Façade illumination

Consultants shall identify themes, approaches and strategies to artistically illuminate façade and architectural details of select buildings and structures within the focus areas. Provide specifications of standard lighting elements that can be attached to building surfaces to achieve desired effect.

Present concepts to private property owners, at up to three group meetings, to advise strategies to implement architectural lighting on building facades.

Any additional efforts beyond the above task is **NOT** included in the requested scope of services under this RFP but could be a negotiated fee for service between property owners and consultant team or others.

Scope 3 – Additional Technology

- An additional scope of services includes creating a concept, system and specifications for a public "wifi cloud" that can be incorporated into the poles and posts and additional publicly accessible locations.
- Identification of best practices for 5G installation and/or adaption to poles and posts.

Locations

The first phase of installation under consideration is the area from Kennedy Plaza along Dorrance Street to Westminster Street to Cathedral Square and its environs.

At the center of Downtown Providence, **Kennedy Plaza** serves as the heart of Rhode Island's Capital City, bordered by major hotels, City Hall, multiple federal buildings, the Chamber of Commerce, the Providence Foundation and the Rhode Island Foundation. Kennedy Plaza and the surrounding public spaces of Burnside Park, Biltmore Park, and the Providence Rink have gone through several physical transformations over the past 150 years. When first laid out in 1848, the area was named Exchange Place and served as the civic center of Providence. In the mid-1860s, Exchange Place became an important transportation node because of the streetcar lines that radiated from this area. By the early 20th century, the Plaza had been developed as a fine example of the City Beautiful movement in urban planning— a grand concourse connecting the imposing civic monuments of City Hall and the Federal courthouse. It was officially named Kennedy Plaza in 1964. Since then, the Plaza has been altered and redesigned several times to meet the State's increasing public transportation needs most recently in 2014.

Westminster Street is one of Downtown Providence's most iconic commercial corridors, home to the nation's oldest indoor shopping mall. The street is lined with a mix of shops, restaurants, educational institutions, services and other office uses. The street contains a mix of historic architecture and more modern building facades and serves as a significant connection between Kennedy Plaza and Cathedral Square.

Cathedral Square is a historic public plaza in downtown Providence that features the Cathedral of Saints Paul and Peter. Once the confluence of three, key downtown streets, lined with shops, theaters, hotels and residences, this former urban





node was transformed in the 1960s and 1970s to accommodate Interstate-95 and several urban renewal projects. Plans for the area were created in 1970 by the Downtown Providence Plan, which recommended converting the area into a superblock to eliminate through-traffic from the Downtown to the West End and creating a pedestrian plaza at the terminus of Westminster Street to complement the Cathedral of Saints Peter and Paul. With the help of architect I.M. Pei, these recommendations were incorporated into a design that established Cathedral Square. The buildings fronting the new Square and along Westminster Mall— the pedestrian mall that leads to the plaza were originally intended to contain active ground floor uses to activate the pedestrian environment; however, this phase of the design was never realized. Excluding walkways, the plaza alone is approximately 1.8 acres (80,000 square feet) and the entire superblock, including the plaza, is approximately 13.8 acres (602,700 square feet). The entire plaza and adjoining walkways are all under the City's jurisdiction as public space.

Project Oversight

Services under this selection will be coordinated and managed under the direction of the City of Providence Department of Planning and Development. The selected Consultant shall work with the City of Providence Department of Planning and Development in coordination with the Department of Public Works, the Parks Department, the Department of Art, Culture and Tourism, Public Properties, private property owners, and other agencies and partners as required for coordination, approvals, and permitting.

Anticipated Project Schedule

Release of Request for Proposals: January 16, 2024

Proposals Due: February 26, 2024

Anticipated Contract Signing and Notice to Proceed: April 2024

Project Tasks and Deliverables

- 1. **Project Management:** Identify a project manager, who will serve as the primary contact person between the Consultant and the City of Providence and be responsible for ongoing oversight and management activities including:
 - a. Produce Invoices, Monthly Progress and Budget Reports: Monitor the rate of progress on authorized project tasks and acceptable fulfillment of work as well Monthly Progress Reports to the City. Monthly Progress Reports shall outline work-hours and costs expended per task and a statement as to whether or not sufficient work-hours remain to complete tasks as authorized. Payment invoices shall be processed only if the required Monthly Progress Reports are current. Invoices shall be submitted no more than monthly and shall be submitted by the 20th day of each month in order to be processed in a timely fashion. Any invoices received after the 20th day of each month will not be processed until the following month.
 - b. Coordinate and attend Regular Staff Coordination Meetings, Associated Meeting Materials, and Meeting Summary Notes: Coordinate and attend regular (bi-weekly) virtual meetings with City staff to discuss findings and critical issues and review project status. The Consultant shall provide meeting





agendas, materials, and minutes and shall also be responsible for hosting the virtual meetings on a platform of their choosing such as Zoom or Microsoft Teams. For the purposes of this proposal, each meeting shall be expected to be one and half (1.5) hours in duration.

c. **Produce Monthly MBE/WBE Reports:** Monthly monitoring and reporting of City MBE and WBE requirements must accompany all invoices. The City shall supply the Consultant with forms required to be completed by the Consultant and submitted with each invoice.

Deliverables:

- Invoices
- Monthly progress and budget reports
- Meeting agendas for biweekly staff coordination meetings
- Meeting materials for biweekly staff coordination meetings
- Meeting notes for biweekly staff coordination meetings

2. 30% Review and Value Engineering

- a. Engineering and Estimate Review: Review all reports, plan sets, budgets, and estimates prepared by the previous consultant team for the relevant components of this project.
- b. Edits and Value Engineering: After a thorough review of previous assumptions and estimates, confirm assumptions, estimated area take offs, unit prices, and costs for all project elements included in this RFP and adjust as needed. Determine areas where cost savings may be achieved through alternate materials, architectural and construction methods, or project approaches and provide the City with updated 30% quantities and estimates.

Deliverables:

- A draft memo and Excel sheet(s) reflecting the Consultant's suggested adjustments to cost estimates, materials, architectural and construction methods, or project approaches
- A final memo and Excel sheet(s) reflecting edits and comments from City staff

3. Updated 30% Design and Engineering

- a. Based on deliverable from Task 2, develop updated 30% design plans for lighting locations and specifications
- b. During this task, the Consultant shall provide a replicable/scalable plan for future/additional lighting corridors that the City may use to inform future phases of the illumination project.

Deliverables:

- Draft 30% design plans
- Draft plan for replicable/scalable future phases
- Final 30% design plans reflecting edits and comments from City staff
- Final plan for replicable/future phases reflecting edits and comments from City staff

4. Final Design Services - 90% Design

a. Permitting Forecast: Prepare the Permitting Forecast. All permitting shall be identified by the Consultant and coordinated with the City and any relevant permitting agencies.





- b. Final Design Plan Submission and Estimates: Develop and submit a final engineering, electrical and architectural plan submission and engineer's estimates with adjustments made as determined through earlier tasks. Revisions: Revise plans as needed based on input from the City and its partners.
- c. Contract Book Preparation: Prepare a Construction Contract Book using the City's template and edit to include project specific conditions and specifications, details, and all other necessary documents and conditions needed for construction and advertising of the project.
- d. Revisions: Revise contract book as needed based on input from the City and its partners.
- e. Utilities and Partner Agency Coordination: Coordinate communications and coordinate and attend meetings with utilities and partner agencies including but not limited to National Grid, Verizon, Cox, NBC, Providence Water, RISHPO, City Planning Commission, Downtown Design Review Committee, Historic District Commission, and Capital Center Commission. The Consultant shall provide meeting agendas, materials, and minutes and shall also be responsible for hosting the virtual meetings on a platform of their choosing such as Zoom or Microsoft Teams.
 - For the purposes of this proposal, up to sixteen (10) utility and partner agency coordination meetings shall be anticipated and each meeting shall be expected to be one (1) hour in duration.
- f. Permit Preparation and Submission: Prepare and submit formal permits with associated drawings and other materials to meet all permitting requirements for successful completion of the project.
- g. Architectural Lighting Easement: Coordinate with private property owners and obtain an easement (both temporary for construction purposes and permanent) on behalf of the City in order to allow for construction of the Riverwalk Connector. The Consultant shall provide meeting agendas, materials, and minutes and shall also be responsible for hosting the virtual meetings on a platform of their choosing such as Zoom or Microsoft Teams.

For the purposes of this proposal, up to three (3) easement coordination meetings shall be anticipated and each meeting shall be expected to be one (1) hour in duration.

Deliverables:

- Permitting Forecast
- Final Design Plan Submission and Estimates in both PDF and native file (Excel, AutoCAD, etc.) format
- Final Design Plan Submission and Estimates in both PDF and native file (Excel, AutoCAD, etc.) format
- Contract Book in both PDF and native file (Word) format
- Revised Contract Book in both PDF and native file (Word) format
- Meeting agendas for utility and partner agency coordination meetings
- Meeting materials for utility and partner agency coordination meetings
- Meeting notes for utility and partner agency coordination meetings
- Permits
- Proof of submission of permits
- Meeting agendas for private property owner coordination meetings
- Meeting materials for private property owner coordination meetings
- Meeting notes for private property owner coordination meetings





- **5. PS&E Design Services** During this task, the Consultant shall progress the design based on resolutions to comments or discussions during the Final Design Services task.
 - a. Edits: Make edits to the Final Design Plan Submission, Contract Documents (including distribution of quantities), and Engineer's Estimates for a PS&E Submission.
 - b. Construction Scheduler Coordination: Coordinate, assist, and provide project details to the construction scheduler.
 - c. Permitting Preparation and Assistance: Prepare and assist with any and all required permitting.

<u>Deliverables:</u>

- PS&E Submission in both PDF and native file (Excel, Word, AutoCAD, etc.) format
- Meeting notes from meetings with construction scheduler
- Meeting notes from permit preparation and assistance meetings
- · Completed permits as required by the project
- 6. Maintenance, Repair and Replacement Plan: During this task, the consultant shall develop a maintenance, repair and replacement plan detailing any necessary maintenance of the lighting structures once installed, and information on estimated costs and how and where to obtain replacement parts and repairs. This may also include a storage plan to assist the City in determining which replacement components to have on hand in the case of repairs/replacements needed.

Deliverables:

• Maintenance, repair and replacement plan and estimates

Proposal Submittal Requirements and Evaluation and Selection Process

All proposals delivered to the City shall be initially reviewed to determine whether they are responsive or nonresponsive to the requisites of this RFP. All responsive proposals will then be evaluated and rated based on the proposal submittal requirements and evaluation criteria below and on the following pages. Please read information regarding each requirement and the criteria for each carefully.

The City reserves the right to award the full contract to one proposer, split the award among more than one proposer, award a partial contract for specific tasks outlined in this RFP, award no contract, and/or re-release this RFP as it deems in the best interest of the City of Providence.

1. <u>Completed forms as listed on Page 3 of this RFP:</u> These forms and documents are required as part of the proposal. Please ensure all required forms are properly completed and signed. Failure to complete all forms may result in disqualification at the sole discretion of the City of Providence.

(5 possible points)



BOARD OF CONTRACT AND SUPPLYCITY OF PROVIDENCE, RHODE ISLAND

Non-Responsive (0 pts): Failed to provide completed forms as required by the RFP

Meets Requirements (5 pts): Provided completed forms as required by the RFP

Cover Letter signed by an officer of the contractor, binding the contractor to all of the commitments made in the
proposal and describing how you and your team understand the Project. Failure to provide a cover letter signed
by an officer of the contractor, binding the contractor to all of the commitments made in the proposal may result in
disqualification.

(5 possible points)

Non-Responsive (0 pts): Failed to provide cover letter signed by an officer of the contractor, binding the contractor to all of the commitments made in the proposal

Meets Requirements (5 pts): Provided cover letter signed by an officer of the contractor, binding the contractor to all of the commitments made in the proposal

3. Project Approach and Understanding: Include a Scope of Work that outlines the specific tasks and deliverables required for the project as well as a Project Approach and Understanding Narrative that describes how you and your team understand the Project, unique elements of your understanding and approach, and how you will meet the requirements, purpose, objectives, and specific needs of this project and the City of Providence. Please note that the electrical architecture and public realm activation portions of this scope of services is of the utmost importance to the success of this project. Having an experienced electrical, architecture and public realm activation team who have successfully completed similar contemporary illumination and activation projects are critical elements of the project approach.

(30 possible points)

Non-Responsive (0 pts): A narrative describing the consultant's understanding of the Project and how they will meet the requirements, purpose, objectives, and specific needs of this project and the City of Providence was not included in the Proposal; and/or

Poor (6 points): A Scope of Work that outlines the specific tasks and deliverables required for the project was not included in the proposal. Narrative provides poor understanding of the Project and lacks detailed enough evidence to demonstrate that they will be able to meet the requirements, purpose, objectives, and specific needs of this project and the City of Providence and/or

Below Average (12 pts): Scope of Work does not include the specific tasks and deliverables required for the project. Narrative reflects some understanding, but serious concerns remain regarding consultant's understanding of and approach to the requirements, purpose, objectives, and specific needs of this project and the City of Providence.





Average (18 points): Scope of Work includes the specific tasks and deliverables required for the project. Narrative reflects a basic understanding of the requirements, purpose, objectives, and specific needs of this project and the City of Providence. No major concerns regarding consultant's understanding of and approach to the requirements, purpose, objectives, and specific needs of this project and the City of Providence. If there are concerns, they are only minor.

Above Average (24 pts): Scope of Work includes the specific tasks and deliverables required for the project. Narrative very clearly reflects strong understanding of the requirements, purpose, objectives, and specific needs of this project and the City of Providence. No concerns regarding consultant's understanding of and approach to requirements, purpose, objectives, and specific needs of this project and the City of Providence.

Excellent (30 points): Scope of Work includes the specific tasks and deliverables required for the project. Narrative very clearly reflects extremely strong understanding of the requirements, purpose, objectives, and specific needs of this project and the City of Providence in an innovative way that exceeds other proposals and is beneficial to the City of Providence. No concerns regarding consultant's understanding of and approach to the requirements, purpose, objectives, and specific needs of this project and the City of Providence. Scope of Work includes the specific tasks and deliverables required for the project.

4. Qualifications and Recent Relevant Experience: Provide resumes and past project information sheets regarding the history and experience of the lead consultant and all subconsultants proposed to be part of the project team. Resumes shall include the name(s), business address, phone number, email addresses, and resumes of individuals proposed to participate in all work efforts identified and needing to be performed to meet the intent of this project. The Project Manager shall be clearly identified along with the roles of other significant project participants. The Prime Consultant and subconsultants shall be collectively scored based on their demonstrated level of experience and competence in the following areas of expertise.

Please also clearly indicate your team's experience with each of the following Areas of Expertise:

- Successful completion, including advanced architectural, electrical, engineering, and construction oversight of projects of similar scope and scale
- Contemporary approaches to activation and illumination within historic and urban environments (projects must be realized/constructed; theoretical projects shall not be counted as relevant experience)
- Contemporary approaches to architecture for world class, civic buildings similar in scope and scale (projects must be realized/constructed; theoretical projects shall not be counted as relevant experience)
- Designing and engineering engaging, interactive illumination features and support in urban environments (projects must be realized/constructed; theoretical projects shall not be counted as relevant experience)
- Developing permitting forecasts and preparing and submitting permits for complex, multi-faceted public infrastructure projects <u>in Rhode Island</u>
- Coordinating with utilities and partner agencies such as Rhode Island Department of Transportation (RIDOT), Rhode Island Public Transit Authority (RIPTA), Rhode Island Department of Environmental Management (RIDEM), Coastal Resources Management Council (CRMC), Rhode Island State Historic Preservation Office (SHPO), Verizon, Providence Water, NBC, National Grid, Cox, and others throughout





advanced engineering and construction for complex, multi-faceted public infrastructure projects **in Rhode Island**

- Preparing bid documents, advertising CDs, contract books, and advertising documents <u>for the City of</u>
 <u>Providence</u>
- o Running bidding processes on behalf of municipalities, developing addenda, and running bid analyses
- Completing post-design services on behalf of municipalities including coordinating with construction schedulers, responding to RFIs, reviewing shop drawings and submittals from contractors,

(30 possible points)

Non-Responsive (0 pts): Resumes and/or past project information sheets are either not included or do not provide any evidence to demonstrate past success in the stated areas of expertise outlined above.

Poor (6 points): Resumes and past project information sheets provide little evidence to demonstrate past success in the stated areas of expertise outlined above.

Below Average (12 pts): Resumes and past project information sheets reflect experience and background in some, but not all, of the stated areas of expertise outlined above.

Average (18 points): Resumes and past project information sheets reflect experience and background in all of the stated areas of expertise outlined above.

Above Average (24 pts): Resumes and past project information sheets very clearly reflect strong experience and background bringing successful projects to fruition in all of the stated areas of expertise outlined above.

Excellent (30 points): Resumes and past project information sheets very clearly reflect extremely strong experience and background in all of the stated areas of expertise outlined above in a way that exceeds other proposals and is very beneficial to the City of Providence and to the success of this project.

5. References:

- a. Provide three relevant references for the lead Consultant as well as three relevant references for each subconsultant proposed to be a part of the project team. These may overlap with references for specific projects. Each reference should have the person's full name, email address, and phone number listed.
- b. **Provide at least one reference for each project listed as part of each firm's qualifications.** The reference must have been directly involved in the project on behalf of the hiring agency and have direct experience supervising the work of the consultant. Each reference should have the person's full name, email address, and phone number listed.

(10 possible points)



BOARD OF CONTRACT AND SUPPLYCITY OF PROVIDENCE, RHODE ISLAND

Non-Responsive (0 pts)

- 3 relevant references were not provided for lead Consultant; and/or
- 3 relevant references were not provided for each subconsultant proposed to be a part of project team; and/or
- No references were provided for each project listed as part of each firm's qualifications.

Poor (2 points)

- 3 relevant references were provided for lead Consultant, however two or more did not recommend working with lead Consultant or expressed serious concerns regarding quality of consultant's work; and/or
- 3 relevant references were provided for each subconsultant; however, two or more references did not recommend working with a subconsultant or expressed serious concerns regarding quality of a subconsultant's work; and/or
- References were provided for each project, but one or more were not directly involved in the project on behalf of hiring agency and/or references did not have direct experience supervising work of consultant.

Below Average (4 pts)

- 3 relevant references were provided for lead Consultant; however, one reference did not recommend working with lead Consultant or expressed serious concerns regarding quality of consultant's work; and/or
- 3 relevant references were provided for each subconsultant, however one reference did not recommend working with a subconsultant or expressed serious concerns regarding quality of a subconsultant's work; and/or
- References were provided for each project, but one or more did not recommend working with consultant or expressed serious concerns regarding quality of consultant's work.

Average (6 points)

- 3 relevant references were provided for lead Consultant and each subconsultant. No serious concerns regarding quality of consultant's or subconsultants' work.
- References were provided for each project listed. No serious concerns were expressed by references regarding quality of work.

Above Average (8 pts)

- 3 relevant references were provided for lead Consultant and each subconsultant. No serious concerns regarding quality of the consultant's or subconsultants' work and majority of references enthusiastically recommended working with consultants and subconsultants.
- References were provided for each project listed. No serious concerns were expressed regarding quality of
 consultant's or subconsultants' work and majority of references enthusiastically recommended working with
 consultants and subconsultants.

Excellent (10 points)

- 3 relevant references were provided for lead Consultant and each subconsultant. No concerns expressed regarding
 quality of consultant's or subconsultants' work and all references enthusiastically recommended working with
 consultants and subconsultants.
- References were provided for each project listed. No concerns were expressed regarding quality of consultant's or subconsultants' work and all references enthusiastically recommended working with consultants and subconsultants.

6. Proposed Project Schedule broken down by task and subtask on a monthly basis

(10 possible points)



BOARD OF CONTRACT AND SUPPLYCITY OF PROVIDENCE, RHODE ISLAND

Non-Responsive (0 pts): Project schedule is either not provided or does not fit within the schedule required for completion of the project as outlined by the schedule provided in this RFP.

Poor (2 points): Project schedule is provided but is not broken down by task and subtask on a monthly basis, however the schedule meets the required completion date for the project.

Good (10 points): Project schedule is provided and is broken down by task and subtask on a monthly basis. The schedule meets the required completion date for the project.

7. <u>Cost Proposal and Labor Breakdown:</u> Include a cost proposal and labor breakdown that *divides the budget into tasks, subtasks, man-hours, <u>and hourly rates</u> for individual team members of both the prime consultant and all subconsultants proposed to participate in all work efforts identified and necessary to meet the intent of the project.*

Reimbursable expenses may be included in the Cost Proposal as a lump sum, not to exceed amount by Bidders. Reimbursable Expenses may be included in addition to compensation for the Consultant's professional services and may include expenses incurred by the Consultant directly related to the Project as outlined below. If included in your proposal, the lump sum, not to exceed Reimbursable Expenses amount shall be included as part of your bid total on the bid forms and shall be clearly indicated within your cost proposal. As part of the contract that results from this RFP, reimbursement shall be allowed for the following items only, and receipts and invoices from all consultants and sub-consultants must be included with each request for reimbursable expenses, as provided for below. No additional reimbursable expenses shall be allowed.

- Mileage rates shall be reimbursable for the use of a vehicle to or from necessary site visits for mileage exceeding 100 miles (per one way trip), at an amount not to exceed \$0.575 per mile driven. Requests for mileage reimbursement must be clearly dated, listed as part of invoices, and annotated as to which person they pertain to.
- Air fare, bus fare, and train fare shall be reimbursable to or from necessary site visits for economy or coach fares only
 if travel exceeds 100 miles (per one way trip).
- O Associated baggage fees for air, bus, and train fare shall also be considered reimbursable. Copies of receipts for all fares must be included, clearly dated, annotated as to which person they pertain to, and attached to invoices.
- Car sharing and ride sharing costs, such as Zip Car, Uber, Lyft or other similar services to facilitate travel, shall be reimbursable for travel to or from necessary site visits for economy or base fares only if said travel exceeds 100 miles (per one way trip). Copies of receipts for all such costs must be included, clearly dated, annotated as to which person they pertain to and attached to invoices.
- Meal costs shall be reimbursable as follows, only for trips exceeding 100 miles (per one way trip): Breakfast costs shall not exceed \$14.00 per person including tip and taxes. Lunch costs shall not exceed \$16.00 per person including tip and taxes. Dinner costs shall not exceed \$26.00 per person including tip and taxes. Reimbursed meal expenses are reimbursable only if the business trip is overnight or long enough that there is a need to stop for a meal to properly perform one's duties. Alcoholic beverages shall not be considered reimbursable expenses. Copies of receipts for all meals must be included, clearly dated, annotated as to which person and meal (breakfast, lunch, or dinner) they pertain to and attached to invoices.
- Lodging costs shall be reimbursable in an amount not to exceed \$155 per night including taxes and fees. Reimbursed lodging expenses are reimbursable only if the business trip is overnight or long enough that there is a need to stop for substantial sleep or rest to properly perform one's duties. Copies of receipts for all lodging expenses must be included, clearly dated, annotated as to which person they pertain to, and attached to invoices. Requests may be



BOARD OF CONTRACT AND SUPPLYCITY OF PROVIDENCE, RHODE ISLAND

made, on a case-by-case basis, for lodging costs in excess to the \$155 per night maximum if it is determined that no adequate lodging is available below this cap. Lodging costs in excess of \$155 per night shall not be reimbursable unless requested in advance and approved in writing by Jess Lance, Director of Special Projects. If granted, documentation of the written approval must also be attached to the invoice.

- Specialized equipment rental costs shall be reimbursable only if requested in advance and approved in writing by Jess Lance, Director of Special Projects. If granted, documentation of the written approval must also be attached to the invoice. Copies of receipts must also be attached to invoices along with a clear explanation of the date and necessity of use.
- Printing costs shall be reimbursable only for items printed to facilitate public engagement and community meetings, or for printing of deliverables to Client. Copies of receipts for printing must also be attached to invoices along with a clear explanation of the date and necessity of use.
- Language translation services for community outreach and engagement, including public meetings and project materials including print and digital material, shall be reimbursable.
- o Copies of invoices from translation service providers or receipts for services must be attached to invoices along with a clear explanation of the date and necessity of use.
- Shipping and mailing costs shall be reimbursable as deemed necessary for the shipment or mailing of documents or equipment. Copies of receipts for shipping costs must be attached to invoices along with a clear explanation of the date and reason for having incurred such costs.

Once all proposals have been scored on the technical evaluation criteria listed above, only proposals receiving scores of 74 or greater out of 90 possible points shall be scored on the cost proposal, which shall have a maximum score of 20 points to be added to the total score of the proposals.

Cost Proposals will be scored and ranked as follows: the Respondent submitting the lowest Cost Proposal will be awarded the maximum number of points, which shall be the number of points the City chooses as part of the overall weighting of criteria; the next-lowest Cost Proposal will be awarded points based on the product of: (a) the ratio of the lowest Cost Proposal divided by the next-lowest Cost Proposal; and (b) the amount of points awarded for the lowest Cost Proposal, with such product rounded up to the nearest one hundredth (0.01) of a point; the process will continue for each of the remaining Cost Proposals, with points being awarded based on the product of: (a) the ratio of the lowest Cost Proposal divided by the respective Respondent's Cost Proposal; and the points awarded for the lowest Cost Proposal with such product rounded up to the nearest one hundredth (0.01) of a point.

(20 total possible points)

Lowest Cost Proposal: 20 points

Next Lowest Cost Proposal: (Lowest Cost Proposal/Next Lowest Cost Proposal) x 20 pts

3rd Lowest Cost Proposal: (Lowest Cost Proposal/Third Lowest Cost Proposal) x 20 pts



BOARD OF CONTRACT AND SUPPLYCITY OF PROVIDENCE, RHODE ISLAND

4th Lowest Cost Proposal: (Lowest Cost Proposal/Fourth Lowest Cost Proposal) x 20 pts

Etc...

Non-Responsive: 0 points (No Cost Proposal provided)

Interviews: The City may reach out for clarification, up to and including interviews, from all teams who <u>received scores of 74 or greater out of 90 possible points (on the technical evaluation criteria listed as 1-6 in this RFP), which shall (if interviews are conducted) have a maximum score of 20 points to be added to the total score of the proposals. If the City chooses to conduct interviews, all teams with technical evaluation scores of 74 or greater will be invited for separate interviews with the City.</u>

Non-Responsive (0 pts): Proposer declined opportunity for interview.

Poor (4 pts): Proposer was not well prepared for interview and/or interview team raised major concerns about proposer's understanding, approach, and/or experience.

Average (12 pts): Proposer was prepared for interview and no major concerns were raised by the interview team regarding proposer's understanding, approach, and/or experience.

Excellent (20 pts): Proposer was extremely well prepared for interview and no concerns were raised by the interview team regarding proposer's understanding, approach, and/or experience.





Scoring Sheet (to be completed by City Evaluation Team)

		Lead Consultant:	Lead Consultant:	Lead Consultant:
Technical Evaluation Criteria	Cover Letter			
	Completed Forms			
	Qualifications and Relevant Experience			
	Project Approach and Understanding			
	References			
	Proposed Project Schedule			
Technical Evaluation Score (subtotal of above)				
Cost Proposal Score				
Interview Score				
Total Score (Technical Evaluation Score + Cost Proposal Score + Interview Score)		_		



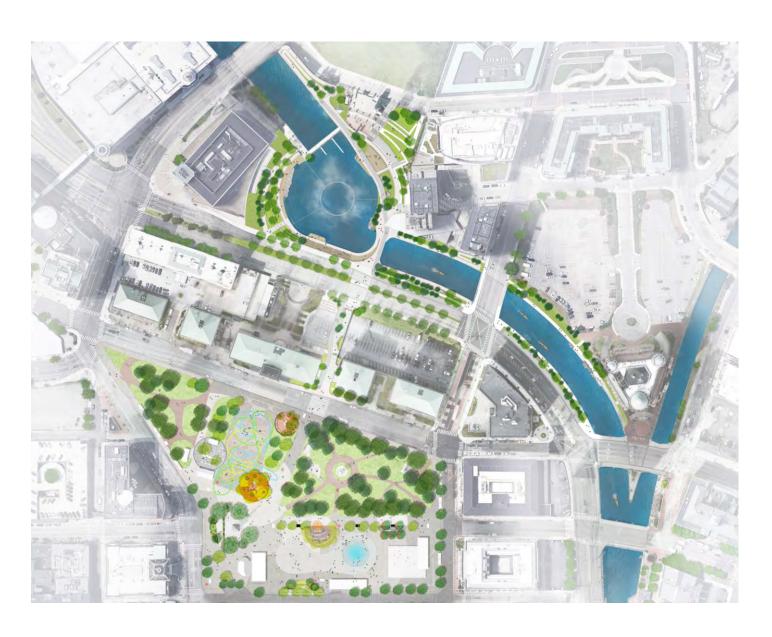
BOARD OF CONTRACT AND SUPPLY CITY OF PROVIDENCE, RHODE ISLAND

APPENDIX A—Lighting Report from 2021 Imagine Downtown Study

Lighting

Table of Contents

- Introduction
- Design Concepts & Principles
- Lighting Implementation Summary
- Signature District Light Elements Overview
- Light Fixture Vocabulary & Accessories
- Site Plan Lighting Overview
- Kennedy Plaza Overview
 - Signature District Element Locations
 - Accent Lighting Elements
- Waterpark Basin / Riverwalk Overview
 - Signature District Element Locations
 - Accent Lighting Elements
- Connector Bridge Overview
- Lighting Design Criteria
- Lighting Controls Summary
- Light Fixture Schedule



Introduction



This design report outlines the basis of design and the lighting story for the Unified Vision for Downtown Providence. Light creates the ambiance and feel of a place, as well as the expression and identity, and is a fundamental aspect of this project.

The design strategy has been crafted to focus on the following key elements:

- Design features that use light to define a visual consistency for Downtown
- Lighting Technology and integration with other services to created a connected design solution
- Human-scale lighting elements, that engage, inspire, and energize visitors to the area
- Light as a means of enhancing the sense of safety, security, and visibility.

Design Concepts & Principles

Design Concepts:

The following key concepts are fundamental to the design process for lighting.

Identity

- Give downtown a signature identity
- Craft a nighttime environment
- Support wayfinding through downtown

Experience

- · Create dramatic visual experience
- Stimulate night-time economy
- Make public feel safe
- Encourage outdoor socialization
- Encourage public transportation and foot traffic
- Create safe cycle routes to encourage activity
- Leaves people with memorable experience

Engaging

- Promote thought and curiosity
- Create a moments that attract visitors

Dynamic

- Support a dynamic flow through downtown
- Use dynamic lighting to reinforce district connections

Design Principles:

The lighting design fundamentally aims to provide a safe, equitable illuminated environment for everyone.

Natural Surveillance

- Uniform / Appropriate Lighting with proper heights and no obstructions
- Support good visibility, and comfortable light levels without over-lighting areas.

Activity Support

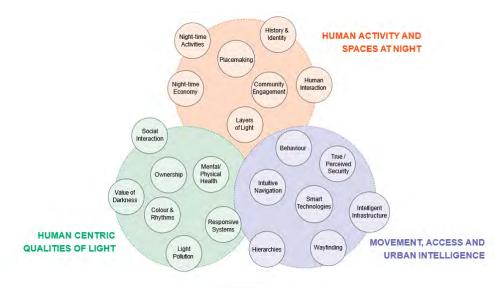
- Make downtown appealing, safe, and active
- Wayfinding clearly identifiable walkways
- Ability to clearly recognize faces
- Discourage any criminal activity

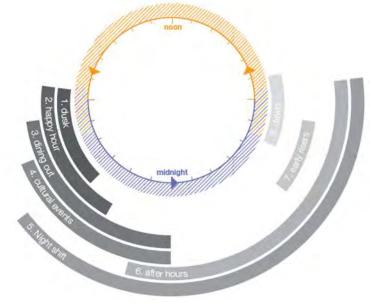
Maintenance

- Discourage graffiti and vandalism
- Specify products are resistant to vandalism

Local Manufacturers / MWBE

 Prioritize where possible the engagement of local manufacturers in the Rhode Island area and/or minority and women business enterprises





Lighting Implementation Summary

Signature District Light Elements:

- Light Towers
- Pedestrian Light Poles
- Digital Pylons

Community Lighting:

- Water Feature Lighting
- Bus Stop Lighting

168

- Landscape / Accent / Feature Lighting
- Integrated Furniture Lighting
- Permanent Monument Lighting
- Big Shade Lighting

Experience Lighting Elements:

- Theatrical Lighting Infrastructure for performances
- Art Installation Infrastructure for Lighting
- Other seasonal Lighting Infrastructure











ARUP



RGBW Signature Luminous Element

Signature District Light Elements

Light Towers & Pedestrian Poles

Context

The Light Pole configurations serve as the unifying element for the project.

There are two types of poles throughout the project:

- Pedestrian Pole Light Approx. 15 ft Tall
- Light Towers
 Approx. 40 ft Tall

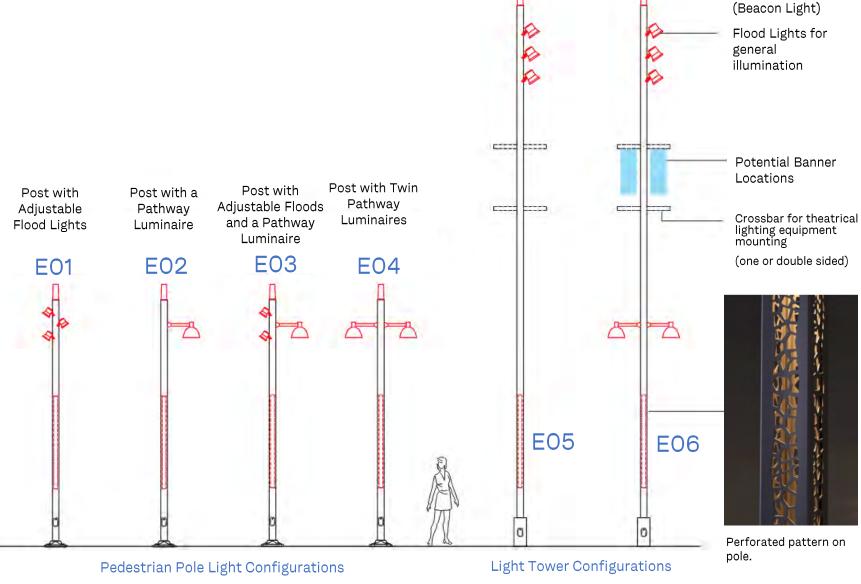
Pole Mounted Lights



Pathway Luminaire



Adjustable Floodlight



RGBW Signature

Signature District Light Elements: Networked Connectivity of Lighting

Light Towers & Pedestrian Poles

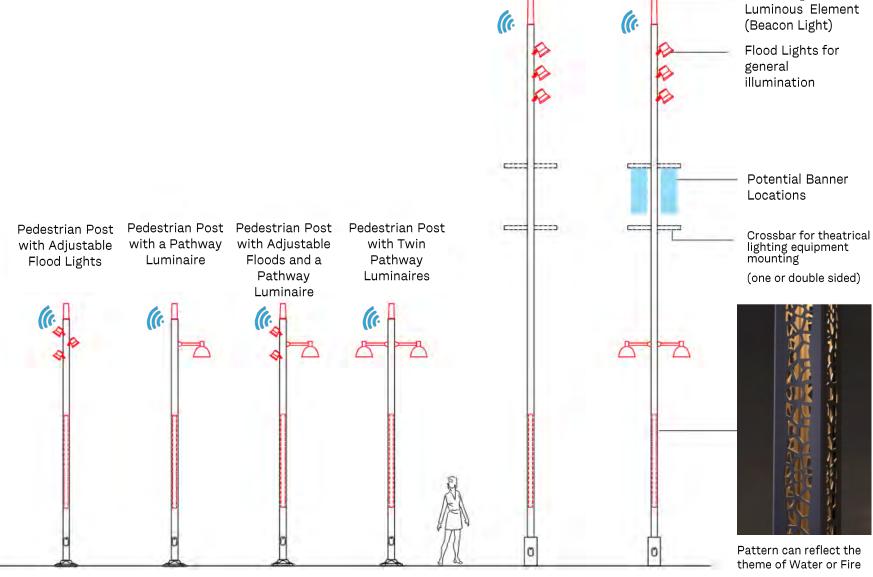
Specific Features

The Light Poles will utilize a wireless communication network that will allow for the following features:

- District lighting control
- Time clock control and dimming of all lights
- Interface with Community boards for district color-changing lighting synchronization
- Pre-set scenes for WaterFire, and other events
- Energy management of lighting

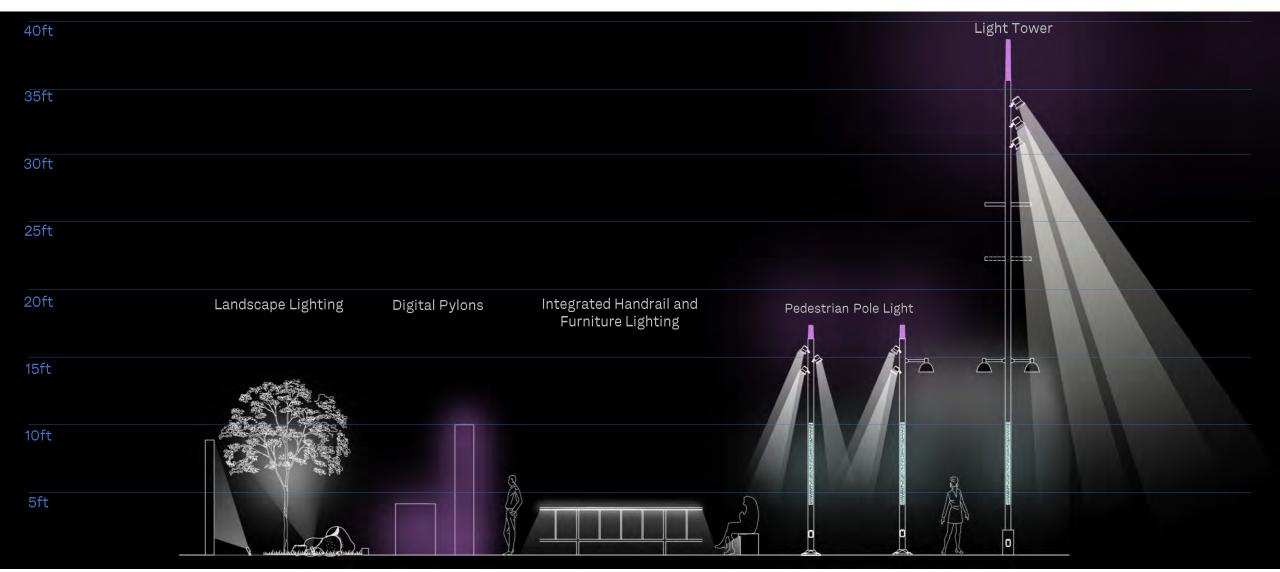
Refer to later section on lighting controls for more information.

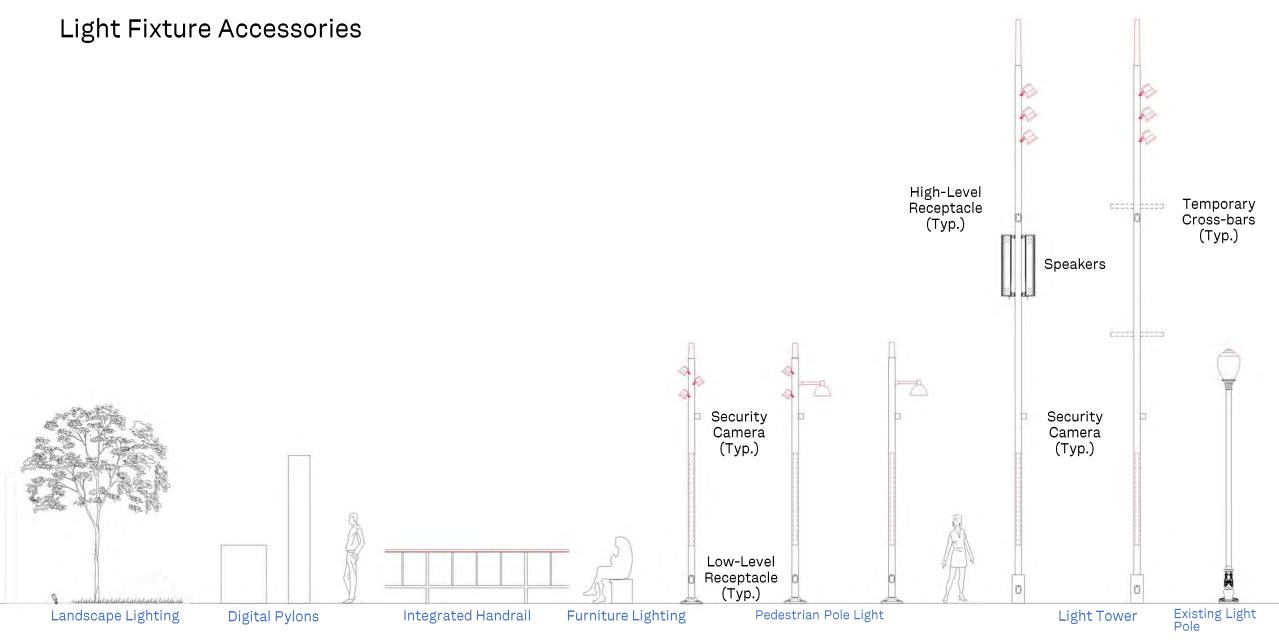




ARUP

Light Fixture Vocabulary



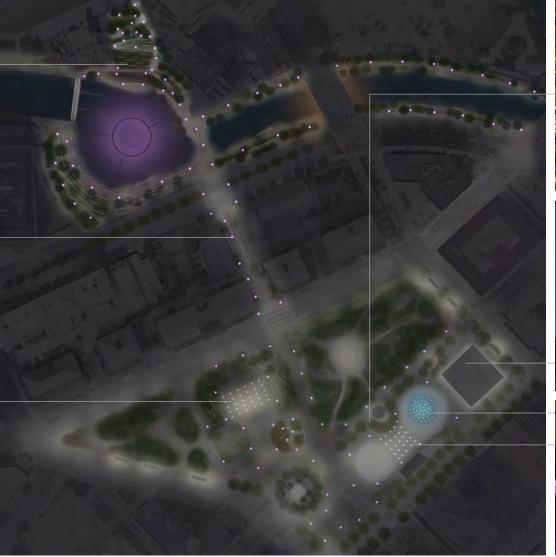


Site Lighting Plan Overview

















Kennedy Plaza: Signature District Light Element Locations

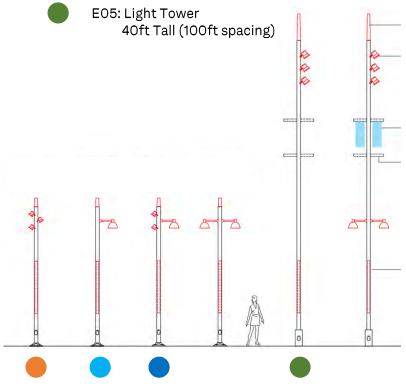


E01: Pedestrian Pole with Adjustable Flood Lights 15ft Tall (50-60ft spacing)

E02: Pedestrian Pole with a Pathway Luminaire 15ft Tall (65-70ft spacing)

E03: Pedestrian Pole with Pathway and Adjustable Floods

15ft Tall (65-70ft spacing)



ARUP STIMSON ULTRAMODERNE

Kennedy Plaza: Accent Lighting Overview









Tree Lighting



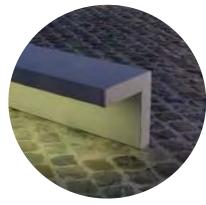
Pergola / Structure Lighting



Monument Lighting



Bus Stop Lighting



Integrated Furniture Lighting

Kennedy Plaza: Bus Stop Lighting

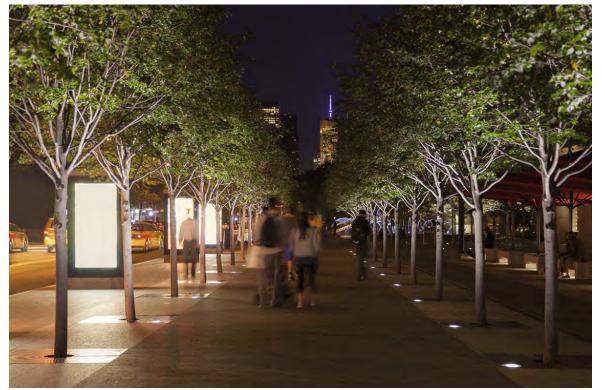






There will be 6
Existing Bus Stop
Structures that will
be relocated around
Greater Kennedy
Plaza. The new
locations are
indicated with red
circles. Bus stop
lighting to be
investigated further
as the design
progresses.

Kennedy Plaza: Tree Lighting







Tree Uplighting (E12 Type)

- Creates columns of light
- Accent texture and shape of tree
- Draws the eye up

At walkway areas



Alternate Approach: Tree Downlighting aka "Moonlighting"

- Creates dramatic effect
- Adds texture to ground
- Draws the eye down

At gathering areas

To be investigated further as the design progresses.

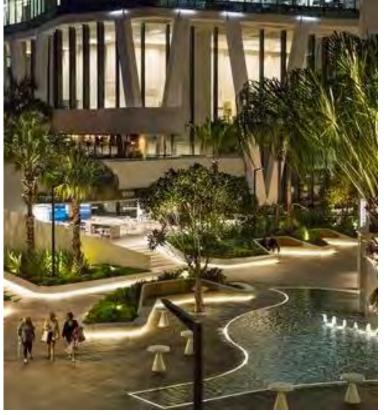
Kennedy Plaza: Integrated Furniture Lighting







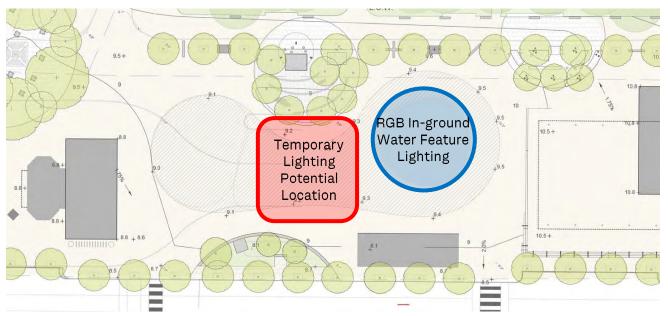






E08 Type: Wet listed Tape Light

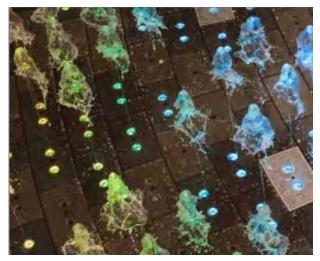
Kennedy Plaza: Splash Park / Ice Rink Lighting





Lighting applicable for both Water Feature and Ice Rink:

- RGB In-ground lighting within Island
- Technical Infrastructure for lighting of art installations, events, catenary lighting.







Waterplace Park Basin: Signature District Light Element Locations

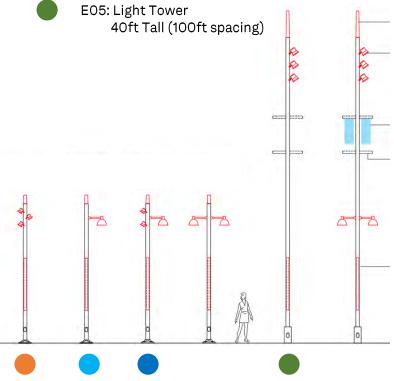


E01: Pedestrian Pole with Adjustable Flood Lights 15ft Tall (50-60ft spacing)

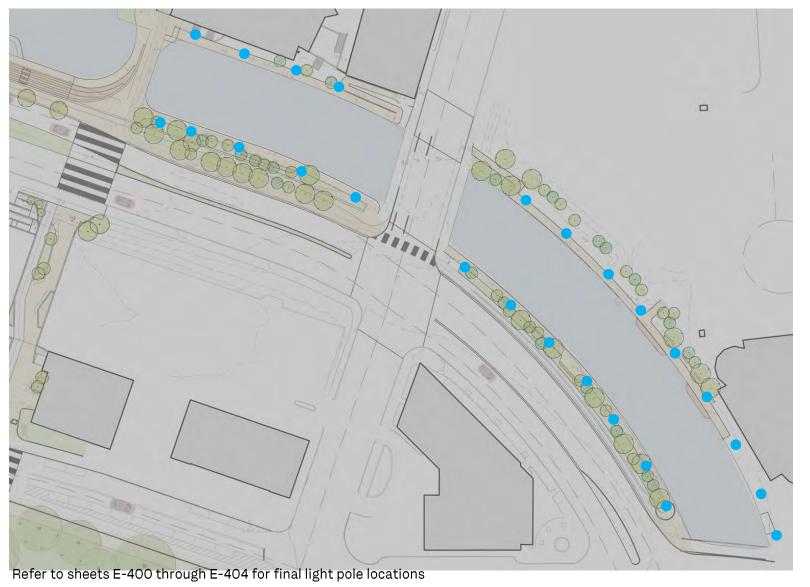
E02: Pedestrian Pole with a Pathway Luminaire 15ft Tall (65-70ft spacing)

E03: Pedestrian Pole with Pathway and Adjustable Floods

15ft Tall (65-70ft spacing)



Riverwalk: Signature District Light Element Locations



E01: Pedestrian Pole with Adjustable Flood Lights 15ft Tall (50-60ft spacing) E02: Pedestrian Pole with a Pathway Luminaire

15ft Tall (65-70ft spacing)

E03: Pedestrian Pole with Pathway and Adjustable Floods

15ft Tall (65-70ft spacing) E05: Light Tower 40ft Tall (100ft spacing)

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Waterplace Park Basin / Riverwalk: Accent Lighting Overview









Integrated Furniture Lighting Integrated Handrail Lighting

Mist Lighting

Accent Lighting Areas:

- 1. Mist Structure
- 2. Bridge Walkways
- 3. Amphitheater & Walkways

- Feature color-changing lighting for signature water structure using low- and high-level flood lights mounted at the Riverwalk and poles to reveal mist.
- Accent lighting at amphitheater seating.
- Integrated handrail lighting at Bridge walkways and overlook areas.
- Pedestrian Pole Lights for safe, evenly illuminated areas with soft uniform lighting.

Waterplace Park Basin/Riverwalk: Accent Lighting







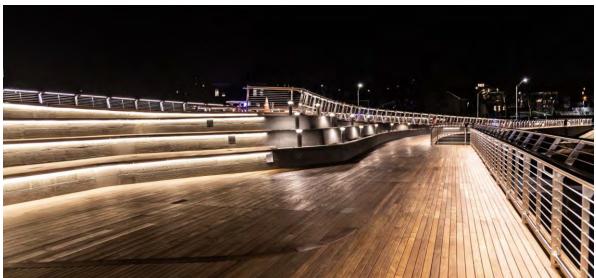
Accent Lighting Areas:

- 1. Mist Structure
- 2. Bridge Walkways
- 3. Amphitheater & Walkways

- Feature color-changing lighting for signature water structure using low- and high-level flood lights mounted at the Riverwalk and poles to reveal mist.
- Promote thought and curiosity and create a signature identity that attracts visitors.

Community Lighting: Waterplace Park Basin/Riverwalk







Accent Lighting Areas:

- 1. Mist Structure
- 2. Bridge Walkways
- 3. Amphitheater & Walkways

- Accent lighting at amphitheater seating.
- Safe, evenly illuminated areas with soft uniform lighting.
- Integrated handrail lighting at Bridge walkways and overlook areas.

Community Lighting: Waterplace Park Basin/Riverwalk







Accent Lighting Areas:

- 1. Mist Structure
- 2. Bridge Walkways
- 3. Amphitheater & Walkways

- Accent lighting at amphitheater seating.
- Safe, evenly illuminated areas with soft uniform lighting.
- Integrated handrail lighting at Bridge walkways and overlook areas.

Connector Bridge: Lighting Overview

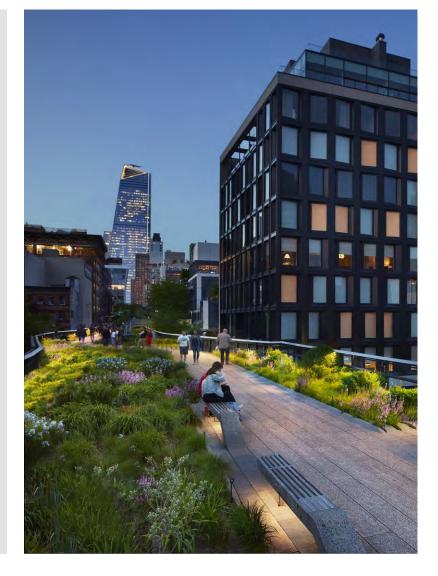


Refer to sheets E-400 through E-404 for final light pole locations 186

Fixture Types:

- E01: Pedestrian Pole with Adjustable Flood Lights 15ft Tall (50-60ft spacing)
- E08: Urban Furniture Lighting
- E11: Integrated Handrail Lighting
- E12: Tree Lighting

- Create a safe cycle and pedestrian routes to encourage activity with pedestrian poles.
- Create a visual and comfortable experience that attracts visitors by providing low-level integrated lighting at benches, handrail lights and tree uplights.



Lighting Design Criteria

The lighting for the site is required to achieve the following design criteria:

- Meet all necessary code requirements
- Provide a safe nighttime environment
- Provide moments of escape and enjoyment

The following section provides an overview of the specific design parameters necessary to meet the above stated goals. The lighting design criteria values were taken form the IES Lighting Handbook, 10th Edition, as well as other IESNA resources.

IESNA Recommended Practice Resources:

- IESNA G-1-16: Security Lighting
- IESNA RP-33-14: Exterior Lighting
- IESNA RP-8-14: Roadway Lighting
- IESNA RP-6-20: Lighting Sports & Recreational Areas

Description	Criteria	Reference
Mixed Vehicles and Pedestrian	1 FC (min) 2 FC (ave)	IESNA RP-8-14
Sidewalks & Footpaths	1.0 FC (min) 4:1 ave/min	IESNA Handbook 10 th Edition, Paths to Curb LZ3
Outdoor Stairs	2.0 FC (min) 3:1 ave/min	IESNA RP-33-14; IESNA Handbook 10 th Edition, Path to Curb High Activity LZ3
Public Plaza areas, Gathering likely	1.0 FC (min) 4:1 ave/min	IESNA G-1-16, Section 8.2.16
Facial Identification	0.5 – 0.8 FC (vertical) 4:1 ave/min	IESNA G-1-16, Table 1
Ice Skating Poles should be a min. 39ft tall	20FC @ 0ft (horizontal) 4:1 max/min	IESNA RP-6-20 Lighting Sports and Recreational Areas
Basketball 4-pole layout 25ft min.	20 FC @3ft (horizontal) 4:1 max/min	IESNA RP-6-20 Lighting Sports and Recreational Areas
Skate Parks Poles should be a min. 20ft min.	20FC @3ft (horizontal) 3:1 max/min	IESNA RP-6-20 Lighting Sports and Recreational Areas

Lighting Color Quality & Light Control

Light Color Quality Summary

Lighting Quality is a critical consideration in effective lighting design and energy savings. We recommend for the specification of LED light sources with:

- 80+ Color Rendering Index (CRI)
- White Light Color Temperature: 3000K
- RGB Color Feature for specific lighting elements

Lighting Control Summary

The project will include a "Smart Cities" solution.

Wireless lighting control will be provided to the light poles or to the cabinet as applicable. The project will be provided with a wireless web-based CMS (Central Management System). Establishing a wireless infrastructure network for the lighting control will provide a platform for hosting future smart IoT systems.

To help achieve energy reduction and differentiate the lighting needs throughout the year and seasons, we will provide dimmable lighting control. The lighting control system will be configured to dim the lighting or alter the color of accent lighting for special events such as the WaterFire, and when temporary event lighting is installed.

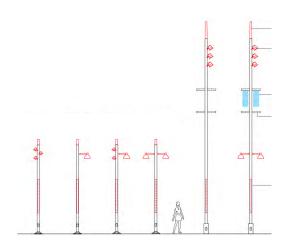
The CMS system will provide a graphical display of the new light fixtures and provide data reporting such as, fixture on/off status, energy consumption, maintenance schedule and functional status. This will provide the city with alerts when fixtures are faulty/damaged, confirmation that they are off during the day, when fixture maintenance is required and data on real time and annual energy consumption.

Temporary event lighting will operate independently and will be provided with power only.



Summary of Control Types

Individual Wireless



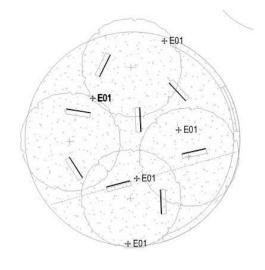
Fixture types E01 - E06

Pole fixtures will be fitted with a wireless "node" to provide smart digital lighting control for white light.

Fixtures provided with dimming + RGB color control.

Separate control of street/path lighting, integrated pole lighting and area flood lighting. DMX circuit for accent/RGB control.

Grouped Wireless



Fixture types E07 - E11

Accent light fixtures will connect to local lighting control panels, controlled in groups per area.

Fixtures provided with dimming control with remote drivers located at the electrical distribution panel.

Wireless control provided to the panel for centralized control.

Individual Wired

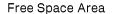


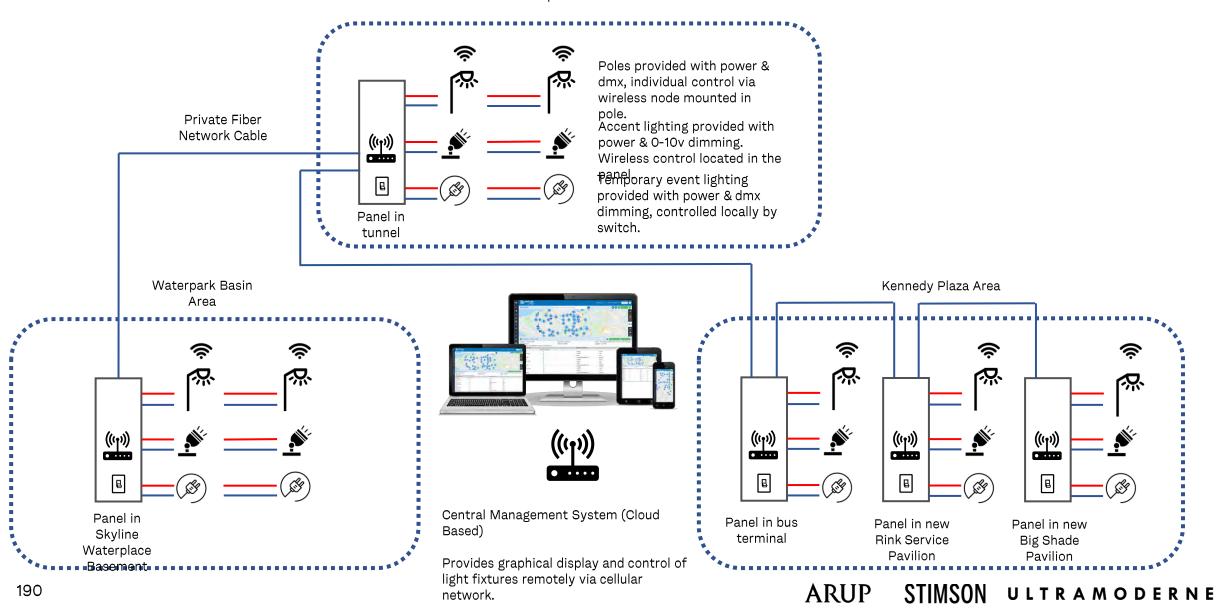
Temporary Event Lighting

Secured receptacles installed in bollards to provide 120V power and DMX dimming for temporary event lighting.

Local switches provided at the electrical distribution panel to allow control.

Lighting Control Strategy





Lighting Control Sequence of Operations

Fixture Type	Area	Control Zones	ON	Adjust	OFF	Sensors/Interfaces
E01 Pole with: Floodlights Decorative element	Free Space Area, Kennedy Plaza, Water place park	1 – Floodlights 2 – Decorative	Auto ON.	Dimming Set Points: Sunset: ON 100% Midnight: ON 50% Morning: ON 100% Sunrise: OFF Zone 2: Normal Scene: Blue light Event 1: Red Light Event 2: Green Light	Auto OFF.	Wireless CMS Node at pole. DMX control cable.
E02 / E04 Pole with: Street/Path light Decorative element	Baltimore Park, Burnside Park, Riverside Walk	1 – Streetlight 2 – Decorative	Auto ON.	Dimming Set Points: As E01	Auto OFF.	Wireless CMS Node at pole. DMX Control cable.
E03 Pole with: Street/Path light Floodlights Decorative element	Riverside Walk	1 – Streetlight2 – Floodlights3 – Decorative	Auto ON.	Dimming Set Points: As E01	Auto OFF.	Wireless CMS Node at pole. DMX Control cable.
E05 Tower with: Floodlights Decorative element	Kennedy Plaza	1 – Floodlights 2 – Decorative	Auto ON.	Dimming Set Points: As E01	Auto OFF.	Wireless CMS Node at pole. DMX Control cable.
E06 Tower with: Street light Floodlights Decorative element	Kennedy Plaza	1 – Streetlight 2 – Floodlights 3 – Decorative	Auto ON.	Dimming Set Points: As E01	Auto OFF.	Wireless CMS Node at pole. DMX Control cable.

Lighting Control Sequence of Operations

Fixture Type	Area	Control Zones	ON	Adjust	OFF	Sensors/Interfaces
E07 – Uplights	Kennedy Plaza / Island Zones	1 Zone per 10 fixtures.	Auto ON.	Dimming Set Points: Sunset: ON 100% Midnight: OFF	Auto OFF.	Wireless CMS control at panel.
E08 – Furniture tape light	Kennedy Plaza / Island Zones, Water place park	1 Zone per 40 linear feet.	Auto ON.	Dimming Set Points: Sunset: ON 100% Midnight: OFF	Auto OFF.	Wireless CMS control at panel.
E09 – Canopy Cylinders	Kennedy Plaza / Island zones	1 Zone per 10 fixtures.	Auto ON.	Dimming Set Points: Sunset: ON 100% Midnight: ON 50% Morning: ON 100% Sunrise: OFF	Auto OFF.	Wireless CMS control at panel.
E10 – Catenary Lighting	Kennedy Plaza / Ice rink / Island zones	1 Zone per 10 fixtures.	Auto ON.	Dimming Set Points: Sunset: ON 100% Midnight: ON 50% Morning: ON 100% Sunrise: OFF	Auto OFF.	Wireless CMS control at panel.
E11 – Handrail Lighting	Kennedy Plaza / Island zones, Water place park	1 Zone per 40 linear feet.	Auto ON.	Dimming Set Points: Sunset: ON 100% Midnight: ON 50% Morning: ON 100% Sunrise: OFF	Auto OFF.	Wireless CMS control at panel.
EXX – Temporary Lighting	Kennedy Plaza / Ice Rink / Big Shade, Water place park basin	Excluded	Manual ON.	Adjustment by others.	Manual OFF.	Local switch at panel. DMX Control cable.

Light Fixture Schedule

			Lighting	Fixture Schedule			
Tag	Description	Wattage	Manufacturer	Model	Voltage	Light Color	Notes
	Les poor with an increase size of	Lo o vivinen	lne o o	Tarana.	lo==	I0000 1/	Innoversity not a se
E01	15' POST WITH (4) ADJUSTABLE FLOOD LIGHTS	FLOODLIGHT	BEGA	77705	277 V	3000 K	PROVIDE WITH POLE P1.
E02	15' POST WITH (1) PATHWAY LUMINAIRE	57 W	LOUIS POULSEN	LP ICON MINI OPAL POST	277 V	3000 K	PROVIDE WITH POLE P1.
E03	15' POST WITH ADJUSTABLE FLOOD LIGHTS AND A PATHWAY LUMINAIRE	19.2 W PER FLOODLIGHT / 57 W PER PATHWAY LUM.	BEGA / LOUIS POULSEN	77705 / LP ICON MINI OPAL POST	277 V	3000 K	PROVIDE WITH POLE P1.
E04	15' POST WITH (2) TWIN PATHWAY LUMINAIRES	57 W PER PATHWAY LUM.	LOUIS POULSEN	LP ICON MINI OPAL POST	277 V	3000 K	PROVIDE WITH POLE P1.
E05	40' POST WITH (4) ADJUSTABLE FLOOD LIGHTS	303 W PER FLOODLIGHT	BEGA	84 522	277 V	3000 K	PROVIDE WITH POLE P2.
E07	INGRADE RGBW UPLIGHT	35 W	B-K LIGHTING	HP2 COLOR TUNING	277 V	RGBW	
E08	TAPE LIGHT	4.3 W/FT	BEULUX	FLORENCE LED	277 V	3000 K	
E09	CYLINDER DOWNLIGHTS	21 W	B-K LIGHTING	CATSKILL INTEGRAL	277 V	3000 K	CYLINDER DOWNLIGHT INTEGRATED TO SHADE STRUCTURE AND PERGOLA.
E10	SURFACE MOUNTED LINEAR	7.6 W/FT	LEDLINEAR	ADONIS	277 V	3000 K	
E11	INTEGRATED HANDRAIL LIGHTING	2 W/FT	KLIK USA	LEDPOD 40	277 V	3000 K	
E12	INGRADE LED FIXTURE FOR TREE UPLIGHTING	3 W	TARGETTI	JUPITER MINI	277 V	3000 K	
E13	CATENARY CYLINDER LUMINAIRE	35.7 W	BEGA	84405	277 V	3000 K	
E14	LED PANEL CABLE MOUNT		GVA LIGHTING	HL-BLADE	277 V	RGBW	
E15	INGRADE FLOODLIGHT FOR STATUE LIGHTING	20 W	B-K LIGHTING	DENALI REMOTE	277 V	3000 K	CONTRACTOR TO PROVIDE REMOTE POWER SUPPLY AND COORDINATE ALL ACCESSORIES.
EA	EXISTING LIGHT POLE - ACORN STYLE	TBD	TBD	TBD	277 V	TBD	
EF	EXISTING LIGHT POLE WITH FLOOD LIGHTS	TBD	TBD	TBD	277 V	TBD	
EM	EXISTING LIGHT POLE - MARINE STYLE	TBD	TBD	TBD	277 V	TBD	
P1	15' CUSTOM POLE WITH INTEGRAL RGB FEATURE LIGHTING AND DMX CONTROL.	30 W	TECHNILUM	CUSTOM	277 ∨	RGB	CUSTOM POLE WITH RGB BEACON LIGHT AT TOP OF POLE AND DECORATIVE PERFORATED PATTERN WITH INTERNAL LIGHT MID SECTION. PROVIDE WITH MOUNTING HARDWARE FOR THEATRICAL LIGHTING EQUIPMENT MOUNTING. PROVIDE POWER AND CONNECTION FOR AV, SECUIRTY, AND OTHER ACCESSORIES AS REQUIRED.
P2	40' CUSTOM POST	50 W	TECHNILUM	сиѕтом	277 ∨	RGB	CUSTOM POLE WITH RGB BEACON LIGHT AT TOP OF POLE AND DECORATIVE PERFORATED PATTERN WITH INTERNAL LIGHT MID SECTION. PROVIDE WITH MOUNTING HARDWARE FOR THEATRICAL LIGHTING EQUIPMENT MOUNTING. PROVIDE POWER AND CONNECTION FOR AV, SECUIRTY, AND OTHER ACCESS

Revised: 4/19/2023

BOARD OF CONTRACT AND SUPPLY CITY OF PROVIDENCE, RHODE ISLAND

APPENDIX B—1998 Illuminate Providence Study



List of Contributors

City of Providence

The Providence Foundation

The Providence Journal Company

Textron

Narragansett Electric

BankBoston

Fleet Financial Group

Rhode Island State Council on the Arts

ADDD Fund at Rhode Island Foundation

Bliss Properties

Brown, Rudnick, Freed and Gesmer

© 1998 Hogan/Macaulay Architects

The City of Providence is very pleased to co-sponsor *Illuminate Providence*, a study that illustrates the potential of proper lighting for Downtown. We have reviewed similar projects in other urban centers, particularly European cities, and we find that a comprehensive lighting plan can enhance tourism and boost the economy. By redefining the image of Downtown Providence at night, and revealing its special character, we can draw more people Downtown and keep them coming back.

I strongly encourage all property owners to review this report and join this cooperative effort to Illuminate Providence. With the principles and guidelines of this excellent document as our guide, we can transform Downtown. The City, too, will review its own lighting responsibilities to determine what improvements we can make.

I congratulate the architectural firm of Hogan/Macaulay for their fine work on this project, and also commend the Providence Department of Planning and Development, the Providence Foundation, and the many corporate sponsors who have helped make this report possible. Together, we can Illuminate Providence, shining a spotlight on one of America's most attractive and liveable cities.

Sincerely,

Vincent A. Ciana, Jr.

Mayor, City of Providence

As one of the oldest American cities, Providence has a rich architectural and cultural heritage dating back more than 300 years. Much of this history has been retained in our buildings. We are now in the midst of ambitious plans for redevelopment.

Our city's beauty, apparent in daylight, can be transformed into a nighttime experience that is unique, comforting, alluring, and welcoming.

Following the example of European cities such as Paris and Lyon, we are presenting a master plan for our city: *Illuminate Providence*.

We are proud to sponsor this report in partnership with the City of Providence. We believe this study will excite everyone's imagination as to what our city can be at night. We hope and expect that this lighting plan will be embraced by all downtown property owners.

Our community needs a collective effort in which property owners contribute to our city by lighting their buildings in accordance with suggestions of this very fine study.

Sincerely yours, James R. Winsker

James R. Winoker

Chairman, The Providence Foundation

Illuminate Providence

presented by Robert Hogan + Barbara Macaulay Hogan/Macaulay Architects, Providence, RI



Light translates the night

THE ALLURE OF LIGHT

A nighttime skyline begins its seduction from afar

LIGHT'S AMBIANCE

An invitation to a city's splendor

TRANSFORMATION THROUGH LIGHT

Light's transformation lets a city's renaissance begin

A POSSIBLE PROVIDENCE

A vision in light

why

where

Point to point, around the world, light gives us our cities at night. Light revitalizes—more beautifully and economically than any other means. *Illuminate Providence* is a project that spotlights a long-term vision of our city at night. Our gateways, civic spaces, hotspots, and historic places are the art we wish to showcase through a comprehensive lighting plan that ignites the richness of Providence and allows our city to shine.

Nighttime becomes you

KENNEDY PLAZA

Key Initiatives: Celebration Lighting Park Lighting Building Illumination

FINANCIAL DISTRICT

Key Initiatives: Pedestrian Lighting Architectural Illumination Skyline Lighting

ARTS & ENTERTAINMENT

Key Initiatives: Trinity Repertory Theater Convention Center/Civic Center Complex Veterans Memorial Auditorium Providence Performing Arts Center

THE RIVER CORRIDOR

Key Initiatives: Ghost Waterfront Riverlights Steel and Light: An Industrial Sculpture Park

Illuminate Providence



Garmented in light

STOREFRONTS, CHURCHES & STREETS

Things We Can Do Now Estimated Costs

BUILDING FACADES

Things We Can Do Now Estimated Costs

what

A theater of light

THE LIGHTING ENVIRONMENT

Light and Vision: Nighttime Visibility Controlling Glare Lighting Uniformity Color Rendering Metal Halide vs. High Pressure Sodium

LIGHTING RECOMMENDATIONS

Street and Public Space Security, Parking Facilities, and Signs

REGULATION & REVIEW

Permits
Design Review Criteria
General Requirements
Open Parking Lots
Enclosed Parking Structures
Security Lighting
Building Facades and Roofs
Illuminated Signs

how

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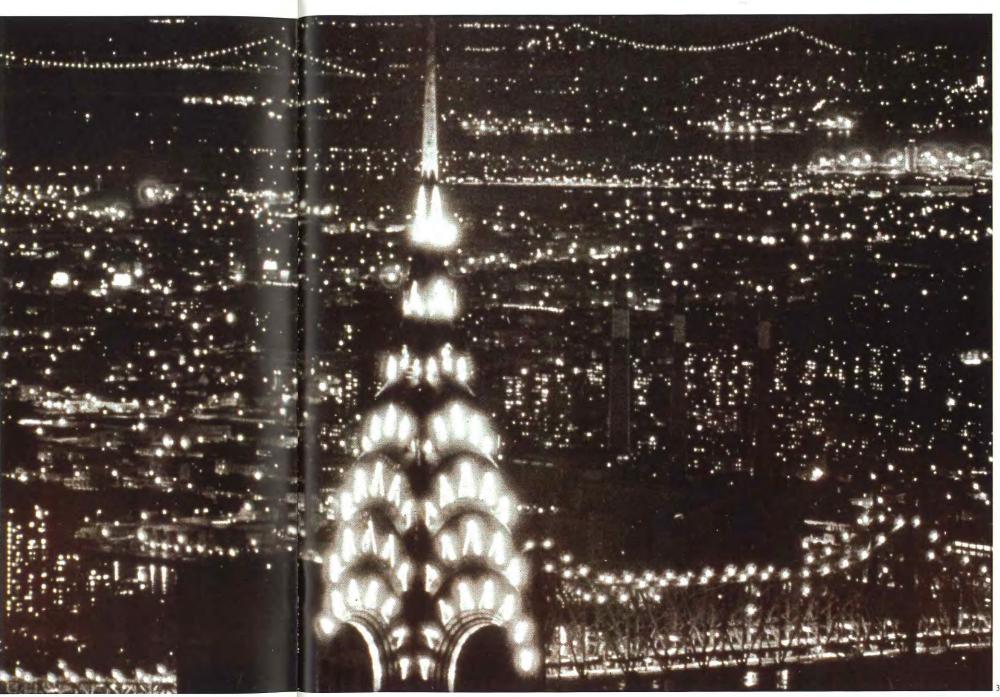
n in liaht

translate the night allure of light

City lights. At night, from a distance, they beckon. Their brilliance is a beacon, signaling your arrival. Lights reveal the contours of a cityscape, trace the reaching arms of rivers, celebrate monuments, illuminate pulse and mood.

At night, a city is a new place, its image more expressive, mysterious, full of possibilities.

City lights seduce, invite, entice.

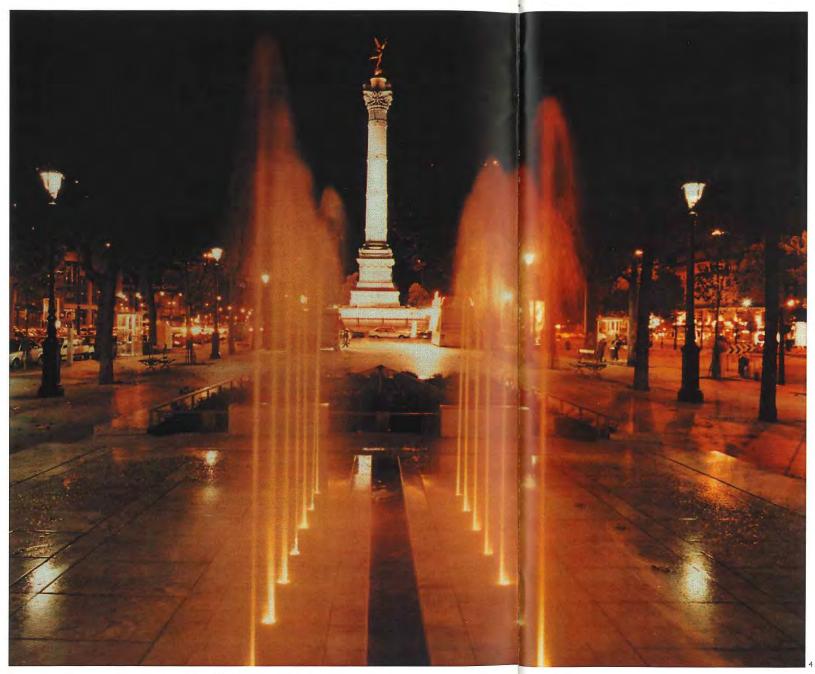


CHRYSLER BUILDING, NEW YORK CITY: A skyscraper's spire becomes an icon of the city, a crown of lights.

Spotlight on Milwaukee, WI Since the city began its lighting mark buildings, seven bridges,

program, 33 landnumerous major avenues, monuments, and parks are being transformed. "What impresses me now," says Jim Kaminski, city commissioner of public works, "is seeing people back on the streets. It wasn't always like that." Where commerce once stopped at six o'clock, the community now flocks to shops, restaurants, and performing arts venues. Entrepreneurship is on the rise, and the public is responding. Arts and entertainment options have expanded, and attendance is up. Nighttime in the city, says the Performing Arts Center's Dick Hecht, is "just booming."

light's ambiance



BOULEVARD RICHARD LENOIR, PARIS: A luminous center-city plaza invites promenade.

Light gives us mood and feeling. It greets us, embraces us, welcomes us home. Newly illumined, civic spaces become outdoor rooms, streets become corridors to adventure.

Accompanied by light, we feel safe. The night's dark corners become known. And we ourselves are changed, seeing a city's splendor as if for the first time.



Radiant icons An illuminated Fleet Tower and Shepard's sign become nighttime symbols of the city. With these lighted icons to urge us on, we can venture down the narrow streets of this eminently knowable city, so rich in architectural heritage.

Like all transformation, lighting is magic: It can emphasize, obscure, and even erase. A city at night is a stageset in the theater of urban life. Plazas pulse with energy. Riverfronts shimmer. With lighting to enhance reality, whole districts can be transformed. A city at night becomes a brilliant theater of light.



The Tower of Winds | Yokohama, Japan

Industrial Sculptures

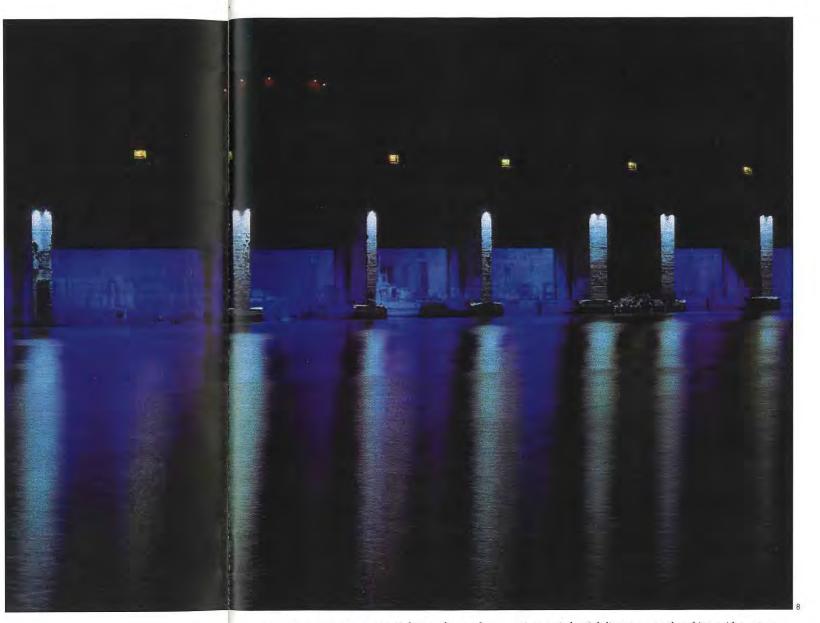
A concrete water tower is sheathed in a changing veil of lights that responds to shifts in wind velocity and direction, the passage of time, and surrounding noise.



Night Cranes | St. Nazaire, France

Light and color create an industrial discovery zone that shines with mystery. Providence, too, features industrial structures with sculptural potential: bridges, power stations, electrical towers, the Hurricane Barrier.

transformation through light



ST. NAZAIRE, FRANCE: Light transforms a busy port into an industrial discovery zone that shines with mystery.

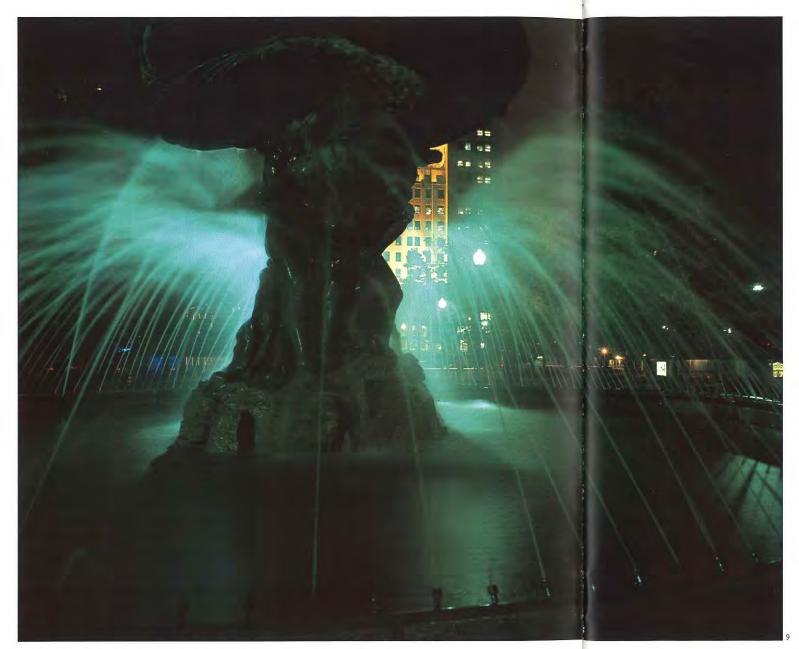
Spotlight on Detroit, MI

This city's transformation began with a single landmark: Ambassador Bridge. Several other lighting projects followed, culminating in a master plan that has changed the look and feel of the downtown cityscape. But beauty is just one benefit, says the Central **Business District** Organization, whose fund-raising efforts initiated the project. This quick, costeffective way to keep people downtown after dark also fueled regeneration, increasing activity and creating a safer environment. This new sense of safety brought still more foot traffic, leading to measurable business growth: One merchant credits relighting his building with a threefold increase in sales.

translate the night Possible Providence

Spotlight on Normandy, France

Daytime in the French countryside is an obvious tourist draw. But luring visitors to Normandy's quaint villages at night was a challenge. In the late 1980s, the region began a renaissance, illuminating the churches, manor houses, farms, and castles that dot the landscape. Guided tours on summer evenings, concerts, and other special events make the most of this new light. The result? A more beautiful rural nightscape, and a 100 percent increase in visitors to the area.



BAJNOTTI FOUNTAIN: A romantic fountain in Burnside Park awaits rediscovery.

Illuminate Providence will transform lighting from obstacle to advantage. Linking the riverfront to Downtown's arts and entertainment district, this project highlights the city's key cultural, historic, and civic areas. In a theatrical atmosphere of discovery, storefronts and building facades will attract visitors and welcome pedestrians to a safe, enlivening destination. In this revitalized setting, Providence can celebrate its artistic and historic wealth through ongoing festivals and events.



Rivers of light

Barnaby Evans' "WaterFire" has already become part of our city's identity.



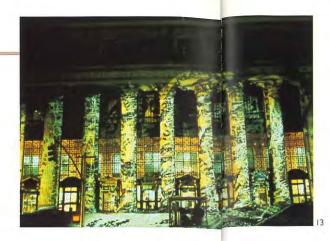
University Lumière | Lyon, France

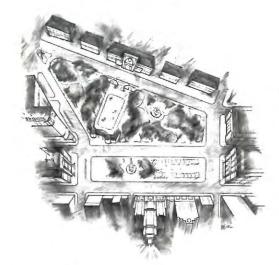
"Lighting sets the city scene," says Herbert Chabert, deputy mayor of Lyon, France, which hosts its own Feast of Light.

initiatives

Celebration Lighting

Temporary lighting installations give life to special events. "First Night/ Liquid Light" could showcase the Plaza's Federal Courthouse for First Night 2000, washing its facade with layers of evocative projected images, using architecture as a giant-scale canvas. Right: New York City Post Office lit for a gala.





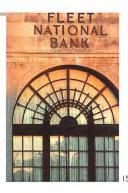
Park Lighting

Glare-free lighting along park pathways can enhance security even as it promotes a romantic ambiance. "Moonlighting" seeps through trees and subtly spotlights sculptures and fountains. Lighting can link the park and Waterplace through the Union Station complex. Right: Sparkling trees cast a spell on Kennedy Plaza.



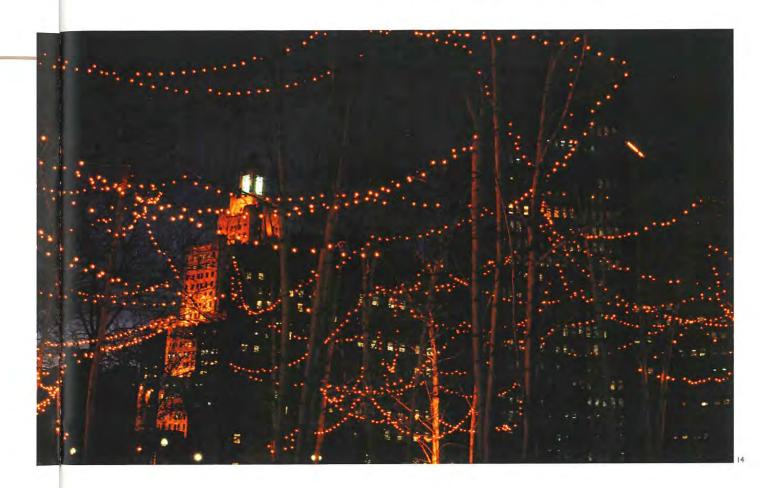
Building Illumination

Once lit, Kennedy Plaza's dramatic and varied architectural features become important focal points. Like mammoth sculptures, they can create a vital, dynamic interchange—the beaux-arts Federal Building and its opposing partner, City Hall, Union Station as a backdrop to the mobilelike movement of ice skaters, the activating warmth of a lighted pedestrian zone. Left: Boston's New England Telephone Building awash in light.



Bordered by buildings of a grand civic scale,
Kennedy Plaza is our city's living room.

Illuminate Providence will infuse the Kennedy Plaza
nightscape with a sense of elegance, liveliness,
and discovery. The magic of light can transform the
views of Providence, setting the stage for a gracious
welcome into our city's vital hub. Pedestrians can
admire the architectural splendor, revel in the romance
of a reborn Burnside Park, and enjoy special events
that feature this rich theatrical backdrop.







Architectural Illumination

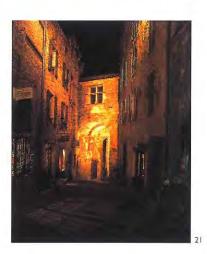
When buried architectural treasure is uncovered through lighting, unforget-table discoveries result. Creating a walk of discovery along the curve of Weybosset Street, through the historic Arcade, past BankBoston's captivating new plaza, and back to the Turks Head will spark renewed appreciation for our architectural treasures. Left: The Turks Head marks the beginning of Weybosset Street. Right: Sculptural details on Grand Central Station, New York City:

initiatives -

Pedestrian Lighting

Foot traffic increases when light promotes nocturnal sightseeing and safety. Aerial light banners can mark key intersections. At street level, the Financial District's extraordinary facades and meandering sidestreets become studies in detail. Framed in light, narrow lanes become pathways through history. New spaces, images, and sensations can arise from projects such as "Altered Visions," which will transform the landscape with found spaces and unexpected art. Upper right: An aerial light banner celebrates an intersection. Lower right: In Cordes, France, illuminated arches call to visitors.





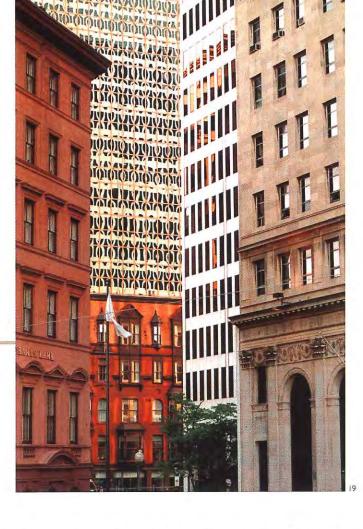


Skyline Lighting

Seen from a distance, a light-studded nighttime skyline signals vibrancy and promise. With cornices awash in light, Downtown's riverfront structures can become a congregation of ships' prows, a reference to history. The Textron Building's slotted tower can emit a blue glow of mystery. Thus transformed, the district becomes a focal point from the interstate overpass and from the river, creating a skyline identifier that says Providence.

Right: A sample of the Financial District's architectural textures.





From Providence's early days, this area has thrived as a gateway for trade. The spokes of the Financial District radiate as narrow streets that once ended in wharves. Its massive buildings' sudden compressive power symbolizes this vibrant commercial center, while in the distance, the East Side's spires, domes, and treed hills catch the eye. Illuminate Providence will celebrate this area's wonderful textures and draw pedestrians from the river park to the glittering heart of the city.

Financial District

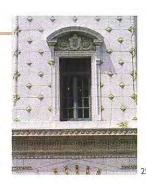
initiatives -

Veterans Memorial Auditorium

From I-95, an illuminated sculptural installation called "Vets on the Highway" will provide VMA with a much-needed identifier. The new shopping mall and the Masonic Temple's planned conversion to a hotel are an opportunity to create a hotspot of urban activity that integrates this area with the rest of downtown. Right: "Falling Man," a temporary installation at the RISD riverwalk.

Trinity Repertory Theater

Showcasing Trinity's ornate white terracotta facade and its less elaborate neighbor, the Packard Building, now being developed as an upscale restaurant, can transform this area into a brilliant Western gateway to the arts and entertainment district. Right: An architectural detail from Trinity's facade.



Convention Center/ Civic Center Complex

With its transparent public galleries and neon canopies, the Convention Center is one of downtown's most striking buildings. Yet it lacks strong links to its district. An illuminated plaza extending Mathewson Street could forge this connection, providing a direct path to the new Cinema site and on to PPAC, which anchors the opposite end. Illuminate Providence can create an inviting gateway to the arts for the Convention Center, hotels, and the mall. Right: A scene from First Night Providence.



Providence Performing Arts Center

This essential venue can become the anchor of a graciously highlighted cosmopolitan zone that welcomes large audiences to Weybosset Street, setting the scene for a Downtown evening. Right: Lighting creates an urban forecourt at Place du Tertre, Paris.





Our arts and entertainment district is not a distinct location, but a number of elements woven into the downtown fabric. These elements—the Providence Performing Arts Center (PPAC), Trinity Repertory Theater, the Convention Center/Civic Center complex, Veterans Memorial Auditorium (VMA), and our many clubs and performance spaces—are the foundation for nighttime activity in the city. These lighted destinations can draw people from place to place throughout downtown. Illuminate Providence can reinforce strong individual identities in areas where cafés, bookstores, and galleries will cluster, building our cultural identity and promoting economic growth.

Arts & Entertainment

initiatives -

Ghost Waterfront

Calling up the rich history of this port city, fiber-optic paving lights can trace the natural shoreline of earlier times.

Pedestrians can explore this map of the river's changing course, trekking through time in the heart of Downtown.



Riverlights

This installation of light and sound can evoke the spirit of WaterFire year-round. As an illuminated gateway, the Crawford Street Bridge reflects streamers of light downriver. The Riverwalk bridges glow blue from beneath, each with a subtle sound component. A blue glow also marks the arched underpass from Waterplace to Old Union Station, inviting visitors through to the Kennedy Plaza skating rink. Left: Conservatory of Music, Lyon, France. Right: Lechmere Viaduct, Boston.

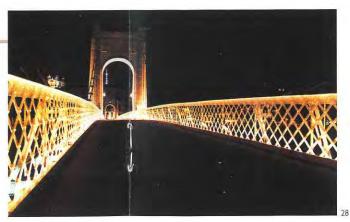


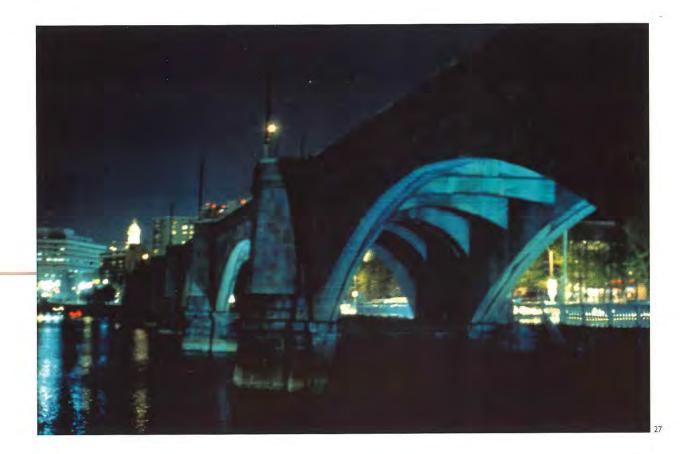
Steel and Light: An Industrial Sculpture Park

A unique concentration of light and color to cast the old harbor's industrial structures as giant sculptures.

Narragansett Electric's glowing arched windows. The Point Street Bridge's musculature draped in light. Towering steel pylons lit against the night sky.

Light beams shooting up through the Hurricane Barrier's splayed steel bracings, visible on misty nights. Left: An artist's sketch of possible lighting for the Hurricane Barrier. Right: Footbridge du Collège, Lyon, France.





A central feature in our city's rebirth, the river is a confluence point for art, commerce, and academe. Riverside walkways, pedestrian bridges, and adjacent parks welcome foot traffic to this vital artery. Embracing Downtown, the river corridor links it to the residential East Side and Capitol Hill. Illuminate Providence will enhance this area's nighttime ambiance, creating a mesmerizing romantic experience. Flowing downriver, a series of lighting installations can offer a sequential experience that draws people downriver from one visual event to another.

the River Corridor

things we can do now



Church Spires

Some of our most significant and stately buildings are churches, a key part of our architectural heritage. Their various spires punctuate the skyline, both within the downtown and on the surrounding hills, marking Providence as a city of churches. Illuminating these landmarks is a beautiful, effective (and relatively easy) way to celebrate our history and enhance our city.

Stained Glass

During the day, brilliantly crafted windows stain church interiors with color. At night, illuminated from within, they become kaleidoscopes of colored light in the city's nightscape. Stained glass can be lit very simply and inexpensively.

Storefront Lighting

To make our streets more friendly and inviting right away, the most effective strategy is to light up display windows, building entrances, and upper-story windows. Without storefront lighting, our streets appear abandoned and dangerous. A street with light spilling from storefronts encourages people to walk from place to place (and is nearly free advertising). A small amount of light in building entrances eliminates dark, threatening places, and a little sparkle from upper-story windows helps animate the street. Left: Helianthus, a Wickenden Street shop, encourages nighttime window shopping.

estimated costs

Storefront lighting for after business hours can be effective with as few as one or two economical fixtures. For a single 16-foot-wide display window, lighting can be installed at costs from \$150 to \$1,500, depending on the complexity. Operating costs, billed at the lower evening rates, can range from \$30 to \$250 per year, and can be even lower if a timer is used to control the system from dusk until midnight or 1 a.m.

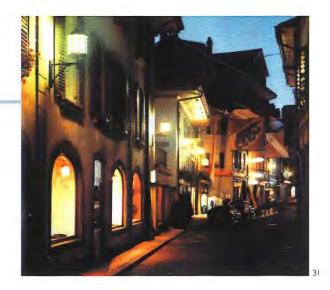
storefronts, churches & streets

Street Lighting

Upgrading the quality and consistency of downtown street lighting is of vital importance. Consistent use of white, full-spectrum lighting, with reduction of glare and a closer balance of brightness from street to street, would greatly improve Downtown's atmosphere and visibility. Right: Pleasant street lighting and illuminated display windows welcome visitors to a street in Thune, Switzerland.

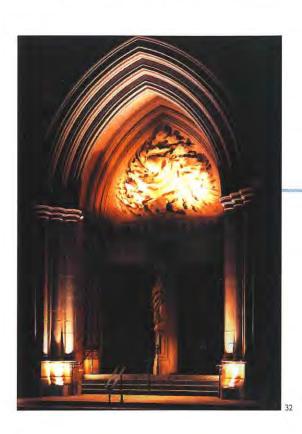
Security lighting glare

Security lighting in several locations downtown is placed so that glare from high-intensity lamps is aimed out into the streets. Property owners should be encouraged to re-aim, shield, or relocate lighting to eliminate glare and improve their neighborhood's ambiance.



In some parts of Providence, the nighttime transformation is already under way. RISD's riverfront buildings are now alive with light. The Grace Church spire has become a lighted focal point at Downtown's center. To make meaningful change in our city's nighttime image, however, there is still much to do. Together, city government and building and business owners can Illuminate Providence.

things we can do now



Design Considerations

Important factors to consider in facade lighting include the material, color, texture, and details of the building, as well as how it is viewed in the city. Careful lighting placement and control give features shape and depth, show them in silhouette, or, with the absence of light, erase them. The angle of light can emphasize texture, or make surfaces appear smooth and even. The coloration of light can give a material such as brick a warm appearance, or make it appear lifeless and gray.

A designer experienced in lighting is invaluable in developing an appropriate concept, and selecting the type, coloration, spread, and brightness of illumination. And fixture manufacturers provide computerized analysis that is an indispensable tool for achieving desired lighting effects.

Cross Lighting

With the tightly built streets of much of Downtown, mounting fixtures on facing buildings or existing light poles broadens the possibilities for lighting facades. "Cross lighting" permits more subtle, diffuse lighting than more closely mounted fixtures do. Currently, several buildings on Westminster Street are cross lit, but in a flat, even way that does little more than relieve darkness. The streetscape would benefit from highlighting these buildings' rich and interesting details. This combination of cross lighting and detail highlights would apply equally well to Mathewson Street and the narrow streets of the Financial District. Left: An entrance to the National Cathedral in Washington, DC.

building facades

Common Lighting Techniques

Two useful techniques for building lighting are controlled flood lighting and modeled lighting. The Fleet Tower, where a tapered wash of light from the roof setbacks accentuates the stepped planes of the tower, is a good example of flood lighting. The State House uses modeled light to sculpturally reveal architectural forms, emphasizing their detail and depth. For many of the older, richly detailed buildings, a wash of light, combined with the highlighting of particular details, can spark a significant transformation. *Right: Modeled lighting on the State House*.

estimated costs

For small retail buildings, about 20 feet wide and three to four stories, estimated costs for installation of general floodlighting are \$3,000 to \$5,000, with operating and maintenance costs approximately \$300 per year when lights are on from dusk to 1 a.m. For larger buildings, about 80 feet wide and four to six stories. installation costs can be \$12,000 to \$18,000 with operating costs of about \$1,300. Installations of modeled lighting designs can be about \$7,000 for smaller buildings, with operating costs approximately \$350, and on larger buildings, installation costs can be \$15,000 to \$25,000 with operating costs about \$1,750.



Naturally, our architectural and civic treasures must serve as the cornerstone of whatever nighttime renaissance we undertake. And they are worthy subjects. With darkness as a background, we can fill our nocturnal canvas with brilliantly lit plazas, subtly glowing shop windows, and buildings modeled in light. Just as the lighting of the Fleet Tower has given the city skyline its signature element, lighting can define character for other Downtown areas. District to district, mood and atmosphere can change, surprise, excite. Throughout the city, our illuminated nightscape will carve itself out from the dark sky, creating both visibility and visual impact.

the lighting environment

More than any other feature, lighting influences how we perceive a city at night. Not only can lighting enhance a city's beauty and add character, but it also can increase an area's safety and boost its economic viability.

Yet the unregulated chaos of isolated and sometimes conflicting efforts to light a metropolitan center have measurable costs to its vitality. Here in Providence, piecemeal efforts at illuminating Downtown currently prevent us from showing off our city in its most favorable light. Lighting style and brightness change drastically from street to street. In between destinations, a gloomy, forgotten darkness and the orange glare of security lights create a grim setting where light and magic could take up residence and thrive.

But Providence is not alone. Other cities, too, have suffered for the lack of a comprehensive lighting plan. Recognizing an opportunity to make a difference, many U.S. communities have enacted, or are formulating, lighting regulations to address issues of glare, brightness, light coloration, and light trespass. Taking local needs into account, these regulations aim to reduce undesirable effects, achieving and maintaining safety and security, and to give Providence a dynamic nighttime persona.

Envision a safe, inviting city street at night and you will probably picture an evenly illuminated area, with no harsh lights or ominous shadows. Indeed, lighting is the single strongest influence on downtown pedestrians' after-hours comfort. Effective lighting addresses UNIFORMITY, GLARE, and COLOR RENDERING. Understanding how these aspects affect the way we see makes it possible to envision a new nighttime image for Providence.

Enlightening Questions...and Answers

When it comes to outdoor lighting, isn't brighter always better?

Not necessarily. People often think so, but beyond the point of gaining reasonable visibility, bright lighting can build high contrast with surrounding areas, creating dark shadows that increase both the perception of risk and—by causing people to see more poorly in the darker areas—actually creating risk.

What factors impair people's nighttime visibility?

The human eye is quite adaptable, adjusting even to moonlight. But the glare of certain lights and abrupt differences in brightness compromises this ability. Brighter light may aid vision, but over-brightness makes it harder to see. And where two nearby areas have highly contrasting light levels, the eye adjusts to the brighter lighting, making the dimmer area appear even darker and more threatening.

What is glare? How does it affect what we see?

Glare is the concentrated brightness of light from unshielded sources. Glare can diminish vision and create discomfort—think of oncoming headlights on a dark road. And like daylight falling across a television



Glare can undermine good lighting.

screen, glare makes what we view seem hazy and less distinct, an effect that becomes much more pronounced for older people. Unless it accounts for glare, a lighting system can reduce actual visibility to 40 percent below expected design levels.

How can we minimize glare?

The two primary light sources for outdoor lighting, high-pressure sodium and metal halide, generate intense light from a small

point source, which causes extreme glare even with plastic or glass diffusers. But we can counteract this effect by using fixtures that are thoughtfully positioned and employ shielding, or cut-off optics. Cut-off optics direct a larger proportion of the light downward; correctly used, they divert it away from normal lines of sight. Well-designed cut-off optics increase a fixture's efficiency and allow better, more comfortable vision.

What is lighting uniformity?

Uniformity describes a consistent level of illumination, as opposed to areas of bright light adjacent to areas in shadow. Uniformity is more important to pedestrians than mere brightness. In a Norfolk, Virginia, street lighting study,² residents judged uniformly lit streets to be better illuminated than those with brighter lights but less uniformity. By maintaining more even lighting levels, with less glare, we can improve actual visibility and comfort without extreme brightness.

What is color rendering? Does nighttime light affect the colors we see?

Some nighttime light saps color from the view it illuminates, making the scene appear lifeless and gray, and affecting visibility and comfort as well. Better COLOR RENDERING allows people to perceive nighttime scenes more clearly, and with much better peripheral vision. The Color Rendering Index (CRI) is a scale that rates color accuracy. The incandescent lamp, which is closest to true-color rendering, has a CRI of 100. The lower the CRI number, the harder it is for the human eye to distinguish colors. A CRI higher than 65 allows for good color identification.





What a difference lighting uniformity and good color rendering make. Left: A CRI of 21. Right: A CRI of 70.

Which type of outdoor lights are better—the cool white kind or the yellow-orange kind? It depends. Both the cool white metal halide and the yellow-orange high-pressure sodium (HPS) are in use in Providence today. HPS lights became popular because of their greater economy and longer lamp life. But new research shows that though brighter per watt, the orange glow of HPS lighting provides less nighttime visibility than metal halide. In contrast, metal halide provides a cool white light with far better color rendering than HPS, and only slightly lower-rated efficiency.

Here's where color rendering comes into play. Under various nighttime conditions, one test found that HPS required up to twice the light before subjects could see as well as they could with metal halide. In the important area of peripheral vision, HPS was much less effective; HPS required 20 percent to 60 percent more power to provide equal visibility. As light levels diminish, areas lit with HPS can appear gloomy, less distinct, and consequently more threatening. From an aesthetic standpoint, most people prefer the more natural feel of metal halide, which is similar to moonlight, to the artificial glow of HPS.

Lamp Characteristics ³

Lamp type and color	common wattages	mean lumens (light output)	lumens/watt (efficiency)	rated average lamp life, hours	CRI color rendering
Incandescent,	100		12	2,000	100
warm white	150	2,000	19	2,000	100
Compact Fluorescent,	18		69	10,000	82
cool white	26	I,825,	70	10,000	82
Metal Halide,	70	3,900	56	15,000	75
cool white	150	10,000	67	15,000	75
	250	17,000	68	10,000	70
Mercury Vapor, cool green-white	175	7,200	47	24,000	50
High Pressure Sodium,	70	5,670	81	24,000	21
yellow-orange	150	14,400	96	24,000	21
	250	25,600	102	24,000	21
Low Pressure Sodium,	35	4,800	137		44
orange	90	13,500	150	8,000	44

lighting recommendations

Control glare. Ensure uniformity. Improve light color rendering. Illuminate Providence.

The following recommendations and regulations are designed to raise the quality and consistency of lighting on our streets and in our public spaces, parking facilities, safety and security, and signage, allowing our rich architectural heritage to take center stage and creating a more inviting atmosphere.

Our Streets and Public Spaces

Glare: When street lamps are within normal lines of sight—like the decorative acorn-style streetlights and the Riverwalk lights—their high-intensity lamps are a constant source of glare. But several fixture configurations are available that offer cut-off optics or higher-performance refractive globes. We can reduce glare without changing the outward appearance of the present acorn and Riverwalk fixtures, and can improve performance by redirecting downward the light now lost to the sky. Reducing glare also has

a safety advantage at locations such as South Main Street along Memorial Park, where the low light fixtures create an intense glare that could interfere with motorists' vision.

The taller cobrahead fixtures, the typical streetlight in the city, are much brighter than the acorn lamps, and they too create glare. Although the fixture's height mitigates the problem somewhat, enough glare remains to reduce visibility and detract from building illumination. Indeed, glare makes the unshielded cobrahead streetlight the most dominant element of many Downcity views.

In tests by Philips Lighting, glare reduction in street lighting resulted in approximately 20 percent better visibility.⁵ When glare from street fixtures is reduced, people can see better and with more comfort. What's more, the buildings we illuminate will require less light to be seen well. Cut-off optic cobrahead fixtures should be tested in selected areas of downtown, along with improved optics for other street and park fixtures. This can be done at relatively nominal cost, replacing the head or interior parts on existing poles already in place.

In areas such as Mathewson Street, Weybosset Street around the Performing Arts Center, and the Riverwalk area across from the financial district, the combination of excessive brightness and glare creates conditions where visibility into surrounding areas is sharply reduced. In all three locations, providing fixtures with cut-off optics would reduce glare and redirect more light onto the ground. With this change, good visibility could be maintained even while reducing the brightness of the lamps.

An area much in need of lighting improvement is the eastern end of Westminster Street, where high-intensity floodlights, mounted relatively low on two buildings, direct light up the street. This blast of light certainly provides adequate light for one-way traffic. But heavy glare assaults pedestrians and obscures the historic Arcade, one of the city's architectural gems. This important Downtown street would be vastly improved with the installation of the same acorn fixtures that line the two areas it connects: the Riverwalk and the old shopping district.

Several locations around Downtown, such as the Civic Center, give the appearance of being lit to prevent crime rather than to offer hospitality. The PPAC area in particular, with its bright HPS lighting and added floodlights, conveys the unintended feeling that the surrounding area is dangerous. By eliminating glare and reducing the brightness from street fixtures and nearby parking lots, the white terra cotta facade could be floodlit and become a beacon for the Arts and Entertainment district. In combination with a storefront lighting program and the subtle illumination of other buildings, the area could be entirely transformed.



Lighting Color Rendering: With yellow-orange HPS cobraheads and white metal halide acorn-style lamps as our current "double" standard, a trip across Providence is a jarring mixture of light effects. Until our city streets are uniformly lit, the lighting coloration will continue to create visual discord and detract from our city's appeal.

Good color rendering has long been valued by businesses that depend on lighting to be successful. Because of its superior color rendering, and the superior visibility it affords in lower lighting conditions, metal halide and other high-CRI lighting create a more socially comfortable atmosphere. (Interestingly, better color rendering also aids law enforcement by allowing more accurate witness identification.)

Given metal halide's established efficiency gains, and the data on its greater effectiveness over HPS in nighttime conditions, the life-cycle costing advantage of HPS does not outweigh the negative impact of its poorer color rendering. For these reasons, we recommend that all high pressure sodium public lighting in the Downcity district be replaced with metal halide.

Streetlight Maintenance: Providence's acorn-style streetlamps are lovely. But they do require more maintenance than the sturdy cobraheads. Their visual character and civic scale make this effort worthwhile—but timely maintenance is essential. When these handsome fixtures fall into disrepair; the message Providence sends its visitors and residents is not one of civic pride.

An important part of any maintenance plan is to have groups of fixtures re-lamped at set intervals. When allowed to burn out, high intensity lamps can first go through a long, slow decline, leading to a motley assortment of lamp brightness and coloration.

To date, Narragansett Electric has offered Providence only the cobrahead, which they also maintain for a set fee. Installing acorn-style or other decorative fixtures on the street has been a do-it-yourself proposition for the City of Providence. As a result, the City maintains the decorative fixtures, and the power company maintains the cobraheads—leading to confusion, duplication, and inefficiency. A remedy to this problem is being pursued as an outgrowth of this study.

With deregulation, power companies can and must offer more services. Several local power companies in Massachusetts already offer decorative streetlights, installed and maintained for a set monthly fee, which then becomes part of the power bill. Providence is now exploring this option, along with arrangements for the power company to maintain the street fixtures the City already owns.

Abandoned and outdated fixtures, replaced but not removed, still litter our city sidewalks. Not only are these fixtures an eyesore, but, in the case of the 1970's-era fixtures with neck-high cross bars, they are also a hazard to pedestrians.

Parking Facilities: Parking garages and lots are some of the most heavily lit locations in Downcity. But the combination of over-lighting and glare from poorly shielded, improperly aimed fixtures makes parking facilities the dominant visual element in our nightscape, and frequently hinders vision as much as it helps. Lighting must be properly aimed and shielded against glare. Brightness must be limited to reduce the heavy contrasts that can hinder vision into neighboring areas. Improvements that create a more harmonious lighting environment will help increase business by making the whole area more attractive.

Security Lighting: The goal of security lighting is to deter crime by increasing visibility. This is best achieved with uniformity of light levels. Raking floodlights can create dangerous conditions with deep shadows and blinding glare. Establishing limits on security lighting therefore can improve overall safety. To ensure glare control, security lighting must be located or shielded so that the lamp or lens is not directly visible from adjacent streets or structures, directing light only toward the area to be secured. Lighting for good visibility rather than just brightness benefits the building owner and the neighborhood.

Signs: Illuminated signs are an integral part of the downtown streetscape, adding vitality and interest to the urban experience and advertising the diversity of attractions. But excessive illumination and glare from poorly placed lamps can turn signage into a blight. Large glowing signs can easily dominate an area. Limiting brightness of sign lighting and the percentage of sign surface that can be translucent and requiring shielding from glare make it possible for signs to attract business and add excitement and vitality to the night scene without taking over the view.



regulation & review

In cities everywhere, high-intensity lighting dominates the urban nightscape. But communities—residents, store owners, commercial landlords, and city officials—are becoming more and more aware of how the use and misuse of such glaring light fixtures affect their quality of life. As the dominant force that shapes the nighttime environment, lighting requires guidelines and regulations to ensure its appropriate use, as not only a security measure, but also an aesthetic enhancement.

These regulations are easy to enforce. With the most basic of training, and a good light meter to confirm compliance, zoning officials can review lighting information required for permits, just as they review building plans. The Downcity Design Review Committee (DRC) is currently responsible for reviewing lighting along with other aspects of proposed work on new and existing buildings on the designated "A" streets and historic buildings. Specific lighting regulations can provide a clear framework for review, and guidelines for applicants to follow.

Lighting fixture manufacturers can aid builders and renovators in complying through the use of computer analysis, already routinely available. Supplied with the installation's requirements, manufacturers provide this analysis of lighting levels to ensure the required spacing, mounting height, and brightness. Manufacturers can also identify fixtures that comply with published standards such as cut-off optics. And lighting designers, too, are available to provide expert advice in choosing the most appropriate and economical lighting solution.

Illuminate Providence proposes the following lighting regulations based on a model urban lighting code created by the Chittenden County, Vermont, Regional Planning Commission under a grant from the Municipal Energy Management Program of the U.S. Department of Energy. These regulations are intended to provide a straightforward framework for the control of lighting as it affects nighttime visibility and the quality of the environment. This code's lighting levels are based on the commonly accepted standards created by the Illuminating Engineering Society of North America (IESNA).

 $^{^{1}}$ Improving City Streets for Use at Night: The Norfolk Experiment," Lighting Design + Application, June 1994

² "The Moldcast Method." 1994, Prescolite brochure

³Osram Sylvania, 1996 product literature

⁴ Lighting Design + Application, October 1996

Urban Lighting Application Guide, Philips Lighting, April 1989

Proposed zoning amendment for exterior lighting regulations for Downtown Providence

It is the purpose of this ordinance to encourage the installation of exterior lighting in Downtown Providence, for public streets as well as for private property, that will enhance architectural and landscape features; complement Downtown's historic character; improve the overall visual quality of Downtown; and provide adequate illumination for both vehicles and pedestrians, while minimizing glare, providing uniform lighting color and intensity, maintaining a safe environment, and facilitating a regular maintenance program.

A. Permits

- A permit shall be required for installation of exterior lighting fixtures with lamps generating more than 2,000 total initial lumens (equivalent to a 150-watt incandescent bulb). If the exterior lighting is associated with proposed development requiring a permit, the lighting shall be reviewed as part of that development.
- 2. Exterior and interior lighting in parking structures shall be subject to these regulations to the extent that it is visible from streets and adjacent properties.
- 3. All exterior lighting under these regulations occurring on "A" streets in the Downcity District, or significant historic buildings as designated on the Overlay Zoning Maps, shall be subject to review by the Downcity Design Review Committee (DRC).

B. Design Review Criteria

EXTERIOR LIGHTING: Exterior lighting shall be designed to enhance the proposed project, to provide adequate illumination for the intended tasks, and to minimize glare and the trespass of light onto surrounding areas. At a minimum, exterior lighting shall meet the requirements set forth in these regulations.

C. General Requirements

- APPLICABILITY: When an exterior lighting installation is being introduced, modified, extended, expanded, or added to, the entire exterior lighting installation, including existing, shall be subject to the requirements of this section.
- 2. Information required: The applicant shall submit to the City sufficient information in the form of an overall exterior lighting plan to enable the City to determine that the applicable provisions will be satisfied. The lighting plan shall include, at a minimum, the following:
 - a A site plan, drawn to scale of 1 inch equaling no more than 20 feet, showing buildings, land-scaping, parking areas, and all proposed and existing exterior lighting fixtures.
 - b Specifications for all proposed lighting fixtures including photometric data, designation as Illuminating Engineers Society of North America (IESNA) "cut-off" fixtures, Color Rendering Index (CRI) of all lamps (bulbs), and other descriptive information on the fixtures.
 - c Proposed mounting height of all exterior lighting fixtures.
 - d Analyzes and illuminance-level diagrams showing that the proposed installation conforms to the lighting level standards in this section.

- e Scaled drawings of all relevant building elevations showing the locations of all existing and proposed fixtures, the portions of the wall to be illuminated, the materials and illuminance levels of the walls, and the aiming points for any remote lighting fixtures.
- 3. Information for DRC reviews: In addition to item 2 above, installations requiring DRC review will submit the following:
 - a Descriptive information on proposed fixtures and related equipment exposed to view, such as dimensions, finish color, hardware and methods of mounting.
- b Location of any conduits or equipment exposed to view.
- c Documentation to demonstrate compliance of illuminated signage with the requirements of this code.
- 4. Conduit: Wherever practicable, conduit, ballasts, transformers, and other equipment shall not be exposed to view. At "A" streets and designated historic buildings, such items necessarily exposed to view shall be painted to blend with the background materials of the building or site.
- Unneeded lighting: Wherever practicable, lighting installations shall include timers, dimmers, and/or sensors to reduce overall energy consumption and eliminate unneeded lighting. Upon installation of updated or replacement lighting, obsolete or abandoned fixtures and equipment shall be removed.
- Glare shielding: Cut-off fixtures shall not be mounted at heights greater than indicated by their manufacturer for effective glare reduction.
- Holiday lighting: During the months of November, December, and January, temporary holiday lighting shall be exempt from the provisions of this section.

D. Open Parking Lot Lighting

Lighting for open parking areas shall be designed to provide the minimum lighting necessary to ensure adequate vision, safety, and comfort in parking areas, and to not cause glare, deep shadows, or direct illumination on adjacent properties or streets.

- 1. Fixtures: All lighting fixtures serving parking lots shall be cut-off fixtures as defined by the IESNA.
- 2. Alternatives: The design for the project area may suggest the use of lighting fixtures of a particular architectural style, either as alternatives or to supplement the lighting provided by cut-off fixtures. If such fixtures are not cut-off fixtures as defined by IESNA, the maximum initial lumens generated by each fixture shall not exceed 2,000 (equivalent to a 150-watt incandescent bulb). Mounting heights of such fixtures shall not exceed 15 feet.

Minimum Color Rendering Index.....

E. Enclosed Parking Structure Lighting

In order to prevent lighting in enclosed parking structures from creating glare and illuminating nearby streets and properties, lighting fixtures in enclosed parking structures shall be designed and shielded so that light is not radiated directly through wall openings, windows, etc. (excluding entrance and exit portals). Lighting at entrance and exit portals shall employ cut-off fixtures as defined by IESNA, and shall have a minimum CRI of 65.

F. Security Lighting

The purpose of and need for security lighting (i.e., lighting for safety of persons and property) must be demonstrated as part of an overall security plan, and the area to be illuminated for security purposes shall be specifically delineated. To the extent that the designated area is illuminated by lighting for other purposes, independent security lighting will be discouraged. The use of general floodlighting fixtures for security lighting shall be discouraged.

- Fixtures: All security lighting fixtures shall be shielded and aimed so that illumination is directed only to the designated area. In no case shall lighting be directed above a horizontal plane through the lighting fixture.
- Vertical surfaces: Security lighting may illuminate vertical surfaces (i.e., building walls) up to a
 level eight feet above grade or eight feet above the bottoms of doorways or entries, whichever is
 higher.
- 3. Location: Security lighting fixtures may be mounted on poles located no more than 10 feet from the perimeter of the designated secure area.

G. Lighting of Building Facades and Roofs

1. Standards: When building facades, roofs and/or landscaping are to be illuminated, a design for the illumination shall satisfy the general requirements of this Article, and shall meet the following specific provisions:

a The maximum illumination of vertical wall surfaces or angled roof surfaces shall not exceed the following:

Light surfaces	15 fc
Medium light surfaces	20 fc
Medium dark surfaces	30 fc
Dark surfaces	50 fc

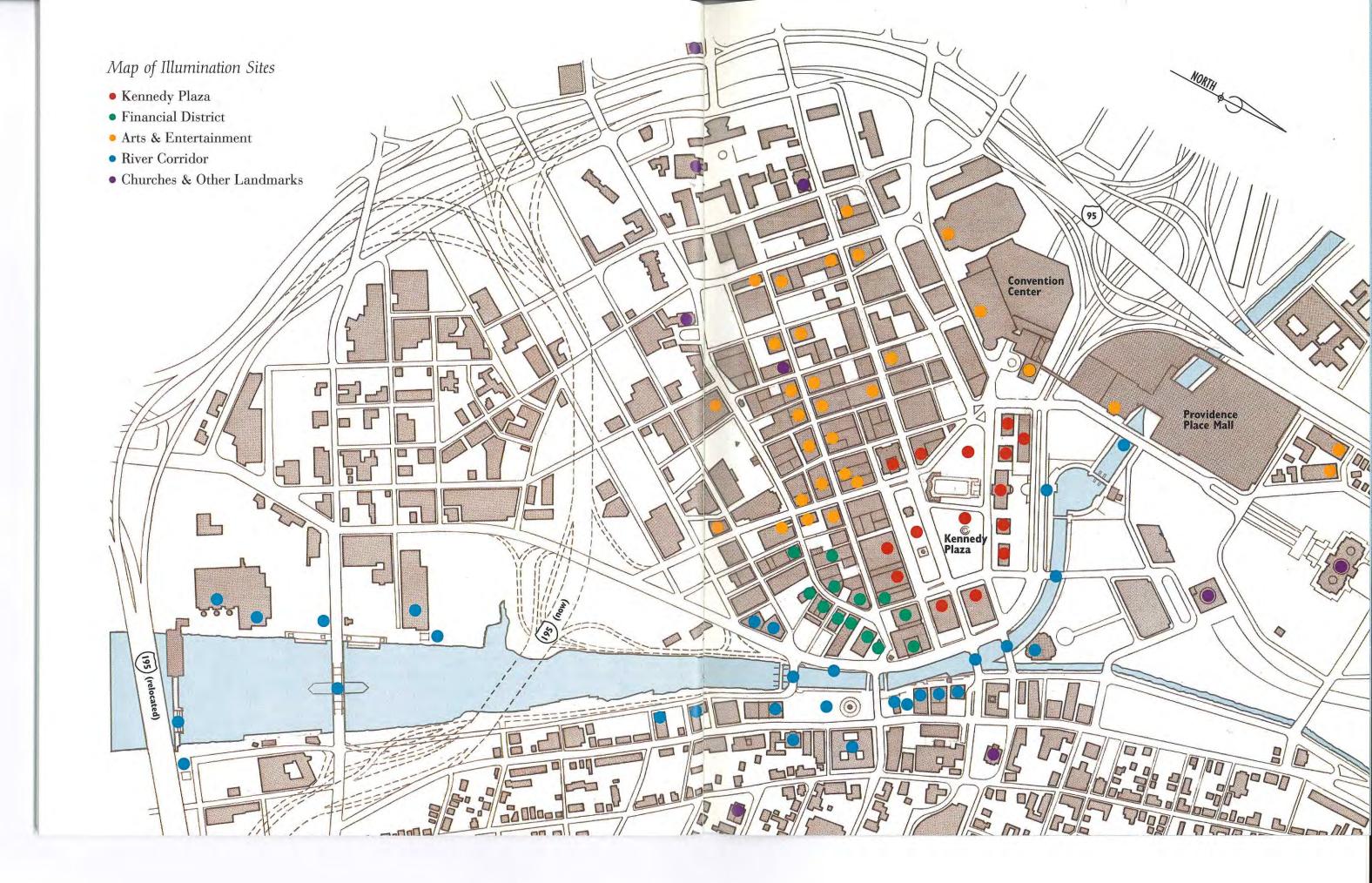
b Facade lighting fixtures shall be carefully located, aimed, and shielded so that light is directed only onto the building facade. Lighting fixtures shall not be aimed towards adjacent streets. Lighting installations shall not produce dangerous or annoying glare. 2. Building facades, roofs, and landscaping at sites along "A" streets in the Downcity District, and significant historic buildings as designated on the Overlay Zoning Maps, may be illuminated only if the proposed lighting design is approved by the DRC. For approval, the Committee must find that the illumination adds to the overall design of the building or site, that it does not obscure, damage or detract from significant architectural or landscape features, that it adds to the visual quality of the surrounding neighborhood, and that it does not produce dangerous or annoying glare, or unwanted illumination of nearby properties.

H. Illuminated Signs

It is the intent of this section to allow illuminated signs, but to ensure that they do not create glare or unduly illuminate the surrounding area. The applicant shall provide sufficient technical and design information to demonstrate that the following provisions are met.

1. Externally illuminated signs:

- a The average level of illumination on the vertical surface of the sign shall not exceed 3.0 foot-candles (fc), and the uniformity ratio (average to minimum illumination) shall not exceed 2:1.
- b Light fixtures with lamps generating more than 2,000 total initial lumens (equivalent to a 150-watt incandescent bulb) illuminating signs shall be carefully located, aimed, and shielded so that light is directed only onto the sign facade. Lighting fixtures shall not be aimed toward adjacent streets or properties. The light source for such fixtures shall not directly visible from adjacent streets, sidewalks, or properties.
- 2. Internally illuminated signs and awnings: In order to prevent internally illuminated signs, awnings, and similar translucent objects from becoming light fixtures in their own right, it is the intent of this section that such signs and awnings consist of light lettering, symbols, on a dark background. The lightness or darkness is a function of the light transmittance of the translucent surface material (generally available from the manufacturer), and the light source. The higher the light transmittance, the lighter the color.
 - a The lettering or symbols shall constitute no more than 40 percent of the surface area of the sign or awning.
 - b The light transmittance of the lettering or symbols shall not exceed 35 percent.
 - c The light transmittance of the background portion of the sign or awning shall not exceed 15 percent.
 - d For signs, the light source shall be no greater than that provided by high-output fluorescent tubes, spaced at least 12 inches on center, mounted at least 3.5 inches from the translucent surface material, or a source equivalent in performance.
- e The average level of illumination through an awning or similar translucent object shall not exceed 3.0 footcandles, and the uniformity ratio (average to minimum illumination) shall not exceed 3:1 on any flat or curved surface.



Illumination Sites		Landmark	Skyline feature	Gateway to City	River Edge	Park/Plaza Edge	Pedestrian Level	Cornice	Skyline Feature	Landscape/Plaza	Full Facade	Modeled Light	Wash	Feature Highlight
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Kennedy Plaza	City Hall	•	•			•				<u> </u>	•			•
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	Pastore Federal Bldg.					•	•							
	Union Station Complex					•				1			•	
	Old Fleet Tower					•			•				•	•
	New Fleet Tower		•			•	•						•	
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	Westin Hotel		•	•		•	•		•				•	•
	Providence Place Mall		•	•	•	•	•		•				•	•
	Masonic Temple	•										•	*********	
	Veterans Memorial Auditorium	•		•					••••••	************			•	
	Trinity Repertory Theater						•						•	
	Packard Bldg.			•			•	•	<u>.</u>		•		•	
	Providence Public Library	•					•	**********			**********			
	Shepard's Bldg.					······	•	•			·····		•	•
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	First Church of Christ Scientist		•					ļ	•					•
	First Unitarian Church							-						

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