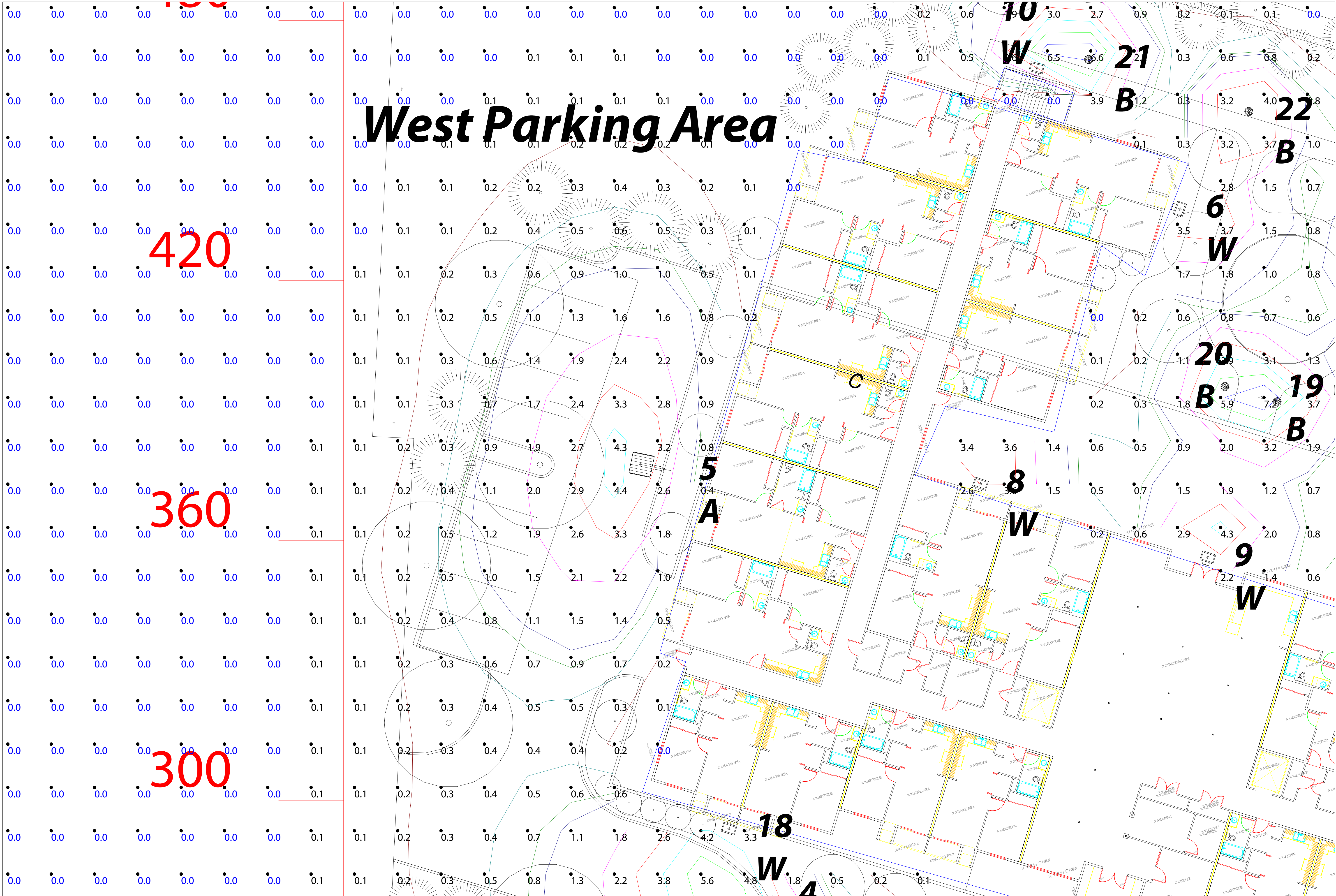




Scale: 1 inch= 10 Ft.

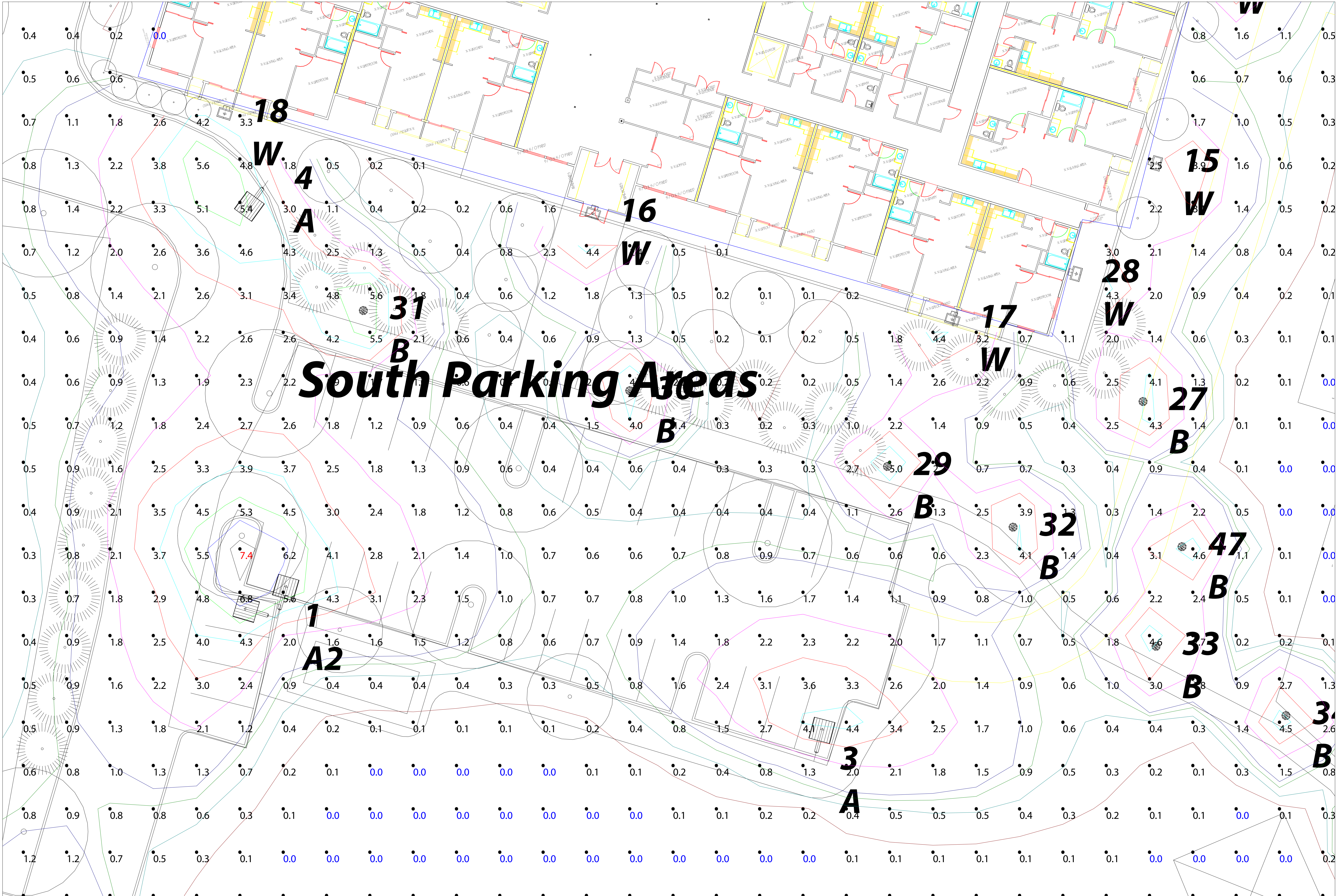
The Lighting Analysis, Layout, Energy Analysis and/or Visual Simulation ("Lighting Design") provided by RAB Lighting Inc. ("RAB") is for the sole use of the client and is not to be used for any other purpose. RAB makes no warranty, either implied or stated, regarding the accuracy or completeness of the Lighting Design. RAB represents the appropriateness, completeness or suitability of the Lighting Design as compliant with any applicable regulatory code requirements with the exception of those specifically stated on drawings created and issued by RAB. RAB is not responsible for construction nor as being part of a project's construction documentation package.

Scale: as noted		CASE #000493608
Job Name: RiverView	Date: 7/8/2016	
Lighting Layout Version B		Filename: RiverView Layout - 000493608.AGI
		Drawn By: Catherine Barnes LC

Prepared For:
Advanced Electric
2181 11th NE 58th St
Vancouver, WA 98682

Filename: Z:\Job Files\Hozack INCHozack 10.090\RiverView\Working Files\AGI\RiverView Layout - 000493608.AGI

RAB
LIGHTING
170 Ludlow Avenue, Northvale, NJ 07647
888 722-1000 • RABWEB.COM



Scale: 1 inch= 10 Ft.

The Lighting Analysis, Etc. provided by the Lighting Design Group, Inc. (LDG) is a simulation of the lighting system design and is not a guarantee of the actual lighting system performance. The design parameters and information provided by others have not been field verified by LDG and therefore actual measured results may vary from the actual field conditions. LDG recommends that design parameters and other information be field verified to reduce variation. LDG neither warrants, either implied or stated with regard to actual measured light levels or energy consumption levels as compared to those illustrated by the Lighting Design Group, Inc. (LDG) neither warrants, either implied or stated, nor represents the appropriateness, completeness or suitability of the Lighting Design Group, Inc. (LDG) in compliance with any applicable regulatory code requirements with the exception of those specifically stated on drawings created and issued by LDG. LDG is not responsible for construction nor as being part of a project's construction documentation package.

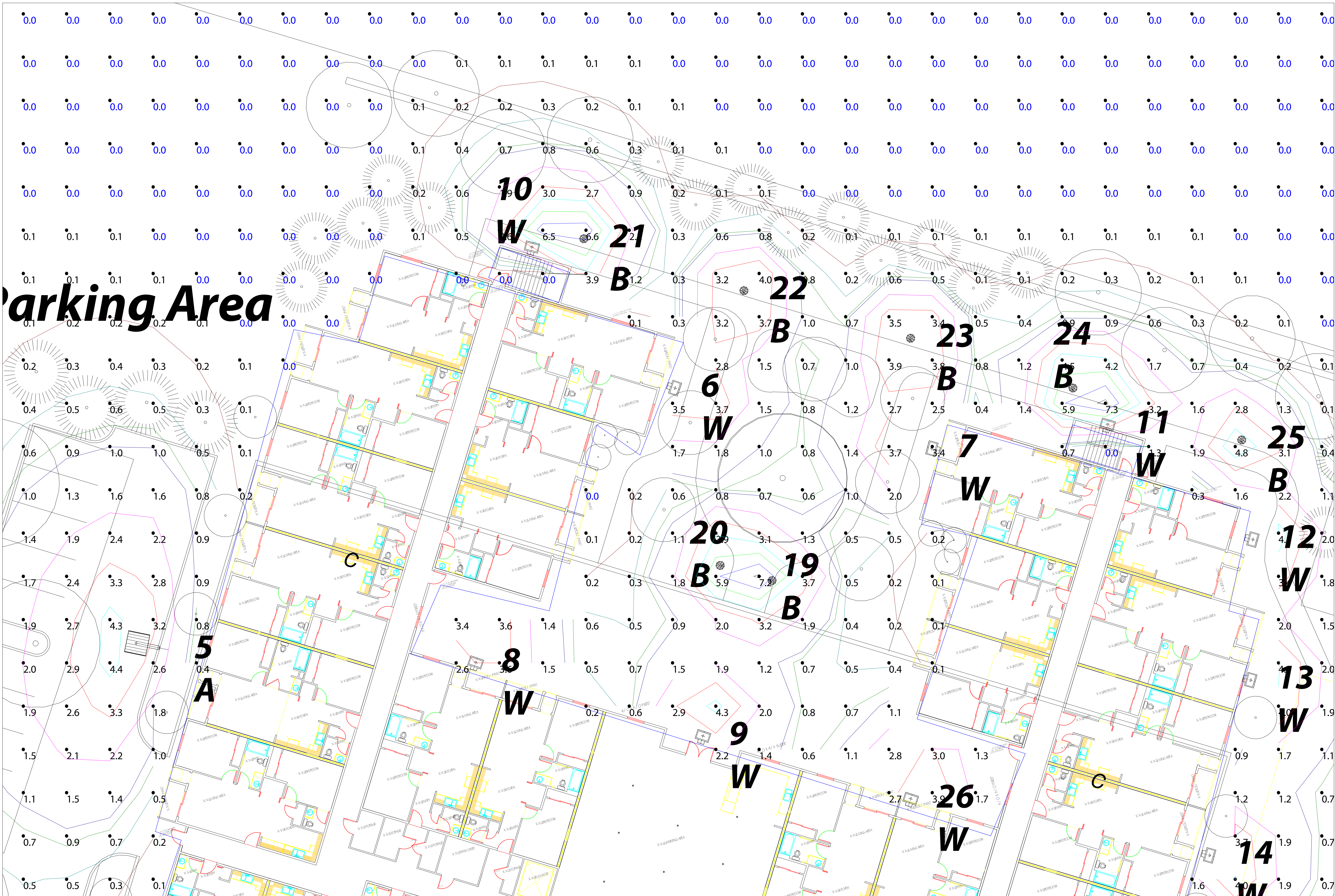
Scale: as noted	CASE #000493608
Date: 7/8/2016	Filename: RiverView Layout - 000493608.AGI
Job Name: RiverView	Drawn By: Catherine Barnes LC

Lighting Layout Version B

Prepared For:
Advanced Electric
21811 NE 58th St
Vancouver, WA 98682

Filename: Z:\Job Files\Hozack INCH\Hozack 10.09\RiverView\Working Files\AGI\RiverView Layout - 000493608.AGI





Scale: 1 inch= 10 Ft.

The Lighting Analysis, Easement, Energy Analysis and/or Visual Simulation ("Lighting Design") provided by RAB Lighting Inc. ("RAB") is for the sole use of the client and is not to be used for any other purpose without the written consent of RAB. RAB makes no warranty, either implied or stated, with regard to the actual measured light levels or energy consumption levels as compared to those illustrated by the Lighting Design. RAB neither warrants, either implied or stated, nor represents the appropriateness, completeness or suitability of the Lighting Design. RAB is not responsible for any applicable regulatory code requirements with the exception of those specifically stated on drawings created and prepared by RAB. RAB is not responsible for construction nor as being part of a project's construction documentation package.

Scale: as noted
Job Name: RiverView
Date: 7/8/2016
Case # 000493608
Filename: RiverView Layout - 000493608.AGI
Drawn By: Catherine Barnes LC

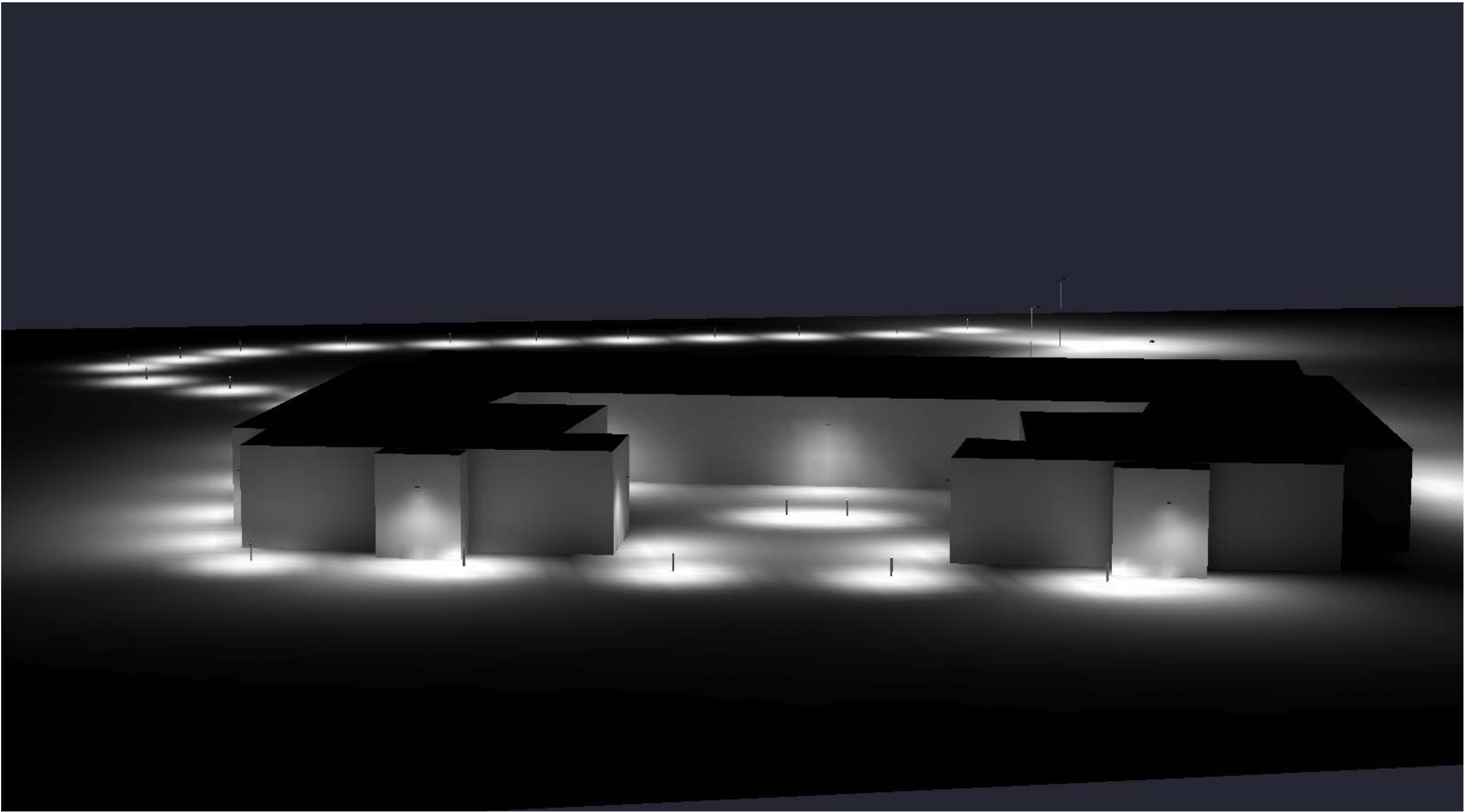
Lighting Layout
Version B

Prepared For:
Advanced Electric
2181 11th St
Vancouver, WA 98682
Filename: Z:\Job Files\Hozack INCH\0901RiverView\Working Files\AGI\RiverView Layout - 000493608.AGI

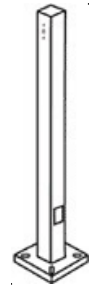
RAB
LIGHTING
170 Ludlow Avenue, Northvale, NJ 07647
888 722-1000 • RABWEB.COM

Luminaire Schedule													
Symbol	Qty	Tag	Label	Arrangement	Lum. Lumens	Arr. Lum. Lumens	LLF	Description	Lum. Watts	Arr. Watts	Total Watts	Filename	BUG Rating
	1	A2	ALED3T125	2 @ 90 DEGREES	10893	21786	1.000	ALED3T125 - (TYPE III)	134.4	268.8	268.8	ALED3T125 - Cool - ITL80128.IES	B1-U0-G2
	15	W	WPLED26	SINGLE	2662	2662	1.000	WPLED26 (WALLPACK)	29.6	29.6	444	WPLED26 - Cool - ITL80286.IES	B1-U0-G0
	27	B	BLED24	SINGLE	1652	1652	1.000	BLED24 (42in ROUND BOLLARD)	31.2	31.2	842.4	BLED24 - Cool - ITL78072.IES	B1-U1-G0
	4	A	ALED3T125S	SINGLE	10893	10893	1.000	ALED3T125 (TYPE III)	134.4	134.4	537.6	ALED3T125 - Cool - ITL80128.IES	B1-U0-G2

Calculation Summary											
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min	Description	PtSpclr	PtSpcTb	Meter Type
Ground_Planar	Illuminance	Fc	0.36	7.4	0.0	N.A.	N.A.	Calculations taken at 0'-0"AFG	10	10	Normal
South Parking Areas	Illuminance	Fc	1.74	6.2	0.4	4.35	15.50	Calculations taken at 0'-0"AFG			
West Parking Area	Illuminance	Fc	1.39	2.9	0.4	3.48	7.25	Calculations taken at 0'-0"AFG			



A: ALED3T125



Pole : PS4-11-20D2

PROPOSED POLES TO BE MOUNTED
ON 30" TALL CONCRETE BASE.
BASE TO BE DESIGNED BY OTHERS.



W: WPLED26



B: BLEDR24

Expanded Luminaire Location Summary						
LumNo	Tag	X	Y	MTG HT	Orient	Tilt
1	A2	99.206	177.528	22.5	163.61	0
1	A2	101.528	178.794	22.5	73.61	0
2	A	60.13	77.985	22.5	180.462	0
3	A	225.477	145.808	22.5	75.225	0
4	A	97.902	276.486	22.5	234.039	0
5	A	74.168	376.376	22.5	168.389	0
6	W	193	436.5	14	340.821	0
7	W	252.5	422.5	14	164.745	0
8	W	147	373	14	71.241	0
9	W	199.5	356	14	71.996	0
10	W	160	469	14	76.373	0
11	W	293	428	14	74.055	0
12	W	326.5	401.5	14	344.65	0
13	W	326	369	14	344.65	0
14	W	316.5	328.5	14	344.65	0
15	W	304	282	14	344.65	0
16	W	174	270.5	14	252.474	0
17	W	257	246	14	252.474	0
18	W	89	293.5	14	252.474	0
19	B	215.5	392	4	164.876	0
20	B	203.5	395.5	4	344.476	0
21	B	172	471	4	254.846	0
22	B	209	459	4	254.846	0
23	B	247.5	448	4	254.846	0
24	B	285	436.5	4	254.846	0
25	B	324	424.5	4	254.846	0
26	W	247.5	341.5	14	71.996	0
27	B	301	227	4	254.846	0
28	W	285.5	256.5	14	344.65	0
29	B	242	212	4	254.846	0
30	B	182.5	229.5	4	254.846	0
31	B	121	248	4	254.846	0
32	B	271	198	4	254.846	0
33	B	304	170.5	4	254.846	0
34	B	334	154.5	4	254.846	0
35	B	359	127.5	4	254.846	0
36	B	366.5	89	4	254.846	0
37	B	333	51	4	254.846	0
38	B	298.5	39.5	4	254.846	0
39	B	263.5	36	4	254.846	0
40	B	234	34.5	4	254.846	0
41	B	202.5	33.5	4	254.846	0
42	B	172	32	4	254.846	0
43	B	142	31	4	254.846	0
44	B	107	30.5	4	254.846	0
45	B	78.5	19.5	4	254.846	0
46	B	351.5	70	4	254.846	0
47	B	310	193.5	4	254.846	0
Total Quantity: 48						

Total Quantity: 48

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.

* RAB Lighting Inc. luminaire and product designs are protected under U.S. and International intellectual property laws. Patents issued or pending apply.

[illegible]

Scale: as noted

Date: 7/8/2016

CASE #00049360B

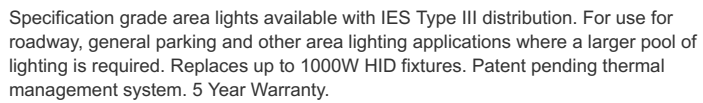
Filename: RiverView Layout - 00049360B.AGL

Filename: Z:\Job Files\Worktrack INC\Worktrack 101 000\Driver\sw\Working_Elec\AC\B\Driver\view1.aout 00040260B ACI

Prepared For:
Advanced Electric
21811 NE 58th St
Vancouver, WA 98682

RAB®
LIGHTING
170 Ludlow Avenue, Northvale, NJ 07647
888.723.1000 • RABWEB.COM

RAB
LIGHTING



Weight: 32.0 lbs

Watts:	125W
Color Temp:	5000K
Color Accuracy:	65 CRI
L70 Lifespan:	100000
Lumens:	10,893
Efficacy:	81 LPW

Technical Specifications

Listings

UL Listing:

Suitable for wet locations.

IESNA LM-79 & LM-80 Testing:

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

Dark Sky Approved:

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

LED Characteristics

Lifespan:

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

LEDs:

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

Color Stability:

LED color temperature is warranted 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.

Construction

IES Classification:

The Type III distribution is ideal for roadway, general parking and other area lighting applications where a larger pool of lighting is required. It is intended to be located near the side of the area, allowing the light to project outward and fill the area.

Effective Projected Area:

EPA = 0.75

Ambient Temperature:

Suitable for use in 40°C (104°F) ambient temperatures

Cold Weather Starting:

The minimum starting temperature is -40°F/-40°C.

Thermal Management:

Superior thermal management with external Air-Flow fins.

Housing:

Die-cast aluminum housing, lens frame and mounting arm.

Mounting:

Heavy-duty mounting arm with "O" ring seal & stainless steel screws

Reflector:

Specular vacuum-metallized polycarbonate

Gaskets:

High-temperature silicone gaskets

IP Rating:

Ingress Protection rating of IP66 for dust and water.

Finish:

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

Green Technology:

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

For use on LEED Buildings:

IDA Dark Sky Approval means that this fixture can be used to achieve LEED Credits for Light Pollution Reduction.

Electrical

Drivers:

Two Drivers, Constant Current, Class 2, 1750mA, 100-277V, 50/60Hz, 1.1A, Power Factor 99%

THD:

5.5% at 120V, 15.6% at 277V

Surge Protection:

4kV

Optical

Replacement:

The ALED125 replaces 320W Metal Halide Area Lights.

BUG Rating:

B1 U0 G2

Other

California Title 24:

See ALED3T125/D10, ALED3T125/BL, ALED3T125/PCS, ALED3T125/PCS2, or ALED3T125/PCT for a 2013 California Title 24 compliant product.

Technical Specifications (continued)

Other

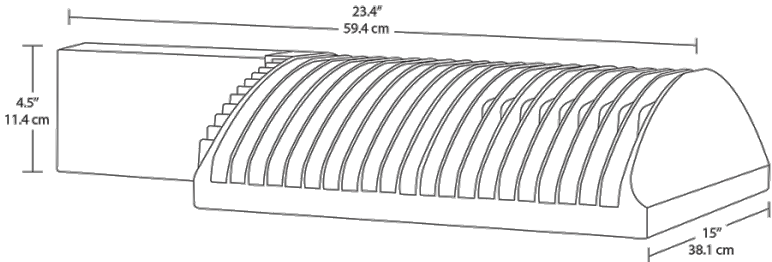
Warranty:

RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish.

ALED3T125



Dimensions



Features

- 66% energy cost savings vs. HID
- 100,000-hour LED lifespan
- Type III distribution
- 5-year warranty

Ordering Matrix

Family	Distribution	Watts	Mount	Color Temp	Finish	Voltage	Photocell	Dimming	Bi-Level
ALED									
	2T = Type II	360 = 360W	= Arm	= 5000K (Cool)	= Bronze	= 120-277V	= No Photocell	= No Dimming	= No Bi-Level
	3T = Type III	260 = 260W	SF = Slipfitter	Y = 3000K (Warm)	W = White	/480 = 480V	/PC = 120V Button	/D10 = Dimmable	/BL = Bi-Level
	4T = Type IV	150 = 150W		N = 4000K (Neutral)	RG = Gray		/PC2 = 277V Button		
		125 = 125W					/PCS = 120V Swivel		
		105 = 105W					/PCS2 = 277V Swivel		
		78 = 78W					/PCT = 120-277V Twistlock		
							/PCS4 = 480V Swivel		
							/PCT4 = 480V Twistlock		



LED bollard with architectural quality and strength at an affordable price point. Cylindrical post with round head. Available in 12, 18 and 24 Watt versions that provide 90, 180, 270 and 360 degree lighting patterns.

Color: Bronze

Weight: 18.6 lbs

Project:

RiverView

Type:

B

Prepared By:

Catherine Barnes

Date:

07/06/16

Driver Info

Type:	Constant Current
120V:	0.26A
208V:	0.18A
240V:	0.15A
277V:	0.14A
Input Watts:	31W
Efficiency:	77%

LED Info

Watts:	24W
Color Temp:	5100K
Color Accuracy:	69 CRI
L70 Lifespan:	100000
Lumens:	1,652
Efficacy:	53 LPW

Technical Specifications

Listings

UL Listing:

Suitable for wet locations.

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.

LED Characteristics

LEDs:

6W multi-chip, long-life LEDs

Lifespan:

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

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

Electrical

Driver:

Two Drivers, Constant Current, Class 2, 100-277V, 50/60 Hz, 4kV Surge Protection, 100-240VAC 0.3 - 0.15 A, 277VAC 0.03 A.

THD:

10.5% at 120V

Construction

Ambient Temperature:

Suitable for use in 40°C (104°F) ambient temperatures

Cold Weather Starting:

Minimum starting temperature is -40°F/-40°C

Thermal Management:

Cast aluminum Thermal Management system for optimal heat sinking. The BLEDR is designed for cool operation, maximum efficiency and long life by minimizing LED junction temperature.

Housing:

Die-cast aluminum with extruded aluminum bollard shaft

Lens:

Clear, vandal-resistant polycarbonate

Mounting:

Four (4) anchor bolts provided for concrete pad mounting. Internal base support has leveling screws.

Reflector:

Specular polycarbonate

Gaskets:

High-temperature silicone gaskets seal out moisture gaskets seal out moisture

Gaskets:

High-temperature silicone gaskets seal out moisture

Finish:

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

Green Technology:

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

Other

Patents:

The design of BLEDR is protected by patents pending in US, Canada, China, Taiwan and Mexico.

Warranty:

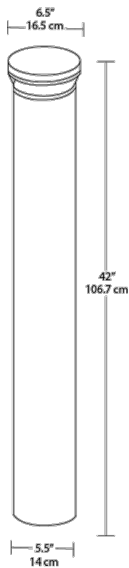
RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish. See our full warranty .

Optical

BUG Rating:

B1 U1 G0

Dimensions



Features

- Patent-pending base mount design for super sturdy installation
- Durable construction and vandal-resistant polycarbonate lens
- 3 configurations to provide 360°, 270°, 180° or 90° lighting pattern
- Precision-engineered optics deliver maximum downward lighting w/o glare
- Four leveling screws provided for easy installation
- 100,000-hour LED lifespan

Ordering Matrix

Family	Shape	Watts	Color Temp	Finish	Type
BLED					
	R = Round	12 = 12W 18 = 18W 24 = 24W	= 5000K (Cool) Y = 3000K (Warm) N = 4000K (Neutral)	= Bronze W = White	= 90° (12W), 270° (18W) , 360° (24W) lighting patterns 180 = 180° lighting pattern (12W)



LED 26W Wallpacks. Patent Pending thermal management system. 100,000 hour L70 lifespan. 5 Year Warranty.

Color: Bronze

Weight: 7.5 lbs

Project:
RiverView

Type:
W

Prepared By:
Catherine Barnes

Date:
07/06/16

Driver Info

Type:	Constant Current
120V:	0.26A
208V:	0.16A
240V:	0.14A
277V:	0.12A
Input Watts:	30W
Efficiency:	88%

LED Info

Watts:	26W
Color Temp:	5000K
Color Accuracy:	70 CRI
L70 Lifespan:	100000
Lumens:	2,662
Efficacy:	90 LPW

Technical Specifications

Listings

UL Listing:

Suitable for wet locations. Suitable for mounting within 1.2m (4ft) of the ground.

Dark Sky Approved:

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

DLC Listed:

This product is on the Design Lights Consortium (DLC) Qualified Products List and is eligible for rebates from DLC Member Utilities.
DLC Product Code: P00001701

LED Characteristics

Lifespan:

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

Color Consistency:

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

Color Stability:

LED color temperature is warranted 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 C78.377-2015.

Construction

IP Rating:

Ingress Protection rating of IP66 for dust and water.

Finish:

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

Ambient Temperature:

Suitable for use in 40°C ambient temperatures.

Cold Weather Starting:

The minimum starting temperature is -40°C.

Thermal Management:

Cast aluminum Thermal Management system for optimal heat sinking. The LPACK is designed for cool operation, most efficient output and maximum LED life by minimizing LED junction temperature.

Green Technology:

RAB LEDs are Mercury, Arsenic and UV free.

For use on LEED Buildings:

IDA Dark Sky Approval means that this fixture can be used to achieve LEED Credits for Light Pollution Reduction.

Electrical

Driver:

Multi-chip 26W high output long life LED Driver Constant Current, 720mA, Class 2, 6kV Surge Protection, 100V-277V, 50-60 Hz, 100-240V.4 Amps.

THD:

7.5% at 120V, 11% at 277V

Other

California Title 24:

See WPLED26/PC for a 2013 California Title 24 compliant model.

Equivalency:

The WPLED26 is Equivalent in delivered lumens to a 175W Metal Halide Wallpack.

HID Replacement Range:

The WPLED26 can be used to replace 150 - 200W Metal Halide Wallpacks based on delivered lumens.

Patents:

The WPLED design is protected by U.S. Pat. D634878, Canada Pat 134878, China Pat. CN301649064S.

Country of Origin:

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

Country of Origin:

Designed by RAB in New Jersey and assembled in Taiwan.

Trade Agreements Act Compliant:

This product is a product of Taiwan and a "designated country" end product that complies with the Trade Agreements Act.

GSA Schedule:

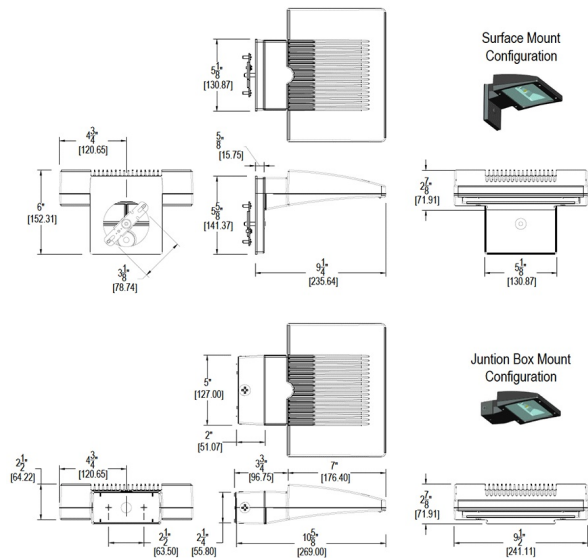
Suitable in accordance with FAR Subpart 25.4.

Optical

BUG Rating:

B1 U0 G0

Dimensions



Features

- High performance LED light engine
- Maintains 70% of initial lumens at 100,000 hours
- Weatherproof high temperature silicone gaskets
- Superior heat sinking with die cast aluminum housing and external fins
- 100 up to 277 Volts
- 5-year warranty

Ordering Matrix

Family	Watts	Color Temp	Sensor	Finish	Photocell	Dimming
WPLED	26 = 26W	= 5000K (Cool) Y = 3000K (Warm) N = 4000K (Neutral)	= No Sensor MS = Mini Sensor	= Bronze W = White	= No Photocell /PC = 120V Button /PCS = 120V Swivel /PC2 = 277V Button	= No Dimming /D10 = Dimmable