

### **ADDENDUM 2**

ADDENDUM DATE: July 11, 2023

**PROJECT**: Northwest Human Services Center

215 Balfour Drive Archdale, NC 27263

**OWNER:** Randolph County

725 McDowell Road Asheboro, NC 27205

**ARCHITECT:** Smith Sinnett Architecture, P.A.

4600 Lake Boone Trail, Suite 205 Raleigh, North Carolina 27607

BIDS DUE: July 18, 2023 at 2:00pm

Meeting Room A 725 McDowell Road Asheboro, NC 27205

<u>Please note, Project Documents, Addenda, and Contractors list are available at www.smithsinnett.com</u> under the 'Documents' icon on the navigation bar.

Among other items, this Addendum addresses issues raised in the Pre-Bid Meeting held on June 28, 2023 at 10:00 a.m. Pre-Bid Agenda notes and Sign In sheet of those that attended are attached.

This Addendum shall be included in the contract for the above referenced project. All General, Supplementary and Special Conditions, etc., as originally specified or as modified below shall apply to these items.



### **ARCHITECTURAL - DRAWINGS**

- 1. **REVISION:** A4-01: Accessory Schedule item TB4 description to read "4'-0" TACKBOARD" and manufacturer to read "FORBO"
- 2. **REISSUE:** 6/A4-10 revise casework in lactation room.
- REISSUE: A6-01
- 4. **REISSUE:** A9-01 revise dimension. All new doors to follow typical placement per 8/A5-01.
- 5. **REISSUE:** A9-10 revise exterior signage elevation.

### **MECHANICAL**

 REVISION: M1-05 change ABANDON CONDENSING UNIT IN PLACE (ALTERNATE 1) to read ABANDON CONDENSING UNIT IN PLACE (ALTERNATE 2)

### **ELECTRICAL**

- 1. **CLARIFICATION:** E1-01 note 15 MC cable is not approved to be used.
- 2. See Substitution Request package attached.

## End of Addendum 2

### Attached:

Sheets A4-10, A6-01, A9-01, A9-10 Substitution request package



2' × 4' LED CONTEMPORARY ARCHITECTURAL TROFFER

### **FEATURES**

- High efficiency acrylic center lens features linear prisms for high performance without pixelation
- · Appropriate for offices, schools, medical, and public spaces
- · High performance reflector with matte white paint standard
- · LED modules and electrical accessible from below
- Optional architecturally styled integration of daylight and occupancy sensor(s)
- · QR code traceability
- · Compatible with Dual-Lite inverters



No exceptions taken to these substitute fixtures. Match original design details as closely as possible. Dan Campbell 7/7/23



# DIC











### RELATED PRODUCTS

8 LCAT12

8 LCAT14

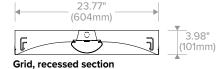
8 LCAT22

### **CONTROLS TECHNOLOGY**









### **SPECIFICATIONS**

### CONSTRUCTION

- Luminaire housing, reflectors and end caps are die-formed code-gauge cold-rolled steel
- High transmission extruded acrylic enclosed lens features linear prisms with custom frost for high efficacy without pixelation
- All reflective surfaces are finished after fabrication with unique formula highreflectivity matte white paint for soft, uniform indirect illumination

### **OPTICS**

Removable lens for easy access to LED module and electrical components

### INSTALLATION

- An access plate is furnished with each luminaire for fast wiring access without the necessity to open the fixture or wireway
- Luminaire fits recessed exposed Grid ceilings (G); four integral NEC compliant T-bar clips are standard
- Can be placed in Slot Grid (SG) style ceiling with regress 3/8" above ceiling plane
- A Flange Kit (FK) accessory is available for recessed hard ceiling applications
- Surface Mount (SM) option allows placement below ceiling plane
- Cable Mount (CM) option allows suspension below ceiling plane

### **ELECTRICAL**

60,000 hour LEDs at L80 for reduced maintenance

### **ELECTRICAL (CONTINUED)**

 83 CRI standard or optional 90 CRI for color sensitive applications

### CONTROLS

- Optional SpectraSync™ offers two modes of Tunable White solutions and integrates seamlessly into a variety of control systems
- NX Distributed Intelligence<sup>™</sup> provides options for standalone and networked integrated sensor with wired or wireless connectivity for NX system deployments

### **TECHNOLOGY**

 SpectraSAFE™ is a scalable, cloud-enabled and lighting-based wireless video security solution for interior commercial and industrial applications

### **CERTIFICATIONS**

- IC label is standard for recessed products.
   Note that IC label is void if product is installed on site with a combination of both battery pack plus through wiring or for air return fixtures
- All luminaires are built to UL1598 and 2108 standards, and bear appropriate cCSAus labels
- CSA certified to UL 924 standards with battery pack or DTS (Dimming Bypass Module) options
- · Damp Location label standard
- Adheres to LM79, LM80, and TM21 industry standards

### CERTIFICATIONS (CONTINUED)

- DLC® (DesignLights Consortium)
   Qualified, with some Premium Qualified configurations. Please refer to the DLC website for specific product qualifications at www.designlights.org
- NX is available in U.S., Canada and Mexico. For other locations consult factory
- The DTS, Dimming Bypass Module, is for emergency circuit control loads including sensors and wireless systems CSA certified to UL 924. See page 8 for wiring diagram. <u>Link to Dimming Bypass Module</u> Specification sheet
- This product qualifies as a "designated country construction material" per FAR 52.225-11 Buy American-Construction Materials under Trade Agreements effective 04/03/2020. See Buy American Solutions

### WARRANTY

- 5 year warranty
- See <u>HLI Standard Warranty</u> for additional information

KEY DAT	-A
Lumen Range	2350-8367
Wattage Range	18–63
Efficacy Range (LPW)	119–146
Reported Life (Hours)	L80/60,000





2' × 4' LED CONTEMPORARY ARCHITECTURAL TROFFER

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #	

### **ORDERING GUIDE**

Example: LCAT24-35MLG-ESDU CATALOG #

LCAT24	-[									_					_		
Model		CRI		Color To	emp	Delive	red Lumens	Ceil	ing Type		Shield	ing	Air Fu	nction		Driver	
LCAT24 2' x 4' LED Contemporary Architectural Troffer		Blank 9	>80 >90	30 35 40 50 2750T	3000K 3500K 4000K 5000K 2700K–5000K SpectraSync™ Tunable White¹ 2700K–6500K SpectraSync™ Tunable White¹	XW VW MW LW ML HL VL	2350–2560 2953–3339 3205–3626 4041–4617 4448–5026 5065–5786 6542–7440 7517-8367	G SM CM	Grid Lay-in <sup>2</sup> Surface Mount <sup>3,1</sup> Cable Suspended Mount <sup>3,4</sup>		Blank R	Curve Curve Rectangular	Blank A	Static Air Return Side Slots			Fixed Output 0–10V Dimming <sup>5</sup> 0–10V 1% Dimming 0–10V Dim-to-Dark Step Dimming <sup>6,7,13</sup> Hi-lume 1% EcoSystem LED driver with Soft-on, Fade-to-Black dimming technology <sup>6,7,13</sup> DALI Power Bus <sup>7,13,16</sup>

oltage	Options		Control O	ptions
120-277V	ELL14	Emergency Battery Pack Installed,	NX Standa	<u>alone</u>
347V14		1400 Lumens <sup>7,8</sup>	NXS	NX, PIR BT Occupancy/Daylight Sensor, Slide Mount 13, 14
	ELL14ST	Emergency Battery Pack, 1400 Lumens, Self Test <sup>7,8</sup>		rked – Wired
	ELI 1/142	Emergency Battery Pack, 2-Hour	NXE	NX, Dual SmartPORTs 14,15
	LLL 141 12	Run Time <sup>7,8,9</sup>	NXES	NX, PIR BT Occupancy/Daylight Sensor, Slide Mount, Dual SmartPORTs 13,14
	DTS	Dimming Bypass Module 7, 10	NX Netwo	rked – Wireless
	C388	3-wire Flex 15	NXSW	NX Wireless, PIR BT Occupancy/Daylight Sensor 12, 13, 14
	C488	4-wire Flex 15	NXWE	NX Wireless Enabled <sup>12, 13, 14</sup>
	C588	5-wire Flex 15	NX Netwo	rked – Wired/Wireless Hybrid
	GLR	Fast Blow Fuse	NXSWD	NX Wireless, PIR BT Occupancy/Daylight Sensor, Dual SmartPORTs 13,14
	EOR	End of Row (SM and CM only.	NXWD	NX Wireless, Dual SmartPORTs 13,14
		Provides end wiring access for	Third-Part	y Control Options
		continuous row mounting.)3	ODPG	Occupancy and Daylight Sensors w/ Grouping, Philips SNS200 7, 16, 18
	INT	Intermediate (SM and CM only.  Provides ends with wiring access for	LVR	Lutron Vive Integral Fixture Control DFCSJ-OEM-RF (RF only) 7,16,17,18
		continuous row mounting.)3	LVS	Lutron Vive Integral Fixture Control DFCSJ-OEM-OCC (RF with daylight and occupancy sensing) 7,16,17,18
	СР	Chicago Plenum		
	SAF	SpectraSAFE™ Integrated Surveillance Lighting System <sup>11</sup>		

### FK24

2' × 4' Single Flange Kit (Shipped separately)

CM48Y2SC3F-KIT 48" Cable Mount Kit for 2' wide Cable Mount fixtures, 3-wire

### Notes:

- Available with ED driver and 80 CRI only. Not available with VL or XL lumen outputs
- For drywall, order G with Flange Kit Accessory
- Not available with Air Return (A) air function 4 Order hanger accessories separately
- 1V minimum low-end trim recommended when paired with a 0-10V dimmer
- 6 Limitations apply based on lumen packages (see Product Exceptions & Details)
- Not available in 347V
- 8 For compatibility with Dual-Lite LiteGear® inverters, contact Hubbell Lighting Representative
- Not available for use in Canada
- For emergency circuit control loads including sensors and wireless systems CSA certified to UL 924. Only available with 0–10V drivers. Universal voltage only. See page 8 for wiring diagram 10
- $SpectraSync+NX+SAF\ can\ not\ be\ configured.\ Only\ available\ with\ NXE,\ NXWE\ or\ NXWD.\ Not\ available\ in\ 347V$

### NX In-Fixture Control Options:

- 12 NXSW, NXWE, NXSWD and NXWD cannot be used with surface mount versions
- 13 NX is not available with ESD, LUTH, or DALIP driver options
- 14 NX combined with Spectrasync is not available in 347V
- 15 For NX control and Flex Wire together, consult factory

### Third-Party Control Options:

- 16 LVS, LVR and ODPG only available with DALIP driver option
- 17 VIVE is a trademark of Lutron Electronics Co., Inc.
- 18 Not available with SpectraSync (2750T or 2765T)

For questions about configuration options, contact Hubbell Representative





2' × 4' LED CONTEMPORARY ARCHITECTURAL TROFFER

# DATE: LOCATION: TYPE: PROJECT: CATALOG #:

### **PRODUCT EXCEPTIONS & DETAILS**

Driver options listed below are available for the outputs as shown.

			DRIVER	AVAILABILIT'	Y TABLE			
	XW	VW	MW	LW	ML	HL	VL	XL
E	Χ	X	Χ	X	Χ	Х	Χ	X
ED	Χ	X	Χ	X	X	×	Χ	X
ED1	Χ	X	Χ	X	X	×	Χ	X
EDD		X	Χ	X	X	×		
ESD				X	X	X	Χ	X
LUTH	Х	Х	Х	Х	Х	Х		
DALIP		Х	Х	Х	Х	Х	Χ	X
347	Χ	Х	Χ	Х	Х	X		X

### **CONTROLS**

### NX Distributed Intelligence™ Lighting Controls:

Supports both indoor and outdoor applications in a variety of deployment options- wired, wireless, hybrid. Integrates with and enables a wide array of luminaires including those with SpectraSync™ Color Tuning Technology.



			NX II	NTEGRATED (	CONTROLS R	EFERENCE		
NX Option	Sensor	Networkable	Scheduling	Occupancy	Daylight Harvesting	0–10V Dimming	On/off Control	Bluetooth® App Programming
NX Standalone	5							
<u>NXS</u>	NXSMP-SMI	No	Yes	Yes	Yes	Yes	Yes	Yes
NX Networked	I – Wired							
<u>NXE</u>	N/A	Yes	Yes	No	No	Yes	Yes	Requires NXBTC/R1
NXES	NXSMP-SMI	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NX Networked	I – Wireless							
<u>NXSW</u>	NXSMP-SMI	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<u>NXWE</u>	N/A	Yes	Yes	No	No	Yes	Yes	No²
NX Networked	I – Wired/Wirele	<u>ss</u>						
<u>NXSWD</u>	NXSMP-SMI	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<u>NXWD</u>	N/A	Yes	Yes	No	No	Yes	Yes	Requires <u>NXBTC/R</u> 1.2

- $1 \quad \mathsf{NXBTC/R} \ \mathsf{needs} \ \mathsf{to} \ \mathsf{be} \ \mathsf{plugged} \ \mathsf{into} \ \mathsf{an} \ \mathsf{available} \ \mathsf{NX} \ \mathsf{SmartPORT}^{\scriptscriptstyle{\mathsf{IM}}} \ \mathsf{on} \ \mathsf{the} \ \mathsf{fixture} \ \mathsf{network}$
- 2 To program NXWE option, need to consult factory. If connected to an area controller, programming can be done from that

### Philips EasySense Controls ODPG Sensor:



- $\bullet$  Occupancy sensing, daylight harvesting, task tuning and grouping in one device
- Standalone control or grouping to wireless switches<sup>1</sup>
- Uses Philips field apps for on site commissioning 2,3
  - Ability to create scenes for various room configurations
  - Cost-effective solution for energy-savings and code-compliancy strategies
  - DLC® Qualified: Listed on the QPL for Networked Lighting Controls. Please refer to the DLC website for specific product qualifications at www.designlights.org
- Wireless switches only compatible with ODPG Philips EasySense
- 2 See link to Philips commssioning
- 3 Requires android device or IR dongle. See links for <u>phone compatiblity</u> and <u>IR dongle</u>

Wireless Switch	Accessories <sup>1</sup>		
PESR-WH	EasySense compatible wireless single rocker switch, white	-	•
PEDR-WH	EasySense compatible wireless dual rocker switch, white	· ·	





2' × 4' LED CONTEMPORARY ARCHITECTURAL TROFFER

# DATE: LOCATION: TYPE: PROJECT: CATALOG #:

### **CONTROLS (CONTINUED)**

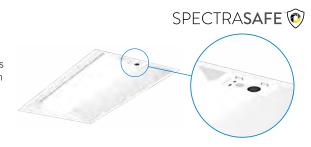
### SpectraSAFE™ Integrated Surveillance Lighting System

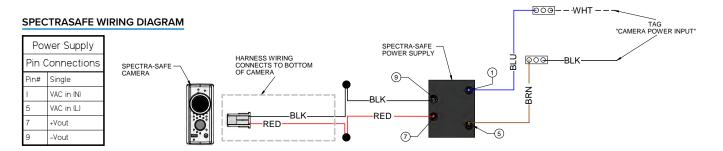
### **Technical Features**

- High resolution 1080p full HD camera
- 2.8mm lens / 140° field of view
- IR emitter for low / no-light conditions
- Multiple wiring configurations available
- Supports 2-way audio communication
- Supports 2.4GHz WPA-PSK/WPA2-PSK Wi-Fi
- · Data encrypted using AES 256 standard
- Low power consumption (2-5W)
- Transmissions secured using Open TLS / SSL

### Software & Support

- Free Android, iOS and web-based app
- Versatile and supports multiple applications
- Multi-tenant web-based camera application
- Phone and in-app chat technical support
- Scalable cloud services and video storage
- · Supported by a 5-year warranty





### SpectraSync™ Color Tuning Technology:

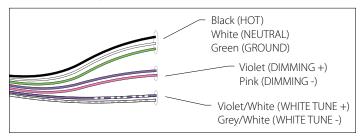
Control your space based on the needs of the application, specific activities throughout the day and preferences of the occupants with distinct SpectraSync™ Color Tuning Technologies.



SPECTRASYNC COLOR TUNING TECHNOLOGY						
Mode	Kelvin Range	Description				
Tunable White	2700K–5000K 2700K–6500K	Offers users the ability to tailor CCT to their personal preference, enhancing task visibility, material and colors or the aesthetics of the space				

### SpectraSync Tunable White

Available in two options: 2750T (2700K–5000K) or 2765T (2700K–6500K). Requires two 0–10V controllers, one for intensity and one for CCT. Minimum 5% dimming.

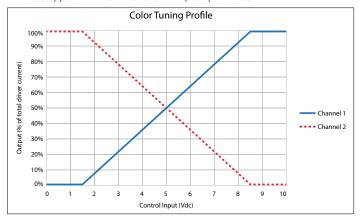


SpectraSync Tunable White luminaires are provided with two 0–10V circuits. The violet and pink circuit is for wiring to any qualified 0–10V controller for dimming. The violet/white and grey/white circuit is for wiring to any qualified 0–10V controller for Tunable White CCT control.

### Controller Manufacturer Data

SpectraSync Tunable White was designed to be used with sinking style dimmers (provided by others) and is compatible with:

- Hubbell Control Solutions (HCS): NX Distributed Intelligence™ Room Controllers (NXRC) and In-fixture Controllers (NXFM)
- · Lutron: DVTV, DVSTV, and NFTV dimmers
- Wattstopper: ADF120277 and CD4BL (Titan) dimmers



To enable scheduling and for use with NX wall control preset stations please refer to Hubbell Control Solutions NX SpectraSync technical sheet.





2' × 4' LED CONTEMPORARY ARCHITECTURAL TROFFER

### **DELIVERED LUMENS, SPECTRASYNC™**



Chialdia a	Lumen	VA/- ++ -	270	0	300	0	350	0	400	0	500	0	650	0
Shielding	Output	Watts	Lumens	LPW										
	XW	19	2240	117	2341	123	2383	125	2414	126	2493	131	2456	129
	VW	28	2990	108	3124	113	3180	115	3221	117	3327	121	3277	119
C	MW	30	3218	107	3363	111	3424	113	3467	115	3582	119	3528	117
Curve	LW	36	4084	113	4268	118	4345	120	4400	122	4545	126	4477	124
	ML	39	4566	118	4771	123	4857	125	4919	127	5081	131	5005	129
	HL	44	5209	118	5443	124	5541	126	5612	128	5797	132	5710	130
	XW	20	2489	123	2601	128	2648	130	2682	132	2770	136	2728	134
	VW	28	3085	109	3224	114	3282	116	3324	118	3434	122	3382	120
Doctoralo	MW	30	3323	110	3472	115	3534	117	3580	119	3698	122	3642	121
Rectangle	LW	36	4230	117	4420	122	4500	125	4557	126	4707	130	4637	128
	ML	39	4711	121	4923	127	5012	129	5076	131	5243	135	5164	133
	HL	43	5295	123	5533	128	5633	131	5705	132	5893	137	5804	135

# **DELIVERED LUMENS** (View 90 CRI data on supplemental document)

	Pro	duct Availal	oility 80 CRI		
Lumen Package	Shielding	Color	Lumens	Input Watts	LPW
		3000K	2448	18.7	131
		3500K	2532	18.7	135
		4000K	2560	18.7	137
xw		5000K	2560	18.7	137
AVV		3000K	2350	18.6	126
	R	3500K	2532	18.7	135
	ĸ	4000K	2560	18.7	137
		5000K	2560	18.7	137
		3000K	3112	24.3	128
		3500K	3303	24.3	136
		4000K	3339	24.3	138
VW		5000K	3339	24.3	138
V VV		3000K	2953	24.3	122
	R	3500K	3135	24.3	129
	ĸ	4000K	3169	24.3	130
		5000K	3169	24.3	130
		3000K	3379	26.4	128
		3500K	3587	26.4	136
		4000K	3626	26.4	137
MW		5000K	3626	26.4	137
IVIVV		3000K	3205	26.5	121
	R	3500K	3402	26.5	128
	K	4000K	3439	26.5	130
		5000K	3439	26.5	130
		3000K	4302	32.1	134
		3500K	4567	32.1	142
		4000K	4617	32.1	144
LW		5000K	4617	32.1	144
LVV		3000K	4041	32.2	125
	R	3500K	4290	32.2	133
	K	4000K	4337	32.2	135
		5000K	4337	32.2	135

	Product A	Availability 8	O CRI (conti	nued)	
Lumen Package	Shielding	Color	Lumens	Input Watts	LPW
		3000K	4683	36.0	130
		3500K	4971	36.0	138
		4000K	5026	36.0	140
ML		5000K	5026	36.0	140
IVIL		3000K	4448	36.1	123
	R	3500K	4722	36.1	131
	K	4000K	4774	36.1	132
		5000K	4774	36.1	132
		3000K	5391	39.7	136
		3500K	5723	39.7	144
		4000K	5786	39.7	146
HL		5000K	5786	39.7	146
112		3000K	5065	39.8	127
	R	3500K	5377	39.8	135
	K	4000K	5436	39.8	137
		5000K	5436	39.8	137
		3000K	6933	52.9	131
		3500K	7358	52.9	139
		4000K	7440	52.9	141
VL		5000K	7440	52.9	141
VL		3000K	6542	53.1	123
	R	3500K	6942	53.1	131
	IX	4000K	7019	53.1	132
		5000K	7019	53.1	132
		3000K	7798	63.0	124
		3500K	8273	63.0	131
		4000K	8367	63.0	133
XL		5000K	8367	63.0	133
ΛL		3000K	7517	63.0	119
	R	3500K	7894	62.9	126
	K	4000K	7894	62.9	126
		5000K	7517	62.9	120

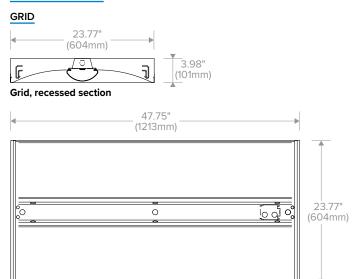


2' × 4' LED CONTEMPORARY ARCHITECTURAL TROFFER

### LOCATION: DATE: PROJECT: TYPE:

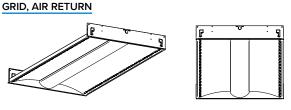
# CATALOG #:

### **DIMENSIONS**





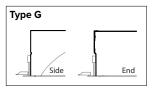




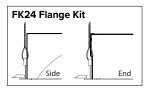
Grid, back of housing



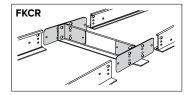
### **CEILING COMPATIBILITY**



For lay-in installation in exposed grid ceilings. Maximum tee widths of 1" and maximum tee heights of 2" allowed.



For hard ceiling applications, order FK24 flange kit. Flange kit wires directly into concealed ceiling opening for a clean, finished appearance.



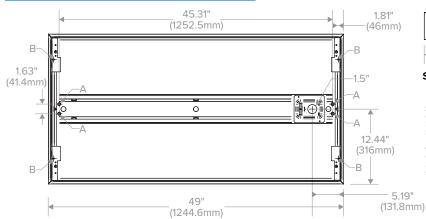
For flanged fixtures in row configurations, the FKCR adapter bracket kit is required in addition to the FK24 kit. Order one less FKCR than the total number of fixtures in row. (Example: Row of two, order (2) FK24 & (1) FKCR)

Row cut out dimensions using FK24s & FKCR adapters: Width 24%\*, Length [48"  $\times$  (# in row)] + 3%\*. Example: (48"  $\times$  2) + 3%" = 96%!"

4.63"

Flange kit cut out dimension for single unit only: 243/8" × 483/8"

### SURFACE MOUNT OR CABLE MOUNT, STATIC ONLY



### (117.6mm) 25' (635mm) Surface section (SM)

### Surface Mount:

Order SM ceiling type. Mounting collar required for surface mounting. (4) Mounting knock-outs, 36", provided in center channel as indicated at left, marked A.

Cable Mount.

Order CM ceiling type. Use CM48Y2SC3F-KIT 48" Cable Mount Kit for 2' wide CM trim fixtures. Mounting holes are provided in diagonal straps shown at left, marked B.

### Surface Mount (SM) and Cable Mount (CM), back of housing

NOTE: All dimensions are in inches: dimensions and specifications are subject to change without notice. Please consult factory or check sample for verification.

For Cable Mount a 2" x 3" access plate with (4) 7/8" KOs provided in place of Mounting Collar shown.

IES

Ø

PDF



# LCAT24

2' × 4' LED CONTEMPORARY ARCHITECTURAL TROFFER

# DATE: LOCATION: TYPE: PROJECT: CATALOG #:

### **PHOTOMETRY**

### LCAT24-35LWG-EU

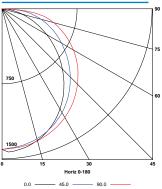
### **LUMINAIRE DATA**

Test No.	16519
Description	2' x 4' LED architectural troffer with frosted linear prismed lens
Delivered Lumens	4396
Watts	36.10
Efficacy	122
Mounting	Recessed
Spacing Criterion	0° = 1.22 90° = 1.32

### ZONAL LUMEN SUMMARY

Zone	one Lumens % Lu	
0-30	1098	25
0-40	1804	41
0-60	3240	73.7
0-90	4396	100
0-180	4396	100

### POLAR GRAPH



### LCAT24-35MLG-EU

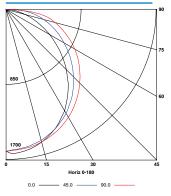
### **LUMINAIRE DATA**

16522	
2' x 4' LED architectural troffer with frosted linear prismed lens	
4914	
38.80	
127	
Recessed	
0° = 1.22 90° = 1.30	

### **ZONAL LUMEN SUMMARY**

Zone	Lumens	% Luminaire
0-30	1250	25.4
0-40	2049	41.7
0-60	3648	74.2
0-90	4914	100
0-180	4914	100

### POLAR GRAPH



### LCAT24-35HLG-EU

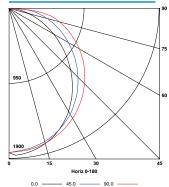
### LUMINAIRE DATA

Test No.	16525	
Description	2' x 4' LED architectural troffer with frosted linear prismed lens	
Delivered Lumens	5607	
Watts	44.00	
Efficacy	127	
Mounting	Recessed	
Spacing Criterion	0° = 1.22 90° = 1.31	

### **ZONAL LUMEN SUMMARY**

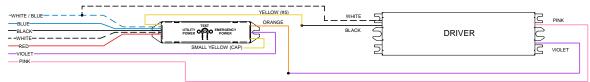
Zone	Lumens	% Luminaire
0-30	1422	25.4
0-40	2333	41.6
0-60	4161	74.2
0-90	5607	100
0–180	5607	100

### POLAR GRAPH



### **ADDITIONAL INFORMATION**

### DTS WIRING DIAGRAM (0-10V DIMMING DRIVER SHOWN)



WHITE/BLUE	Emergency Neutral
BLUE	Emergency Line
BLACK	Utility Line (Unswitched Hot)
WHITE	Utility Neutral
RED	Switched Hot
VIOLET	Dimming
PINK	Dimming

All product and company names, logos and product identifiers are trademarks  $^{\circ}$  or registered trademarks  $^{\circ}$  of Hubbell Lighting, Inc. or their respective owners. Use of them does not necessarily imply any affiliation with or endorsement by such respective owners.





STANDARD CANLESS DIRECT INSTALL DOWNLIGHT

### LOCATION: DATE: TYPE: PROJECT:

# \_ITEBOX





## **FEATURES**

- 4", 6" and 8" apertures, delivering 650 to 3000 lumens
- Switchable Lumen and CCT
- Switchable CCT in Warm White (27/30/35K) or Cool White (35/40/50K)
- Optional support pans for Joist or T-Grid ceilings
- Universal 120-277V with 0-10V 10% dimming
- Long Life L90 at >60,000 hrs (TM-21)
- · Five year warranty













CATALOG #:

(Select models)





### SERVICE PROGRAMS



### **SPECIFICATIONS**

### CONSTRUCTION

- · Canless direct install New Construction or Remodel, Non-IC. Select IC models available.
- · Non-conductive "Dead Front" snap-in trims available
- · Single piece luminaire allowing for quick, simple and tool-less install

- · Decorative snap-in trims, available in white, black and silver
- · Polycarbonate lensed optic, suitable for wet location, covered ceiling applications

### **ELECTRICAL**

- LED array with 3 SDCM color consistency
- · Long LED life: Maintain 90% of lumen output at >60,000 hours of operation (L90 at 60,000hr TM-21)
- · Switchable CCT available in Warm White (2700K, 3000K, 3500K) and Cool White (3500K, 4000K, 5000K)
- 90 CRI+ with R9 >50
- Switchable Lumen: 4" (650/1000lm); 6" (850/1200/1800lm); 8" (3000lm)
- · High efficiency integral driver with universal 120-277V, 50/60Hz

### **ELECTRICAL (CONTINUED)**

- Flicker-Free 0-10V dimming to 10%
- · See Additional Information section for a list of recommended dimmers
- · Meets Class A (<24dba) noise rating
- · FCC CFR 47 Part 15 Class B
- ≥ 0.9 Power Factor, <20% THD

### INSTALLATION

- · Robust trim mounting springs hold fixture firmly against ceiling surface
- · Accommodates ceiling thicknesses up to 1" (for 6" and 8"); 3/4" (for 4")
- Fixture installs below the ceiling without a housing
- · Optional support pan accessories with or without bar hangers available
- · Switchable CCT: Field select CCT at installation with an integral switch on fixture module
- Switchable Lumen: Field select lumen output at installation with an integral switch of fixture module

### **CERTIFICATIONS**

- cULus listed to UL1598
- · Can be used in direct contact with insulation (IC Rated, SL Only)
- · Certified Air Tight per ASTM E283
- · Suitable for wet locations, covered ceilings
- · ENERGY STAR® Certified
- · SL modules meet CA Title 24 High Efficacy (JA8-2019) requirements

### WARRANTY

· 5 year warranty

KEY DATA			
677–3287			
8.1–36.6			
74–106			
L90 @ 60,000			
71–308 (120V)			





STANDARD CANLESS DIRECT INSTALL DOWNLIGHT

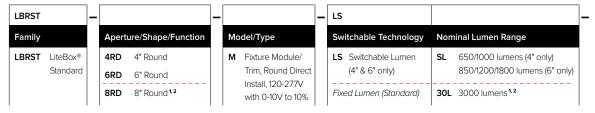
DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

# STOCK

### ORDERING GUIDE

Example: LBRST-4RD-M-LSSLCWCS9-WH
CATALOG #

### FIXTURE MODULE / TRIM



		_			
CCT/CRI			Refle	ctor Finish/Colo	1
WWCS9	Warm White Switchable CCT (2700/3000/3500K), 90 CRI		WH	White	
CWCS9	Cool White Switchable CCT (3500/4000/5000K), 90 CRI				

Accessories (Order separately)						
CO	LOR TRIM ACCESSORIES					
LBRST-4RD-T-BL Trim Accessory, 4" Round, Black						
☐ LBRST-4RD-T-SVR	Trim Accessory, 4" Round, Silver					
LBRST-4RD-T-WH	Trim Accessory, 4" Round, White					
LBRST-6RD-T-BL	Trim Accessory, 6" Round, Black					
☐ LBRST-6RD-T-SVR	Trim Accessory, 6" Round, Silver					
LBRST-6RD-T-WH	Trim Accessory, 6" Round, White					
LBRST-8RD-T-BL	Trim Accessory, 8" Round, Black					
☐ LBRST-8RD-T-SVR	Trim Accessory, 8" Round, Silver					
LBRST-8RD-T-WH	Trim Accessory, 8" Round, White					
	PAN ACCESSORIES					
LB-4R-F-TG	Accessory, Pan w/Bar Hangers for T-Grid/Joist, 4" Round					
LB-4R-F-J	Accessory, Pan Support for Joist, 4" Round					
LB-6R-F-TG	Accessory, w/Bar Hangers for T-Grid/Joist, 6" Round					
LB-6R-F-J	Accessory, Pan Support for Joist, 6" Round					
LB-8R-F-TG	Accessory, w/Bar Hangers for T-Grid/Joist, 8" Round					
LB-8R-F-J	Accessory, Pan Support for Joist, 8" Round					

### Notes:

- 1 8RD available only with 30L fixed lumen.
- 2 8RD 30L is not IC rated.



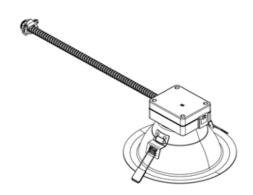
STANDARD CANLESS DIRECT INSTALL DOWNLIGHT

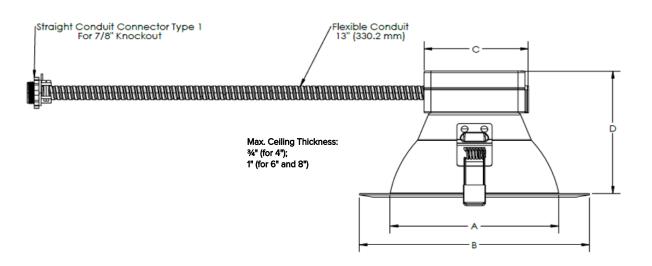
DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

### **DIMENSIONS**





Aperture	Ceiling Cutout MinMax.	
4"	Ø4.5" - 5.0" (Ø114.3 - 127mm)	
6"	Ø6.0" - 6.7" (Ø152.4 - 170.2mm)	
8"	Ø8.0" - 9.0" (Ø203.2 - 228.6mm)	

Nominal Aperture	A Aperture Diameter	B Overall Trim Diameter	C Overall Module Heat Sink	D Overall Height (Assembled)
4"	4.08" (103.74 mm)	5.6" (142.3 mm)	3.51" (89.4 mm)	3.63" (92.21 mm)
6"	5.67" (144.17 mm)	7.74" (196.8 mm)	3.51" (89.4 mm)	4.36" (110.92 mm)
8"	7.46" (189.73 mm)	9.74" (247.6 mm)	3.51" (89.4 mm)	4.93" (125.42 mm)

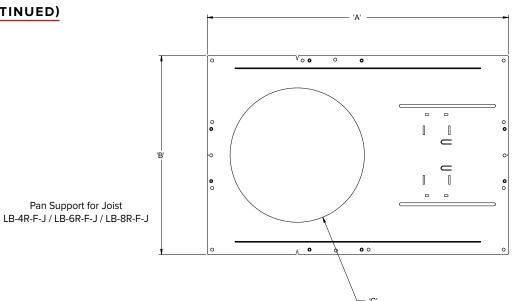


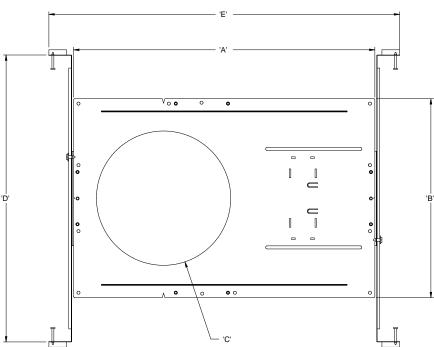
STANDARD CANLESS DIRECT INSTALL DOWNLIGHT

DATE: LOCATION: TYPE: PROJECT:

CATALOG #:

### **DIMENSIONS (CONTINUED)**





Pan Support for Joist

Pan with Bar Hangers for T-Grid / Joist LB-4R-F-TG / LB-6R-F-TG / LB-8R-F-TG

Accessory	DESCRIPTION	'A'	'B'	'C'	'D' Min.	'D' Max.	'E'
LB-4R-F-J	4" Round	16.54" (420.1 mm)	6.50" (165.1 mm)	4.92" (125.0 mm)	_	_	_
LB-6R-F-J	6" Round	18.19" (462.0 mm)	9.02" (229.1 mm)	6.26" (159.0 mm)	_	_	_
LB-8R-F-J	8" Round	18.19" (462.0 mm)	12.01" (305.1 mm)	8.11" (206.0 mm)	_	_	_
LB-4R-F-TG	4" Round	16.54" (420.1 mm)	6.50" (165.1 mm)	4.92" (125.0 mm)	14.17" (359.9 mm)	25.00" (635.0 mm)	19.52" (495.8 mm)
LB-6R-F-TG	6" Round	18.19" (462.0 mm)	9.02" (229.1 mm)	6.26" (159.0 mm)	14.17" (359.9 mm)	25.00" (635.0 mm)	21.17" (537.7 mm)
LB-8R-F-TG	8" Round	18.19" (462.0 mm)	12.01" (305.1 mm)	8.11" (206.0 mm)	14.17" (359.9 mm)	25.00" (635.0 mm)	21.17" (537.7 mm)



STANDARD CANLESS DIRECT INSTALL DOWNLIGHT

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

### PERFORMANCE DATA TABLE

Nominal Aperture	Switchable Lumen Setting	Nominal Lumens	Cat #	ССТ	CRI	Delivered Lumens	Watts	LPW	
			LBRST-4RD-M-LSSLWWCS9-WH	27K		677	8.5W	80	
			LBRST-4RD-M-LSSLWWCS9-WH	30K		711	8.1W	88	
	Low	650	LBRST-4RD-M-LSSLWWCS9-WH	35K		706	8.5W	83	
			LBRST-4RD-M-LSSLCWCS9-WH	40K		779	8.3W	94	
4"			LBRST-4RD-M-LSSLCWCS9-WH	50K		772	8.7W	89	
4"			LBRST-4RD-M-LSSLWWCS9-WH	27K		971	13.8W	70	
			LBRST-4RD-M-LSSLWWCS9-WH	30K		1063	13.1W	81	
	High	1000	LBRST-4RD-M-LSSLWWCS9-WH	35K		1033	13.8W	75	
			LBRST-4RD-M-LSSLCWCS9-WH	40K		1174	13.4W	88	
			LBRST-4RD-M-LSSLCWCS9-WH	50K		1135	14.1W	80	
			LBRST-6RD-M-LSSLWWCS9-WH	27K		795	8.8W	90	
		850	LBRST-6RD-M-LSSLWWCS9-WH	30K	90	841	8.4W	100	
	Low		LBRST-6RD-M-LSSLWWCS9-WH	35K		842	8.7W	97	
			LBRST-6RD-M-LSSLCWCS9-WH	40K		903	8.5W	106	
			LBRST-6RD-M-LSSLCWCS9-WH	50K		908	8.8W	103	
			LBRST-6RD-M-LSSLWWCS9-WH	27K		1136	13.4W	85	
	Middle		LBRST-6RD-M-LSSLWWCS9-WH	30K		1225	12.8W	96	
6"		1200	LBRST-6RD-M-LSSLWWCS9-WH	35K		1211	13.4W	90	
			LBRST-6RD-M-LSSLCWCS9-WH	40K		1326	12.9W	103	
			LBRST-6RD-M-LSSLCWCS9-WH	50K		1310	13.5W	97	
			LBRST-6RD-M-LSSLWWCS9-WH	27K		1587	21.3W	74	
	High 1800			LBRST-6RD-M-LSSLWWCS9-WH	30K		1786	20.3W	88
		1800	LBRST-6RD-M-LSSLWWCS9-WH	35K	-	1728	21.3W	81	
			LBRST-6RD-M-LSSLCWCS9-WH	40K		1945	20.5W	95	
			LBRST-6RD-M-LSSLCWCS9-WH	50K		1864	21.6W	86	
			LBRST-8RD-M-30LWWCS9-WH	27K		2760	36.6W	75	
	High	3000	LBRST-8RD-M-30LWWCS9-WH	30K		3038	34.8W	87	
8"			LBRST-8RD-M-30LWWCS9-WH	35K		2910	36.8W	79	
			LBRST-8RD-M-30LCWCS9-WH	40K		3287	34.8W	94	
			LBRST-8RD-M-30LCWCS9-WH	50K		3125	36.6W	85	





STANDARD CANLESS DIRECT INSTALL DOWNLIGHT

DATE: LOCATION:

TYPE:

CATALOG #:

### **PHOTOMETRY**

### LBRST-4RD-M-LSSLWWCS9-WH

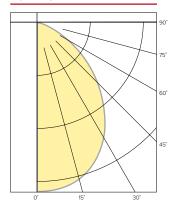
### **LUMINAIRE DATA**

Test No	R17582-1-01
Description	4" LBRST, High Lumen @ 3000K
Delivered Lumens	1135
Watts	13.8
Efficacy	82
Mounting	Recessed
Spacing Criterion	1.2
Beam Angle (FWHM)	89

### **ZONAL LUMEN SUMMARY**

Zone	Lumens	% Luminaire
0-40	203	18%
0-60	1019	90%
0-90	1134	100%
0-180	1134	100%

### **POLAR GRAPH**



### **CANDELA DISTRIBUTION**

PROJECT:

Degree	Candela
0	563
5	561
15	534
25	479
35	389
45	280
55	169
65	74
75	30
85	8
90	0

### LUMINANCE DATA\*

Vertical Angle	Average
45°	50018
55°	37592
65°	22696
75°	14696
85°	11500

\*Candela/Square Meter

### LBRST-6RD-M-LSSLWWCS9-WH

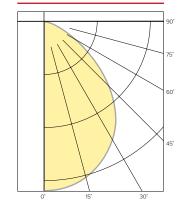
### **LUMINAIRE DATA**

Test No	R17586-1-01
Description	6" LBRST, High Lumen @ 3000K
Delivered Lumens	1841
Watts	21.3
Efficacy	86.5
Mounting	Recessed
Spacing Criterion	1.2
Beam Angle (FWHM)	91

### ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	324	18%
0-60	1669	91%
0-90	1836	100%
0-180	1840	100%

### **POLAR GRAPH**



### CANDELA DISTRIBUTION

Degree	Candela
0	899
5	892
15	847
25	763
35	636
45	450
55	253
65	97
75	45
85	14
90	0

### LUMINANCE DATA\*

Vertical Angle	Average
45°	40545
55°	28464
65°	15065
75°	11164
85°	10492

\*Candela/Square Meter

### LBRST-8RD-M-30LWWCS9-WH

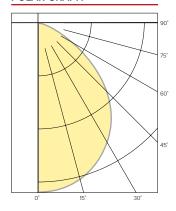
### LUMINAIRE DATA

Test No	R17594-1-01
Description	8" LBRST, High Lumen @ 3000K
Delivered Lumens	3194
Watts	36.4
Efficacy	87.8
Mounting	Recessed
Spacing Criterion	1.2
Beam Angle (FWHM)	94

### **ZONAL LUMEN SUMMARY**

Zone	Lumens	% Luminaire
0-40	1863	58%
0-60	2933	92%
0-90	3187	100%
0-180	3194	100%

### POLAR GRAPH



### CANDELA DISTRIBUTION

Degree	Candela
0	1533
5	1524
15	1453
25	1317
35	1127
45	844
55	474
65	157
75	65
85	18
90	0

### **LUMINANCE DATA\***

Vertical Angle	Average
45°	42395
55°	29886
65°	13520
75°	8962
85°	7702

\*Candela/Square Meter

### **LUMEN MULTIPLIER**

Option	27K, 90 CRI	30K, 90 CRI	35K, 90 CRI	40K, 90 CRI	50K, 90 CRI
Multiplier	0.89	1.00	0.96	1.08	1.00

Photometrics above are published at nominal 3000K, 90 CRI. This table may be used to approximate the lumen values at different Kelvin temperature settings. Power consumption remains the same.







STANDARD CANLESS DIRECT INSTALL DOWNLIGHT

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

### **ADDITIONAL INFORMATION**

### **Dimming Compatibility**

For more details and recommended dimmer list, see Dimming Compatibility Information on currentlighting.com/prescolite.





PROJECT:
CATALOG #:
FIXTURE TYPE:
NOTES:

# TR Surface Wraparound Gen 2



The TR G2 Series Surface Wraparound delivers industryleading performance with substantial energy savings compared to traditional fluorescent lighting. The curved diffuser provides even light distribution with minimum number of fixtures needed. This luminaire comes in lumen packages 3,900 to 5,280 lumens and color temperatures 3500K, 4000K and 5000K. Optional emergency battery backup is available.

### **APPLICATIONS**

Commercial and Retail spaces including Offices, Conference rooms, etc.

### REPLACEMENT

2 Lamp T8 32W and 3 Lamp T8 32W







### PERFORMANCE INFORMATION

SERIES NUMBER	WATT	LUMENS	ССТ
TR 4 39 G2 35K	30W	3,900	3500K
TR 4 39 G2 4K	30W	4,050	4000K
TR 4 39 G2 5K	30W	4,050	5000K
TR 4 52 G2 35K	40W	5,200	3500K
TR 4 52 G2 4K	40W	5,200	4000K
TR 4 52 G2 5K	40W	5,280	5000K

### **OPTIONS**







HBP-112-L7-OEM

BRI819P-B-D

EL UNV-10W

ORDERI	ORDERING GUIDE EXAMPLE: TR 4 39 G2 5K						
Luminaire Type	Size	Lumen Output	Generation	Voltage	ССТ	Finish	Options
TR Surface Wraparound	<b>4=</b> 4 ft	<b>39</b> 4,050 Lumens <b>52</b> 5,200 Lumens	G2	BLANK= 120-277V	35K 3500K 4K 4000K 5K 5000K	BLANK= White	BLANK=No Option  HBP-112-L7-OEM=High/Low-Bay PIR On/ Off Sensor  BR1819P-B-D= PIR Motion/Photo Sensor, 120/277V AC, 1-10V Dimming (Choose one)  L1= 360° Lens (Max. 25ft mounting height) L2= 360° Lens (Max. 40ft mounting height) EL UNV-10W=Emergency Backup Controller

Due to continuous product improvements, specification and/or equipment updates may change without notice.



## **SPECIFICATIONS**

### HOUSING

Body consists of fabricated 22ga steel

### AMBIENT TEMPERATURE

Suitable for use in -20°C to 45°C (-4°F to 113°F)

### **MOUNTING**

Surface mount

### **EFFICACY**

Up to 120 lumens per watt (see individual wattage data)

### **CCT AND CRI**

3500K, 4000K, and 5000K CCT available; 82 CRI

### **OPTICS**

Volumetric illumination specular reflector with frosted acrylic lens.

### WARRANTY

5-year limited warranty. Comprehensive warranty terms can be located on www.slgus.com.

### LIFETIME

L70 TM-21 @ 70°C > 100,000 HRS

### **ELECTRICAL**

High quality constant-current drivers rated for 50/60Hz operation, 120-277V input. Standard 0-10V dimmer.

### **ENERGY DATA**

Power factor above 90%.

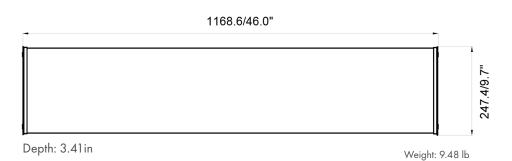
### **FINISH**

White Polyester Powder finish.

### **CERTIFICATIONS**

UL Listed for damp and dry locations. FCC compliant. RoHs compliant. Design Lights Consortium® (DLC) Standard 5.1 qualified product. Not all versions of this product may be DLC qualified. Please visit www.slgus.com to confirm which versions are qualified.

### **DIMENSIONS**



Due to continuous product improvements, specification and/or equipment updates may change without notice.



## **OPTIONS**



HBP-112-L7-OEM
High/Low-Bay PIR On/Off Sensor

The *HBP-112-L7-OEM* on/off PIR motion sensor is ideal for warehouses, distribution centers, gymnasiums, and other indoor applications.

Operation Voltage	Mounting Height	Coverage	Shape	Adjustable Time Delay	Operating Temperature	Applications
120V/ 277V/ 347V	15-40 ft	2.5x Height*	Cone	5/10/15/20/30 min. Default 15 min.	0°C to 70°C 32°F to 158°F	Indoor Only

<sup>\*</sup>Covers a 100 ft diameter when the mounting height is 40 ft.



BRI819-P-B-D Motion Sensor, 1-10V Dimming

The *BR1819-P-B-D* provides multi-level occupancy control with 1-10V adjustable dimming. This motion sensor can be attached externally to the fixture. Requires L1 or L2 lens depending on the mounting height.

Operation Voltage	Shape	Adjustable Time Delay	Operation Temperature	Mounting Height for L1	Mounting Height for L2
120/277V	Cone	10 sec - 60 min (adjustable)	-40°F to 167°F (-40°C to 75°C)	Max 25ft*	Max 40ft**

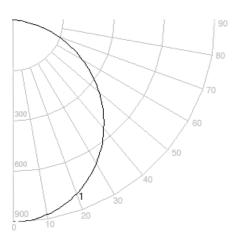
<sup>\*</sup>Covers a 30 ft diameter when the mounting height is 25 ft.

Due to continuous product improvements, specification and/or equipment updates may change without notice.

 $<sup>^{\</sup>star\,\star}\textsc{Covers}$  a 60 ft diameter when the mounting height is 40 ft.



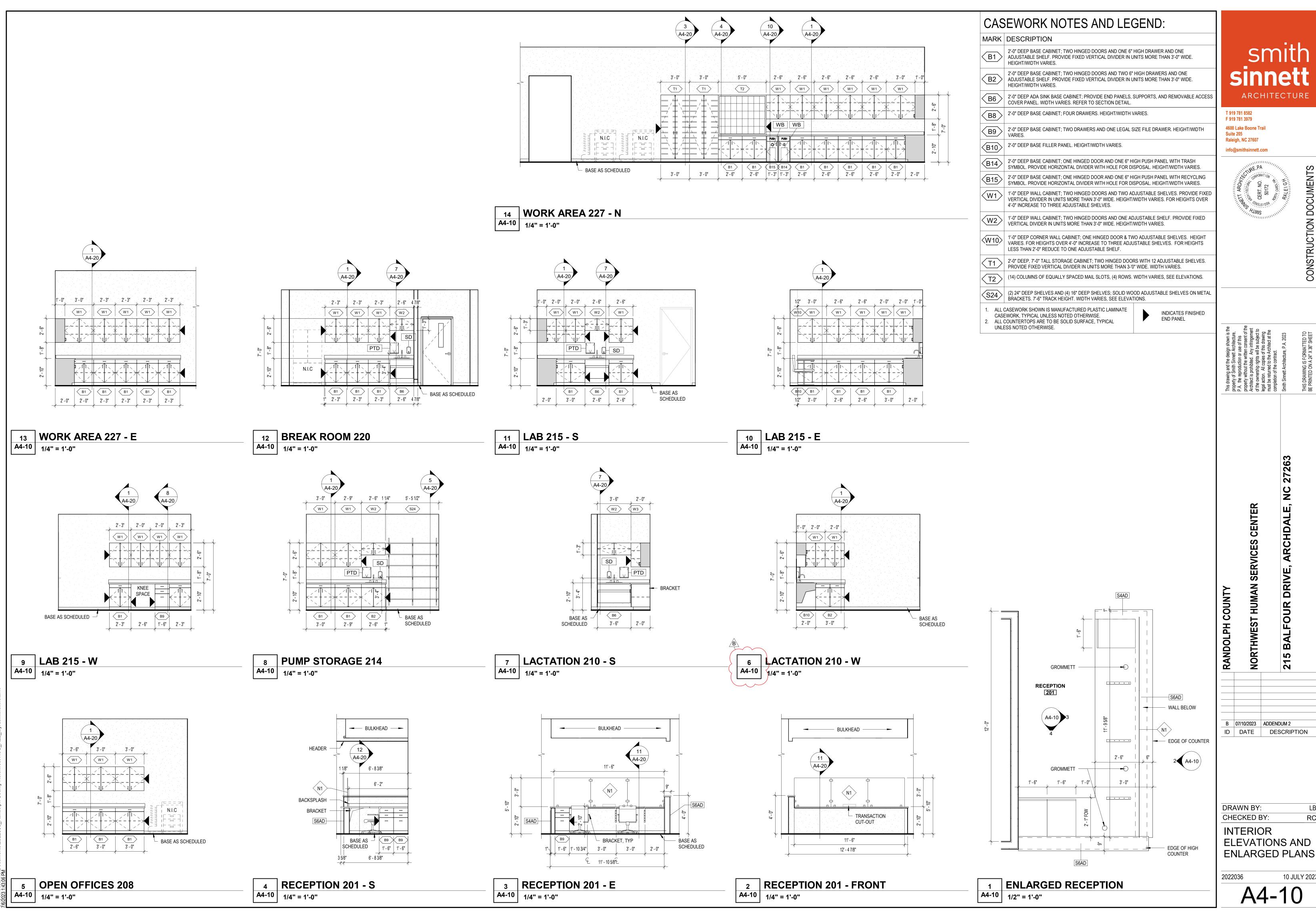
## **PHOTOMETRIC**



TR 4 52 G2 4K

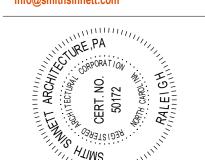
ELECTRICAL LOAD		Curre	nt (A)		
Series Number	Wattage	120V	208V	240V	277V
TR 4 39 G2 35K/4K/5K	30W	0.25	0.14	0.13	0.11
TR 4 52 G2 35K/4K/5K	40W	0.33	0.19	0.17	0.14

 $\label{thm:provements} \mbox{Due to continuous product improvements, specification and/or equipment updates may change without notice.}$ 



ARCHITECTURE

T 919 781 8582 F 919 781 3979 4600 Lake Boone Trail Raleigh, NC 27607

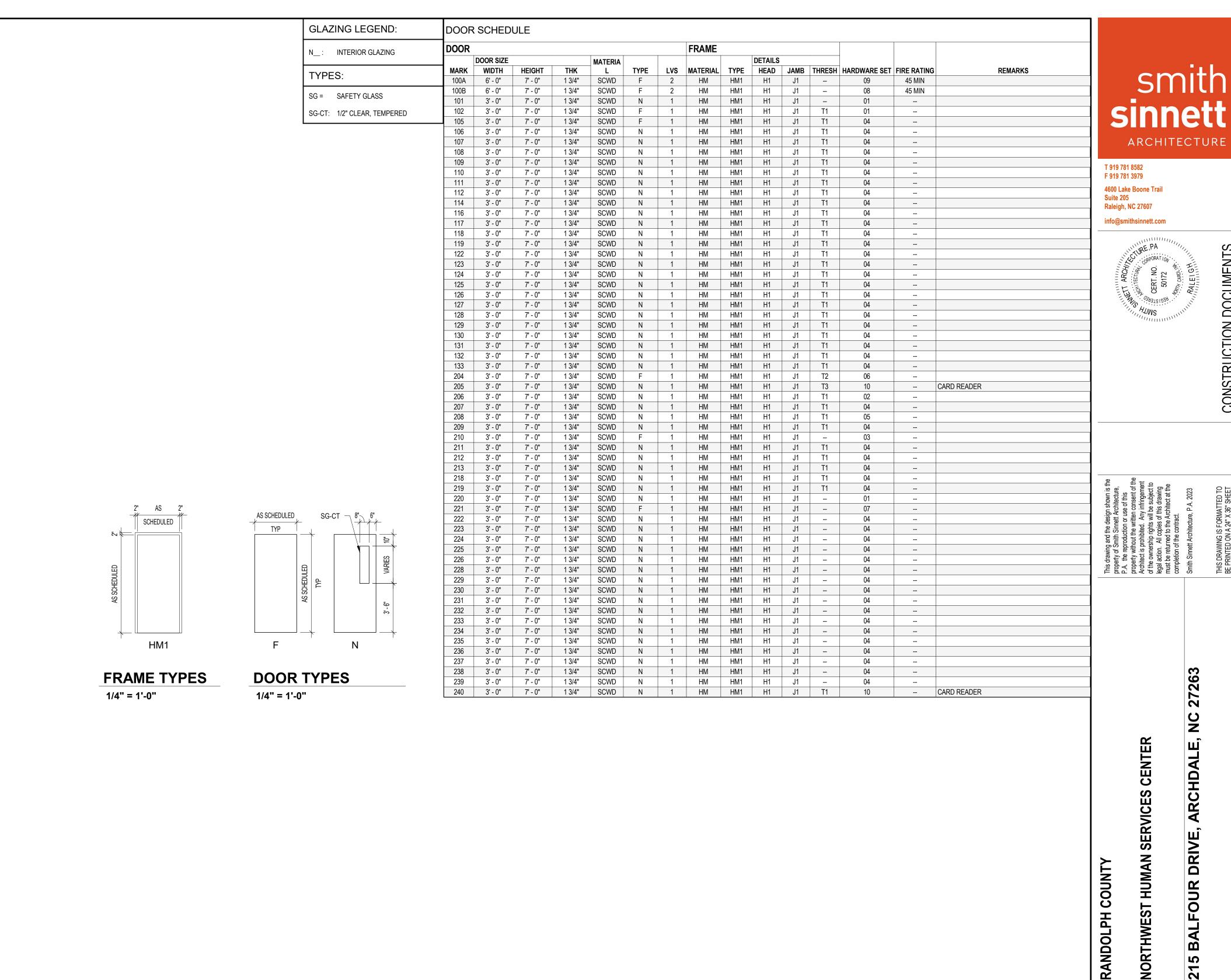


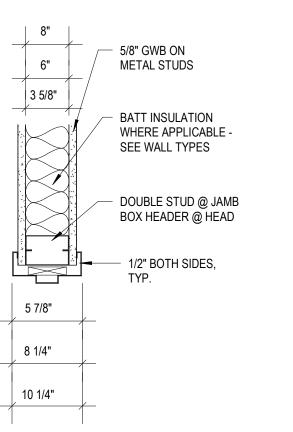
CONSTRUCTION DOCUMENTS

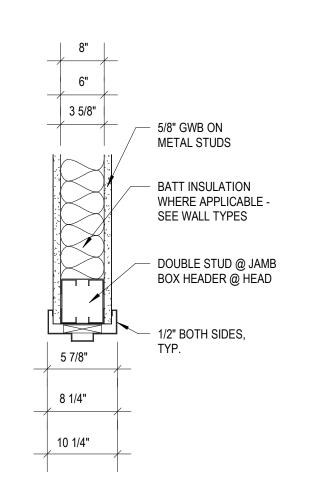
B 07/10/2023 ADDENDUM 2 ID DATE DESCRIPTION

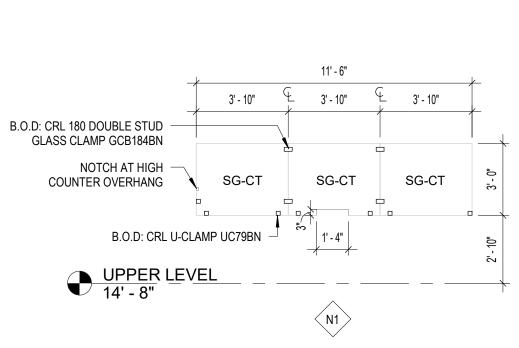
DRAWN BY: CHECKED BY: INTERIOR **ELEVATIONS AND** 

10 JULY 2023 A4-10









10 JULY 2023

3 J1 - HM JAMB AT STUD WALL 1 1/2" = 1'-0"

2 H1 - HM HEAD AT STUD WALL A6-01 1 1/2" = 1'-0"

1 RECEPTION GLAZING ELEVATION

DRAWN BY:

CHECKED BY:

WINDOW AND

AND DETAILS

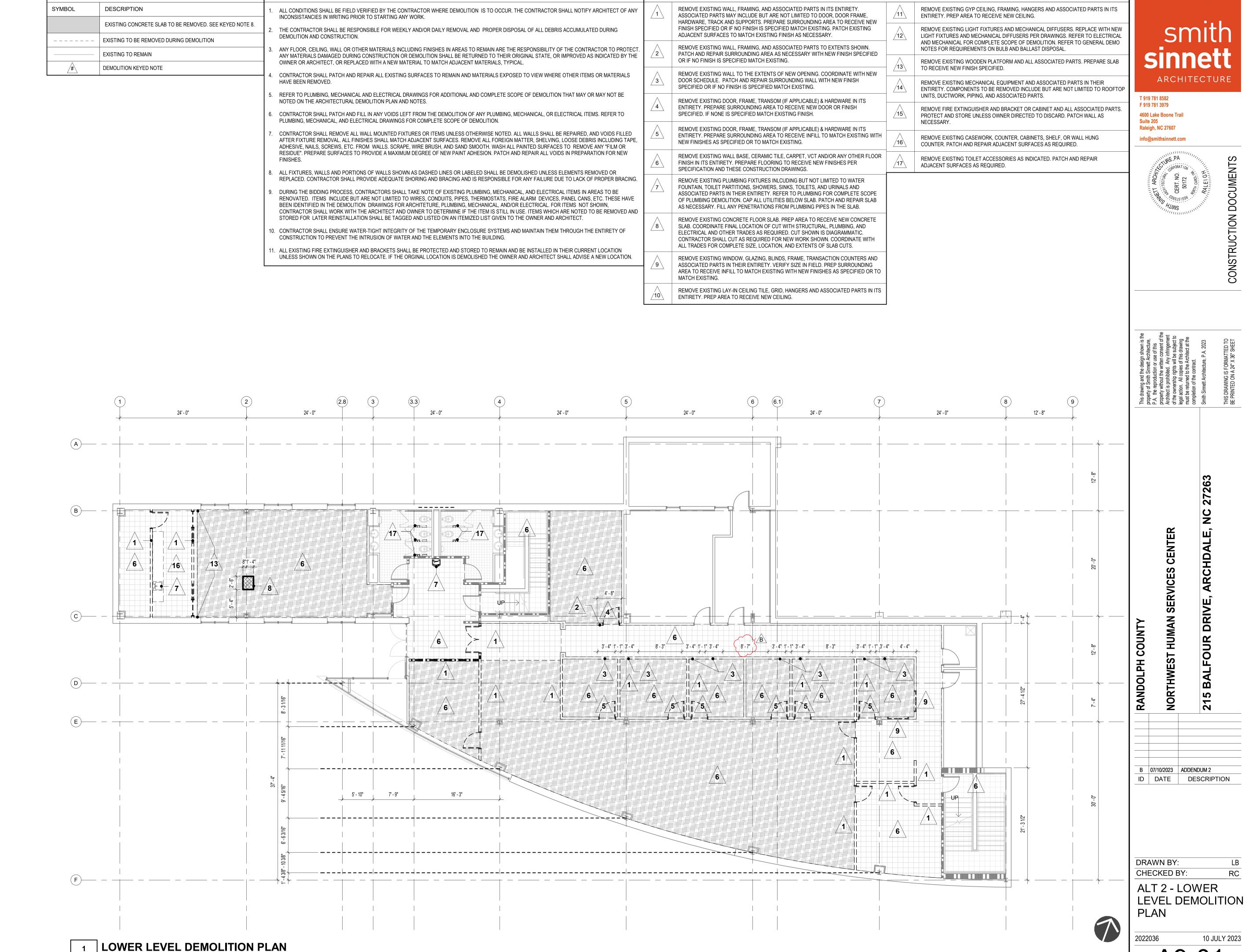
DOOR SCHEDULE

B 07/10/2023 ADDENDUM 2

ID DATE DESCRIPTION

CONSTRUCTION DOCUMENTS

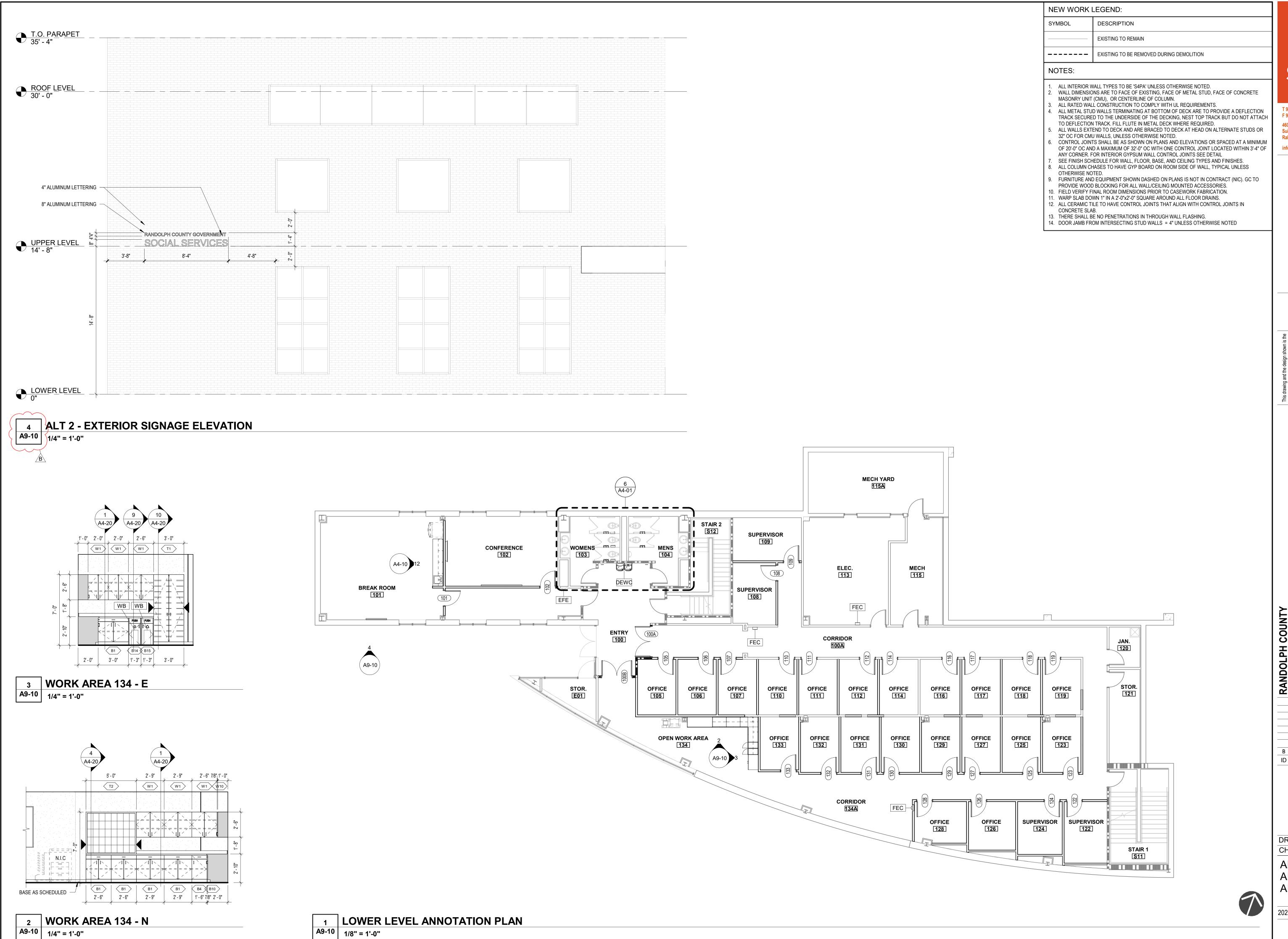
A6-01 1/4" = 1'-0"



**DEMOLITION KEYNOTES:** 

**DEMOLITION LEGEND:** 

**GENERAL DEMOLITION NOTES:** 





T 919 781 8582 F 919 781 3979 Suite 205 Raleigh, NC 27607



B 07/10/2023 ADDENDUM 2 ID DATE DESCRIPTION

DRAWN BY: CHECKED BY: ALT 2 - LOWER LVL

ANNOTATION PLAN AND ELEVATIONS

10 JULY 2023

A9-10