

- PHOTO DIODE SENSOR**
- a) **LOCATION/MOUNTING**
- A PHOTO DIODE SENSOR SHALL BE MOUNTED IN A WATERTIGHT ENCLOSURE ON THE NORTHERN MOST SIDE OF THE BUILDING.
  - THE PHOTO DIODE MUST BE MOUNTED IN THE PROPER ORIENTATION. THE WATERTIGHT ENCLOSURE SHALL BE MOUNTED USING THE APPROPRIATE WALL ANCHORS. ANY EXTERIOR WALL PENETRATION SHALL BE SEALED PROPERLY WITH WEATHER-TIGHT CAULK/SILICON.
- b) **CONNECTIONS**
- THE PHOTO DIODE LEADS MUST BE EXTENDED USING 18-24 AWG SHIELDED TWISTED PAIR CABLE, AND ROUTED BACK TO THE LCA/LCP IS PS +/- TERMINALS. TERMINALS ARE POLARITY SENSITIVE.

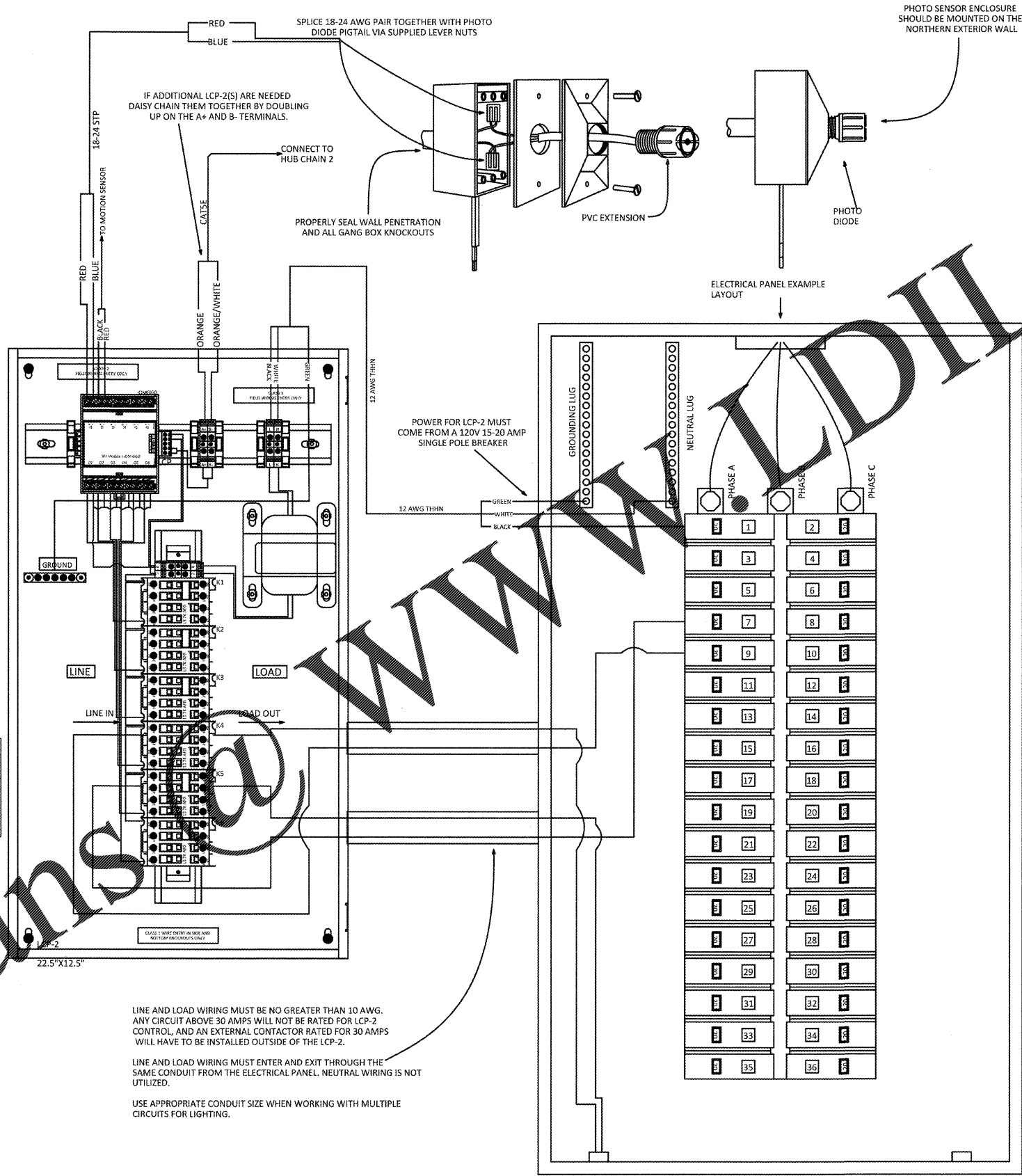
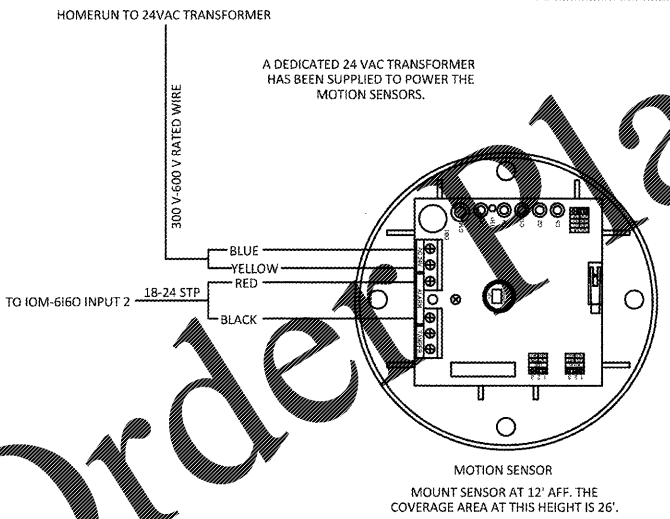
- LCP-2 (LOAD CONTROL PANEL) - NOT APPLICABLE FOR SITES CONTAINING EXISTING SMART LIGHTING CONTROLS**
- a) **LOCATION/MOUNTING**
- (3) LCP-2 SHALL BE MOUNTED WITHIN THE ELECTRICAL ROOM  
THE LCP-2 SHALL BE MOUNTED USING THE APPROPRIATE WALL ANCHORS.
- b) **POWER REQUIREMENTS**
- THE 120 VAC POWER SOURCE FOR THE LCP-2 MUST BE OBTAINED FROM A DEDICATED 15-20 AMP SINGLE POLE BREAKER.  
HIGH VOLTAGE KNOCKOUTS FOR THE LCP-2 ARE LOCATED ON THE SIDE/BOTTOM OF THE CABINET ENCLOSURE. WHEN USING SIDE KNOCKOUTS THE INSTALLER SHALL ONLY UTILIZE KNOCKOUTS BELOW THE GROUNDING BAR WITHIN THE LCP-2 CABINET.  
LOW VOLTAGE KNOCKOUTS FOR THE LCP-2 ARE LOCATED ON THE TOP OF THE CABINET ENCLOSURE.
- c) **CONNECTIONS**
- THE LCP-2 SHALL CONTROL THE FOLLOWING:
- EXTERIOR SIGNS AND BUILDING LIGHTING
  - EXTERIOR PARKING LOT LIGHTS
  - INTERIOR LIGHTING
- THE LIGHTING ZONES SHALL BE SEPARATED PER THE SOW.  
LINE AND LOAD WIRING SHALL BE ROUTED FROM THE ELECTRICAL PANEL CONTAINING THE CIRCUITS TO BE CONTROLLED BACK TO THE LCP-2. SINCE THE LCP-2 DOES NOT REQUIRE NEUTRAL WIRES, LINE AND LOAD WIRING MUST ENTER AND EXIT THE LCP-2 THROUGH THE SAME CONDUIT. LINE SIDE WIRING IS ON THE LEFT SIDE OF THE CONTACTORS AND LOAD SIDE WIRING IS ON THE RIGHT SIDE OF THE CONTACTORS.  
DO NOT BREACH CONDUIT WIRING CAPACITY, AND INSTALL ADDITIONAL CONDUIT IF NEEDED TO CONTAIN LINE AND LOAD PAIRS.
- d) **COMMUNICATION**
- RS-485 CONNECTIONS SHALL BE OBTAINED USING THE A+/B- TERMINALS USING CAT5E CABLE AND WIRED BACK TO AN OPEN CHAIN OF THE HUB.
- e) **LABELING**
- THE LCP-2 SHALL BE LABELED PER POWER SOURCE. THE LABEL SHALL BE APPLIED TO THE FRONT CABINET DOOR.

**CONTACTOR SCHEDULE**

Contactor	Terminal	Group	Load Description
K1	57/58	Phase Voltage	Sales Lights
	57/59	Phase Voltage	
	57/60	Phase Voltage	
K2	57/58	Phase Voltage	Manager Level Lights
	57/59	Phase Voltage	
	57/60	Phase Voltage	
K3	57/58	Phase Voltage	Exterior Parking Lights
	57/59	Phase Voltage	
	57/60	Phase Voltage	
K4	57/58	Phase Voltage	Exterior Signs
	57/59	Phase Voltage	
	57/60	Phase Voltage	
K5	57/58	Phase Voltage	Wall Packs
	57/59	Phase Voltage	
	57/60	Phase Voltage	
K6	57/58	Phase Voltage	Stock Room Lights
	57/59	Phase Voltage	
	57/60	Phase Voltage	

**FIRE ALARM COORDINATION PER NFPA 2015**

IF THE LCP IS OFF, THEN ALL THE LIGHTS WILL TURN ON.  
IF THE LCP IS ON AND THE FIRE ALARM TRIGGERS, THEN GRIDPOINT WILL MONITOR THE FIRE ALARM SIGNAL AND TURN LIGHTS ON. NOTE: THE FIRE ALARM SIGNAL NEEDS TO STAY ACTIVE FOR AT LEAST 1 MINUTE.



**O'REILLY PREFERRED ONE LINE DIAGRAM**

**GRIDPOINT**  
5305 VALLEY PARK DRIVE SUITE # 2 - ROANOK, VA - 24019

**GRIDPOINT CONTACT**

PLEASE CONTACT GRIDPOINT INSTALLATION MANAGEMENT @ 866-500-8906 FOR INSTALLATION CONTACT BASED ON THE STORE LOCATION.  
EMAIL: SUPPORT@GRIDPOINT.COM

PRINTS ARE FOR:

DESIGN

REVIEW

PERMIT

BIDDING

CONSTRUCTION

REVISIONS	DESCRIPTION	DATE	BY
1	Single motion sensor	05/14/2018	DKD

SHEET TITLE:  
LIGHTING CONTROL AND MOTION SENSORS

FILE NAME:  
O'REILLY PREFERRED ONE LINE DIAGRAM

DATE: 2/27/2018  
DRAWN BY: DAVID COLWELL

SHEET NO:

**EM 1.1**

**CASCO + R5**  
12 Sunnen Drive, Suite 100,  
St. Louis, MO 63143  
Phone: 631.821.1100

REVISIONS:

NO.	DATE	DESCRIPTION

**O'Reilly AUTO PARTS**

CORPORATE OFFICES  
233 SOUTH PATTERSON  
SPRINGFIELD, MISSOURI 65802  
417-862-2674 PHONE

**O'Reilly**

**PROJECT:**  
**RE-MODEL O'REILLY AUTO PARTS STORE**  
103 E. GORDON AVE.  
GORDONSVILLE, VA 22942  
**GRIDPOINT EMS**

**FOR REFERENCE ONLY**

Professional of Record  
DRAWN: XXX  
CHECKED: XXX  
DATE: 10-17-2018  
JOB NO.: 118168 (GDV)  
SHEET:

**EM 1.1**