



# USE ON REVIEW REPORT

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▶ **FILE #:** 5-G-21-UR (REVISED) **AGENDA ITEM #:** 24  
POSTPONEMENT(S): 5/13/2021 **AGENDA DATE:** 6/10/2021  
▶ **APPLICANT:** KNOX STORAGE EQUITIES, LLC  
OWNER(S): Barbara Elaine Leamon

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TAX ID NUMBER: 105 086, 087 & 08701 [View map on KGIS](#)  
JURISDICTION: County Commission District 3  
STREET ADDRESS: 9091 9103 & 9105 Middlebrook Pk.  
▶ **LOCATION:** North side of Middlebrook Pike, west side of Glenmorea Grove Way.  
▶ **APPX. SIZE OF TRACT:** 4.5 acres  
SECTOR PLAN: Northwest County  
GROWTH POLICY PLAN: Planned Growth Area  
ACCESSIBILITY: Access is via Middlebrook Pike, a median divided, 4-lane major arterial within 112 feet of right-of-way.  
UTILITIES: Water Source: West Knox Utility District  
Sewer Source: West Knox Utility District  
WATERSHED: Turkey Creek

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▶ **ZONING:** CA (General Business) & PR (Planned Residential)  
▶ **EXISTING LAND USE:** Vacant, SFR (Single Family Residential) & RR (Rural Residential)  
▶ **PROPOSED USE:** Indoor self-storage facility

HISTORY OF ZONING: This property was partially rezoned to CA in 1997 (6-A-97-RZ) and rezoned CA & PR in 2001 (3-V-01-RZ).

SURROUNDING LAND USE AND ZONING: North: Multi-family and single-family residential -- PR (Planned Residential), RA (Low Density Residential)  
South: Single-family residential -- PR (Planned Residential), RA (Low Density Residential)  
East: Single-family residential -- PR (Planned Residential), RA (Low Density Residential)  
West: Rural residential -- CA (General Business)

NEIGHBORHOOD CONTEXT: The area is near the commercial node at the intersection with Middlebrook Pike and N Cedar Bluff Rd. A mix of commercial, office and attached residential uses surround the node transitioning back to the adjacent single family residential neighborhoods.

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## STAFF RECOMMENDATION:

▶ **APPROVE the request for a 3-story indoor self-storage facility with approximately 103,930 sqft of floor area, subject to 11 conditions.**

1. Meeting all applicable requirements of the Knox County Zoning Ordinance, including but not limited to

Article 3.90 (Signs, Billboards, and Other Advertising Structures).

2. No illuminated wall signage shall face the residential uses to the north and east. This only applies to advertising signs regulated by Article 3.90 (Signs, Billboards, and Other Advertising Structures).
3. All commercial uses, including parking and driveways, must remain outside of the PR (Planned Residential) zoned portion of the property. This does not apply to stormwater infrastructure and landscaping.
4. Installation of the eastbound left-turn lane in the Middlebrook Pike median per the requirements of the Tennessee Department of Transportation.
5. Locating the access to the outparcels from Driveway "A" the minimum distance from Middlebrook Pike per the requirements of Knox County Engineering and Public Works and the Tennessee Department of Transportation, to be determined during permitting.
6. Prior to grading, installing fencing around the trees that are to be protected to the rear of the property, a minimum of 40-FT from the rear property line, as shown on the landscape plan (sheet L1).
7. Providing landscaping in compliance with the standards for self-storage facilities (Section 4.93.03) of the Knox County Zoning Ordinance. The revised landscape plan must be reviewed and approved by Planning Commission staff before building permits are issued.
8. Installation of the required landscaping within six months of the issuance of occupancy permits, or posting a bond with the Knox County Department of Engineering and Public Works to guarantee such installation.
9. Verifying that the proposed indoor self-storage facility meets the building design standards of Section 4.93.03.J. & K. of the Knox County Zoning Ordinance during permitting, with review and approval by Planning Commission staff.
10. Meeting all applicable requirements of the Knox County Dept. of Engineering and Public Works.
11. Meeting all applicable requirements of the Tennessee Department of Transportation.

With the conditions noted, this plan meets the requirements for approval in the CA zone and the criteria for approval of a use on review.

#### **COMMENTS:**

The applicant is requesting approval of a 3-story indoor self-storage building that has approximately 103,930 square feet of floor area and 704 storage units. The site where this facility will be located is approximately 4.5 acres, however, the entire site is approximately 6 acres. Access will be from Middlebrook Pike and will require the installation of an eastbound left-turn lane in the landscaped median. The driveway location and design of the left turn lane require approval from the Tennessee Department of Transportation (TDOT).

The property was zoned CA (General Business) and OA (Office Park) in 1997 (6-A-97-RZ) and the OA zoned area was rezoned to CA and PR (Planned Residential) in 2001 (7-A-01-RZ). The PR zoning is located in the southeast corner of the property, adjacent to the narrowest part of the access drive for the condo development behind the subject site. The PR zoning for the condo development was approved as part of the same 2001 application for the CA zoning on the subject site. The proposed use on the rezoning application was attached residential units and a retail center.

The Northwest County Sector Plan recommends MDR/O (Medium Density Residential/Office) uses for this site. Indoor self-storage facilities are a commercial use which typically would not be permitted in residential or office zones, however, in 2005 the Planning Commission approved a similar use determination that "self-service storage in a building having the appearance of an office building as a permitted use in the OB (Office, Medical, and Related Services) zone".

In 2018, County Commission approved supplemental regulations for indoor self-storage facilities that include standards for landscape screening when abutting residential zones and streets, and the ground floor façade facing the street (Middlebrook Pike) must have ten (10) percent transparency (window area). The proposed building appears to meet the transparency requirements but this will need to be verified during permitting.

#### **DEVELOPMENT STANDARDS FOR USES PERMITTED ON REVIEW (ARTICLE 4.10 – SECTION 2)**

The planning commission, in the exercise of its administrative judgment, shall be guided by adopted plans and policies, including the general plan and the following general standards:

1) THE PROPOSED USE IS CONSISTENT WITH THE ADOPTED PLANS AND POLICIES, INCLUDING THE GENERAL PLAN AND SECTOR PLAN.

A. The property is designated MDR/O (Medium Density Residential/Office) on the Northwest County Sector Plan. MDR/O has the following description: "Office and medium residential uses typically have similar development characteristics: scale of buildings, areas devoted to parking, yard spaces and location

requirements (on arterials/ collectors). These uses provide a buffer to low density residential areas, particularly when located adjacent to an arterial/collector or as a transition between commercial uses and a neighborhood.”

B. For this Use on Review application to be approved in the MDR/O classification, the Planning Commission must find that the proposed indoor self-storage facility is “consistent with, and not in conflict with” the sector plan.

C. While indoor self-storage facilities are a commercial use, the impact of these facilities on adjacent uses are relatively low because of their low traffic volume, limited use in the evening hours, and controlled access to the building. There are three loading access points; two on the front elevation, one for the first story and one for the second story of the building, and one on the rear elevation for the third story. The proposed building is 3 stories tall and has a larger footprint than most office and multi-family uses but only the southeast corner of the building will have all 3 stories visible above grade. The rear elevation will only have 1 story visible above grade.

D. Self-storage facilities require substantially less parking than most other uses and will therefore require less grading and lighting for the parking lot.

E. The applicant proposes to maintain a minimum of 40-FT of the existing trees along the rear property line which is where the closest residential uses are located to the facility. The east side of the facility will also be visible from the residential development and will be screened with new landscaping on the subject site and existing trees on the adjacent residential property.

## 2) THE USE IS IN HARMONY WITH THE GENERAL PURPOSE AND INTENT OF THE ZONING ORDINANCE.

A. The CA (General Business) zone is intended for general retail business and services but not for manufacturing or for processing materials other than farm products, except that portable sawmills are allowed.

B. Indoor self-storage facilities are a use permitted on review in the CA zone and must meet the supplemental regulations in Section 4.93.03.

C. With the recommended conditions, the indoor self-storage facility meets the zoning standards.

## 3) THE USE IS COMPATIBLE WITH THE CHARACTER OF THE NEIGHBORHOOD WHERE IT IS PROPOSED, AND WITH THE SIZE AND LOCATION OF BUILDINGS IN THE VICINITY.

A. The proposed building is 3 stories tall and has a larger footprint than most office or multi-family uses but only the southeast corner of the building will have all 3 stories visible above grade. The rear elevation will only have 1 story visible above grade.

B. The roofline of the proposed building will be lower than the elevation of the adjacent residential uses.

C. With the proposed landscape screening, including the 40-FT existing tree buffer along the rear property line, the facility will be screened from the adjacent residential uses.

## 4) THE USE WILL NOT SIGNIFICANTLY INJURE THE VALUE OF ADJACENT PROPERTY.

A. The proposed use should have little impact on the adjacent property because self-storage facilities typically generate low traffic volumes, have limited use in the evening hours, and controlled access to the building.

B. The proposed lighting plan shows that light should not project over the property lines and the landscape screening should further reduce and potential nuisance from lighting.

## 5) THE USE WILL NOT DRAW ADDITIONAL TRAFFIC THROUGH RESIDENTIAL AREAS.

A. The development has direct access to Middlebrook Pike which is a major arterial street.

## 6) THE NATURE OF DEVELOPMENT IN THE SURROUNDING AREA IS NOT SUCH AS TO POSE A POTENTIAL HAZARD TO THE PROPOSED USE OR TO CREATE AN UNDESIRABLE ENVIRONMENT FOR THE PROPOSED USE.

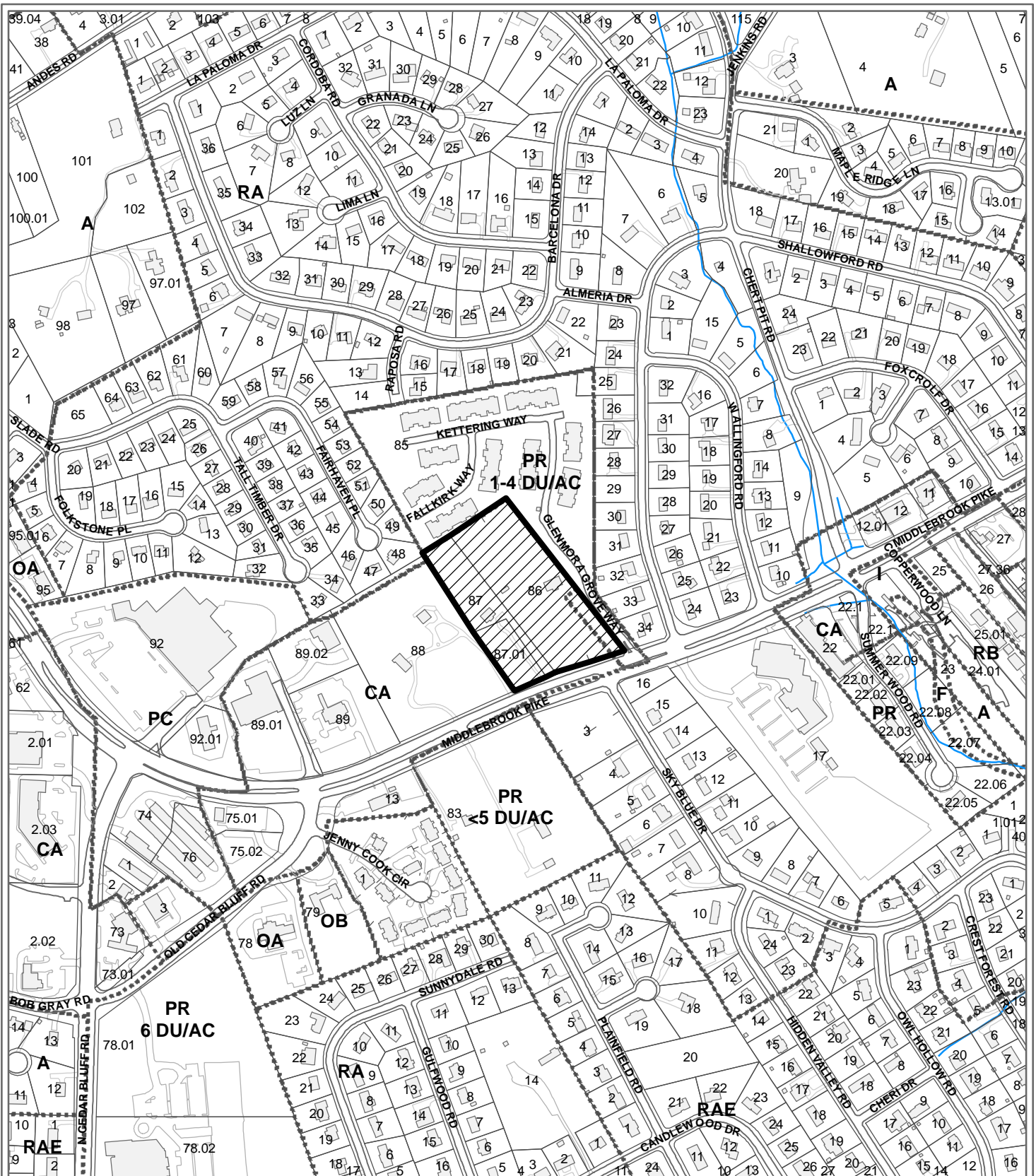
A. There are no known uses in the area that could be a potential hazard or create an undesirable environment for the proposed recovery housing use.

ESTIMATED TRAFFIC IMPACT: 157 (average daily vehicle trips)

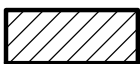
Average Daily Vehicle Trips are computed using national average trip rates reported in the latest edition of "Trip Generation," published by the Institute of Transportation Engineers. Average Daily Vehicle Trips represent the total number of trips that a particular land use can be expected to generate during a 24-hour day (Monday through Friday), with a "trip" counted each time a vehicle enters or exits a proposed development.

ESTIMATED STUDENT YIELD: Not applicable.

The Planning Commission's approval or denial of this request is final, unless the action is appealed to the Knox County Board of Zoning Appeals. The date of the Knox County Board of Zoning Appeals hearing will depend on when the appeal application is filed. Appellants have 30 days to appeal a Planning Commission decision in the County.



**5-G-21-UR  
USE ON REVIEW**



Indoor self-storage facility in CA (General Business) & PR (Planned Residential)

Petitioner: Knox Storage Equities, LLC

Map No: 105

Jurisdiction: County



Original Print Date: 4/13/2021

Revised: 5/27/2021

Knoxville - Knox County Planning Commission \* City / County Building \* Knoxville, TN 37902

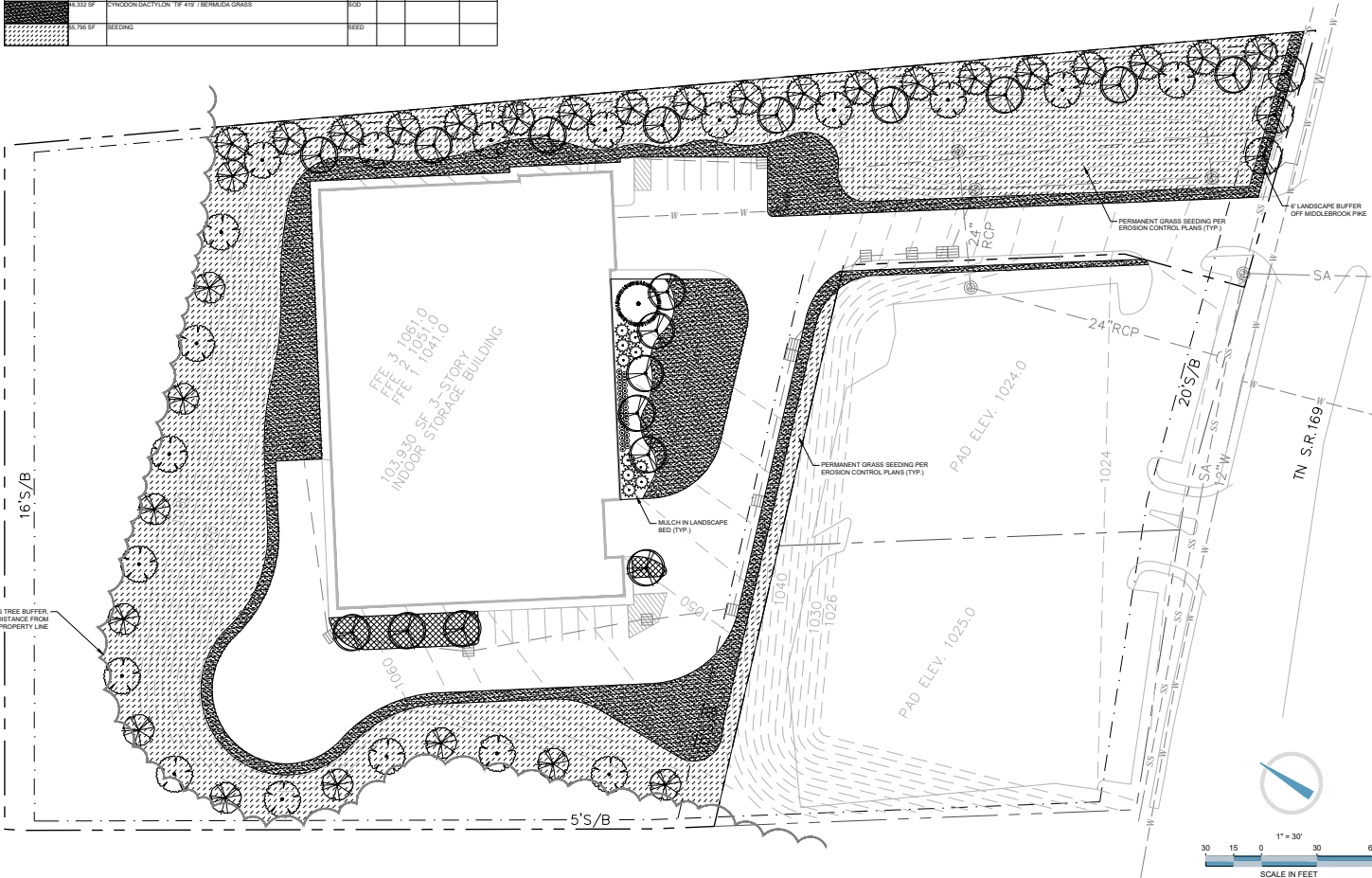


**GENERAL LANDSCAPE NOTES:**

- WARRANTY: ALL PLANTS SHALL BE WARRANTED TO REMAIN ALIVE, HEALTHY, AND IN THRIVING CONDITION FOR A PERIOD OF ONE YEAR FROM FINAL ACCEPTANCE.
- PLANTS SHALL MEET DOT SPECIFICATIONS AND AMERICAN STANDARD FOR NURSERY STOCK STANDARDS.
- PLANTS SHALL BE SPECIMEN QUALITY. PLANTS SHALL BE SOUND, HEALTHY AND VIGOROUS, WELL BRANCHED, AND DENSELY FOLIATED WHEN IN LEAF.
- HEIGHT AND SPREAD DIMENSIONS SPECIFIED REFER TO THE MAIN BODY OF THE PLANT AND NOT FROM BRANCH TIP TO TIP. IF A RANGE OF SIZE IS GIVEN, NO PLANT SHALL BE AS LARGE AS THE MAXIMUM SIZE SPECIFIED.
- SHADE TREES SHALL BE STRAIGHT UNLESS OTHERWISE SPECIFIED.
- PLANTS SHALL BE SUBJECT TO REVIEW BY LANDSCAPE ARCHITECT. LANDSCAPE ARCHITECT SHALL BE THE SOLE JUDGE OF THE QUALITY AND ACCEPTABILITY OF MATERIALS AND PLACEMENT.
- PLACE PLANTS UPRIGHT AND TURNED SO THAT THE MOST ATTRACTIVE SIDE IS VIEWED.
- BE FAMILIAR WITH UNDERGROUND UTILITIES BEFORE DIGGING. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ALL DAMAGE TO UTILITY LINES.
- PROVIDE SHOVEL-CUT TRENCH AT SHRUB BEDS IN LAWN AREAS UNLESS OTHERWISE NOTED.
- PROVIDE 3" THICKNESS MULCH AT ALL PLANTS AND PLANTING BEDS. MULCH MUST BE 3" THICK AT TIME OF FINAL WALK-THROUGH. MULCH IN SHRUB AND TREE PLANTING BEDS SHALL BE PINE STRAW UNLESS OTHERWISE NOTED. MULCH IN GROUND COVER BEDS TO BE SHREDDED HARDWOOD UNLESS OTHERWISE NOTED. MULCH SAMPLE IS TO BE SUBMITTED FOR APPROVAL PRIOR TO INSTALLATION. MULCH IS TO BE REPLACED AT CONTRACTOR'S OWN EXPENSE IF LAD PRIOR TO APPROVAL.
- MAINTENANCE WORK SHALL BE PERFORMED UNTIL DATE OF FINAL ACCEPTANCE BY OWNER'S REPRESENTATIVE.
- CONTRACTOR'S PRICES SHALL INCLUDE ALL LABOR AND MATERIAL NECESSARY TO COMPLETE THE WORK, I.E. MULCH, PLANTING, SOIL, MX, WOOD AND WIRE STAKING MATERIAL, ETC.
- QUANTITIES NECESSARY TO COMPLETE THE WORK ON THE DRAWING SHALL BE FURNISHED. QUANTITY ESTIMATES HAVE BEEN MADE CAREFULLY, BUT THE OWNER'S REPRESENTATIVE ASSUMES NO LIABILITY FOR OMISSION OR ERRORS. HIS ESTIMATES ARE ONLY AN AID FOR CLARIFICATION OF UNITS AND A CHECK FOR THE CONTRACTOR TO COMPARE WITH HIS OWN ESTIMATES. DIFFERENCES SHALL BE BROUGHT TO THE ATTENTION OF OWNER'S REPRESENTATIVE. NO EXTRA COMPENSATION SHALL BE ALLOWED FOR EXTRA QUANTITIES NECESSARY TO COMPLETE THE WORK.
- WHERE LANDSCAPING AREAS ADJOIN GRASSED RIGHTS-OF-WAY, SUCH AREAS SHALL BE CONSIDERED PART OF THE LANDSCAPED AREA FOR PURPOSES OF MAINTENANCE. AS OF COMPLETION OF SITE IMPROVEMENTS, THE PROPERTY OWNER SHALL HAVE AN IMPLIED EASEMENT OF THE RIGHT-OF-WAY EXTENDING FROM THE SITE TO THE ROAD PAVEMENT IN ORDER TO COMPLETE THE REQUIRED MAINTENANCE.
- A MAINTENANCE INSPECTION OF TREES WILL BE PERFORMED AFTER TWO FULL GROWING SEASONS FROM THE DATE OF THE FINAL CONSTRUCTION INSPECTION. PROJECT OWNERS AT THE TIME OF THE MAINTENANCE INSPECTION ARE RESPONSIBLE FOR ORDINANCE COMPLIANCE.
- CONTRACTOR TO DESIGN-BUILD IRRIGATION SYSTEM TO PROVIDE 100% COVERAGE OF NEW PLANT MATERIAL. IRRIGATION HEADS TO BE INSTALLED FLUSH WITH GRADE.

**PLANT SCHEDULE**

TREES	QTY	BOTANICAL / COMMON NAME	CONT	CAL	SIZE
	1	QUERCUS CANADENSIS / EASTERN REDBUD	CONT	FCAL	
	3	CYPRESSUS ARIZONICA / CAROLINA SAPPHIRE / CAROLINA SAPPHIRE CYPRUS	8.8 B	FCAL	3 MIN HEIGHT
	2	LEX X NELLE R STEVENS / NELLE STEVENS HOLLY MIN. 8' HEIGHT	8.8 B	FCAL	3 MIN HEIGHT
	1	METABEGUONIA GYLYPHOSTROIDES / GAWN REDWOOD	8.8 B	FCAL	3 MIN HEIGHT
	2	NYSSA SYLVATICA WILDFIRE / WILDFIRE UPRLO	8.8 B	FCAL	
	2	QUERCUS ALBA / WHITE OAK	8.8 B	FCAL	
	2	QUERCUS PHELLOS / WILLOW OAK	8.8 B	FCAL	
SHRUBS	QTY	BOTANICAL / COMMON NAME	SIZE	SPACING	
	20	LEX CORNUTA / NEEDLEPOINT / NEEDLEPOINT HOLLY	3 GAL	36" o.c.	
GROUND COVERS	QTY	BOTANICAL / COMMON NAME	CONT	SPACING	
	381	IRIDOPSIS SPICATA / CREEPING LILY TURT	PPOT	12" o.c.	
	471	BOTANICAL / COMMON NAME	CONT	SPACING	
	2,332 SF	SYNDORISACTICOR / TP 419 / BERMUDA GRASS	SOB		
	2,795 SF	SEEDING	SEED		



**ENGINEER:**  
**FORESITE group**  
 Foresite Group, LLC | www.fg-inc.net  
 3740 Davinci Ct. | 770.368.1399  
 Suite 100 | 770.368.1944  
 Peachtree Corners, GA 30092

**DEVELOPER:**  
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 1619 SCHAEFFER RD.  
 KNOXVILLE, TN 37932  
 (865) 740-6382  
**CONTACT:** CHRIS BROWN, CEO

**Planning**  
 File No.: **5-G-21-UR**  
 Date submitted: **5/28/2021**  
 These plans have not been reviewed by  
 Planning Staff and may not be finalized.

**PROJECT:**  
**MIDDLEBROOK PIKE STORAGE**  
 LANDSCAPE PLAN  
 8081, 9102, 9105 MIDDLEBROOK PIKE  
 KNOXVILLE, TN 37923  
 UNKNOWN AT THIS TIME

**SEAL:**

REVISIONS	DATE

PROJECT MANAGER:	TRB
DRAWING BY:	TRB
JURISDICTION:	KNOXVILLE, TN
DATE:	2021 05 28
SCALE:	1" = 30'
TITLE:	

**LANDSCAPE PLAN**  
 SHEET NUMBER: **L-1**  
 COMMENTS: NOT RELEASED FOR CONSTRUCTION  
 JOB FILE NUMBER: <###.###>

# MIDDLEBROOK SELF STORAGE

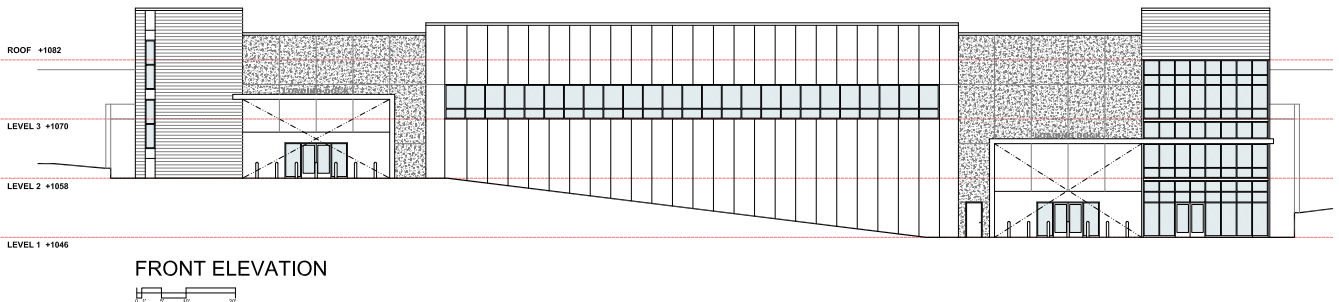
KNOXVILLE, TN 37923



CONCEPTUAL VIEW - 2



CONCEPTUAL VIEW - 1







CONCEPTUAL VIEW - 4



CONCEPTUAL VIEW - 3

CONCEPT 4 - ELEVATION AND VIEWS

5-G-21-UR  
5/28/2021

MAY 27, 2021

**schroeder - architects**  
SAC0001

ARCHITECTURE :: INTERIORS :: URBAN DESIGN  
211 Perimeter Center Parkway, Suite 350, GA 30346 P : 404.733.2626

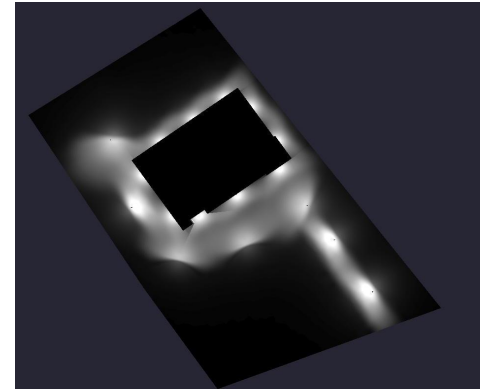
MIDDLEBROOK STORAGE: 05/28/2021  
 PREPARED BY SESCO LIGHTING: DIANNA OSICKEY, AIA, LC  
 FOR SCHROEDER ARCHITECTS

Luminaire Schedule							
Symbol	Tag	Label	Qty	Description	Arrangement	Lum. Lumens	Lum. Watts LLF
SA	SA	ECF-AFR	3	ECF-S-64L-1A-NW-G2-AFR	SINGLE	27628	205.9 0.880
SB	SB	ECF-4	2	ECF-S-64L-1A-NW-G2-4	SINGLE	21694	205.9 0.880
SC	SC	ECF-4-HS	2	ECF-S-64L-1A-NW-G2-4-HS	SINGLE	21659	205.9 0.880
WP	WP	LPW-3	10	LPW-32-90-NW-G3-3-2021	SINGLE	10761	89.9 0.880

Calculation Summary							
Label	Calc.Type	Units	Avg	Max	Min	ArgMin	MaxMin
DRIVE	Illuminance	Fc	3.52	15.3	0.8	3.87	25.50
INNER PROPERTY LINE	Illuminance	Fc	0.33	0.7	0.0	N.A.	N.A.
PARKING_1	Illuminance	Fc	3.71	10.5	1.2	3.09	8.75
PARKING_2	Illuminance	Fc	2.41	5.2	0.5	4.82	10.40
PROPERTY LINE	Illuminance	Fc	0.03	0.7	0.0	N.A.	N.A.
SIDEWALK	Illuminance	Fc	4.35	11.5	0.0	N.A.	N.A.
SIDEWALK_2	Illuminance	Fc	1.71	2.3	0.3	5.70	7.67



- 1 FC
- 2 FC
- 3 FC



File No.: 5-G-21-UR  
 Date submitted: 5/28/2021

These plans have not been reviewed by  
 Planning Staff and may not be finalized.

ARCHITECT:  
 ENGINEER:

ISSUE FOR:	
DATE	

PREPARED BY:

PAGE:



Gardco EcoForm Gen-2 combines economy with performance in an LED area luminaire. Capable of delivering up to 27,800 lumens or more in a compact, low profile LED luminaire, EcoForm offers a new level of customer value. EcoForm features an innovative retrofit arm kit, simplifying site conversions to LED by eliminating the need to drill additional holes in most existing poles. Integral control systems available for further energy savings. Includes Service Tag, our innovative way to provide assistance throughout the life of the product.

Project: \_\_\_\_\_  
 Location: \_\_\_\_\_  
 Cat.No: \_\_\_\_\_  
 Type: \_\_\_\_\_  
 Lamps: \_\_\_\_\_ Qty: \_\_\_\_\_  
 Notes: \_\_\_\_\_

5-G-21-UR  
5/28/2021

example: ECF-S-64L-900-NW-G2-AR-5-120-HIS-MGY

### Ordering guide

Prefix	Number of LEDs	Drive Current	LED Color - Generation	Mounting	Distribution	Voltage	Options					Finish				
							Dimming controls	Motion sensing lens	Photo-sensing	Electrical	Luminaire					
<b>ECF-S</b>																
ECF-S EcoForm site and area, small	32L 32 LEDs (2 modules)	365 365mA	WW-G2 Warm White 3000K, 70 CRI Generation 2	AR Arm Mount (standard) <sup>2</sup>	Type 2 2 Type 2 2-90 Rotated left 90° 2-270 Rotated right 270°	120 120V 208 208V 240 240V 277 277V 347 347V 480 480V UNV 120-277V (50/60Hz) HVU 347-480V (50/60Hz)	DD 0-10V External dimming (by others) <sup>4</sup> DCC Dual Circuit Control <sup>4,5,6</sup> FAWS Field Adjustable Wattage Selector <sup>4,5</sup> SW Interface module for SiteWise <sup>4,6,7</sup> LLC Integral wireless module <sup>4,6,8,17</sup> BL Bi-level functionality <sup>4,17</sup>	IMR13 Integral with #3 lens <sup>15</sup> IMR17 Integral with #7 lens <sup>16</sup>	PCB Photocontrol Button <sup>8,9</sup> TLRD5 Twist Lock Receptacle 5 Pin <sup>10</sup> TLRD7 Twist Lock Receptacle 7 Pin <sup>10</sup> TLRPC Twist Lock Receptacle w/ Photocell <sup>9,11</sup>	Fusing F1 Single (120, 277, 347VAC) <sup>9</sup> F2 Double (208, 240, 480VAC) <sup>9</sup> Pole Mount Fusing FP1 Single (120, 277, 347VAC) <sup>9</sup> FP2 Double (208, 240, 480VAC) <sup>9</sup> FP3 Canadian Double Pull (208, 240, 480VAC) <sup>9</sup> Surge Protection (10kA standard) SP2 Increased 20kA	Square Pole Adapter included in standard product TB Terminal Block <sup>12</sup> RPA Round Pole Adapter (fits to 3"- 3.9" O.D. pole) <sup>13</sup> HIS Internal Housing Side Shield <sup>14</sup>	Textured BK Black WH White BZ Bronze DGY Dark Gray MGY Medium Gray Customer specified RAL Specify optional color or RAL (ex: RAL7024) CC Custom color (Must supply color chip for required factory quote)				
		700 700mA											NW-G2 Neutral White 4000K, 70 CRI Generation 2	The following mounting kits must be ordered separately (See accessories)	Type 3 3 Type 3 3-90 Rotated left 90° 3-270 Rotated right 270°	DynaDimmer: Automatic Profile Dimming CS50 Safety 50% Dimming, 7 hours <sup>4,8</sup> CM50 Median 50% Dimming, 8 hours <sup>4,8</sup> CS30 Safety 30% Dimming, 7 hours <sup>4,8</sup> CM30 Median 30% Dimming, 8 hours <sup>4,8</sup>
		1A 1050mA 1.2A 1200mA											CW-G2 Cool White 5000K, 70 CRI Generation 2	SF Slip Fitter Mount <sup>3</sup> (fits to 2 <sup>3</sup> / <sub>16</sub> " O.D. tenon)	Type 4 4 Type 4 4-90 Rotated left 90° 4-270 Rotated right 270°	
	48L 48 LEDs (3 modules)	900 900mA 1A 1050mA 1.2A 1200mA		WS Wall mount with surface conduit rear entry permitted	Type 5 5 Type 5 5W Type 5W											
	64L 64 LEDs (4 modules)	900 900mA 1A 1050mA		RAM Retrofit arm mount kit <sup>2</sup>												

- BL-IMR13/7 equipped with out-boarded sensor housing when voltage is HVU (347-480V)
- Mounts to a 4" round pole with adapter included for square poles.
- Limited to a maximum of 45 degrees aiming above horizontal.
- Not available with other dimming control options.
- Not available with motion sensor.
- Not available with photocontrol.
- Available only in 120 or 277V.
- Not available in 347 or 480V
- Must specify input voltage.
- Dimming will not be connected to NEMA receptacle if ordering with other control options.
- Not available in 480V. Order photocell separately with TLRD5/7.
- Not available with DCC.
- Not available with SF and WS. RPAs provided with black finish standard.
- HIS not available with Type 5 and 5W optics.
- Not available with DD, DCC, and FAWS dimming control options.
- Not available with DD, DCC, FAWS and LLC dimming control options.
- Must specify a motion sensor lens.



# ECF-S EcoForm small

## Area luminaire

EcoForm Accessories (ordered separately, field installed)

### Shielding Accessories

#### House Side shield

Standard optic orientation:

- HIS-32-H<sup>18</sup>** Internal House Side Shield for 32 LEDs (2 modules)
- HIS-48-H<sup>18</sup>** Internal House Side Shield for 48 LEDs (3 modules)
- HIS-64-H<sup>18</sup>** Internal House Side Shield for 64 LEDs (4 modules)

Optic at 90 or 270 orientation:

- HIS-32-V<sup>18</sup>** Internal House Side Shield for 32 LEDs (2 modules)
- HIS-48-V<sup>18</sup>** Internal House Side Shield for 48 LEDs (3 modules)
- HIS-64-V<sup>18</sup>** Internal House Side Shield for 64 LEDs (4 modules)

<sup>18</sup>. Not available with Type 5 or 5W optics

### Luminaire Accessories

- ECF-BD-G2** Bird deterrent
- ECF-RAM-G2-(F)** Retrofit Arm mount kit
- ECF-SF-G2-(F)** Slip Fitter Mount (fits to 2 3/8" O.D. tenon)
- ECF-WS-G2-(F)** Wall mount with surface conduit rear entry permitted

#### EcoForm PTF2

(pole top fitter fits 2 3/8-2 1/2" OD x 4" depth tenon)

- PTF2-ECF-S/L-1-90-(F)** 1 luminaire at 90°
- PTF2-ECF-S/L-2-90-(F)** 2 luminaires at 90°
- PTF2-ECF-S/L-2-180-(F)** 2 luminaires at 180°
- PTF2-ECF-S/L-3-90-(F)** 3 luminaires at 90°
- PTF2-ECF-S/L-4-90-(F)** 4 luminaires at 90°
- PTF2-ECF-S/L-3-120-(F)** 3 luminaires at 120°

#### EcoForm PTF3

(pole top fitter fits 3-3 1/2" OD x 6" depth tenon)

- PTF3-ECF-S/L-1-90-(F)** 1 luminaire at 90°
- PTF3-ECF-S/L-2-90-(F)** 2 luminaires at 90°
- PTF3-ECF-S/L-2-180-(F)** 2 luminaires at 180°
- PTF3-ECF-S/L-3-90-(F)** 3 luminaires at 90°
- PTF3-ECF-S/L-4-90-(F)** 4 luminaires at 90°
- PTF3-ECF-S/L-3-120-(F)** 3 luminaires at 120°

#### EcoForm PTF4

(pole top fitter fits 3 1/2-4" OD x 6" depth tenon)

- PTF4-ECF-S/L-1-90-(F)** 1 luminaire at 90°
- PTF4-ECF-S/L-2-90-(F)** 2 luminaires at 90°
- PTF4-ECF-S/L-2-180-(F)** 2 luminaires at 180°
- PTF4-ECF-S/L-3-90-(F)** 3 luminaires at 90°
- PTF4-ECF-S/L-4-90-(F)** 4 luminaires at 90°
- PTF4-ECF-S/L-3-120-(F)** 3 luminaires at 120°

(F) = Specify finish

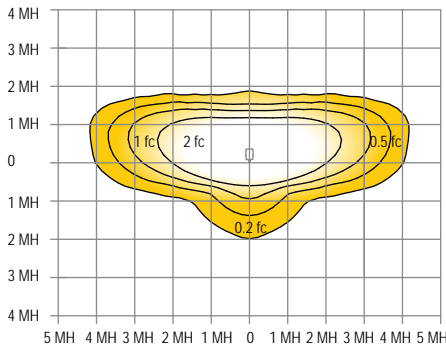
### Predicted Lumen Depreciation Data

Predicted performance derived from LED manufacturer's data and engineering design estimates, based on IESNA LM-80 methodology. Actual experience may vary due to field application conditions. L<sub>70</sub> is the predicted time when LED performance depreciates to 70% of initial lumen output. Calculated per IESNA TM21-11. Published L<sub>70</sub> hours limited to 6 times actual LED test hours

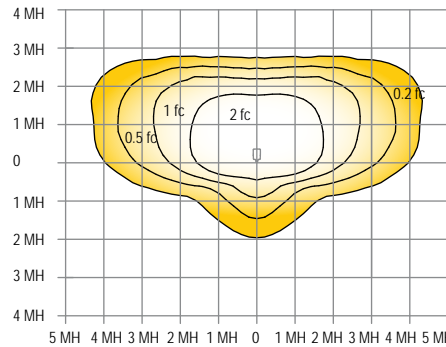
Ambient Temperature °C	Driver mA	Calculated L <sub>70</sub> Hours	L <sub>70</sub> per TM-21	Lumen Maintenance % at 60,000 hrs
25°C	up to 1200 mA	>100,000 hours	>60,000 hours	>88%

### Optical distribution

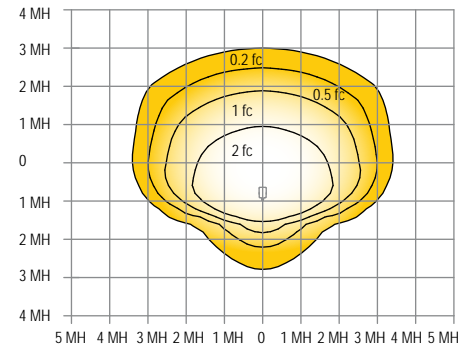
Based on configuration ECF-S-48L-1A-NW-G2 (159W) mounted at 20ft.



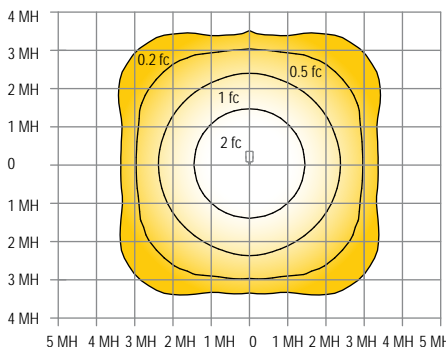
Type 2



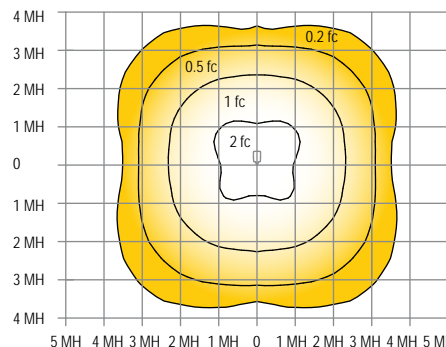
Type 3



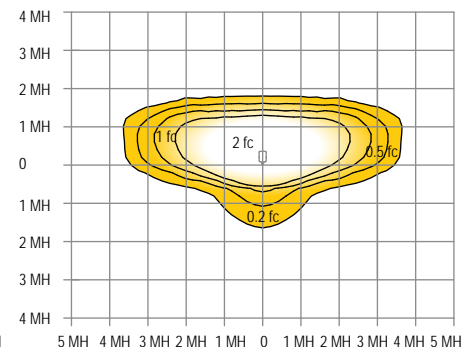
Type 4



Type 5



Type 5W



AFR

# ECF-S EcoForm small

## Area luminaire

### 3000K LED Wattage and Lumen Values

Ordering Code	Total LEDs	LED Current (mA)	Color Temp.	Average System Watts	Type 2			Type 3			Type 4		
					Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)
ECF-S-32L-365-WW-G2-x	32	365	3000	40	5,508	B1-U0-G1	138	5,428	B1-U0-G2	136	5,637	B1-U0-G2	141
ECF-S-32L-530-WW-G2-x	32	530	3000	56	7,159	B2-U0-G2	129	7,055	B1-U0-G2	127	7,327	B1-U0-G2	132
ECF-S-32L-700-WW-G2-x	32	700	3000	73	9,234	B2-U0-G2	127	9,034	B2-U0-G2	124	9,452	B2-U0-G2	130
ECF-S-32L-1A-WW-G2-x	32	1050	3000	106	13,001	B3-U0-G2	123	12,719	B2-U0-G2	120	13,306	B2-U0-G3	126
ECF-S-32L-1.2A-WW-G2-x	32	1200	3000	122	14,421	B3-U0-G3	119	14,108	B2-U0-G3	116	14,760	B2-U0-G3	121
ECF-S-48L-900-WW-G2-x	48	900	3000	135	17,115	B3-U0-G3	127	16,744	B3-U0-G3	124	17,518	B2-U0-G3	130
ECF-S-48L-1A-WW-G2-x	48	1050	3000	159	19,381	B3-U0-G3	122	18,960	B3-U0-G3	119	19,836	B3-U0-G4	125
ECF-S-48L-1.2A-WW-G2-x	48	1200	3000	183	21,515	B3-U0-G3	118	21,048	B3-U0-G4	115	22,020	B3-U0-G4	121
ECF-S-64L-900-WW-G2-x	64	900	3000	178	22,652	B3-U0-G3	127	22,161	B3-U0-G4	125	23,185	B3-U0-G4	130
ECF-S-64L-1A-WW-G2-x	64	1050	3000	206	25,520	B3-U0-G3	124	24,966	B3-U0-G4	121	26,120	B3-U0-G4	127

Ordering Code	Total LEDs	LED Current (mA)	Color Temp.	Average System Watts	Type AFR			Type 5			Type 5W		
					Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)
ECF-S-32L-365-WW-G2-x	32	365	3000	40	5,706	B2-U0-G1	143	5,790	B3-U0-G1	145	5,604	B3-U0-G1	140
ECF-S-32L-530-WW-G2-x	32	530	3000	56	7,417	B2-U0-G1	133	7,526	B3-U0-G2	135	7,284	B3-U0-G2	131
ECF-S-32L-700-WW-G2-x	32	700	3000	73	9,567	B2-U0-G2	131	9,707	B4-U0-G2	133	9,395	B4-U0-G2	129
ECF-S-32L-1A-WW-G2-x	32	1050	3000	106	13,467	B3-U0-G2	128	13,665	B4-U0-G2	129	13,227	B4-U0-G2	125
ECF-S-32L-1.2A-WW-G2-x	32	1200	3000	122	14,939	B3-U0-G2	123	15,158	B4-U0-G2	125	14,671	B4-U0-G2	121
ECF-S-48L-900-WW-G2-x	48	900	3000	135	17,731	B3-U0-G2	131	17,990	B4-U0-G2	133	17,413	B5-U0-G3	129
ECF-S-48L-1A-WW-G2-x	48	1050	3000	159	20,076	B3-U0-G2	127	20,372	B5-U0-G3	128	19,717	B5-U0-G3	124
ECF-S-48L-1.2A-WW-G2-x	48	1200	3000	183	22,288	B3-U0-G2	122	22,616	B5-U0-G3	124	21,888	B5-U0-G3	120
ECF-S-64L-900-WW-G2-x	64	900	3000	178	23,465	B3-U0-G2	132	23,810	B5-U0-G3	134	23,045	B5-U0-G3	130
ECF-S-64L-1A-WW-G2-x	64	1050	3000	206	26,437	B4-U0-G3	128	26,150	B5-U0-G3	127	25,964	B5-U0-G4	126

### 4000K LED Wattage and Lumen Values

Ordering Code	Total LEDs	LED Current (mA)	Color Temp.	Average System Watts	Type 2			Type 3			Type 4		
					Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)
ECF-S-32L-365-NW-G2-x	32	365	4000	40	5,798	B1-U0-G1	145	5,713	B1-U0-G2	143	5,934	B1-U0-G2	148
ECF-S-32L-530-NW-G2-x	32	530	4000	56	7,536	B2-U0-G2	135	7,426	B1-U0-G2	133	7,713	B1-U0-G2	138
ECF-S-32L-700-NW-G2-x	32	700	4000	73	9,720	B2-U0-G2	133	9,509	B2-U0-G2	130	9,949	B2-U0-G2	136
ECF-S-32L-1A-NW-G2-x	32	1050	4000	106	13,685	B3-U0-G2	130	13,388	B2-U0-G3	127	14,006	B2-U0-G3	133
ECF-S-32L-1.2A-NW-G2-x	32	1200	4000	122	15,180	B3-U0-G3	125	14,851	B2-U0-G3	122	15,537	B2-U0-G3	128
ECF-S-48L-900-NW-G2-x	48	900	4000	135	18,016	B3-U0-G3	133	17,625	B3-U0-G3	130	18,440	B3-U0-G3	136
ECF-S-48L-1A-NW-G2-x	48	1050	4000	159	20,401	B3-U0-G3	129	19,958	B3-U0-G4	126	20,880	B3-U0-G4	132
ECF-S-48L-1.2A-NW-G2-x	48	1200	4000	183	22,647	B3-U0-G3	124	22,156	B3-U0-G4	121	23,179	B3-U0-G4	127
ECF-S-64L-900-NW-G2-x	64	900	4000	178	23,844	B3-U0-G3	134	23,327	B3-U0-G4	131	24,405	B3-U0-G4	137
ECF-S-64L-1A-NW-G2-x	64	1050	4000	206	26,863	B3-U0-G3	130	26,280	B3-U0-G4	128	27,495	B3-U0-G4	134

Ordering Code	Total LEDs	LED Current (mA)	Color Temp.	Average System Watts	Type AFR			Type 5			Type 5W		
					Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)
ECF-S-32L-365-NW-G2-x	32	365	4000	40	6,006	B2-U0-G1	150	6,094	B3-U0-G1	152	5,898	B3-U0-G2	147
ECF-S-32L-530-NW-G2-x	32	530	4000	56	7,807	B2-U0-G1	140	7,922	B3-U0-G2	142	7,667	B3-U0-G2	138
ECF-S-32L-700-NW-G2-x	32	700	4000	73	10,070	B2-U0-G2	138	10,218	B4-U0-G2	140	9,889	B4-U0-G2	136
ECF-S-32L-1A-NW-G2-x	32	1050	4000	106	14,176	B3-U0-G2	134	14,384	B4-U0-G2	136	13,923	B4-U0-G2	132
ECF-S-32L-1.2A-NW-G2-x	32	1200	4000	122	15,725	B3-U0-G2	129	15,956	B4-U0-G2	131	15,443	B4-U0-G2	127
ECF-S-48L-900-NW-G2-x	48	900	4000	135	18,664	B3-U0-G2	138	18,937	B4-U0-G3	140	18,329	B5-U0-G3	136
ECF-S-48L-1A-NW-G2-x	48	1050	4000	159	21,333	B3-U0-G2	133	21,444	B5-U0-G3	135	20,755	B5-U0-G3	131
ECF-S-48L-1.2A-NW-G2-x	48	1200	4000	183	23,461	B3-U0-G2	128	23,806	B5-U0-G3	130	23,040	B5-U0-G3	126
ECF-S-64L-900-NW-G2-x	64	900	4000	178	24,700	B3-U0-G2	139	25,063	B5-U0-G3	141	24,258	B5-U0-G4	136
ECF-S-64L-1A-NW-G2-x	64	1050	4000	206	27,828	B4-U0-G3	135	27,526	B5-U0-G3	134	27,330	B5-U0-G4	133

# ECF-S EcoForm small

## Area luminaire

### 5000K LED Wattage and Lumen Values

Ordering Code	Total LEDs	LED Current (mA)	Color Temp.	Average System Watts	Type 2			Type 3			Type 4		
					Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)
ECF-S-32L-365-CW-G2-x	32	365	5000	40	5,798	B1-U0-G1	145	5,713	B1-U0-G2	143	5,934	B1-U0-G2	148
ECF-S-32L-530-CW-G2-x	32	530	5000	56	75,36	B2-U0-G2	135	7,426	B1-U0-G2	133	7,713	B1-U0-G2	138
ECF-S-32L-700-CW-G2-x	32	700	5000	73	9,720	B2-U0-G2	133	9,509	B2-U0-G2	130	9,949	B2-U0-G2	136
ECF-S-32L-1A-CW-G2-x	32	1050	5000	106	13,685	B3-U0-G2	130	13,388	B2-U0-G3	127	14,006	B2-U0-G3	133
ECF-S-32L-1.2A-CW-G2-x	32	1200	5000	122	15,180	B3-U0-G3	125	14,851	B2-U0-G3	122	15,537	B2-U0-G3	128
ECF-S-48L-900-CW-G2-x	48	900	5000	135	18,016	B3-U0-G3	133	17,625	B3-U0-G3	130	18,440	B3-U0-G3	136
ECF-S-48L-1A-CW-G2-x	48	1050	5000	159	20,401	B3-U0-G3	129	19,958	B3-U0-G4	126	20,880	B3-U0-G4	132
ECF-S-48L-1.2A-CW-G2-x	48	1200	5000	183	22,647	B3-U0-G3	124	22,156	B3-U0-G4	121	23,179	B3-U0-G4	127
ECF-S-64L-900-CW-G2-x	64	900	5000	178	23,844	B3-U0-G3	134	23,327	B3-U0-G4	131	24,405	B3-U0-G4	137
ECF-S-64L-1A-CW-G2-x	64	1050	5000	206	26,863	B3-U0-G3	130	26,280	B3-U0-G4	128	27,495	B3-U0-G4	134

Ordering Code	Total LEDs	LED Current (mA)	Color Temp.	Average System Watts	Type AFR			Type 5			Type 5W		
					Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)
ECF-S-32L-365-CW-G2-x	32	365	5000	40	6,006	B2-U0-G1	150	6,094	B3-U0-G1	152	5,898	B3-U0-G2	147
ECF-S-32L-530-CW-G2-x	32	530	5000	56	7,807	B2-U0-G1	140	7,922	B3-U0-G2	142	7,667	B3-U0-G2	138
ECF-S-32L-700-CW-G2-x	32	700	5000	73	10,070	B2-U0-G2	138	10,218	B4-U0-G2	140	9,889	B4-U0-G2	136
ECF-S-32L-1A-CW-G2-x	32	1050	5000	106	14,176	B3-U0-G2	134	14,384	B4-U0-G2	136	13,923	B4-U0-G2	132
ECF-S-32L-1.2A-CW-G2-x	32	1200	5000	122	15,725	B3-U0-G2	129	15,956	B4-U0-G2	131	15,443	B4-U0-G2	127
ECF-S-48L-900-CW-G2-x	48	900	5000	135	18,664	B3-U0-G2	138	18,937	B4-U0-G3	140	18,329	B5-U0-G3	136
ECF-S-48L-1A-CW-G2-x	48	1050	5000	159	21,133	B3-U0-G2	133	21,444	B5-U0-G3	135	20,755	B5-U0-G3	131
ECF-S-48L-1.2A-CW-G2-x	48	1200	5000	183	23,461	B3-U0-G2	128	23,806	B5-U0-G3	130	23,040	B5-U0-G3	126
ECF-S-64L-900-CW-G2-x	64	900	5000	178	24,700	B3-U0-G2	139	25,063	B5-U0-G3	141	24,258	B5-U0-G4	136
ECF-S-64L-1A-CW-G2-x	64	1050	5000	206	27,828	B4-U0-G3	135	27,526	B5-U0-G3	134	27,330	B5-U0-G4	133

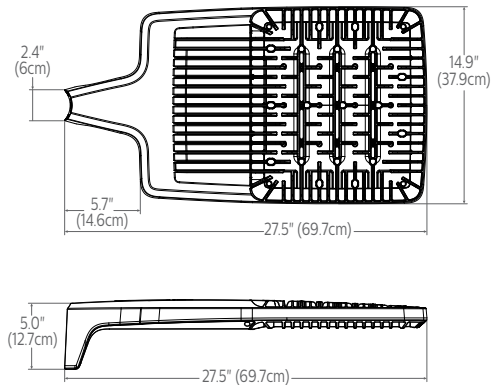
# ECF-S EcoForm small

## Area lumineuse

### Dimensions

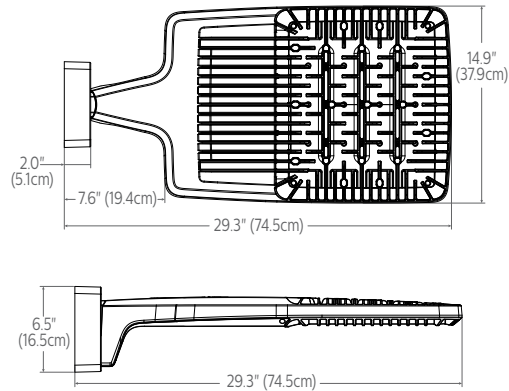
#### Standard Arm (AR)

Weight: 22 Lbs (9.9 Kg) EPA: 0.21ft<sup>2</sup> (.019m<sup>2</sup>)



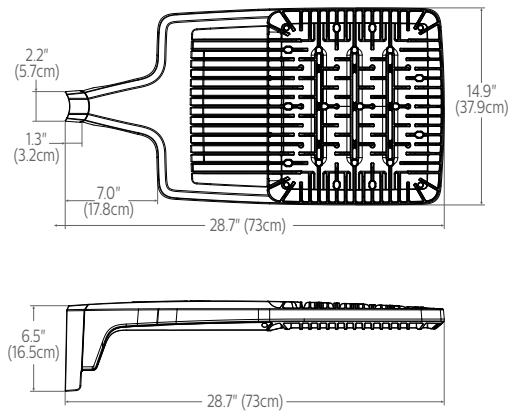
#### Wall (WS)

Weight: 27 Lbs. (12. 2Kg)EPA: 0.27ft<sup>2</sup> (.025m<sup>2</sup>)



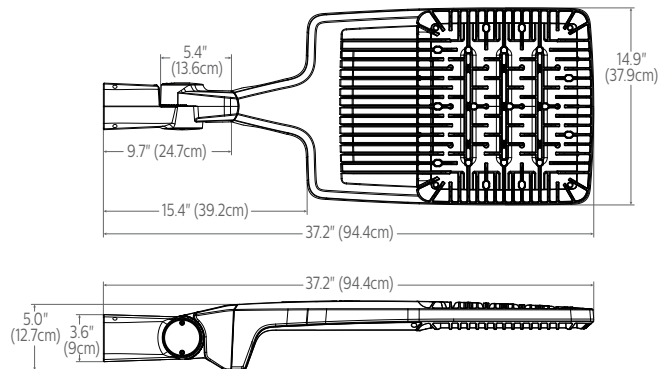
#### Retrofit Arm (RAM)

Weight: 24 Lbs (10.9 Kg) EPA: 0.24ft<sup>2</sup> (.022m<sup>2</sup>)

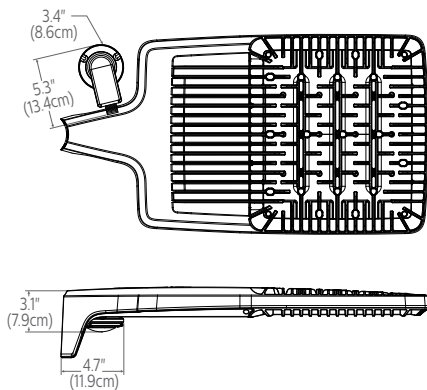


#### Slip fitter (SF)

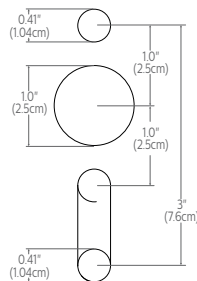
Weight: 27 Lbs (12.2 Kg) EPA: 0.33ft<sup>2</sup> (.031m<sup>2</sup>)



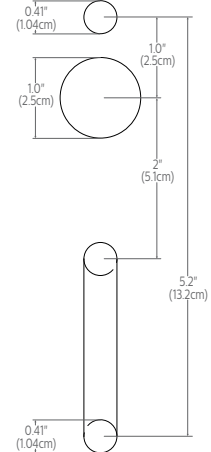
#### Outboard IMR-HVU sensor



#### Standard Arm (AR) drill pattern



#### Retrofit Arm (RAM) drill pattern



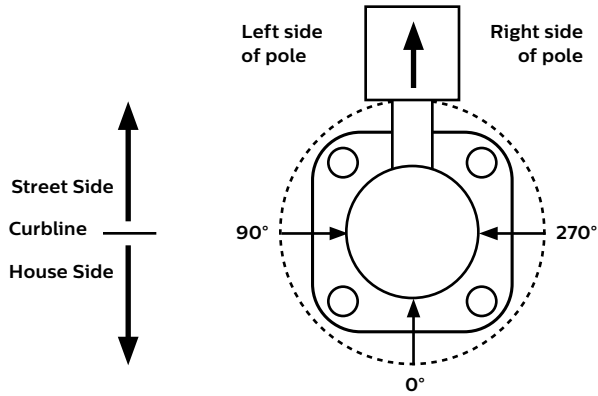
# ECF-S EcoForm small

## Area luminaire

### Optical Orientation Information

#### Standard Optic Position

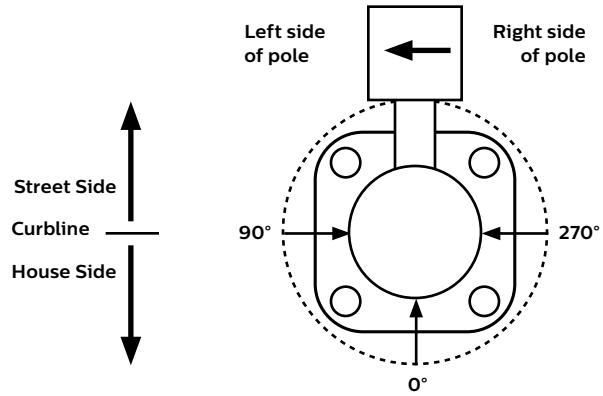
Luminaires ordered with asymmetric optical systems in the standard optic position will have the optical system oriented as shown below:



Note: The hand hole will normally be located on the pole at the 0° point.

#### Optic Rotated Left (90°) Optic Position

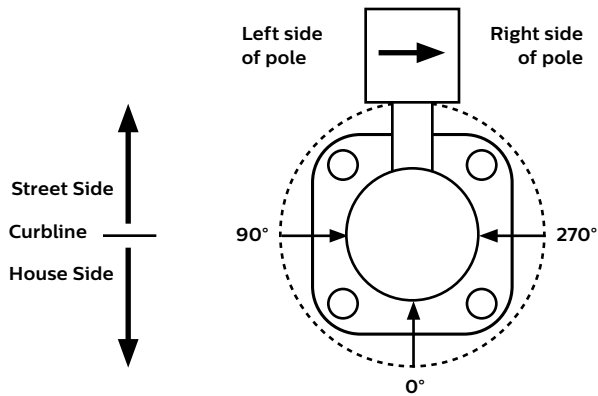
Luminaires ordered with optical systems in the Optic Rotated Left (90°) optic position will have the optical system oriented as shown below (Type 5 and 5W optics are not available with factory set rotatable optics):



Note: The hand hole will normally be located on the pole at the 0° point.

#### Optic Rotated Right (270°) Optic Position

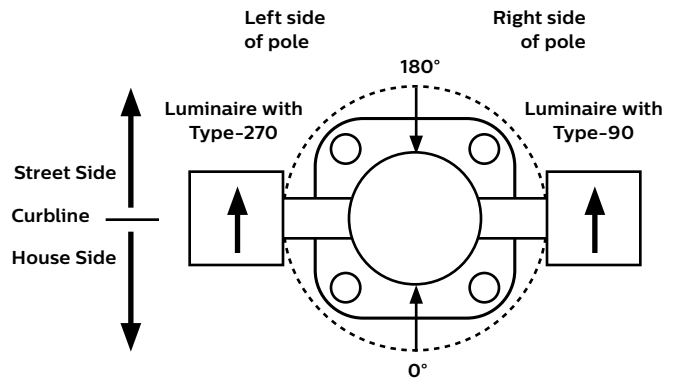
Luminaires ordered with optical systems in the Optic Rotated Right (270°) optic position will have the optical system oriented as shown below (Type 5 and 5W optics are not available with factory set rotatable optics):



Note: The hand hole will normally be located on the pole at the 0° point.

#### Twin Luminaire Assemblies with Type-90/Type-270 Rotated Optical Systems

Twin luminaire assemblies installed with rotated optical systems are an excellent way to direct light toward the interior of the site (Street Side) without additional equipment. It is important, however, that care be exercised to insure that luminaires are installed in the proper location.



Luminaires with Optic Rotated Right (270°) are installed on the LEFT Side of Pole

Luminaires with Optic Rotated Left (90°) are installed on the RIGHT Side of Pole

Note: The hand hole location will depend on the drilling configuration ordered for the pole.



# ECF-S EcoForm small

## Area luminaire

### Specifications

#### Housing

One-piece die cast aluminum housing with integral arm and separate, self-retained hinged, one-piece die cast door frame. Luminaire housing rated to IP66, tested in accordance to Section 9 of IEC 60598-1.

#### Vibration resistance

Luminaire is tested and rated 3G over 100,000 cycles conforming to standards set forth by ANSI C136.31-2010. Testing includes vibration in three axes, all performed on the same luminaire.

#### Light engine

Light engine comprises of a module of 16-LED aluminum metal clad board fully sealed with optics offered in multiples of 2, 3, and 4 modules or 32, 48, and 64 LEDs. Module is RoHS compliant. Color temperatures: 3000K +/-125K, 4000K, 5000K +/- 200K. Minimum CRI of 70. LED light engine is rated IP66 in accordance to Section 9 of IEC 60598-1.

#### Energy saving benefits

System efficacy up to 133 lms/W with significant energy savings over Pulse Start Metal Halide luminaires. Optional control options provide added energy savings during unoccupied periods.

#### Optical systems

Type 2, 3, 4, 5, 5W, and AFR distributions available. Internal Shield option mounts to LED optics and is available with Type 2, 3, 4, and AFR distributions. Types 2, 3, 4, and AFR when specified and used as rotated, are factory set only. Performance tested per LM-79 and TM-15 (IESNA) certifying its photometric performance. Luminaire designed with 0% uplight (U0 per IESNA TM-15).

#### Mounting

Standard luminaire arm mounts to 4" O.D. round poles. Can also be used with 5" O.D. poles. Square pole adapter included with every luminaire. Round Pole Adapter (RPA) required for 3-3.9" poles. EcoForm features a retrofit arm kit. When specified with the retrofit arm (RAM) option, EcoForm seamlessly simplifies site conversions to LED by eliminating the need for additional pole drilling on most existing poles. RAM will be boxed separately. Also optional are slipfitter and wall mounting accessories. Note that only fixed mounts (AR, RAM, WS) are required to meet IDA compliance. SF mounting will not meet IDA.

#### Control options

**0-10V dimming (DD):** Access to 0-10V dimming leads supplied through back of luminaire (for secondary dimming controls by others). Cannot be used with other control options.

**Dual Circuit Control (DCC):** Luminaire equipped with the ability to have two separate circuits controlling drivers and light engines independently. Permits separate switching of separate modules controlled by use of two sets of leads, one for each circuit. Not recommended to be used with other control options, motion response, or photocells.

**SiteWise (SW):** SiteWise system includes a controller fully integrated in the luminaire that enables the luminaires to communicate with a dimming signal transmitter cabinet located on site using patented central dimming technology. A locally accessible mobile app allows users to access the system and set functionalities such as ON/OFF, dimming levels and scheduling. SiteWise is available with motion response options in order to bring the light back to 100% when motion is detected. Cannot be used with other control options or photocell options. Additional functionalities are available such as communication with indoor lighting and connection to BMS systems. Complete information on the control system can be found on the SiteWise website at [philips.com/sitewise](http://philips.com/sitewise).

**Automatic Profile Dimming (CS/CM/CE/CA):** Standard dimming profiles provide flexibility towards energy savings goals while optimizing light levels during specific dark hours. Dimming profiles include two dimming settings including dim to 30% or 50% of the total lumen output. When used in combination with not programmed motion response it overrides the controller's schedule when motion is detected. After 5 minutes with no motion, it will return to the automatic dimming profile schedule. Automatic dimming profile scheduled with the following settings:

- **CS50/CS30:** Security for 7 hours night duration (Ex., 11 PM - 6 AM)
- **CM50/CM30:** Median for 8 hours night duration (Ex., 10 PM - 6 AM)

All above profiles are calculated from mid point of the night. Dimming is set for 6 hours after the mid point and 1 or 2 hours before depending of the duration of dimming. Cannot be used with other dimming control options.

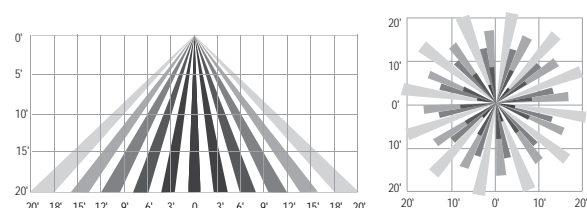
**Field Adjustable Wattage Selector (FAWS):** Luminaire equipped with the ability to manually adjust the wattage in the field to reduce total luminaire lumen output and light levels. Comes pre-set to the highest position at the lumen output selected. Use chart below to estimate reduction in lumen output desired. Cannot be used with other control options or motion response.

FAWS Position	Percent of Typical Lumen Output
1	25%
2	50%
3	55%
4	65%
5	75%
6	80%
7	85%
8	90%
9	95%
10	100%

**Note:** Typical value accuracy +/- 5%

**Wireless system (LLC):** Optional wireless controller integral to luminaire ready to be connected to a Limelight system (sold by others). The system allows you to wirelessly manage the entire site, independent lighting groups or individual luminaires while on-site or remotely. Based on a high-density mesh network with an easy to use web-based portal, you can conveniently access, monitor and manage your lighting network remotely. Wireless controls can be combined with site and area, pedestrian, and parking garage luminaires as well, for a completely connected outdoor solution. Equipped with motion response with #3 lens for 8-25' mounting heights. Also available with remote pod accessory where pod is mounted separate from luminaire to pole or wall.

#### LLC wireless controller with #3 lens



#### Motion response options

**Bi-Level Infrared Motion Response (BL-IMRI):** Motion Response module is mounted integral to luminaire factory pre-programmed to 50% dimming when not ordered with other control options. BL-IMRI is set/operates in the following fashion: The motion sensor is set to a constant 50%. When motion is detected by the PIR sensor, the luminaire returns to full power/light output. Dimming on low is factory set to 50% with 5 minutes default in "full power" prior to dimming back to low. When no motion is detected for 5 minutes, the motion response system reduces the wattage by 50%, to 50% of the normal constant wattage reducing the light level. Other dimming settings can be provided if different dimming levels are required. This can also be done with FSIR-100 Wireless Remote Programming Tool (contact Technical Support for details).

# ECF-S EcoForm small

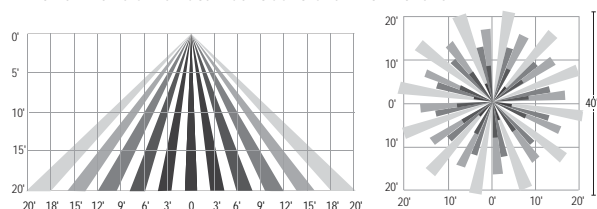
## Area luminaire

### Specifications

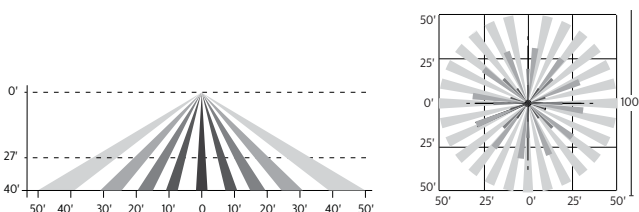
**Infrared Motion Response with Other Controls:** When used in combination with other controls (Automatic Dimming Profile and SiteWise), motion response device will simply override controller's schedule with the added benefits of a combined dimming profile and sensor detection. In this configuration, the motion response device cannot be re-programmed with FSIR-100 Wireless Remote Programming Tool. The profile can only be re-programmed via the controller.

**Infrared Motion Response Lenses (IMRI3/IMRI7):** Infrared Motion Response Integral module is available with two different sensor lens types to accommodate various mounting heights and occupancy detection ranges. Lens #3 (IMRI3) is designed for mounting heights up to 20' with a 40' diameter coverage area. Lens #7 is designed for higher mounting heights up to 40' with larger coverage areas up to 100' diameter coverage area. See charts for approximate detection patterns:

IMRI3 Luminaire or remote mount controller with #3 lens



IMRI7 Luminaire or remote mount controller with #7 lens



### Electrical

**Twist-Lock Receptacle (TLRD5/TLRD7/ TLRPC):** Twist Lock Receptacle with 5 pins enabling dimming or with 7 pins with additional functionality (by others) can be used with a twistlock photoelectric cell or a shorting cap. Dimming Receptacle Type B (5-pin) and Type D-24 (7-pin) in accordance to ANSI C136.41. Can be used with third-party control system. Receptacle located on top of luminaire housing. When specifying receptacle with twistlock photoelectric cell, voltage must be specified. When ordering Twist-lock receptacle (TLRD5 or TLRD7), photocell or shorting cap is not included. TLRPC is shipped standard with 5 pin.

**Driver:** Driver efficiency (>90% standard). 120-480V available (restrictions apply). Open/short circuit protection. Optional 0-10V dimming to 10% power. RoHS compliant.

**Button Photocontrol (PCB):** Button style design for internal luminaires mounting applications. The photocontrol is constructed of a high impact UV stabilized polycarbonate housing. Rated voltage of 120V or 208-277V with a load rating of 1000 VA. The photocell will turn on with 1-4Fc of ambient light.

**Surge protection (SP1/SP2):** Surge protection device tested in accordance with ANSI/IEEE C62.45 per ANSI/IEEE C62.41.2 Scenario I Category C High Exposure 10kV/10kA waveforms for Line-Ground, Line-Neutral and Neutral-Ground, and in accordance with DOE MSSLC Model Specification for LED Roadway Luminaires Appendix D Electrical Immunity High test level 10kV/10kA. 20kV / 10kA surge protection device that provides extra protection beyond the SP1 10kV/10kA level.

### Listings

UL/cUL wet location listed to the UL 1598 standard, suitable for use in ambient temperatures from -40° to 40°C (-40° to 104°F). Most EcoForm configurations are qualified under Premium and Standard DesignLights Consortium® categories. Consult DLC Qualified Products list to confirm your specific luminaire selection is approved. CCTs 3000K and warmer are Dark Sky Approved.

### Finish

Each standard color luminaire receives a fade and abrasion resistant, electrostatically applied, thermally cured, triglycidal isocyanurate (TGIC) textured polyester powdercoat finish. Standard colors include bronze (BZ), black (BK), white (WH), dark gray (DGY), and medium gray (MGY). Consult factory for specs on optional or custom colors.

### Service Tag

Each individual luminaire is uniquely identifiable, thanks to the Service tag application. With a simple scan of a QR code, placed on the inside of the mast door, you gain instant access to the luminaire configuration, making installation and maintenance operations faster and easier, no matter what stage of the luminaire's lifetime. Just download the APP and register your product right away. For more details visit: [signify.com](http://signify.com)

### Warranty

EcoForm luminaires feature a 5-year limited warranty. See [signify.com/warranties](http://signify.com/warranties) for complete details and exclusions.





Stonco LytePro LED large wall sconce LPW32 features outstanding value in a compact, architectural design. This powerful and precise combination offers outstanding energy savings with excellent photometric performance. LPW32 is ideal for building perimeters and corridors in addition to wall lighting applications requiring strong lateral spacing and forward pattern projection.

Project: \_\_\_\_\_  
 Location: \_\_\_\_\_  
 Cat.No: \_\_\_\_\_  
 Type: \_\_\_\_\_  
 Lamps: \_\_\_\_\_ Qty: \_\_\_\_\_  
 Notes: \_\_\_\_\_

### Ordering guide

Example: LPW32-70-NW-G3-3-120-PCB-BZ

Prefix	Wattage	LED Color/Gen	Distribution	Emergency	Voltage
<b>LPW32</b>					
LPW32 LytePro 32 LED Large Wall Sconce	70 70W	NW-G3 Neutral White 4000K 70 CRI Generation 3 WW-G3 Warm White 3000K 70 CRI Generation 3	2 Type 2 3 Type 3 4 Type 4	-- None EBP Emergency Battery Pack <sup>1,2,3</sup>	120 120V
	90 90W				208 208V
	50 50W <sup>1</sup>				240 240V
					277 277V
					347 347V
					480 480V
					UNV 120-277V (50/60Hz) HVU 347-480V (50/60Hz)

Options					Finish
Dimming controls	Motion sensing	Photocontrol	Location		
FAWS Field Adjustable Wattage Selector <sup>4</sup> BL Bi-level functionality <sup>2,4</sup>	IMRI3 Motion sensor #3 Lens <sup>2,5</sup>	PCB Photocontrol Button <sup>2,6</sup>	BAC <sup>8</sup> Meets the requirements of the Buy American Act of 1933 (BAA)		<b>Textured</b> BK Black WH White BZ Bronze DGY Dark Gray MGY Medium Gray <b>Customer specified</b> RAL Specify optional color or RAL (ex: OC-LGP or OC-RAL7024) CC Custom color (Must supply color chip for required factory quote)

5-G-21-UR  
5/28/2021

### Stocked luminaires – Ordering guide

Catalog Number	Description	Master Pack, Qty	UPC Code
LPW32-G3-8-DGY	LPW32, 70W, 650mA, 4000K, Type 3, 120-277V, Dark gray textured paint	3	622252813889
LPW32-G3-8-BZ	LPW32, 70W, 650mA, 4000K, Type 3, 120-277V, Bronze textured paint	3	622252813896

### Stocked accessories – Ordering guide (Must be ordered separately)<sup>9</sup>

Catalog Number	Description	Master Pack, Qty	UPC Code
LPWCVRPLT-BZ <sup>7</sup>	LPW Universal wall cover mounting plate, Bronze textured paint	(none)	190096144860

<sup>1</sup> Emergency battery backup (EBP) available with 50W configuration only

<sup>2</sup> Not available in 347 or 480V

<sup>3</sup> Not available with BL, FAWS or PCB

<sup>4</sup> Not available with other control options.

<sup>5</sup> Available only with BL dimming option

<sup>6</sup> Must specify voltage

<sup>7</sup> Other colors available upon request as made-to-order

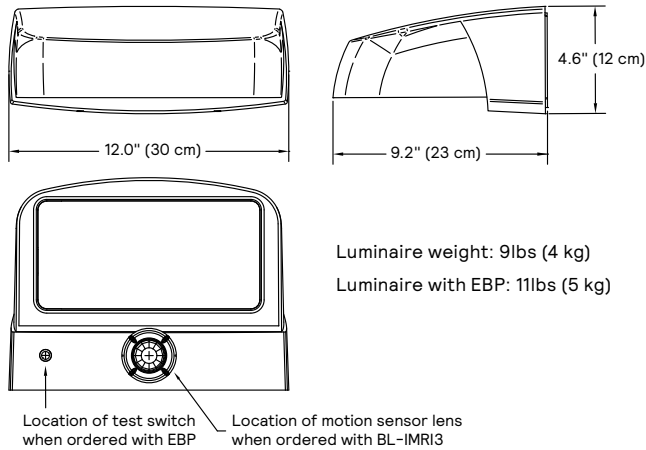
<sup>8</sup> Failure to properly select the “BAC” suffix could result in you receiving product that is not BAA compliant product with no recourse for an RMA or refund. This BAC designation hereunder does not address (i) the applicability of, or availability of a waiver under, the Trade Agreements Act, or (ii) the “Buy America” domestic content requirements imposed on states, localities, and other non-federal entities as a condition of receiving funds administered by the Department of Transportation or other federal agencies.

<sup>9</sup> Consult Signify to confirm whether specific accessories are BAA-compliant.

# LPW32 LytePro

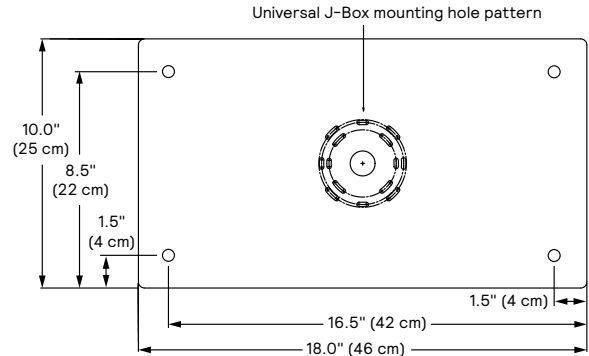
## LED large wall sconce

### Dimensions



### Accessory dimensions (ordered separately)

LPWCVRPLT-BZ LPW Universal wall cover mounting plate, 0.08" aluminum, bronze textured paint (used to cover larger pre-existing opening or surfaces, field installed). Offers same J-Box pattern as luminaire or may lagged to wall using (4) knockouts.



### LED Wattage and Lumen Values

Ordering Code	Total LEDs	LED Current (mA)	Color Temp.	Average System Watts	Type 2			Type 3			Type 4		
					Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)
LPW-32-50-NW-G3	32	400	4000	45	6026	B2-U0-G1	133	5899	B1-U0-G1	130	5,710	B1-U0-G2	126
LPW-32-70-NW-G3	32	650	4000	65	8,425	B2-U0-G1	130	8,248	B1-U0-G2	128	8,139	B1-U0-G2	126
LPW-32-90-NW-G3	32	900	4000	90	10,992	B2-U0-G2	122	10,761	B2-U0-G2	120	10,618	B2-U0-G2	118
LPW-32-50-WW-G3	32	400	3000	45	5455	B1-U0-G1	120	5340	B1-U0-G1	118	5,169	B1-U0-G1	114
LPW-32-70-WW-G3	32	650	3000	65	7,626	B1-U0-G1	118	7,466	B1-U0-G2	116	7,367	B1-U0-G2	114
LPW-32-90-WW-G3	32	900	3000	89	9,951	B2-U0-G2	112	9,742	B2-U0-G2	109	9,613	B2-U0-G2	108

### LED Wattage and Lumen Values - Emergency mode

Ordering Code	Total LEDs	LED Current (mA)	Color Temp.	Average System Watts		Type 2		Type 3		Type 4	
				Normal Mode	Emergency Mode	Normal Mode	Emergency Mode	Normal Mode	Emergency Mode	Normal Mode	Emergency Mode
LPW-32-50-NW-G3-EBP	32	400	4000	45	10	6026	1871	5899	1832	5710	1774
LPW-32-50-WW-G3-EBP	32	400	3000	45	10	5455	1695	5340	1659	5169	1606

Values from photometric tests performed in accordance with IESNA LM-79 and are representative of the configurations shown.

Actual performance may vary due to installation and environmental variables, LED and driver tolerances, and field measurement considerations. It is highly recommended to confirm performance with a photometric layout.

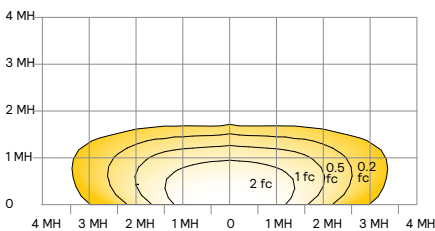
NOTE: Some data may be scaled based on tests of similar (but not identical) luminaires. Contact factory for configurations not shown.

### Predicted lumen depreciation data

Predicted performance derived from LED manufacturer's data and engineering design estimates, based on IESNA LM-80 methodology. Actual experience may vary due to field application conditions. L<sub>70</sub> is the predicted time when LED performance depreciates to 70% of initial lumen output. Calculated per IESNA TM21-11. Published L<sub>70</sub> hours limited to 6 times actual LED test hours

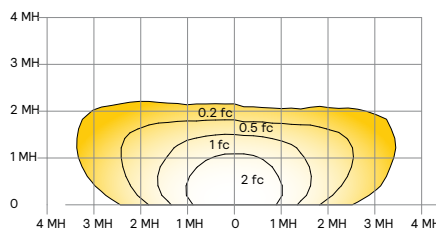
Ambient Temperature °C	Calculated L <sub>70</sub> Hours	L <sub>70</sub> per TM-21	Lumen Maintenance % at 60,000 hrs
up to 40°C	>200,000 hours	>54,000 hours	>95%

### Optical distributions Based on LPW32-70-NW-G3 at 20' mounting height



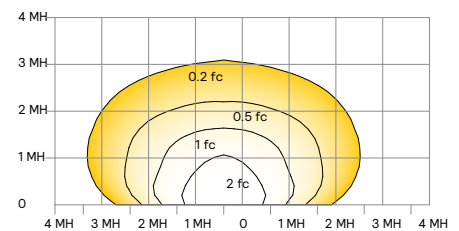
Type 2

LPW32 20' mounting height			
Mounting height	18 ft	20 ft	23 ft
Multiplier	1.05	1.00	0.93



Type 3

LPW32 20' mounting height			
Mounting height	18 ft	20 ft	23 ft
Multiplier	1.14	1.00	0.79



Type 4

LPW32 20' mounting height			
Mounting height	18 ft	20 ft	23 ft
Multiplier	1.16	1.00	0.76

# LPW32 LytePro

## LED large wall sconce

### General Description

LytePro LED large wall sconce LPW32 combines excellent performance, design and value to meet the needs of the energy and budget conscious. The LPW32 is available for use in downward facing, surface wall mount applications, over recessed j-boxes or where power can be directly fed through back surface, whereby connections splices can be made inside the luminaire housing. Two SKU's are available as in-stock configurations (2-day quick ship).

### Housing

Die-cast housing houses both the LED and driver assemblies. Design incorporates an integrated heat sink to maximize thermal performance and reliability. Backplate is corrosion free, composite polycarbonate, with built-in level bubble, offers integral interlocking hook and mount design for easy installation.

### Mounting

Easy interlocking hook and mount housing/backplate design for easy installation. Mounts over 3.5", 4" octagonal j-boxes and single gang switch boxes or can be directly lagged to surface. Ensure proper steps for gasket/sealing luminaire to surface.

### IP Rating

Optical compartment is IP65 rated sealed with tempered glass, gasket and frame.

### LED Board and Array

Provides up to 114 lm/W in LPW32 at the system level. Standard color temp is 4000K or 3000K +/- 250K, minimum 70 CRI.

### Electrical

Driver efficiency (>90% standard). 120-277V and 347-480V available. All drivers are dimmable.. Temp range: -40°C (-40°F) to 40°C (104°F). Open/short circuit protection. Inherent surge protection up to (6KVA). RoHS compliant.

**Surge protection (SP1):** Surge protection device tested in accordance with ANSI/IEEE C62.45 per ANSI/IEEE C62.41.2 Scenario I Category C High Exposure 10kV/10kA waveforms for Line-Ground, Line-Neutral and Neutral-Ground, and in accordance with DOE MSSLC Model Specification for LED Roadway Luminaires Appendix D Electrical Immunity High test level 10kV/10kA.

### Listings

Product is cETLus listed suitable for Wet Locations. Suitable for use in ambients from -40°C to 40°C (-40°F to 104°F). DesignLights Consortium® qualified.

### Finish

Each luminaire receives a fade and abrasion resistant, electrostatically applied, thermally cured, triglycidal isocyanurate (TGIC) textured polyester powdercoat finish.

### Emergency Option

**Emergency Battery Backup (EBP):** Emergency battery packs included integral to the luminaire, allowing for a consistent look between emergency and non-emergency luminaires. A separate surface mount accessory box is not required. EBP is suitable for use in ambient temperature conditions from 0°C (-32°F) to 40°C (104°F) available on 50W configuration only. System is designed to have a secondary driver with relay to immediately detect AC power loss to power luminaire for a minimum of 90 minutes from the time power is lost. Available with 120-277V, or 'UNV' only.

The information presented in this document is not intended as any commercial offer and does not form part of any quotation or contract.

### Dimming Control Options

**Field Adjustable Wattage Selector (FAWS):** Luminaire equipped with the ability to manually adjust the wattage in the field to reduce total luminaire lumen output and light levels. Comes pre-set to the highest position at the lumen output selected. Use chart below to estimate reduction in lumen output desired. Cannot be used with other control options or motion response.

FAWS Position	Percent of Typical Lumen Output
1	25%
2	50%
3	55%
4	65%
5	75%
6	80%
7	85%
8	90%
9	95%
10	100%

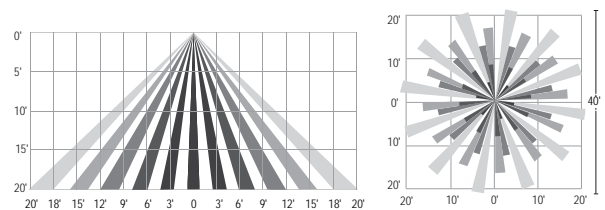
Note: Typical value accuracy +/- 5%

### Motion Response Options

**Bi-Level Infrared Motion Response (BL):** Motion Response module is mounted integral to luminaire factory pre-programmed to 50% dimming when not ordered with other control options. BL is set/operates in the following fashion: The motion sensor is set to a constant 50%. When motion is detected by the PIR sensor, the luminaire returns to full power/light output. Dimming on low is factory set to 50% with 5 minutes default in "full power" prior to dimming back to low. When no motion is detected for 5 minutes, the motion response system reduces the wattage by 50%, to 50% of the normal constant wattage reducing the light level. Other dimming settings can be provided if different dimming levels are required. This can also be done with FSIR-100 Wireless Remote Programming Tool (contact Technical Support for details).

**Infrared Motion Response Lenses (IMRI3):** Infrared Motion Response Integral module is available with sensor lens #3 (IMRI3) is designed for mounting heights up to 20' with a 40' diameter coverage area. See charts for approximate detection patterns:

IMRI3 Luminaire with #3 lens



### Warranty

LPW32 luminaires, the LED arrays, and the drivers are all covered by a 5-year limited warranty. See [www.signify.com/warranties](http://www.signify.com/warranties) for details.





# Development Request

## DEVELOPMENT

- Development Plan
- Planned Development
- Use on Review / Special Use
- Hillside Protection COA

## SUBDIVISION

- Concept Plan
- Final Plat

## ZONING

- Plan Amendment
  - SP  OYP
- Rezoning

Knox Storage Equities, LLC  
Applicant Name

owner - option  
Affiliation

3/29/2021  
Date Filed

5/13/2021  
Meeting Date (if applicable)

File Number(s)  
5-G-21-UR

### CORRESPONDENCE

All correspondence related to this application should be directed to the approved contact listed below.

- Applicant
- Owner
- Option Holder
- Project Surveyor
- Engineer
- Architect/Landscape Architect

Chris Brown  
Name

Knox Storage Equities, LLC  
Company

2042 Town Center Blvd  
Address

Knoxville  
City

TN  
State

37922  
ZIP

865.740.6202  
Phone

Chrisb@adventureairsports.com  
Email

### CURRENT PROPERTY INFO

Barbara Elaine Leamon  
Owner Name (if different)

9091 Middlebrook Pk. Knoxville, TN 37923  
Owner Address

---  
Owner Phone

- ① 9091 Middlebrook Pk.
- ② 9103 Middlebrook Pk.
- ③ 9105 Middlebrook Pk.

Property Address

105 086

105 087

105 08701

Parcel ID

WKUD

Sewer Provider

WKUD

Water Provider

N

Septic (Y/N)

### STAFF USE ONLY

3 parcels to NW of sky Blue Dr. and Middlebrook Pk. intersection  
General Location

4 1/2 AC  
Tract Size

City  County 3  
District

CA  
Zoning District

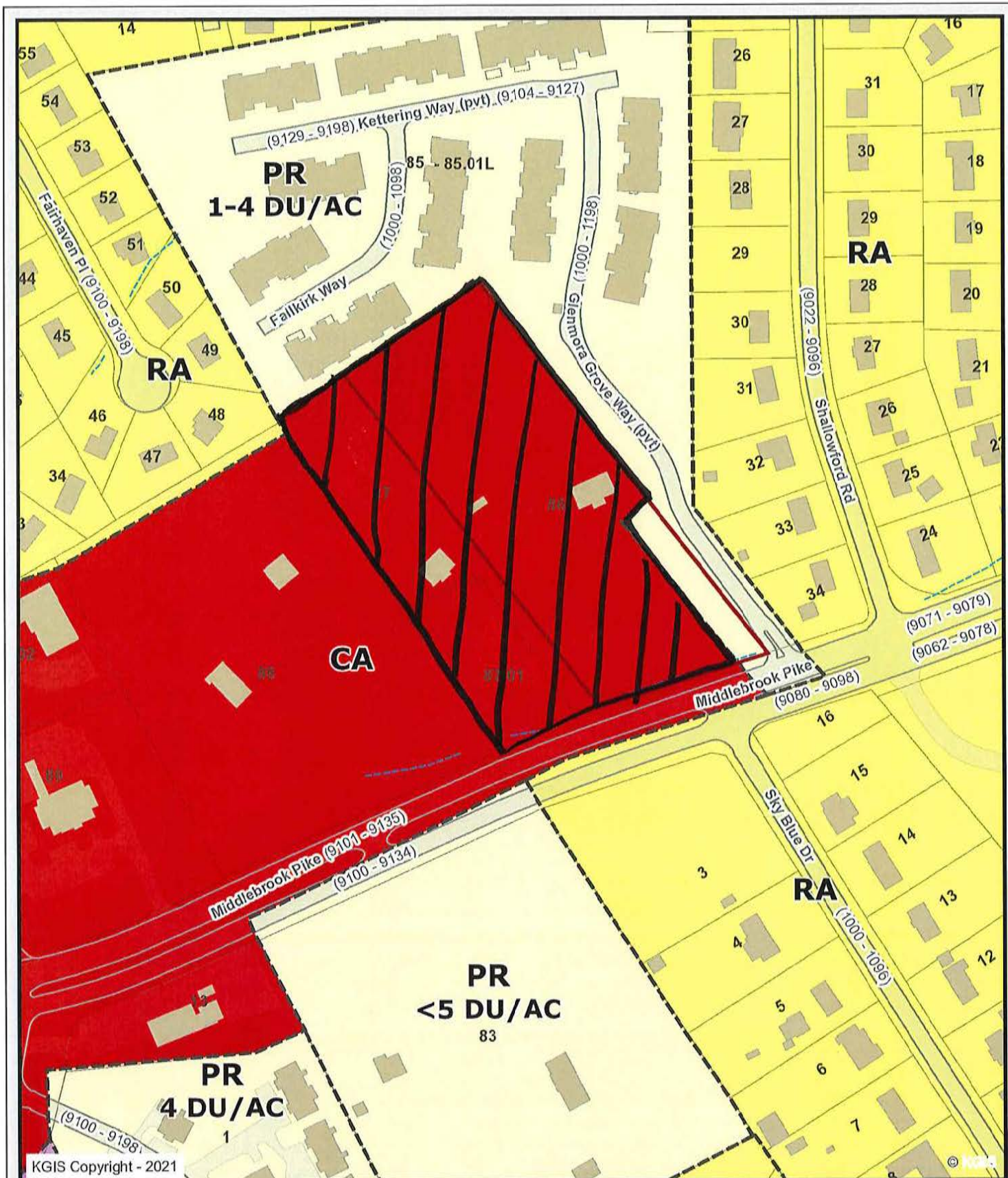
0Ag for Vac ②SFR ③RR  
Existing Land Use

Northwest County  
Planning Sector

MDR/0  
Sector Plan Land Use Classification

Planned Growth  
Growth Policy Plan Designation



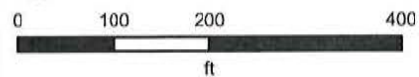


Letter Portrait

Knoxville - Knox County - KUB Geographic Information System



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