Scala, Mary Joy

From: Scala, Mary Joy
Sent: Thursday, March 12, 2015 3:33 PM
To: Woodard, Keith
Subject: FW: Lighting for 100 East Water Street Parking Lot
Attachments: Water Street Parking Layout 122414D.PDF; First and Market Lighting Structure Detail.pdf

You may consider the attached lighting fixtures approved for the 100 East Water Street parking lot.

Mary Joy Scala, AICP
Preservation and Design Planner
City of Charlottesville
Department of Neighborhood Development Services
City Hall – 610 East Market Street
P.O. Box 911
Charlottesville, VA 22902
Ph 434.970.3130 FAX 434.970.3359
scala@charlottesville.org

From: Keith Woodard [mailto:Keith@woodardproperties.com]
Sent: Thursday, March 12, 2015 10:17 AM
To: Scala, Mary Joy
Subject: Lighting for 100 East Water Street Parking Lot

Hello Mary Joy,

Attached for the Water Street Parking Lot are:

1) The fixture layout, and
2) The lighting structure and fixtures proposed.

The lighting structure and fixture will be the same as we used at First and Market Parking.

Please let me know if you need additional information to approve this installation. We are trying to complete work on this parking lot this month prior to the opening of the (temporary) city market.

Thanks You,
Keith

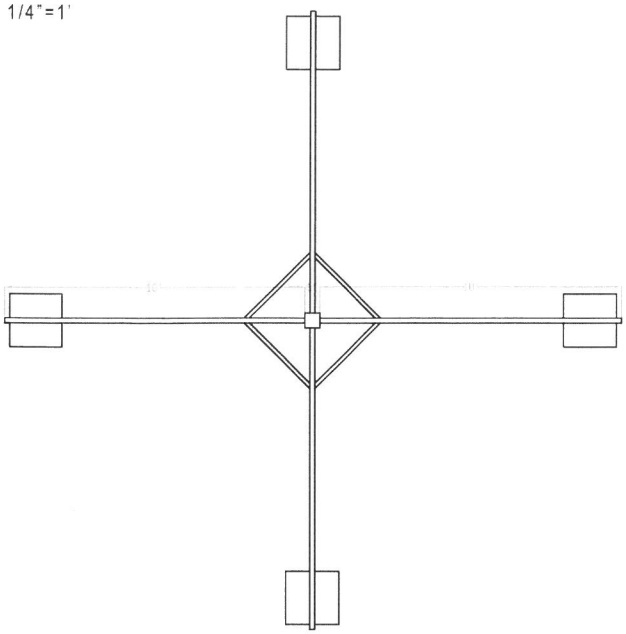
Keith O. Woodard

WOODARD PROPERTIES

Woodard Properties
224 14th Street NW
Charlottesville, VA 22903
Phone (434) 971 8860
FAX 293 2280

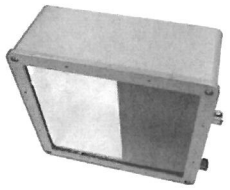
PLAN VIEW OF LIGHTING STRUCTURE

1/4"=1'



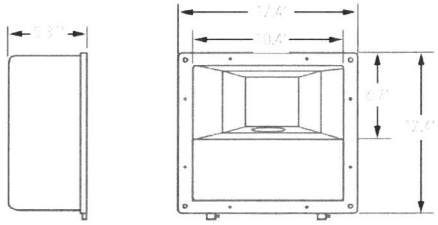
SHOEBOX LIGHT FIXTURE DETAILS

Shoebox fixture to be recessed into each of the 4 enclosures on the lighting structure.



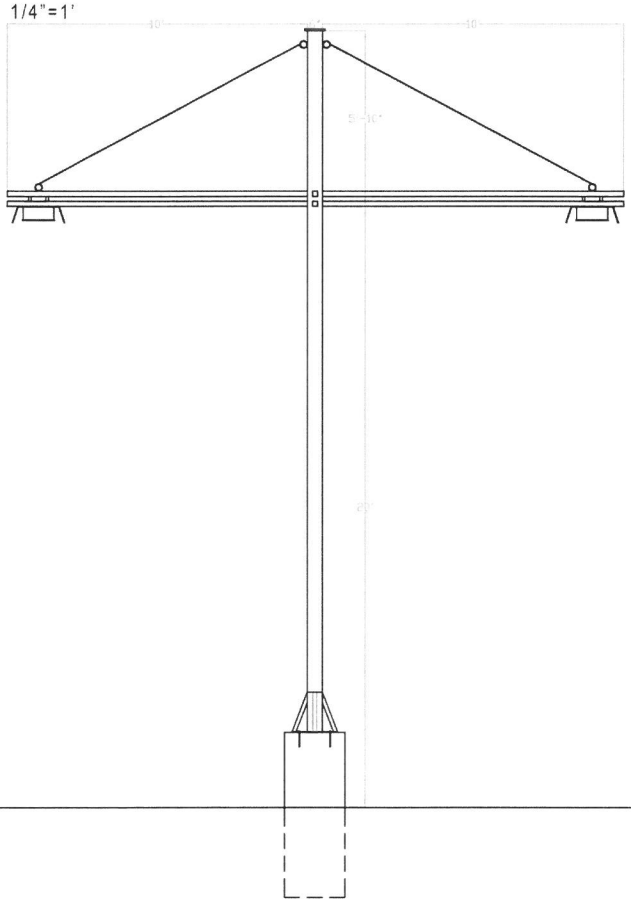
LENGTH: 12.4"
WIDTH: 12.4"
DEPTH: 5.31"

WINDOW WIDTH: 10.4"
WINDOW HEIGHT: 6.7"



ELEVATION OF LIGHTING STRUCTURE

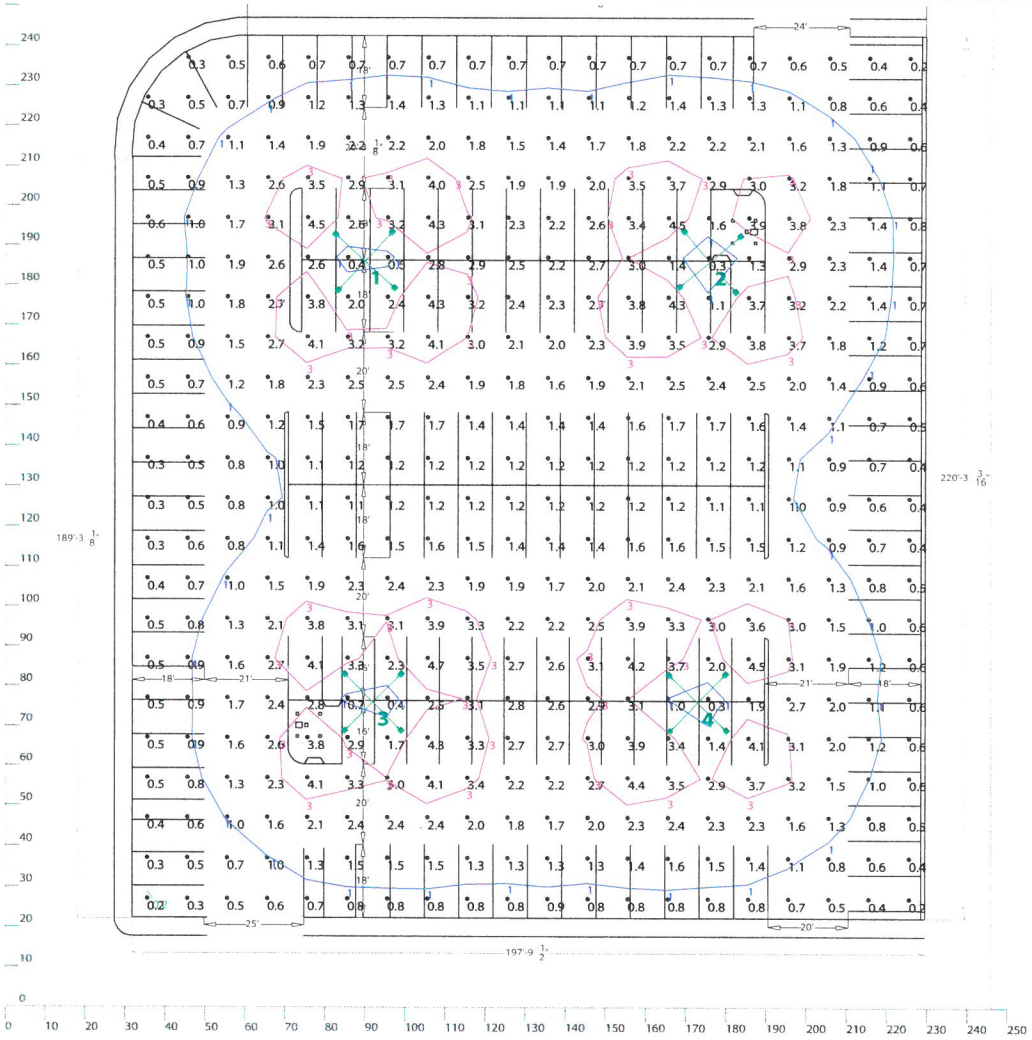
1/4"=1'



PLAN VIEW OF STRUCTURE BASE

1/4"=1'

PROJECT NO: 0000	DATE: 4-11-2014	REVISIONS:	LIGHT FIXTURE DETAIL	FIRST & MARKET PARKING CHARLOTTESVILLE, VA FOR: WOODARD PROPERTIES 224 14th STREET NW CHARLOTTESVILLE, VA	WOODARD PROPERTIES EST. 1981 224 14th STREET, NW, CHARLOTTESVILLE VA TEL. 1(434) 971-8860		DO NOT SCALE THIS DRAWING COPYRIGHT BY WOODARD PROPERTIES 2014
	DATE PRINTED:						



Scale: 1 inch= 30 Ft.

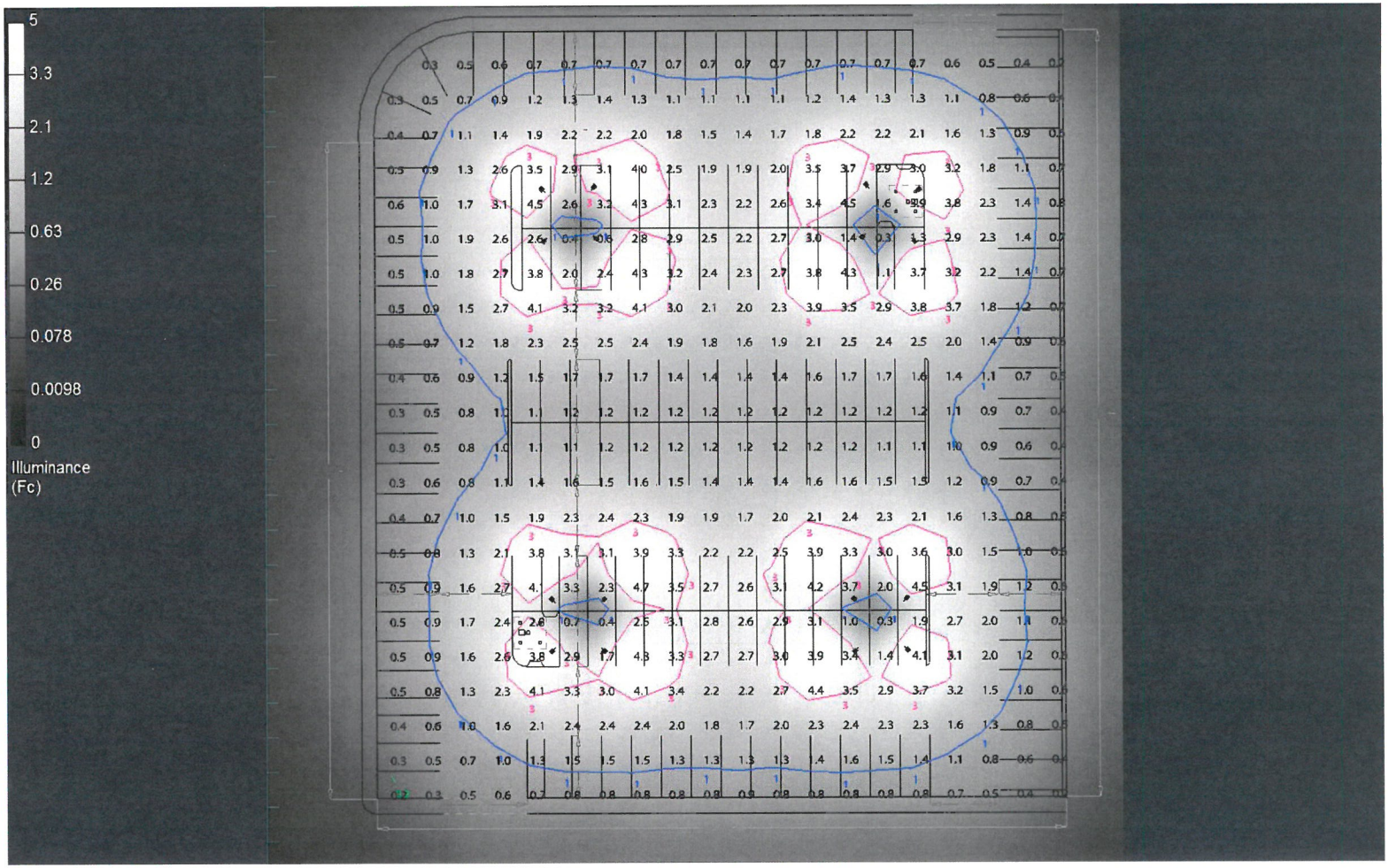
RAB LIGHTING
170 Ludlow Avenue, Northvale, NJ 07647
800 722-1000 • RABWEB.COM

Prepared For:
Hutcheson & Co, Inc
Warehouse
P.O. Box 1627
Ashland, VA 23005

Job Name:
Water Street Parking
Charlottesville, VA
Lighting Layout
Version D

Scale: as noted
Date:1/7/2015
Filename: Water Street Parking Layout 122414D.AGI
Drawn By:A. Murphy

Filename: \\RAB-STORAGE-1\Docs\Sales\Applications Engineering\Job Files\H\Hutcheson & Co\Eck Supply\Charlottesville 105825\Water Street Parking\AGI files\Water Street Parking Layout 122414D.AGI



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Lighting Design Disclaimer

The Lighting Analysis, ezLayout, Energy Analysis and/or Visual Simulation ("Lighting Design") provided by RAB Lighting Inc. ("RAB") represents an anticipated prediction of lighting system performance based upon design parameters and information supplied by others. These design parameters and information provided by others have not been field verified by RAB and therefore actual measured results may vary from the actual field conditions. RAB recommends that design parameters and other information be field verified to reduce variation. RAB neither warranties, either implied or stated with regard to actual measured light levels or energy consumption levels as compared to those illustrated by the Lighting Design. RAB neither warranties, either implied or stated, nor represents the appropriateness, completeness or suitability of the Lighting Design intent as compliant with any applicable regulatory code requirements with the exception of those specifically stated on drawings created and submitted by RAB. The Lighting design is issued, in whole or in part, as advisory documents for informational purposes and is not intended for construction nor as being part of a project's construction documentation package.

Filename: \\RAB-STORAGE-1\Docs\Sales\Applications Engineering\Job Files\H\Hutcheson & C0\Eck Supply\Charlottesville 105825\Water Street Parking\AGI files\Water Street Parking Layout 122414D.AGI

Calculation Summary											
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min	Description	PtSpcLr	PtSpcTb	Meter Type
CalcPts	Illuminance	Fc	1.74	4.7	0.2	8.70	23.50	Readings taken at 0'-0" AFG	10	10	Horizontal

Luminaire Schedule												
Symbol	Qty	Tag	Label	Arrangement	Lum. Lumens	Arr. Lum. Lumens	LLF	Description	Lum. Watts	Arr. Watts	Total Watts	Filename
	4	B4	RWLED4T50X4@90°	4 @ 90 DEGREES	5196	20784	1.000	RWLED4T50	52.1	208.4	833.6	RWLED4T50 - Cool - ITL80304.IES

Expanded Luminaire Location Summary						
LumNo	Label	Tag	X	Y	MTG HT	Orient
1	RWLED4T50X4@90°	B4	82.641	192.771	20	137.386
1	RWLED4T50X4@90°	B4	83.229	178.641	20	227.386
1	RWLED4T50X4@90°	B4	97.359	179.229	20	317.386
1	RWLED4T50X4@90°	B4	96.771	193.359	20	47.386
2	RWLED4T50X4@90°	B4	183.657	192.432	20	40.03
2	RWLED4T50X4@90°	B4	169.568	193.657	20	130.03
2	RWLED4T50X4@90°	B4	168.343	179.568	20	220.03
2	RWLED4T50X4@90°	B4	182.432	178.343	20	310.03
3	RWLED4T50X4@90°	B4	84.929	68.929	20	225
3	RWLED4T50X4@90°	B4	99.071	68.929	20	315
3	RWLED4T50X4@90°	B4	99.071	83.071	20	45
3	RWLED4T50X4@90°	B4	84.929	83.071	20	135
4	RWLED4T50X4@90°	B4	180.182	69.042	20	315.909
4	RWLED4T50X4@90°	B4	179.958	83.182	20	45.909
4	RWLED4T50X4@90°	B4	165.818	82.958	20	135.909
4	RWLED4T50X4@90°	B4	166.042	68.818	20	225.909
Total Quantity: 16						

RWLED4T50X4@90°

Weight: 128lbs
EPA: 1.8

NOTES:
* The light loss factor (LLF) is a product of many variables, only lamp lumen depreciation (LLD) has been applied to the calculated results unless otherwise noted. The LLD is the result (quotient) of mean lumens / initial lumens per lamp manufacturers' specifications.

* Illumination values shown (in footcandles) are the predicted results for planes of calculation either horizontal, vertical or inclined as designated in the calculation summary. Meter orientation is normal to the plane of calculation.

* The calculated results of this lighting simulation represent an anticipated prediction of system performance. Actual measured results may vary from the anticipated performance and are subject to means and methods which are beyond the control of RAB Lighting Inc.

* Mounting height determination is job site specific, our lighting simulations assume a mounting height (insertion point of the luminaire symbol) to be taken at the top of the symbol for ceiling mounted luminaires and at the bottom of the symbol for all other luminaire mounting configurations.

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Ashland, VA 23005

Job Name:
Water Street Parking
Charlottesville, VA
Lighting Layout
Version D

Scale: N.T.S.
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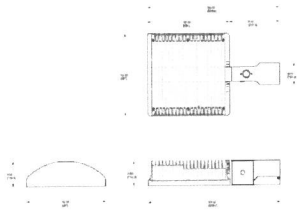
RWLED4T50

LED roadway lighting that's easy to buy. Free trial program and leasing options make it easy to get started with LED. Specification-grade optics deliver efficient, clean, uniform light distributions at a reasonable cost. Optics are factory installed and meet IES Lateral Distribution Type IV. LROAD™ 50W replaces 200W metal halide roadway fixtures.

Color: Bronze

Weight: 33.5 lbs



LED Info

Watts:	50W
Color Temp:	5000K (Cool)
Color Accuracy:	67
L70 Lifespan:	100000
LM79 Lumens:	5196
Efficacy:	100 LPW

Driver Info

Type:	Constant Current
120V:	0.46A
208V:	0.27A
240V:	0.23A
277V:	0.20A
Input Watts:	52W
Efficiency:	96%

Technical Specifications

UL Listing:
Suitable for wet locations as a downlight.

Lumen Maintenance:
100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations.

IES Classification:
The Type IV distribution (also known as a Forward Throw) is especially suited for illuminating the perimeter of parking areas and for intersections. It produces a semicircular distribution with essentially the same candlepower at lateral angles from 90° to 270°.

Effective Projected Area:
EPA = 0.75

IP Rating:
Ingress Protection rating of IP66 for dust and water.

Vibration Rating:
Industry-leading 5G vibration rating per ANSI C136.31.

LEDs:
Multi-chip, high-output, long-life LEDs

Driver:
Constant Current, Class 2, 1400mA, 100-277V, 50-60Hz, 0.8A, Power Factor 99%

THD:
6.9% at 120V, 7.8% at 277V

Surge Protection:
6kV surge suppression protection tested in accordance with IEEE/ANSI C62.41.2.

Ambient Temperature:
Suitable for use in 40°C ambient temperatures.

Cold Weather Starting:
The minimum starting temperature is -40°F/-40°C.

Thermal Management:
Superior patent pending thermal management design with external Air-Flow fins provides maximum operational life, even in high ambient temperature environments.

Housing:
Die cast aluminum housing, lens frame and mounting arm.

Mounting:
Fits most standard roadway upsweep arms. Adaptor brackets supplied fit 1", 1 1/4", 1 1/2" and 2" OD arms.

Wedge Mounting Option:
Allows field adjustment of +/- 5 degree tilt to achieve a level installation of LROAD50 universal adaptor roadway fixtures.

Recommended Mounting Height:
Up to 15 ft.

Color Consistency:
7-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color.

Color Stability:
LED color temperature is warrantied to shift no more than 200K in CCT over a 5 year period.

Color Uniformity:
RAB's range of CCT (Correlated Color Temperature) follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2011.

Reflector:
Specular vacuum-metallized polycarbonate

Gaskets:
High temperature silicone gaskets

Finish:
Our environmentally friendly polyester powder coatings are formulated for high-durability and long-lasting color, and contains no VOC or toxic heavy metals.

Equivalency:
LROAD™ 50W replaces 200W metal halide

Green Technology:
Mercury and UV free, and RoHS compliant. Polyester powder coat finish formulated without the use of VOC or toxic heavy metals.

DLC Listed:
This product is on the Design Lights Consortium (DLC) Qualified Products List and is eligible for rebates from DLC Member Utilities.

IESNA LM-79 & IESNA LM-80 Testing:
RAB LED fixtures have been tested by an independent laboratory in accordance with IESNA LM-79 and 80, and have received the Department of Energy "Lighting Facts" label.

California Title 24:
See RWLED4T50/PCT for a 2013 California Title 24 compliant.

Dark Sky Approved:
The International Dark Sky Association has approved this product as a full cutoff, fully shielded luminaire.

Patents:
The LROAD™ design is protected by patents pending in the U.S., Canada, China, Taiwan and Mexico.

Warranty:
RAB warrants that our LED products will be free from defects in materials and workmanship for a period of ten (10) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish.

Country of Origin:
Designed by RAB in New Jersey and assembled in the USA by RAB's IBEW Local 3 workers.

Buy American Act Compliant:
This product is a COTS item manufactured in the United States, and is compliant with the Buy American Act.

Recovery Act (ARRA) Compliant:
This product complies with the 52.225-21 "Required Use of American Iron, Steel, and Manufactured Goods--Buy American Act-- Construction Materials (October 2010).

Trade Agreements Act Compliant:
This product is a COTS item manufactured in the United States, and is compliant with the Trade Agreements Act.

GSA Schedule:
Suitable in accordance with FAR Subpart 25.4.