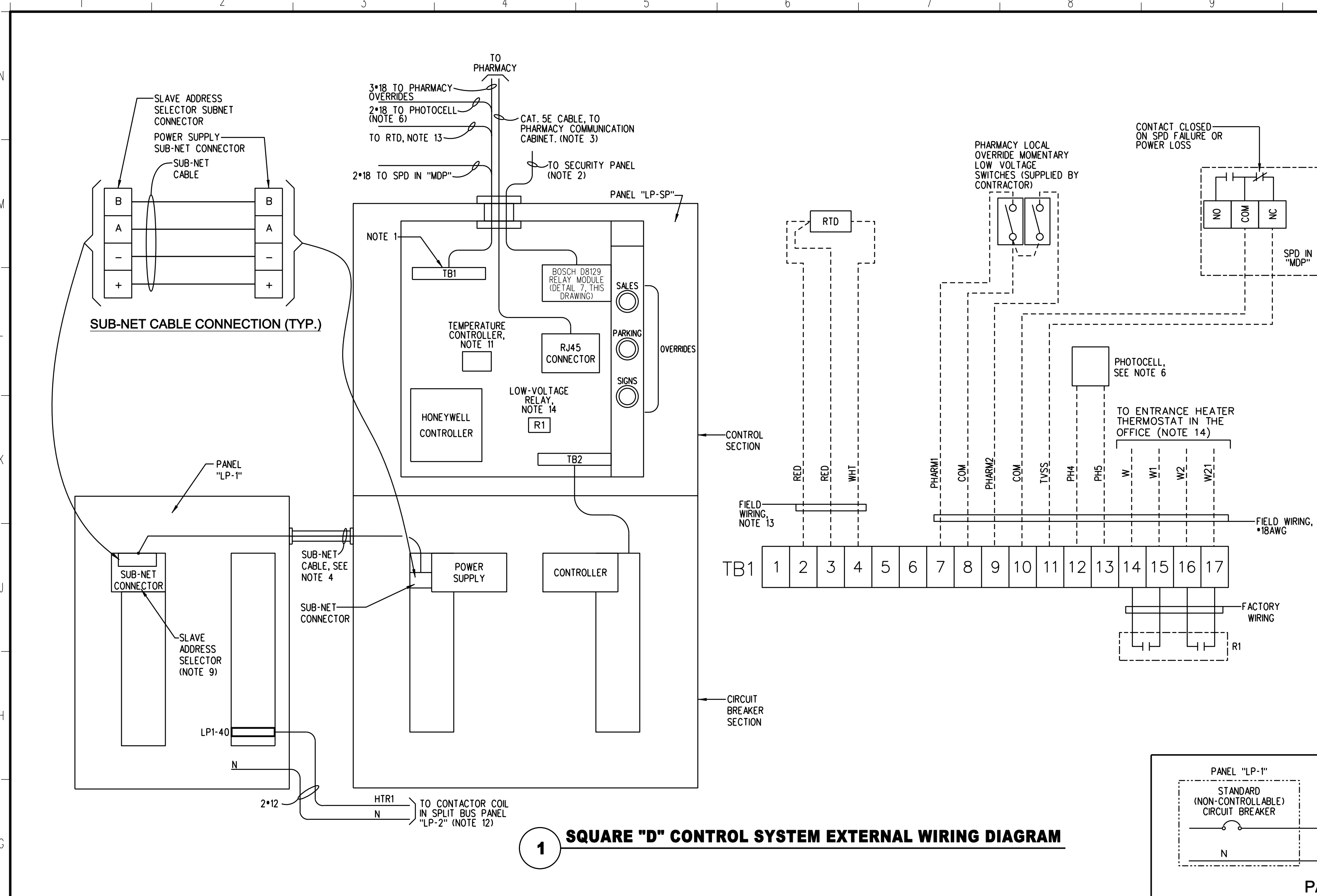


PROJECT NO. 91126746	
PROJECT TYPE	
DRAWINGS/SPECIFICATIONS BY:	
<input type="checkbox"/> WALGREENS' CONSULTANT <input checked="" type="checkbox"/> LANDLORD'S CONSULTANT	
ALL CONSTRUCTION WORK, UNLESS NOTED OTHERWISE, BY:	
<input type="checkbox"/> WALGREENS' CONTRACTOR <input checked="" type="checkbox"/> LANDLORD'S CONTRACTOR (TURNKEY CONSTRUCTION)	
STORE	BUILDING
NEW <input checked="" type="checkbox"/>	NEW <input checked="" type="checkbox"/>
REMODELING <input type="checkbox"/>	EXISTING <input type="checkbox"/>
RELOCATION <input type="checkbox"/>	NEW SHELL ONLY <input type="checkbox"/>
OTHERS <input type="checkbox"/>	



1 SQUARE "D" CONTROL SYSTEM EXTERNAL WIRING DIAGRAM

THE FOLLOWING TEST MUST BE PERFORMED BY ELECTRICAL CONTRACTOR:

- PHARMACY OVERRIDES**
CHECK THAT LOCAL OVERRIDES AND OVERRIDE PUSHBUTTON ON PANEL "LP-SP" DOOR WORKS.
- OVERRIDES OTHER THAN PHARMACY**
CHECK THAT OVERRIDE WORKS.
- SECURITY INTERLOCK**
INITIAL CONDITIONS:
- OVERRIDE PUSHBUTTONS/SWITCHES ON PANEL "LP-SP" DOOR SHALL BE OFF.
- ALL THE LIGHTS INSIDE THE STORE SHALL BE ON.
- ALL EXTERIOR LIGHTS SHALL BE OFF (EXCEPT LIGHTS ON CIRCUIT 14 COULD BE ON IF IT IS DARK OUTSIDE).
ACTIONS:
- DISCONNECT WIRE ON TERMINAL "NC" (RELAY 1) IN DB129 RELAY MODULE.
RESULTS:
- ALL INTERIOR LIGHTS (EXCEPT NIGHT LIGHTS) SHALL TURN OFF.
- SECURITY INTERLOCK (CONT'D)**
INITIAL CONDITIONS:
- WIRE ON TERMINAL "NC" IS STILL DISCONNECTED AND ALL INTERIOR LIGHTS (EXCEPT NIGHT LIGHTS) ARE STILL OFF.
ACTIONS:
- INSTALL JUMPER BETWEEN TERMINALS "C" AND "NO" (RELAY 2) IN DB129 RELAY MODULE.
RESULTS:
- ALL INTERIOR LIGHTS AND ALL EXTERIOR LIGHTS MUST TURN ON.
- REMOVE JUMPER BETWEEN TERMINALS "C" AND "NO" (RELAY 2) AND RESTORE WIRE ON TERMINAL "NC" (RELAY 1).
- INTERLOCK WITH HONEYWELL CONTROLLER**
- HONEYWELL CONTROLLER: SET STAGE 1 DIAL AT *4 AND STAGE 2 DIAL AT *7.
- "SET/RUN" SWITCH MUST BE IN "RUN" POSITION.
- SECURITY SYSTEM SHALL BE DISARMED.
- ACTIONS: COVER PHOTOCELL**
(USE TWO GLOVES OR CARDBOARD BOX. MUST NOT USE TAPE!!!)
RESULTS:
- TIME FORE 7:30 AM - ALL OUTSIDE LIGHTS (EXCEPT LIGHTS ON CIRCUIT *14) MUST BE OFF.
- TIME BETWEEN 7:30 AM - 8:00 AM: CIRCUIT *14 MUST BE ON.
- PARKING LIGHTS (CIRCUITS 30/32 - GROUP 8) SHALL TURN ON.
- TIME AFTER 8:00 AM - SIGNS, ABOVE WINDOW FIXTURES, FLOODS AND THE REST OF THE OF THE PARKING LOT LIGHTS (ALL THE CIRCUITS, GROUPS *6, 7, 8, 9, 10, 12) MUST TURN ON.
b. ACTIONS: WITH ALL EXTERIOR LIGHTS STILL ON DISCONNECT WIRE ON TERMINAL "NC" (RELAY 1) IN DB129 RELAY MODULE.
RESULTS:
- SIGNS, ABOVE WINDOW FIXTURES, FLOODS (GROUPS 7, 10, 12) MUST TURN OFF.
- 15 MINUTES LATER ALL PARKING LOT LIGHTS (GROUPS 8 AND 9) MUST TURN OFF.
- RESTORE WIRE ON TERMINAL "NC" (RELAY 1) IN DB129 RELAY MODULE.
UNCOVER PHOTOCELL.

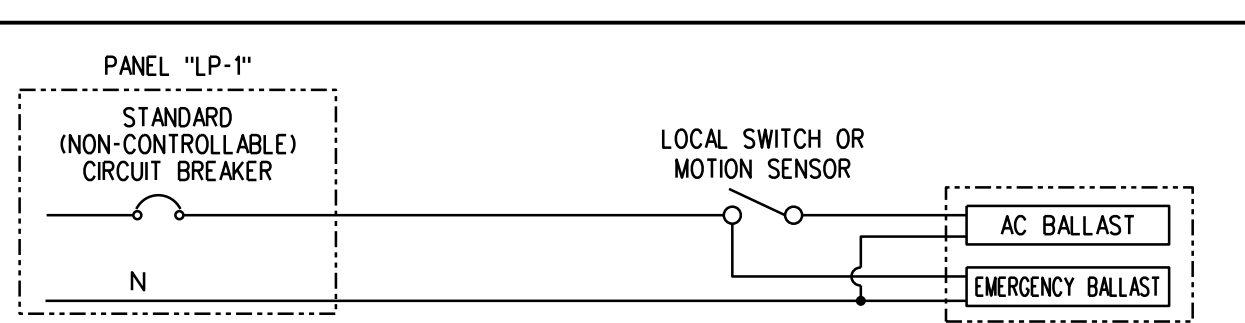
FINAL HONEYWELL CONTROLLER ADJUSTMENT:
 SETTING *4 FOR STAGE 1 DIAL (PARKING LOT) AND *7 FOR STAGE 2 DIAL (SIGNS AND ABOVE WINDOW FIXTURES) MENTIONED ABOVE ARE PRELIMINARY. THE ACTUAL SETTINGS MUST BE DONE IN THE EVENING BEFORE DARK OR EARLY IN THE MORNING WHEN IT IS STILL DARK.
EVENING ADJUSTMENT:
 1. REMOVE HONEYWELL CONTROLLER PLASTIC COVER (ONE SCREW).
 2. SET "SET/RUN" SWITCH TO "SET" POSITION. SET BOTH DIALS (STAGE 1 AND STAGE 2) AT *1. BOTH RED LED'S SHALL BE OFF. ALL EXTERIOR LIGHTS SHALL BE OFF.
 3. AT DUSK (APPROXIMATELY 100FC) SLOWLY ROTATE STAGE 2 DIAL TOWARD BIGGER NUMBERS UNTIL RED LED BELOW DIAL TURNS ON. CHECK THAT ALL SIGNS AND ABOVE WINDOW FIXTURES LIGHTS ARE ON.
 4. WAIT TILL IT GETS DARKER. AT APPROXIMATELY 20 FC SLOWLY ROTATE STAGE 1 DIAL TOWARD BIGGER NUMBERS UNTIL RED LED BELOW DIAL TURNS ON. CHECK THAT ALL EXTERIOR LIGHTS ARE ON.
 5. TURN "SET/RUN" SWITCH TO "RUN" POSITION AND REPLACE PLASTIC COVER.
MORNING ADJUSTMENTS:
 1. REMOVE HONEYWELL CONTROLLER PLASTIC COVER (ONE SCREW).
 2. SET "SET/RUN" SWITCH TO "SET" POSITION. SET BOTH DIALS (STAGE 1 AND STAGE 2) AT *10. BOTH RED LED'S SHALL BE "ON". ALL EXTERIOR LIGHTS SHALL BE ON.
 3. WAIT UNTIL IT GETS BRIGHTER. AT LIGHT LEVEL SLIGHTLY HIGHER THAN 20 FC SLOWLY ROTATE STAGE 1 DIAL TOWARD SMALLER NUMBERS UNTIL RED LED BELOW TURNS OFF. CHECK THAT ALL EXTERIOR LIGHTS ARE OFF.
 4. WAIT AT LIGHT LEVEL SLIGHTLY HIGHER THAN 100 FC, SLOWLY ROTATE STAGE 2 DIAL TOWARD SMALLER NUMBERS UNTIL RED LED TURNS OFF. CHECK THAT ALL EXTERIOR LIGHTS ARE OFF.
 5. TURN "SET/RUN" SWITCH TO "RUN" POSITION AND REPLACE PLASTIC COVER.
 6. SALES AREA (REFER TO GROUPS 1, 2 AND 3 LOGIC, E2.1A)
 VERIFY THE FOLLOWING:
 a. TIME: BEFORE 7:55 AM AND SECURITY SYSTEM IS DISARMED.
 - ONLY "MAINTENANCE LIGHTS" - CIRCUITS (21, 24, 25) MUST BE ON. (EVERY OTHER FIXTURE IN SIX ROWS OF LIGHTS SPACED EVENLY).
 b. TIME: AFTER 7:55 AM - ALL THE SALES AREA AND THE REST OF GROUP 2 CIRCUITS MUST BE ON.
 c. TIME: 10:10 PM - 10:30 PM - ONLY SIX CIRCUITS (21, 24, 25, 12, 22, 27) MUST BE ON (EVERY OTHER LIGHT FIXTURE IN TWELVE ROWS OF LIGHTS SPACED EVENLY). ALL THE CIRCUITS OF GROUP 2 MUST BE OFF.
 d. TIME: AFTER 10:30 PM - ALL THE CIRCUITS TURN OFF, EXCEPT GROUP *1.
 7. PHARMACY (REFER TO GROUP 5 LOGIC, E2.1A)
 VERIFY THE FOLLOWING:
 a. TIME: BEFORE 7:55 AM PHARMACY LIGHTS (CIRCUITS 1 AND 5) MUST BE OFF.
 b. TIME: AFTER 7:55 AM ALL PHARMACY LIGHTS MUST BE ON.
 c. TIME: 10:30 PM - ALL PHARMACY LIGHTS MUST BE OFF.
 8. GONDOLA RECEPTACLES
 VERIFY THE FOLLOWING:
 a. TIME: BEFORE 7:55 AM - RECEPTACLES (CIRCUITS 25, 27, 29, 31, 33, 35) MUST BE DE-ENERGIZED.
 b. TIME: AFTER 7:55 AM - ALL RECEPTACLE CIRCUITS MUST BE ENERGIZED.
 c. TIME: 10:10 PM - ALL RECEPTACLE CIRCUITS MUST BE DE-ENERGIZED.

2 TESTING

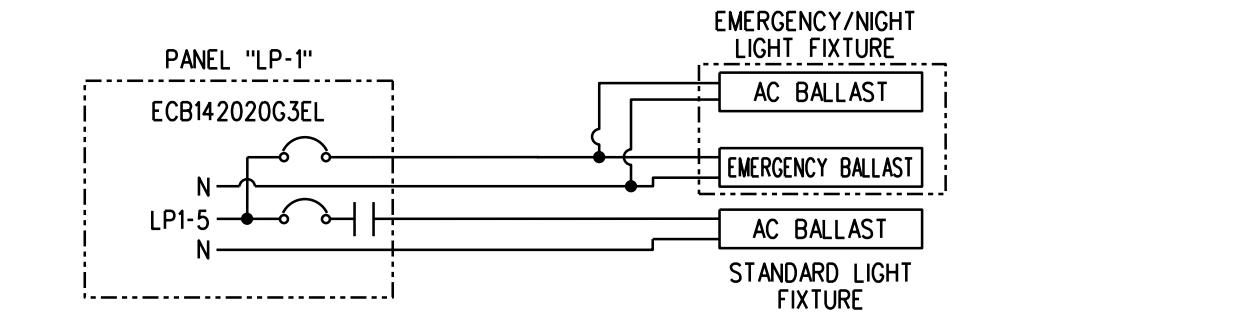
9. TEMPERATURE CONTROLLER:
NOTES:
 1. TORCH OR HEAT GUN MUST NOT BE USED TO WARM SENSOR.
 2. HEATER MAY NOT TURN ON BECAUSE ITS THERMOSTAT SETTING IS TOO LOW (DURING THE TEST THERMOSTAT SETTING COULD BE RAISED TEMPORARILY).
 3. SENSOR WARMING TAKES A FEW MINUTES.
ABBREVIATION:
 WH - WALL HEATER
 EH - ENTRANCE HEATER
 TERMINAL "NC" - TERMINAL "NC" (RELAY 1) IN DB129 RELAY MODULE
 WARM SENSOR - SENSOR SHOULD BE WARMED WITH HANDS
 COOL SENSOR WITH SPRAY - SPRAY SENSOR WITH "COMPONENT COOLER" (PURCHASED THROUGH RADIO SHACK)
 COOL SENSOR WITH ICE - USE CUP WITH ICE
 T - TEMPERATURE
A. NON-24 HOUR STORE:
 1. OUTSIDE TEMPERATURE (SHOWN ON CONTROLLER DISPLAY) BELOW 25°F (DEGREES).
 a. WITH SECURITY DISARMED VERIFY THAT WH AND EH ARE ON.
 WARM SENSOR:
 VERIFY THAT WH AND EH TURN OFF (AT T ABOVE 50°F). ALLOW SENSOR TO COOL TO OUTSIDE TEMPERATURE (WATCH CONTROLLER DISPLAY).
 b. DISCONNECT WIRE ON TERMINAL "NC". VERIFY THAT WH AND EH (FOR STORES WITH VESTIBULE) ARE ON. EH FOR STORES WITHOUT VESTIBULE SHALL BE OFF.
 WARM SENSOR:
 VERIFY THAT WH TURN OFF (AT T ABOVE 25°F) AND EH FOR STORES WITH VESTIBULE TURN OFF (AT T ABOVE 32°F). RESTORE WIRE ON TERMINAL "NC".
 2. OUTSIDE TEMPERATURE ABOVE 25°F BUT BELOW 50°F.
 a. WITH SECURITY DISARMED VERIFY THAT WH AND EH ARE ON.
 WARM SENSOR:
 VERIFY THAT WH AND EH TURN OFF (AT T ABOVE 50°F) ALLOW SENSOR TO COOL TO OUTSIDE TEMPERATURE.
 b. DISCONNECT WIRE ON TERMINAL "NC".
 VERIFY THAT:
 1. WH AND EH FOR STORE WITHOUT VESTIBULE ARE OFF. EH FOR STORE WITH VESTIBULE SHALL BE ON (IF T BELOW 32°F). FOR STORES WITH VESTIBULE WARM SENSOR AND VERIFY THAT EH TURN OFF (AT T ABOVE 32°F).
 COOL SENSOR WITH SPRAY:
 WH AND EH SHALL TURN ON.
 RESTORE WIRE ON "NC".
 3. OUTSIDE TEMPERATURE ABOVE 50°F.
 a. WITH SECURITY DISARMED VERIFY THAT WH AND EH ARE OFF.
 b. DISCONNECT WIRE ON TERMINAL "NC" - VERIFY THAT WH AND EH ARE OFF.
 RESTORE WIRE ON TERMINAL "NC".
 c. COOL SENSOR WITH SPRAY. VERIFY THAT WH AND EH TURN ON.
 DISCONNECT WIRE ON TERMINAL "NC" - WH AND EH SHALL BE ON.
 RESTORE WIRE ON TERMINAL "NC".
B. NOT USED.

NOTES:

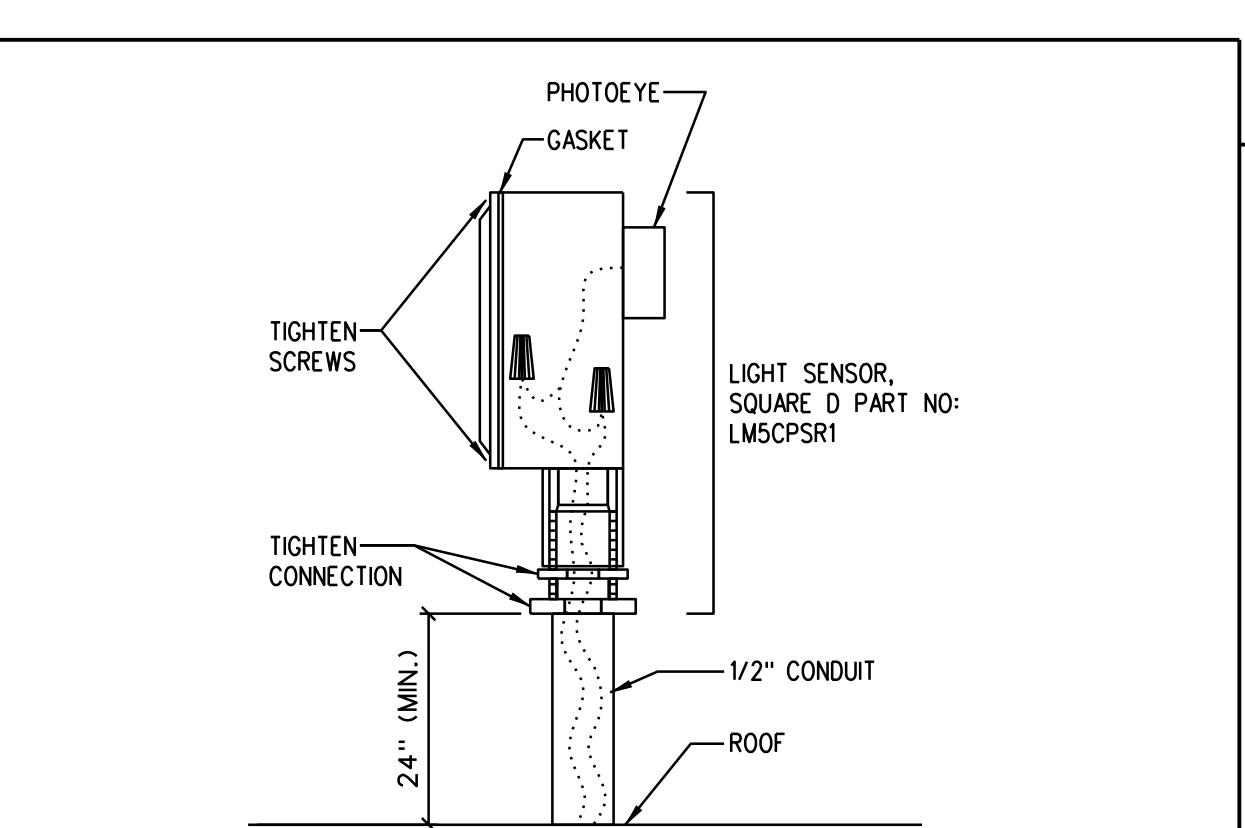
- FOR TERMINAL BLOCK TB1 EXTERNAL WIRING REFER TO DETAIL 1 THIS DRAWING.
- WIRING BETWEEN DB129 RELAY MODULE (ON PANEL "LP-SP") AND SECURITY CONTROL PANEL SHALL BE FURNISHED BY WALGREEN CO. DATA TERMINAL REPAIR (DTR). SEE DETAIL 7, THIS DRAWING.
- CAT. 5E CABLE SHALL BE FURNISHED AND INSTALLED BY WALGREEN CO. CAT. 5E INSTALLER. FINAL CONNECTION TO CONCENTRATOR IN PHARMACY AND RJ45 CONNECTOR INSIDE PANEL "LP-SP" SHALL BE FURNISHED BY WALGREEN CO. (DTR).
- SUB-NET CABLE SHALL BE FURNISHED WITH PANEL "LP-SP" ELECTRICAL CONTRACTOR SHALL INSTALL SUB-NET CABLE IN CONDUIT AND TERMINATE IT AT SUB-NET CONNECTORS IN PANELS "LP-SP" AND "LP-1", AS SHOWN ON THIS DETAIL.
- PANELS "LP-SP" AND "LP-1" SHALL BE INSTALLED ADJACENT TO EACH OTHER. OTHERWISE PROVIDE A DEDICATED CONDUIT FOR THE DATA LINE.
- REFER TO PHOTOCELL INSTALLATION DETAIL 6, THIS DRAWING.
- IMPORTANT: BEFORE DRILLING CONDUIT OPENINGS IN THE PANELS, ALL INTERIOR COMPONENTS MUST BE WRAPPED TO PROTECT SENSITIVE ELECTRONIC EQUIPMENT.**
- DO NOT RUN LOW VOLTAGE WIRING IN THE SAME CONDUIT WITH POWER WIRING.
- SLAVE ADDRESS SELECTOR, FACTORY PRESET TO ADDRESS 1.
- SQUARE "D" PANEL DIMENSIONS:
 PANEL "LP-SP" - 74"H x 20"W x 5.75"D
 PANEL "LP-1" - 50"H x 20"W x 5.75"D
- THREE OUTPUT CHANNELS CONTROLS SHALL BE TSI (TEMPERATURE SYSTEM INTERFACIAL) PART #11466. IT INCLUDES CONTROLLER AND PT100 RTD ELEMENT - 3-WIRE, 3/4" OD x 3" PROBE 316SS WITH 15 FEET TEFLOX INSULATED SHIELDED LEADWIRES, AND RTD BRACKET. FOR RTD PROBE LOCATION, REFER TO DRAWING E4.3 - DETAIL 3. TSI CONTROLS (INCLUDES CONTROLLER, RTD ELEMENT WITH SHIELDED LEAD WIRES AND RTD BRACKET) SHALL BE PURCHASED BY SQUARE "D". CONTROLLER MUST BE FACTORY INSTALLED AND PRE-WIRED TO POWERLINK INPUT TERMINALS. APPLIES ONLY TO STORES WITH WALL HEATERS.
- APPLIES TO STORES WITH WALL HEATERS ONLY. REFER TO DETAIL 3 ON THIS DRAWING (WALL HEATER INTERLOCK).
- RUN RTD WIRE LEADS (FURNISHED WITH RTD) IN DEDICATED 1/2" CONDUIT. AVOID PARALLEL RUN WITH POWER WIRING. SPLICES NOT ALLOWED. APPLIES TO ONLY STORES WITH WALL HEATERS.
- LOW VOLTAGE RELAY R1 WITH (2)-N.O. CONTACTS (RATED FOR 5 AMPS INDUCTIVE LOAD). FOR CONTACT WIRING REFER TO DETAIL 4 THIS DRAWING. FOR PROGRAMMING, REFER TO GROUP 4A, DRAWING E2.1A. APPLIES ONLY TO STORES WITH AN ENTRANCE HEATER.



PANEL LP-1, CIRCUITS 2 & 4



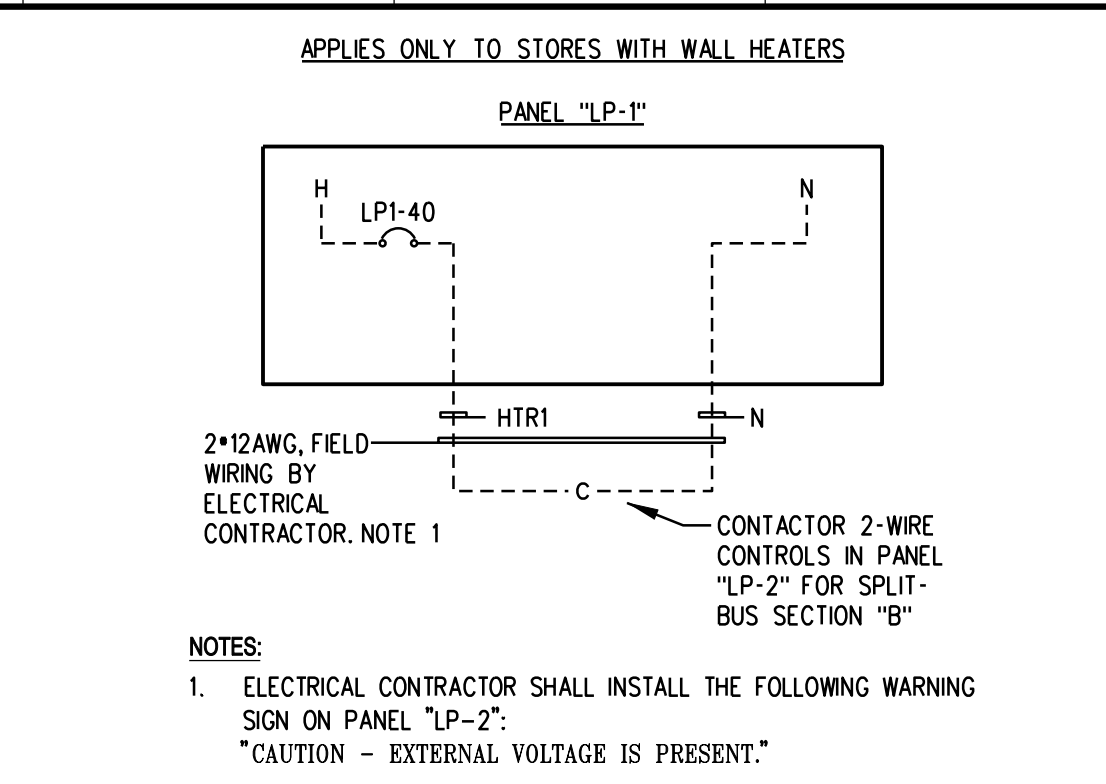
PANEL LP1, CIRCUIT 5 (WITH PANELBOARD POSITION #3 OCCUPIED BY EMERGENCY LIGHTING CIRCUIT BREAKER)



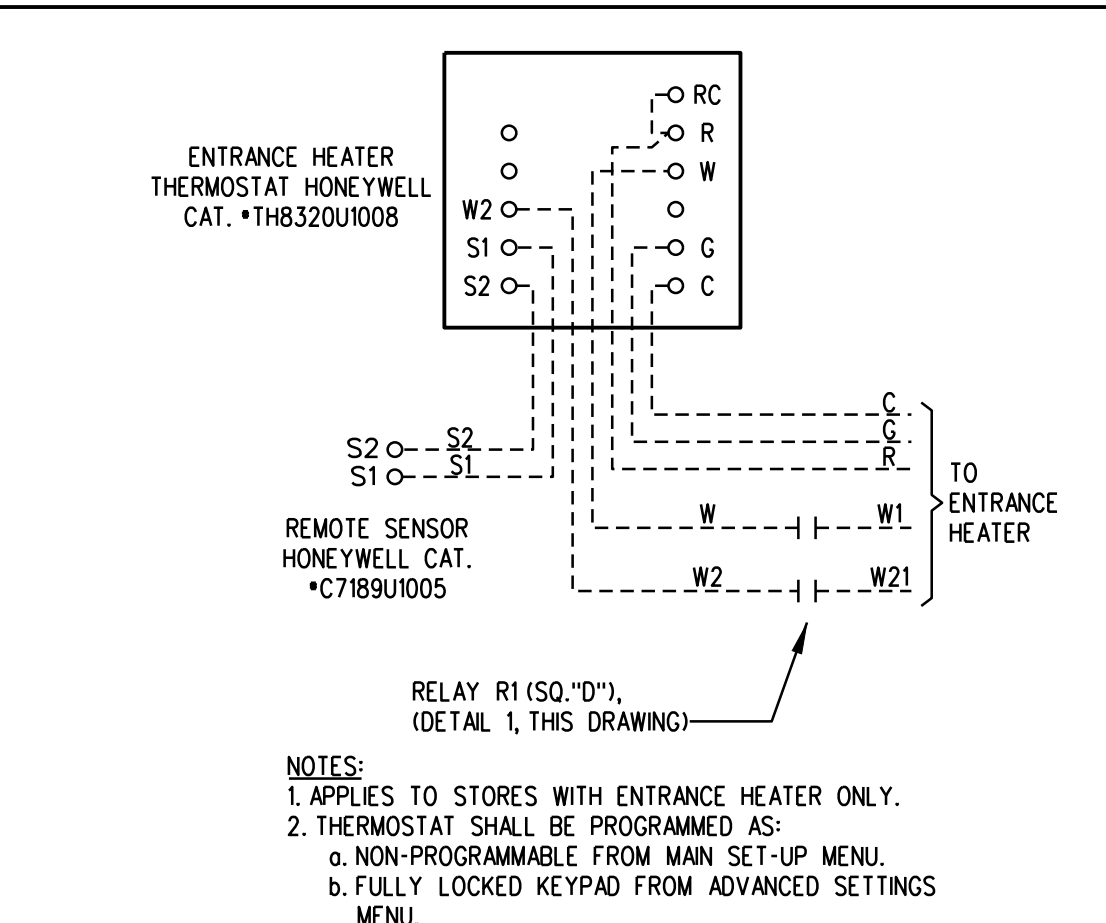
NOTES:

- ELECTRICAL CONTRACTOR MUST INSTALL PHOTOCELL AS SHOWN ON THE DETAIL.
- LIGHT SENSOR EYE MUST BE INSTALLED ON THE ROOF FACING NORTH.
- LIGHT SENSOR EYE MUST NOT FACE ARTIFICIAL LIGHT SOURCES (SUCH AS STREETLIGHTS, ETC.)
- LIGHT SENSOR IS MOISTURE SENSITIVE. CONNECTIONS MUST BE TIGHTENED PROPERLY. THE ENTIRE ASSEMBLY MUST BE MADE WATERTIGHT.
- CONDUIT WITH LIGHT SENSOR WIRING SHALL PENETRATE ROOF VIA SATELLITE ANTENNA PORTAL. PROPER CONDUIT SUPPORT IS CRITICAL.
- LIGHT SENSOR WIRING MUST NOT SHARE THE SAME CONDUIT WITH POWER WIRING.

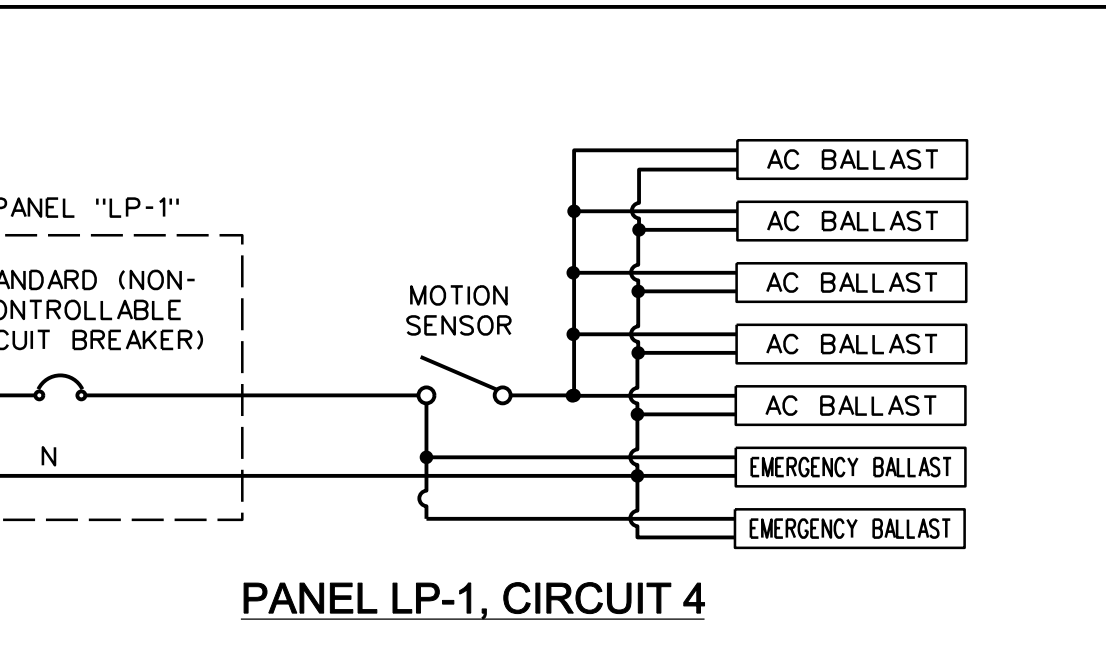
6 SQUAD D PHOTOCELL INSTALLATION DETAIL
N.T.S.



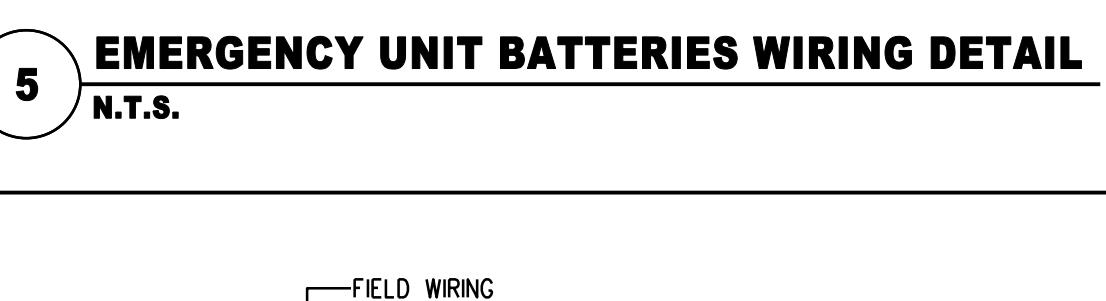
3 INTERLOCK WITH WALL HEATERS CONTROLS
N.T.S.



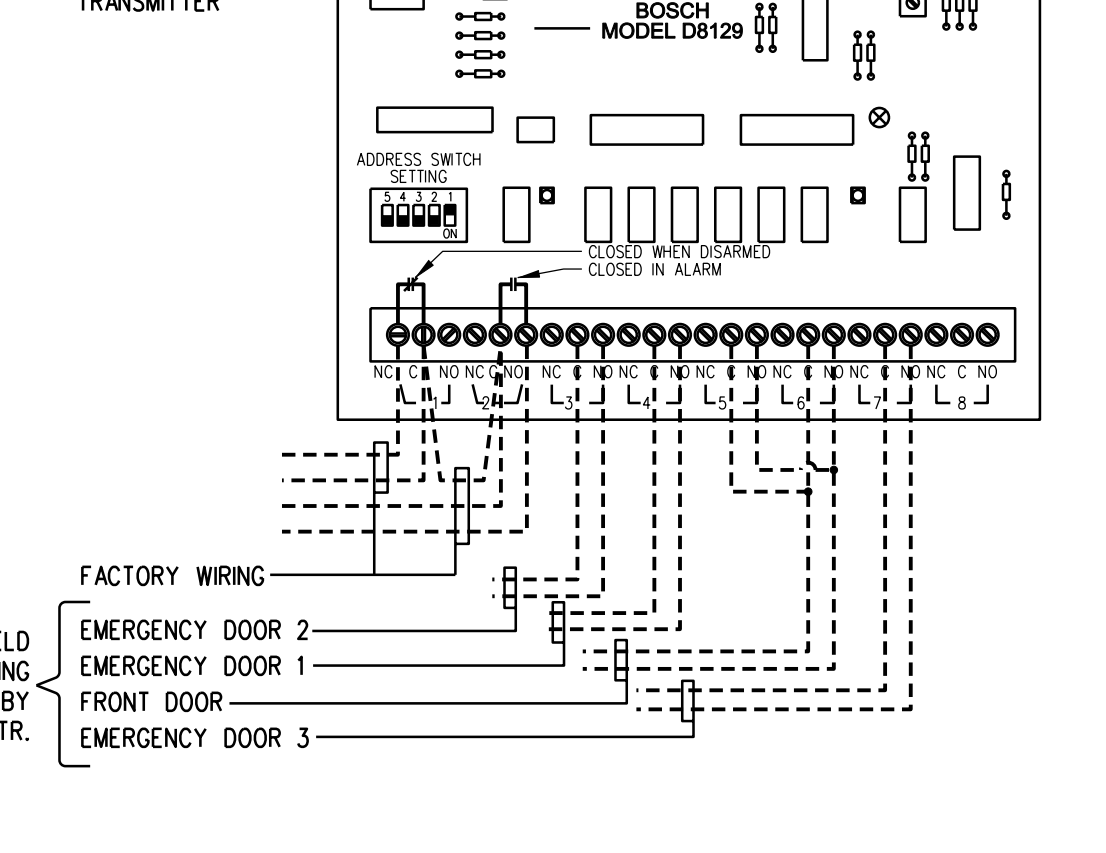
4 INTERLOCK WITH ENTRANCE HEATER



NIGHT LIGHTS STOCK ROOM WIRING DETAIL (PANEL "LP-1", CIRCUIT #4)



5 EMERGENCY UNIT BATTERIES WIRING DETAIL
N.T.S.



7 BOSCH DB129 RELAY MODULE
N.T.S.

NLD HOLDINGS HUDSON, LLC.
 50 S. 6TH ST. SUITE 1540
 MINNEAPOLIS, MN 55402

Walgreens
 Facilities Planning And Design 106 Wilnot Rd., Deerfield, IL 60015
 Tel (847) 940-2500

NO.	DATE	BY	DESCRIPTION	CONST
3	7/28/11	SD	ISSUE FOR CONSTRUCTION	
2	6/22/11	SD	ISSUE FOR PERMIT & WAG CHECKSET	
1	6/13/11	SD	ISSUE FOR CLIENT REVIEW	

REVISIONS
CERTIFICATION AND SEAL

STORE NUMBER 15121
 PROJECT NAME
 WALGREENS
 141 CARMICHAEL ROAD
 HUDSON, WI

DRAWING TITLE SQUAD "D" CONTROL DIAGRAM		
CADD PLOT:	SCALE:	DRAWING NO.
VOID PLOT:	DRAWN BY:	E2.1B
SUPERSEDES PLAN DATED:	DATE: 4/8/11	
	REVIEWED BY:	OF DWGS.