

**Town of Kittery  
Planning Board Meeting  
August 11, 2016**

**91 Route 236 – Major Modification to an Approved Plan – Completeness Review**

Action: Hold a Public Hearing approve or deny site plan. Owner, Synergy Storage Structures, LLC, and applicant, Camall, LLC. requests approval for a plan modification to the 2014 approved plans to construct a single, 25,200 square foot building containing a self-storage business office and storage area located at 91 Route 236 (Tax Map 28, Lot 14-1) in the Commercial (C-2) Zone. Agent is Lew Chamberlain, Attar Engineering.

**PROJECT TRACKING**

REQ'D	ACTION	COMMENTS	STATUS
YES	Determination of Completeness/Acceptance	Scheduled for 7/14/2016	GRANTED
NO	Site Visit	TBD	-
YES	Public Hearing	Scheduled for 8/11/2016	- PENDING
YES	Preliminary/Final Plan Review and Approval		-

Applicant: Prior to the signing of the approved Plan any **Conditions of Approval related to the Findings of Fact along with waivers and variances (by the BOA) must be placed on the Final Plan and, when applicable, recorded at the York County Registry of Deeds. PLACE THE MAP AND LOT NUMBER IN 1/4" HIGH LETTERS AT LOWER RIGHT BORDER OF ALL PLAN SHEETS.** As per Section 16.4.4.13 - Grading/Construction Final Plan Required. - Grading or construction of roads, grading of land or lots, or construction of buildings is prohibited until the original copy of the approved final plan endorsed has been duly recorded in the York County registry of deeds when applicable.

**Background**

A three story 75,600 s.f gross floor area climate controlled storage facility is planned for 91 Route 236. The parcel located as Map 28 Lot 14-1 was part of a subdivision (Bartlett Hill), approved August 20, 2015 and amended November 12, 2015. Several conditions of that approval will impact the development of this parcel, including an easement along the property line of 89 and 91 Route 236 that serves to provide access to the two lots.

**Staff Review**

The Town's peer review engineer CMA has completed an initial review summarized in their July 1 letter, attached again for your reference. The applicant responded to some of CMA's comments in their August 1 submittal, dated July 29 which includes revised plans, review of which CMA has not finalized.

As noted in the last review notes the applicant has provided a purchase and sale agreement between the property owner, Synergy Storage Structures and Camall, LLC. The application sites both Arenhall and Camall, LLC when referencing the applicant. Staff spoke with the agent who clarified Arenhall owns Camall, LLC, however Camall, LLC will proceed with the permitting and land acquisition for this proposal. The applicant has demonstrated a stake in the property under consideration.

In addition to the CMA comments Staff has the following comments:

1. Parking: Applicant is requesting a waiver of requirement 16.8.9.4, off street parking standards, due to the nature and intensity of the proposed development. Per Warehouse and Storage parking requirements of 1 space per 500 s.f. of gross floor area (gfa) the development incurs 151 parking spaces (75,600/500). The applicant is requesting a modification to this standard based on applicant's experience with the proposed use (self-storage facility) and a traffic assessment

prepared by Eaton Traffic Engineering. The latter recommends 0.16 spaces per 1,000 s.f. of gfa which would yield 12 spaces. Only 8 are provided. An average parking supply ratio of 0.2 spaces per 1,000 s.f. gfa is recommended in ITE's Parking Generation, 4<sup>th</sup> Edition.

The site plan states the use of the travel way around the building for parking. The Fire Chief recommends that a Fire Lane be striped in this area so that there is sufficient space in the event of a fire. When considering this and in the absence of a compelling reason why the traffic engineer's recommendation is too excessive, the proposed number of spaces should be 12.

2. Wetland: It appears from the revised plans that the small wetland located adjacent to Route 236 has been re-defined and re-delineated by the applicant's agent to have an effective square area of less than 501 s.f. making it not subject to any wetland setbacks. The applicant's initial plan along with the original site plan and subdivision plans depict the wetlands with a 25-foot setback. This is misleading since at the time of the 2013 approval there were no buildings proposed, only clearing. That is the reason why the originally approved site plan (Sheet C-2, Civil Consultants) includes 25-foot rather than 50-foot wetland setbacks, the latter being the setback requirement for principal buildings adjacent to wetlands less than an acre in size.

The proposed building is closer than 50 feet to the existing wetland. A new plan note #6 describes the re-assessment, and that the conditions meet the definition of a *drainage ditch* per 16.2.2. The change to the plan is not mentioned in the July 29 submittal letter, but it is presumed the reason for the re-assessment is to maintain the proposed building location. After reviewing the definition and the plan note description it is not clear if the definition is applied correctly. Perhaps the applicant's agent can elaborate and explain why the "drainage ditch" denoted on the plan is wider than the 12 feet referenced in the definition.

3. Building Height: The proposed building height as depicted on the architectural plans prepared by JD LaGrasse & Associates is 39 feet and 4 inches where the maximum permitted in the C-2 zone is 40 feet. The pertinent definition for *Height of a Building* in 16.2.2 requires that the height be measure from the average grade along the original ground. Staff has estimated this to be around 45 feet (lowest levitation contours shown are 43 and the highest are 47 as depicted on sheet 2, grading & utility). The proposed elevations for the base of the building appear to be 47.9 feet.

The plan should be revised to conform the requirements of the definition or request a special exception as allowed under 16.3.2.11.C.2.k. This seems reasonable since the proposed use *Warehousing and storage* is a special exception use (16.3.2.11.C.2.f).

4. Buffer: As per the original subdivision plan approval and per 16.11.3.D.2 and 16.9.1.7 the rear yard setback must be maintained as a 40-foot wide buffer. Though the buffer does not preclude the removal of existing trees and replanted with appropriate vegetation that is suitable to screen incompatible use, the propose plan depicts that a portion of the 40-foot setback permanently utilized by the proposed development. The 22-foot wide travel way adjacent to the building occupies this space. The plan needs to be revised to accommodate only vegetation and/or other installations aim to perform as a buffer.

As to the planting proposed in the buffer depicted on sheet 6, staff recommends increasing the amount of canopy tree type vegetation. The shrubs proposed (Forsythia and Juniper) are not

suitable for performing a screen of a three story building. A mix of deciduous trees tightly spaced would be more appropriate.

Planter Strip: per 16.3.2.11.D.4.c *Landscape Site/Improvements* requires landscaping standards to “achieve attractive and sound site design, and appropriate screening of parking areas.” The proposed planter strip described in a plan note on sheet 6 appears to be inadequate to achieve the intent of the provision. The proposed parking is clearly visible from the public street, and with the removal of existing trees adjacent to the common entrance the parking of the adjacent development will be visible as well. Staff recommends this area, in the vicinity of the proposed wastewater system be appropriately planted to create an effective screen. Though the existing vegetation that is preserved may function as an effective planter strip, staff recommends more than grass where existing trees have been removed.

5. Front Yard setback: A retaining wall (not called out on the plan but depicted as a bold fat line) is proposed in the front yard setback. Staff has discussed with the Code Enforcement Officer if this type of improvement is considered a structure and subject to yard setbacks. It was determined that it was which would be consistent with past determinations.
6. 100’ wetland setback: The other setback issue relates to the 100-foot wetland setback along the northern portion of the parcel and the vicinity of the proposed stormwater spillway and pond. The original subdivision and site plans depict a 100-foot non-disturbance setback from the wetland in this vicinity. The proposed plans do not reflect this restriction. In order for this restriction to be changed the subdivision plan needs to be revised and recorded as an amended plan, if the Board finds the change to be appropriate. The context of the initial restriction was associated with stream and associated wetland being an important natural resource and the appropriateness as being part of the open space for the cluster subdivision behind the parcel. In the end the area was not included in the open space and since it was proposed as a wooded stormwater buffer, it was decided to maintain it has a no-disturb area.
7. Fire Safety: The Fire Chief has made an initial review and comments include that the building must be sprinkled (condition of approval) and a fire lane provided that ensures no parking around areas of fire department connections and all egress openings.
8. General comments: The proposed development, though an attractive building design, appears to be somewhat too large for the site. Considering the encroachment on the front yard with the retaining wall and rear yard with the travel way, not providing the 12 parking spaces recommended by the traffic engineer, and the extent of the tree removal to accommodate site grading and drainage, it seems that the proposed design could benefit from being down-sized slightly. Also:
  - a. In plan note 1 on site plan remove the word ‘sketch’
  - b. It seems strange that such a large building with three stories doesn’t have an elevator
  - c. A note that references who delineated the wetlands and what plan they are depicted on is appropriate (i.e. plan ref 1)
  - d. Existing vegetation in the right-of-way should be depicted on the plan
  - e. No capacity letter has been provided from Kittery Water District
  - f. If Board concurs with the requirement of 12 parking spaces rather than the proposed 8, 16.8.9.4.G requires one tree per 8 spaces for parking areas 10 spaces or more in size.

- g. The final site plan needs to reiterate in a plan note the condition and expectation that a public easement burdens the lot's front yard for a future walkway to be constructed at the expense of the lot owner per the 2/20/2014 subdivision approval.
- h. Staff has been contacted by the agent for the adjacent lot owner, Rockwell Homes, Inc., and are aware of the proposal made by these plan to modify the stormwater water easement area benefiting their lot. As mentioned staff recommends that as part of this development approval the subdivision plan for both lots be amended and recommend the applicant engages Civil Consultant to make these changes since it is likely the most efficient method.

### **Recommendation**

After holding a public hearing the Board should discuss the requested modification to the parking requirements and the special exception factors (16.6.6) that the Board will need to consider for the proposed use and possibly the building height. The applicant has provided both preliminary and final plan submittal information, however, considering the comments from staff and CMA, staff recommends conditional preliminary approval. The condition to have the final plan incorporate comments (staff, CMA and Board) including an increase in parking to total of 12 spaces and decreasing the overall building size to allow for a better fit on the site

**Move to grant conditional preliminary site plan approval for owner Synergy Storage Structures, LLC, and applicant, Camall, LLC located at 91 Route 236 (Tax Map 28 Lot 14-1) in the Commercial 2 Zone.**



**ATTAR**  
ENGINEERING, INC  
CIVIL • STRUCTURAL • MARINE



Chris DiMatteo, Town Planner  
Town of Kittery  
200 Rogers Road Ext.  
Kittery, Maine 03904

July 29, 2016  
Project No.: C022-16

**Re: Kittery Storage Solutions  
Site Plan Amendment Application  
Tax Map 28, Lot 14-1**

Dear Mr. DiMatteo:

On behalf of Camall, LLC, I have enclosed the following items:

- Revised plan sheets 1, 2, 4 and 6.
- Architectural Elevations.
- Lighting cut sheets.
- Additional test pit logs.

The purpose of this submission is to respond to Planning Board comments/questions, to date, and to respond to items identified in a project peer review prepared by CMA Engineers (dated July 1, 2016). Specific items are addressed as follows:

CMA Review

- The required planter strip has been added along Route 236. The Sheet 6 note addressing street trees has been revised, as recommended.
- Additional test pits are provided to address the location of a reserve subsurface wastewater disposal system.
- The previously requested waiver for a reduced number of parking spaces is based on the applicant's experience with several other, similar, self-storage facilities and the previously submitted parking assessment by Eaton Traffic Engineering. Customers will utilize the designated spaces on the South side of the building, as well as additional areas near the exterior doors on other sides of the building.

Other items

- Proposed sign locations have been added to the plans.

We look forward to discussing this project with the Board at the next available meeting.

Please contact me for any additional information or clarifications required.

Sincerely,

Lewis Chamberlain, P.E.  
cc: Camall, LLC  
C022-16 KITTERY\_LTR1.doc

**SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION**

Department of Human Services  
 Division of Health Engineering  
 (207) 287-5672 Fax: (207) 287-3165

Town, City, Plantation

Street, Road, Subdivision

Owner's Name

KITTERY

91 Route 236

ARENHALL CORP.

**SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)**

Observation Hole E  Test Pit  Boring  
2 " Depth of Organic Horizon Above Mineral Soil

Depth Below Mineral Soil Surface (inches)	Texture	Consistency	Color	Mottling
0	FINE		V.DK. BR.	
10	SANDY LOAM	PLIABLE	BROWNISH YELLOW	No
20	STONY FINE	FIRM	OLIVE	YES
30	SANDY LOAM		BROWN	
40	OBSERVATION DISCONTINUED			
50	OBSERVATION DISCONTINUED			

Observation Hole F  Test Pit  Boring  
3 " Depth of Organic Horizon Above Mineral Soil

Depth Below Mineral Soil Surface (inches)	Texture	Consistency	Color	Mottling
0	FINE		V.DK. BR.	
10	SANDY LOAM	PLIABLE	BROWNISH YELLOW	No
20	SILT	FIRM	OLIVE	YES
30	LOAM			
40	OBSERVATION DISCONTINUED			
50	OBSERVATION DISCONTINUED			

Soil Classification Profile <u>3 D</u> Condition	Slope <u>3</u> %	Limiting Factor <u>13</u> "	<input checked="" type="checkbox"/> Ground Water <input checked="" type="checkbox"/> Restrictive Layer <input type="checkbox"/> Bedrock <input type="checkbox"/> Pit Depth
--	------------------	-----------------------------	---

Soil Classification Profile <u>7 C</u> Condition	Slope <u>3</u> %	Limiting Factor <u>16</u> "	<input checked="" type="checkbox"/> Ground Water <input checked="" type="checkbox"/> Restrictive Layer <input type="checkbox"/> Bedrock <input type="checkbox"/> Pit Depth
--	------------------	-----------------------------	---

Observation Hole G  Test Pit  Boring  
0 " Depth of Organic Horizon Above Mineral Soil

Depth Below Mineral Soil Surface (inches)	Texture	Consistency	Color	Mottling
0	STONY FINE			
10	SANDY LOAM		BROWN	
20	FINE	PLIABLE	V.DK. BR. YELLOW	No
30	SANDY LOAM		BROWN	
40	LOAM	FIRM	OLIVE BROWN	YES

Soil Classification Profile <u>3(2) C</u> Condition	Slope <u>3</u> %	Limiting Factor <u>36</u> "	<input checked="" type="checkbox"/> Ground Water <input type="checkbox"/> Restrictive Layer <input type="checkbox"/> Bedrock <input type="checkbox"/> Pit Depth
---	------------------	-----------------------------	--

Observation Hole \_\_\_\_\_  Test Pit  Boring  
 \_\_\_\_\_ " Depth of Organic Horizon Above Mineral Soil

Depth Below Mineral Soil Surface (inches)	Texture	Consistency	Color	Mottling
0				
10				
20				
30				
40				
50				

Soil Classification Profile _____ Condition	Slope _____ %	Limiting Factor _____"	<input type="checkbox"/> Ground Water <input type="checkbox"/> Restrictive Layer <input type="checkbox"/> Bedrock <input type="checkbox"/> Pit Depth
---	---------------	------------------------	---

Michael Chamo

211

29 JUL 16

Site Evaluator Signature

SE #

Date

## DESCRIPTION

The Talon luminaire is the most versatile, functionally designed, universally adaptable outdoor luminaire available. Incorporating modular LED LightBAR™ technology, the Talon luminaire brings outstanding uniformity and energy-conscious illumination to walkways, parking lots, roadways, building areas and any security lighting application. UL/cUL listed for wet locations.

Catalog #		Type
Project		
Comments		Date
Prepared by		

## SPECIFICATION FEATURES

### Construction

One-piece heavy-wall, die-cast aluminum construction with integral reveal channels along top surface of housing. Optimized for reliable operation from 40°C down to -40°C, internal cast-in wall separates optical and electrical chambers allowing components to operate cooler. Stainless steel latches and hinges allow for tool-less opening and removal of door frame.

### Optics

Choice of twelve patented, high-efficiency AccuLED Optics™ distributions. Optics are precisely designed to shape the light output, maximizing efficiency and application spacing. AccuLED Optics technology creates consistent distributions with the scalability to meet customized application requirements. Offered Standard in 4000K (+/- 275K) CCT and minimum 70 CRI. Optional 3000K CCT, 5000K CCT and 5700K CCT. For the ultimate level of spill light control, an optional house-side shield accessory can be field or factory installed. The house-side shield is designed to seamlessly integrate with the SL2, SL3 or SL4 optics.

### Electrical

LED drivers mount to die-cast aluminum back housing for optimal heat sinking, operation efficacy, and prolonged life. Standard drivers feature electronic universal voltage (120-277V 50/60Hz), 347V 60Hz or 480V 60Hz operation. 480V is compatible for use with 480V Wye systems only. Greater than 0.9 power factor, less than 20% harmonic distortion. All fixtures are shipped standard with 10kV/10kA common – and differential – mode surge protection. LightBARs feature an IP66 enclosure rating and maintain greater than 95% lumen maintenance at 60,000 hours per IESNA TM-21. Occupancy sensor and dimming options available.

### Mounting

Extruded 8" aluminum arm includes internal bolt guides allowing for easy positioning of fixture during installation to pole or wall surface. Standard single carton packaging of housing, square pole arm and round pole adapter for contractor-friendly arrival of product on site. Optional mounting methods include a wall mount plate, an external mast arm that accepts 2-3/8" O.D. horizontal tenons and direct mounting to pole or wall surfaces. Tenon adapters

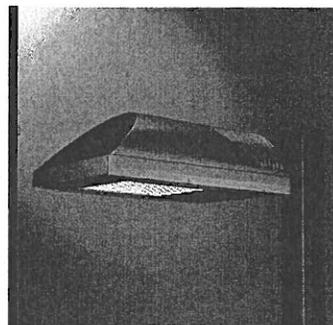
available to slipfit over poles equipped with 2-3/8" or 3-1/2" O.D. tenon. 3G vibration rated.

### Finish

Housing and arm finished in a five-stage super TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Standard colors include black, bronze, grey, white, dark platinum and graphite metallic. RAL and custom color matches available. Consult the McGraw-Edison Architectural Colors brochure for the complete selection.

### Warranty

Five-year warranty.



## TLM TALON MEDIUM LED

1 - 6 LightBARs  
Solid State LED

ARCHITECTURAL AREA  
LUMINAIRE



### CERTIFICATION DATA

UL/cUL Listed  
LM79 / LM80 Compliant  
IP66 LightBARs  
3G Vibration Rated  
ISO 9001  
DesignLights Consortium® Qualified\*

### ENERGY DATA

Electronic LED Driver  
>0.9 Power Factor  
<20% Total Harmonic Distortion  
120-277V/50 & 60Hz, 347V/60Hz,  
480V/60Hz  
-40°C Minimum Temperature  
40°C Ambient Temperature Rating

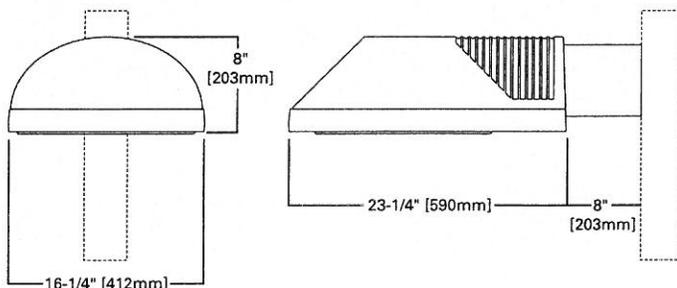
### EPA

Effective Projected Area: (Sq. Ft.)  
1.89 with 8" Arm

### SHIPPING DATA

Approximate Net Weight:  
42 lbs. (19.09 kgs.)

## DIMENSIONS



POWER AND LUMENS BY BAR COUNT (21 LED LIGHTBARS)

Number of LightBARs		E01	E02	E03	E04	E05	E06
<b>Drive Current</b>		350mA Drive Current					
<b>Power (Watts)</b>		25W	52W	75W	97W	127W	149W
<b>Current @ 120V (A)</b>		0.22	0.44	0.63	0.82	1.07	1.26
<b>Current @ 277V (A)</b>		0.10	0.20	0.28	0.36	0.48	0.56
<b>Power (Watts)</b>		31W	58W	82W	99W	132W	159W
<b>Current @ 347V (A)</b>		0.11	0.19	0.28	0.29	0.39	0.48
<b>Current @ 480V (A)</b>		0.09	0.15	0.20	0.21	0.30	0.36
<b>T2</b>	Lumens	3,064	6,128	9,192	12,255	15,319	18,383
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3
<b>T3</b>	Lumens	3,084	6,168	9,252	12,336	15,420	18,504
	BUG Rating	B1-U0-G1	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3
<b>T4</b>	Lumens	3,022	6,044	9,066	12,088	15,110	18,132
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3
<b>5MQ</b>	Lumens	3,224	6,448	9,672	12,896	16,120	19,344
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2
<b>5WQ</b>	Lumens	3,184	6,368	9,551	12,735	15,919	19,103
	BUG Rating	B2-U0-G1	B3-U0-G1	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3
<b>5XQ</b>	Lumens	3,181	6,361	9,542	12,722	15,903	19,083
	BUG Rating	B2-U0-G2	B3-U0-G2	B3-U0-G3	B4-U0-G3	B4-U0-G4	B4-U0-G4
<b>SL2</b>	Lumens	3,055	6,110	9,165	12,220	15,275	18,331
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3
<b>SL3</b>	Lumens	3,036	6,072	9,108	12,145	15,181	18,217
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3
<b>SL4</b>	Lumens	2,954	5,908	8,862	11,816	14,771	17,725
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3
<b>RW</b>	Lumens	3,124	6,248	9,372	12,496	15,620	18,744
	BUG Rating	B2-U0-G2	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4	B4-U0-G4
<b>SLL/SLR</b>	Lumens	2,782	5,565	8,347	11,130	13,912	16,695
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G4

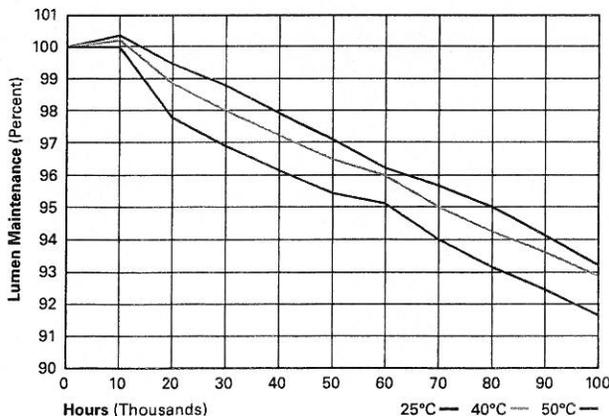
LUMEN MAINTENANCE

Ambient Temperature	25,000 Hours*	50,000 Hours*	60,000 Hours*	100,000 Hours	Theoretical L70 (Hours)
25°C	> 99%	> 97%	> 96%	> 93%	> 450,000
40°C	> 98%	> 97%	> 96%	> 92%	> 425,000
50°C	> 97%	> 96%	> 95%	> 91%	> 400,000

\* Per IESNA TM-21 data.

LUMEN MULTIPLIER

Ambient Temperature	Lumen Multiplier
10°C	1.02
15°C	1.01
25°C	1.00
40°C	0.99
50°C	0.96



POWER AND LUMENS BY BAR COUNT (7 LED LIGHTBARS)

Number of LightBARs		F01	F02	F03	F04	F05	F06
Drive Current		1A Drive Current					
Power (Watts)		26W	55W	78W	102W	133W	157W
Current @ 120V (A)		0.22	0.46	0.66	0.86	1.12	1.31
Current @ 277V (A)		0.10	0.21	0.29	0.37	0.50	0.58
Power (Watts)		32W	60W	85W	105W	137W	164W
Current @ 347V (A)		0.11	0.19	0.28	0.30	0.41	0.49
Current @ 480V (A)		0.09	0.15	0.21	0.22	0.31	0.37
T2	Lumens	2,529	5,059	7,588	10,117	12,646	15,176
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3
T3	Lumens	2,546	5,092	7,638	10,183	12,729	15,275
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3
T4	Lumens	2,495	4,990	7,484	9,979	12,474	14,969
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3
5MQ	Lumens	2,662	5,323	7,985	10,646	13,308	15,969
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2
5WQ	Lumens	2,628	5,257	7,885	10,513	13,142	15,770
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2
5XQ	Lumens	2,626	5,251	7,877	10,502	13,128	15,754
	BUG Rating	B2-U0-G1	B3-U0-G2	B3-U0-G3	B4-U0-G3	B4-U0-G3	B4-U0-G4
SL2	Lumens	2,522	5,044	7,566	10,088	12,610	15,132
	BUG Rating	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3
SL3	Lumens	2,506	5,013	7,519	10,026	12,532	15,039
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3
SL4	Lumens	2,439	4,877	7,316	9,755	12,193	14,632
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3
RW	Lumens	2,579	5,158	7,737	10,316	12,894	15,473
	BUG Rating	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4
SLL/SLR	Lumens	2,297	4,594	6,891	9,188	11,485	13,782
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G3

LUMEN MAINTENANCE

Ambient Temperature	25,000 Hours*	50,000 Hours*	60,000 Hours*	100,000 Hours	Theoretical L70 (Hours)
25°C	> 99%	> 97%	> 96%	> 93%	> 450,000
40°C	> 98%	> 97%	> 96%	> 92%	> 425,000
50°C	> 97%	> 96%	> 95%	> 91%	> 400,000

\* Per IESNA TM-21 data.

LUMEN MULTIPLIER

Ambient Temperature	Lumen Multiplier
10°C	1.02
15°C	1.01
25°C	1.00
40°C	0.99
50°C	0.96

**MOUNTING CONFIGURATIONS**

**Wall Mount**

**Arm Mount Single**  
EPA 1.89

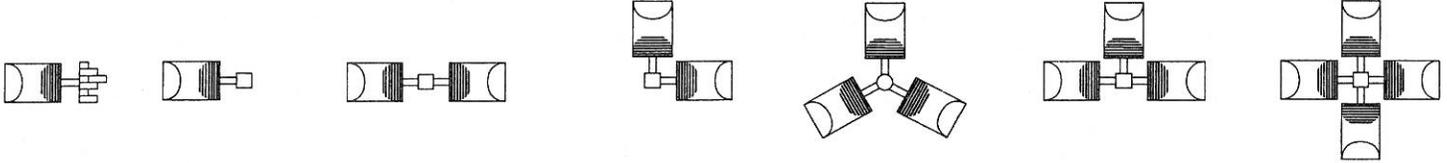
**Arm Mount 2 @ 180°**  
EPA 3.55

**Arm Mount 2 @ 90°**  
EPA 3.43

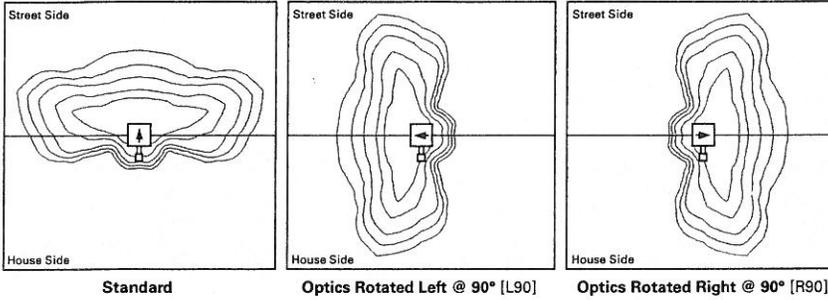
**Arm Mount 3 @ 120°**  
(Round Pole Only)  
EPA 3.69

**Arm Mount 3 @ 90°**  
EPA 3.92

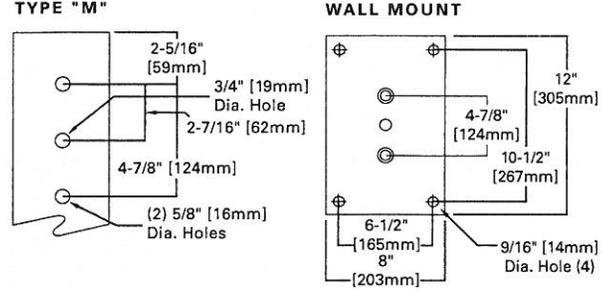
**Arm Mount 4 @ 90°**  
EPA 4.17



**OPTIC ORIENTATION**



**ARM DRILLING**



ORDERING INFORMATION

Sample Number: TLM-E03-LED-E1-T3-BK

Product Family <sup>1,2</sup>	Number of LightBARs <sup>3,4</sup>	Lamp Typ	Voltage	Distribution	Color <sup>6</sup>
TLM=Talon Medium	E01=(1) 21 LED LightBAR E02=(2) 21 LED LightBARs E03=(3) 21 LED LightBARs E04=(4) 21 LED LightBARs E05=(5) 21 LED LightBARs E06=(6) 21 LED LightBARs F01=(1) 7 LED LightBAR F02=(2) 7 LED LightBARs F03=(3) 7 LED LightBARs F04=(4) 7 LED LightBARs F05=(5) 7 LED LightBARs F06=(6) 7 LED LightBARs	LED=Solid State Light Emitting Diodes	E1=Electronic (120-277V) 347=347V 480=480V <sup>5</sup>	T2=Type II T3=Type III T4=Type IV SL2=Type II w/Spill Control SL3=Type III w/Spill Control SL4=Type IV w/Spill Control 5MQ=Type V Square Medium 5WQ=Type V Square Wide 5XQ=Type V Square Extra Wide RW=Rectangular Wide SLL=90° Spill Light Eliminator Left SLR=90° Spill Light Eliminator Right	AP=Grey BZ=Bronze BK=Black DP=Dark Platinum GM=Graphite Metallic WH=White
Options (Add as Suffix)				Accessories (Order Separately) <sup>17</sup>	
P=Button Type Photocontrol (120, 208, 240 or 277V. Must Specify Voltage) R=NEMA Twistlock Photocontrol Receptacle PER7=NEMA 7-PIN Twistlock Photocontrol Receptacle <sup>7</sup> PT=Electrical Power Tray 2L=Two Circuits <sup>8</sup> 7030=70 CRI / 3000K CCT <sup>9</sup> 7050=70 CRI / 5000K CCT <sup>9</sup> 7060=70 CRI / 5700K CCT <sup>9</sup> 8030=80 CRI / 3000K CCT <sup>9</sup> LCF=LightBAR Cover Plate Matches Housing Finish WM=Wall Mount with Arm DM=Direct Mount for Round or Square Pole DW=Direct Wall Mount MS=External Mast Arm Adapter ICP=Integral Cold Weather Battery Pack (Specify 120V or 277V) <sup>6,10</sup> MS-LXX=Motion Sensor for On/Off Operation <sup>11</sup> MS/X-LXX=Motion Sensor for Bi-Level Operation <sup>12</sup> MS/DIM-LXX=Motion Sensor for Dimming Operation <sup>13,14</sup> DIM=0-10V Dimming Drivers <sup>15</sup> HSS=Factory Installed House Side Shield <sup>16</sup>				MA1010-XX=Single Tenon Adapter for 3-1/2" O.D. Tenon MA1011-XX=2@180° Tenon Adapter for 3-1/2" O.D. Tenon MA1012-XX=3@120° Tenon Adapter for 3-1/2" O.D. Tenon MA1013-XX=4@90° Tenon Adapter for 3-1/2" O.D. Tenon MA1014-XX=2@90° Tenon Adapter for 3-1/2" O.D. Tenon MA1015-XX=2@120° Tenon Adapter for 3-1/2" O.D. Tenon MA1016-XX=3@90° Tenon Adapter for 3-1/2" O.D. Tenon MA1017-XX=Single Tenon Adapter for 2-3/8" O.D. Tenon MA1018-XX=2@180° Tenon Adapter for 2-3/8" O.D. Tenon MA1019-XX=3@120° Tenon Adapter for 2-3/8" O.D. Tenon MA1045-XX=4@90° Tenon Adapter for 2-3/8" O.D. Tenon MA1048-XX=2@90° Tenon Adapter for 2-3/8" O.D. Tenon MA1049-XX=3@90° Tenon Adapter for 2-3/8" O.D. Tenon FSIR-100=Wireless Configuration Tool for Occupancy Sensor <sup>18</sup> OA/RA1016=NEMA Twistlock Photocontrol - Multi-Tap OA/RA1027=NEMA Twistlock Photocontrol - 480V OA/RA1201=NEMA Twistlock Photocontrol - 347V OA/RA1013=Photocontrol Shorting Cap MA1253=10kV Circuit Module Replacement LB/HSS-21=Field Installed House Side Shield for "E" LightBARs <sup>19</sup> LB/HSS-07=Field Installed House Side Shield for "F" LightBARs <sup>19</sup>	

NOTES:

- DesignLights Consortium® Qualified. Refer to [www.designlights.org](http://www.designlights.org) Qualified Products List under Family Models for details.
- 8" arm and round pole adapter included with fixture.
- Standard 4000K CCT and minimum 70 CRI.
- 21 LED LightBAR powered at 350mA. 7 LED LightBAR powered at 1A.
- Only for use with 480V Wye systems. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems).
- Custom and RAL color matching available upon request. Consult your lighting representative at Eaton for more information.
- Must order dimming driver.
- Low-Level output varies by bar count specified. Consult Factory.
- Extended lead times apply. See website for IES files.
- Available with E01-E04 or F01-F04 configurations only. Rated for 25°C ambient.
- Sensor housed in external box mounted to the luminaire. Available in E02-E6 and F02-F6 configurations. Replace XX with mounting height in feet for proper lens selection, (e.g., MS-L25). Consult factory for additional information.
- Sensor housed in external box mounted to the luminaire. Available in E02-E6 and F02-F6 configurations. Replace X with number of bars operating in low output mode and replace XX with mounting height for proper lens selection, (e.g., MS/3-L25). Maximum 4 bars in low output mode. Consult factory for additional information.
- Only available in E02-E06 and F02-F06. Includes Dimming Drivers. Not available in 347V or 480V.
- Replace XX with mounting height in feet for proper lens selection, (e.g., MS/DIM-L25).
- Available in E02-E06 and F02-F06 only.
- Only for use with SL2, SL3 and SL4 distributions. Not available with L90 or R90 options.
- Replace XX with color suffix.
- Only compatible with MS/DIM-LXX motion sensor.
- One required for each LightBAR. Not available with L90 or R90 options.

## DESCRIPTION

The Impact Elite family of wall luminaires is the ideal complement to site design. Incorporating modular LightBAR™ technology, the Impact Elite luminaire provides outstanding uniformity and energy-conscious illumination. Combined with a rugged construction, the Impact Elite luminaire is the ideal facade and security luminaire for zones surrounding schools, office complexes, apartments and recreational facilities. UL/cUL listed for wet locations.

Catalog #		Type
Project		
Comments		Date
Prepared by		

## SPECIFICATION FEATURES

### Construction

Heavy-wall, die-cast aluminum housing and removable hinged door frame for precise tolerance control and repeatability. Hinged door inset for clean mating with housing surface and secured via two captive fasteners. Optional tamper-resistant Torx™ head fasteners offer vandal resistant access to the electrical chamber.

### Optics

Choice of six patented, high-efficiency AccuLED Optics™ distributions. Optics are precisely designed to shape the light output, maximizing efficiency and application spacing. AccuLED Optics technology creates consistent distributions with the scalability to meet customized application requirements. Offered Standard in 4000K (+/- 275K) CCT and minimum 70 CRI. Optional 3000K CCT, 5000K CCT and 5700K CCT.

### Electrical

LED drivers mount to die-cast aluminum back housing for optimal heat sinking, operation efficacy, and prolonged life. Standard drivers feature electronic universal voltage (120-277V 50/60Hz), 347V 60Hz or 480V 60Hz operation, greater than 0.9 power factor, less than 20% harmonic distortion, and are suitable for operation in -40°C to 40°C ambient environments. All fixtures are shipped standard with 10kV/10kA common – and differential – mode surge protection. LightBARs feature an IP66 enclosure rating and maintain greater than 95% lumen maintenance at 60,000 hours per IESNA TM-21. Emergency egress options for -20°C ambient environments and occupancy sensor available.

### Mounting

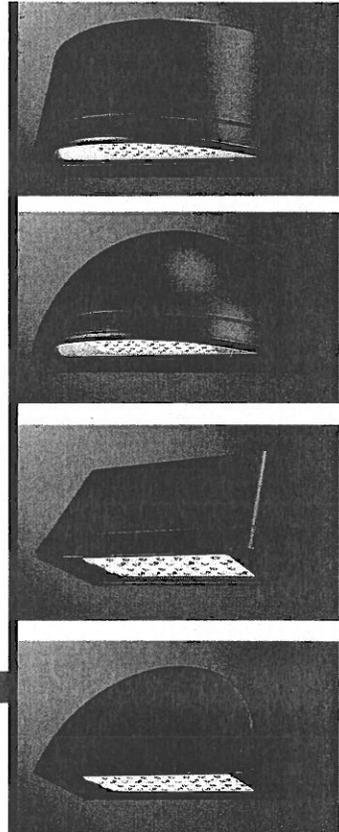
Gasketed and zinc plated rigid steel mounting attachment fits directly to 4" j-box or wall with the Impact Elite "Hook-N-Lock" mechanism for quick installation. Secured with two captive corrosion resistant black oxide coated allen head set screws concealed but accessible from bottom of fixture.

### Finish

Cast components finished in a five-stage super TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Standard colors include black, bronze, grey, white, dark platinum and graphite metallic. RAL and custom color matches available. Consult the McGraw-Edison Architectural Colors brochure for the complete selection.

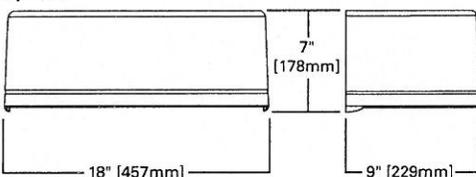
### Warranty

Five-year warranty.

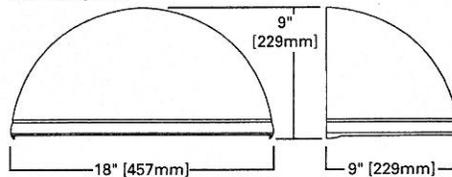


## DIMENSIONS

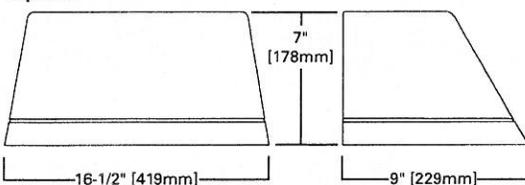
### Cylinder



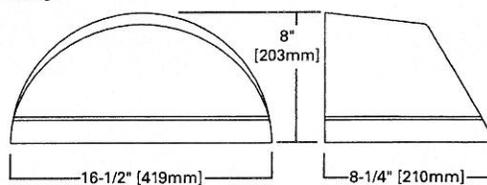
### Quarter Sphere



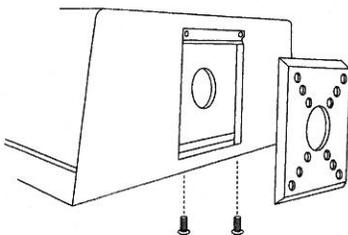
### Trapezoid



### Wedge



## HOOK-N-LOCK MOUNTING



## ISC/ISS/IST/ISW IMPACT ELITE LED



1 - 2 LightBARs  
Solid State LED

WALL MOUNT LUMINAIRE

### CERTIFICATION DATA

UL/cUL Listed  
LM79 / LM80 Compliant  
IP66 LightBARs  
ISO 9001  
DesignLights Consortium® Qualified\*

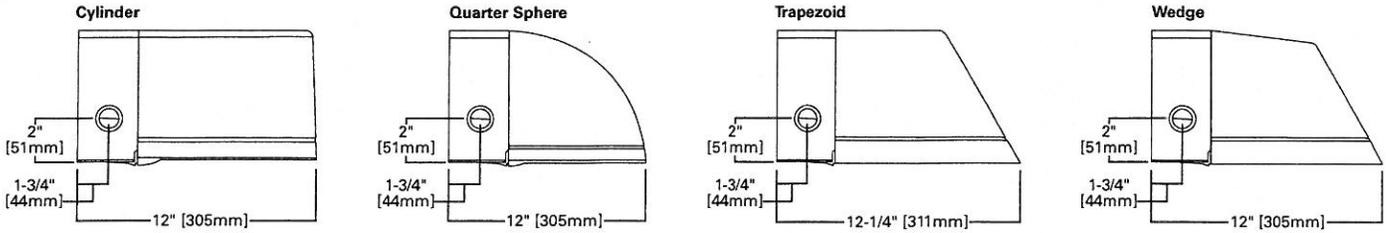
### ENERGY DATA

Electronic LED Driver  
>0.9 Power Factor  
<20% Total Harmonic Distortion  
120-277V/50 & 60Hz, 347V/60Hz,  
480V/60Hz  
-40°C Minimum Temperature  
40°C Ambient Temperature Rating

### SHIPPING DATA

Approximate Net Weight:  
18 lbs. (8 kgs.)

THRUWAY BACK BOX



POWER AND LUMENS BY BAR COUNT

Number of LightBARs	E01		E02		F01		F02	
	21 LED LightBAR				7 LED LightBAR			
Drive Current	350mA				1A			
Power (Watts)	120-277V	25W	47W	26W	50W			
Current (A)	120V	0.22	0.40	0.22	0.42			
	277V	0.10	0.18	0.10	0.19			
Power (Watts)	347V or 480V	31W	52W	32W	55W			
Current (A)	347V	0.11	0.16	0.11	0.17			
	480V	0.16	0.18	0.16	0.18			
<b>Optics</b>								
BL2	Lumens	2,738	5,476	2,260	4,521			
	Bug Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1			
BL3	Lumens	2,702	5,405	2,231	4,462			
	Bug Rating	B1-U0-G1	B1-U0-G2	B1-U0-G1	B1-U0-G1			
BL4	Lumens	2,613	5,225	2,157	4,313			
	Bug Rating	B1-U0-G1	B1-U0-G2	B1-U0-G1	B1-U0-G1			
GZW	Lumens	2,785	5,570	2,299	4,598			
	Bug Rating	B2-U0-G2	B3-U0-G3	B1-U0-G1	B2-U0-G2			
SLR/SLL	Lumens	2,435	4,869	2,010	4,020			
	Bug Rating	B1-U0-G1	B1-U0-G2	B1-U0-G1	B1-U0-G2			

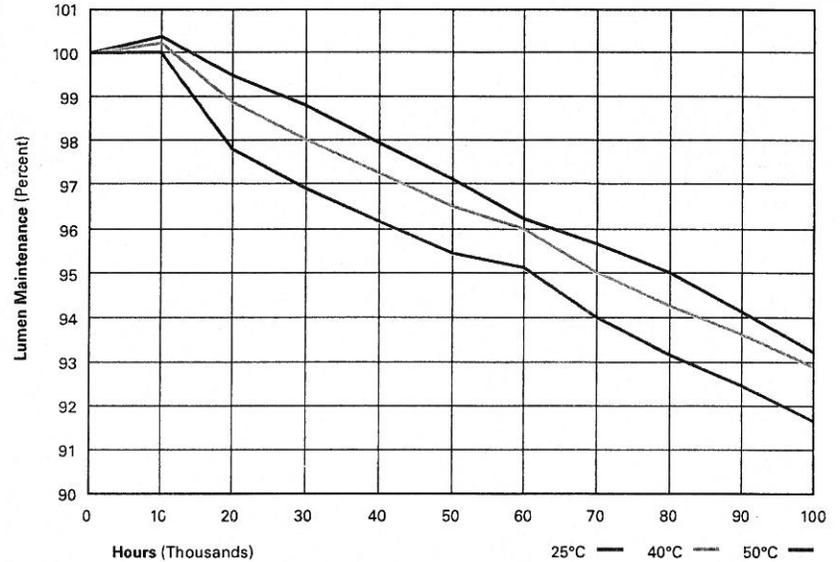
LUMEN MAINTENANCE

Ambient Temperature	25,000 Hours*	50,000 Hours*	60,000 Hours*	100,000 Hours	Theoretical L70 (Hours)
25°C	> 99%	> 97%	> 96%	> 93%	> 450,000
40°C	> 98%	> 97%	> 96%	> 92%	> 425,000
50°C	> 97%	> 96%	> 95%	> 91%	> 400,000

\* Per IESNA TM-21 data.

LUMEN MULTIPLIER

Ambient Temperature	Lumen Multiplier
10°C	1.02
15°C	1.01
25°C	1.00
40°C	0.99



ORDERING INFORMATION

Sample Number: ISC-E02-LED-E1-BL3-GM

Product Family <sup>1</sup>	Number of LightBARs <sup>2,3</sup>	Lamp Type	Voltage	Distribution	Color <sup>5</sup>
ISC=Impact Elite LED Small Cylinder ISS=Impact Elite LED Small Quarter Sphere IST=Impact Elite LED Small Trapezoid ISW=Impact Elite LED Small Wedge	E01=(1) 21 LED LightBAR E02=(2) 21 LED LightBARs F01=(1) 7 LED LightBAR F02=(2) 7 LED LightBARs	LED=Solid State Light Emitting Diodes	E1=Electronic (120-277V) 347=347V 480=480V <sup>4</sup>	BL2=Type II w/Back Light Control BL3=Type III w/Back Light Control BL4=Type IV w/Back Light Control GZW=Wall Grazer Wide SLL=90° Spill Light Eliminator Left SLR=90° Spill Light Eliminator Right	AP=Grey BZ=Bronze BK=Black DP=Dark Platinum GM=Graphite Metallic WH=White
<b>Options (Add as Suffix)</b>				<b>Accessories (Order Separately) <sup>11</sup></b>	
2L=Two Circuits <sup>6</sup> 7030=70 CRI / 3000K CCT <sup>7</sup> 7050=70 CRI / 5000K CCT <sup>7</sup> 7060=70 CRI / 5700K CCT <sup>7</sup> 8030=80 CRI / 3000K CCT <sup>7</sup> P=Button Type Photocontrol (Available in 120, 208, 240 or 277V. Must Specify Voltage) OSB=Occupancy Sensor with Back Box (Specify 120V or 277V) <sup>8</sup> BBB-XX=Battery Pack with Back Box (Specify 120V or 277V) <sup>9</sup> CWB-XX=Cold Weather Battery Pack with Back Box (Specify 120V or 277V) <sup>10</sup> DIM=0-10V Dimming Drivers LCF=LightBAR Cover Plate Matches Housing Finish ULG=Uplight Glow TR=Tamper Resistant Hardware				MA1253=10kV Circuit Module Replacement MA1254-XX=Thruway Back Box - Impact Elite Trapezoid MA1255-XX=Thruway Back Box - Impact Elite Cylinder MA1256-XX=Thruway Back Box - Impact Elite Quarter Sphere MA1257-XX=Thruway Back Box - Impact Elite Wedge	

NOTES:

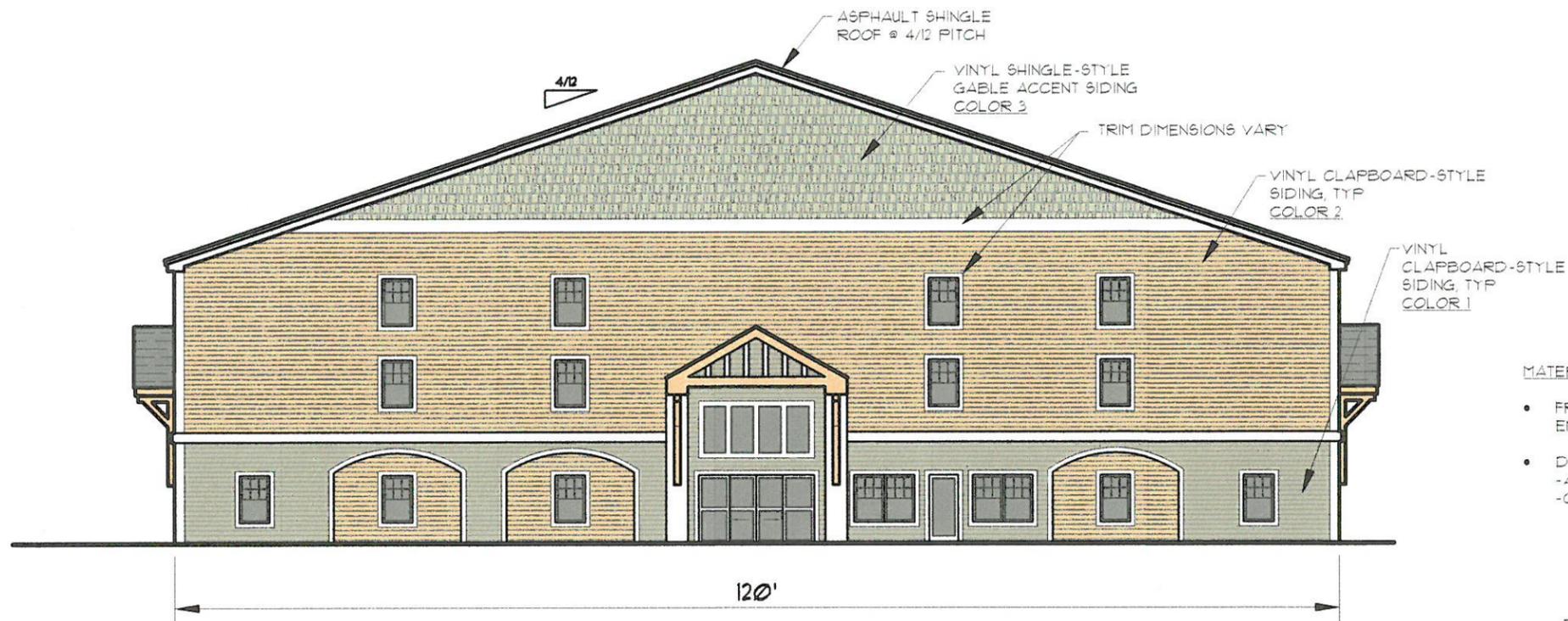
- DesignLights Consortium® Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details.
- Standard 4000K CCT and greater than 70 CRI. LightBARs for downlight use only.
- 21 LED LightBAR powered by 350mA and 7 LED LightBAR powered by 1A.
- Only for use with 480V Wye systems. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems).
- Custom and RAL color matching available upon request. Consult your lighting representative at Eaton for more information.
- Low-level output varies by bar count. Consult factory. Not available with 347V or 480V. Available with two bars (E02 or F02) only.
- Extended lead times apply.
- Available with E02 or F02, only one bar on street side will be wired to sensor. Time delay factory setting 15-minutes. When ordered with PC option, both bars are connected to photocontrol as primary switching means. Standard sensor lens covers 8' mounting height, 360° coverage, maximum 48" diameter. Not available in all configurations or with BBB or CWB options.
- Specify 120V or 277V. LED standard integral battery pack is rated for minimum operating temperature 32°F (0°C). Operates one bar for 90-minutes. Not available in all configurations or with OSB option. Consult factory.
- Specify 120V or 277V. LED cold weather integral battery pack is rated for minimum operating temperature -4°F (-20°C). Operates one bar for 90-minutes. Not available in all configurations or with OSB option. Consult factory.
- Replace XX with color suffix.







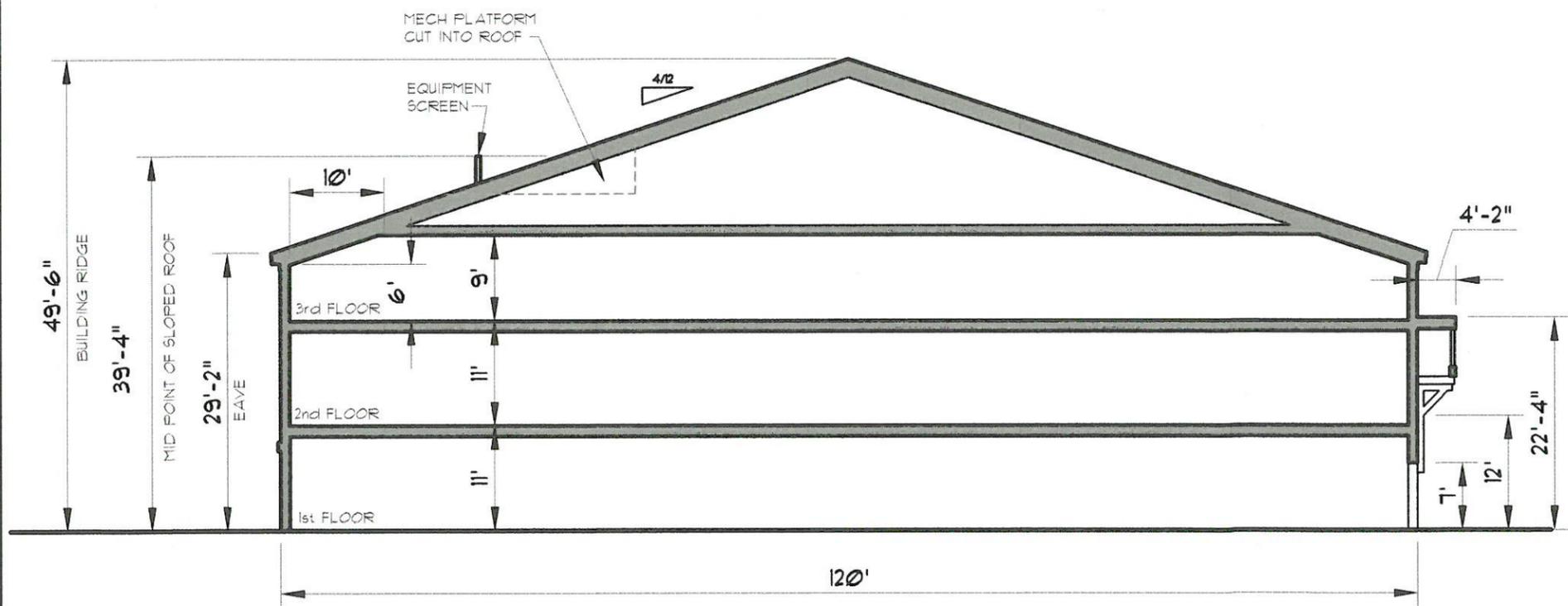




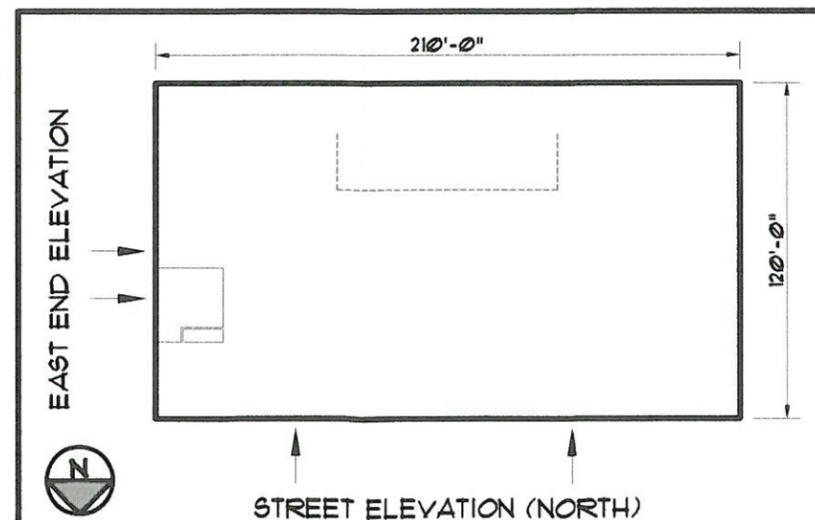
**EAST ELEVATION**

**MATERIALS & INTENT**

- FRONT DOOR STREET PRESENCE AND BRACKETED CANOPY BUILDING ENTRANCES FOR USER COMFORT
- DURABLE BUILDING MATERIALS:
  - ASPHALT ROOF SHINGLES - ARCHITECTURAL SERIES
  - CLAPBOARD & SHINGLE-STYLE VINYL SIDING
  - ROYAL BUILDING PRODUCTS
  - EXTERIOR PORTFOLIO
  - AMERICAN DREAM EDGE (OR EQUAL)
  - COLOR 1 - CLAY
  - COLOR 2 - HONEY OAK
  - COLOR 3 - RYE
- PVC TRIM MATERIALS
- METAL FRAME STOREFRONT GLAZING SYSTEM @ FIRST FLOOR
- TRIM/SIDING DETAILS & VARIATION ALONG ALL FACADES.
- GABLE ROOF, MIN 4/12 ROOF PITCH
- SCREENED MECHANICAL UNIT PLATFORM
- SIGNAGE:
  - BUILDING SIGN-STREET ELEVATION FACADE = +/- 200 SF
  - FREE STANDING -DOUBLE SIDED +/- 45 SF/SIDE x 2 = 90 SF
  - TOTAL ALLOWABLE FOR ALL SIGNAGE AREAS - 300 SF MAX



**SCHEMATIC BUILDING SECTION**

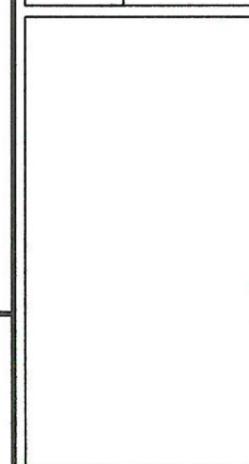


date: 2016-05-10	scale: 1/16"=1'-0"	job no.: 2623	sheet: SK-	REV TO
------------------	--------------------	---------------	------------	--------

Storage Solutions  
KITTERY MAINE

**SCHEMATIC  
ELEVATION & SECTION**

project:  
title:

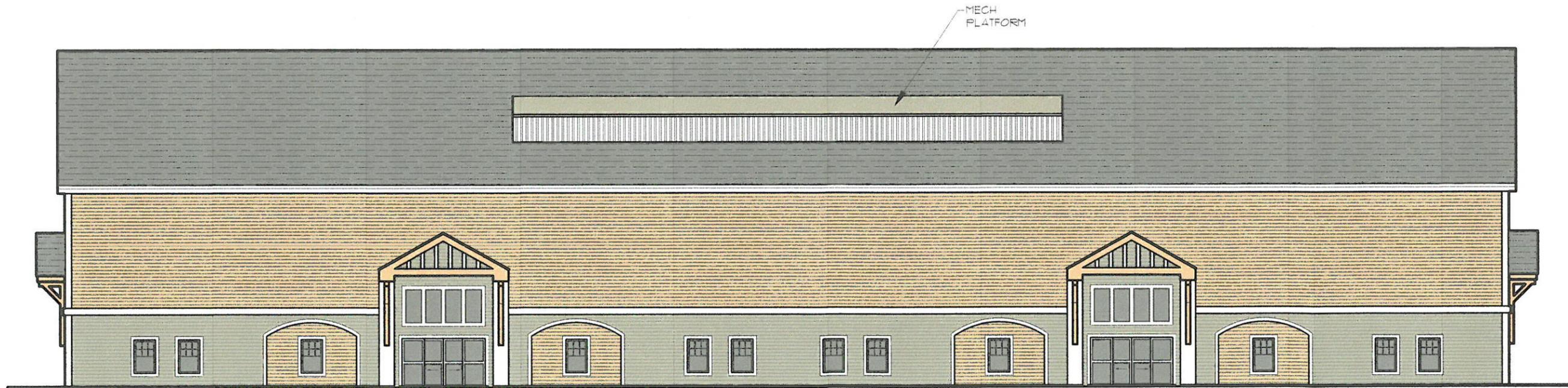


**JD LaGrasse & Associates, Inc.**  
Architects - Engineers - Interiors - Land Planning  
One Elm Square, Andover, MA 01810  
T. 978-470-3675 F. 978-470-3670  
www.jdgrassearchitects.com E-mail: jdlag@aol.com



210'

STREET ELEVATION (NORTH)



210'

REAR ELEVATION (SOUTH)

date: 2016-05-10  
 scale: 1/16"=1'-0"  
 job no.: 2623  
 sheet: SK-  
 REV TO

Storage Solutions  
 KITTERY MAINE  
 SCHEMATIC  
 ELEVATIONS

project:  
 title:

**JD LaGrasse & Associates, Inc.**  
 Architects - Engineers - Interiors - Land Planning  
 One Elm Square, Andover, MA 01810  
 T. 978-470-3675 F. 978-470-3670  
 www.lagrasserecchitects.com - E-mail: JDLA@AOL.COM