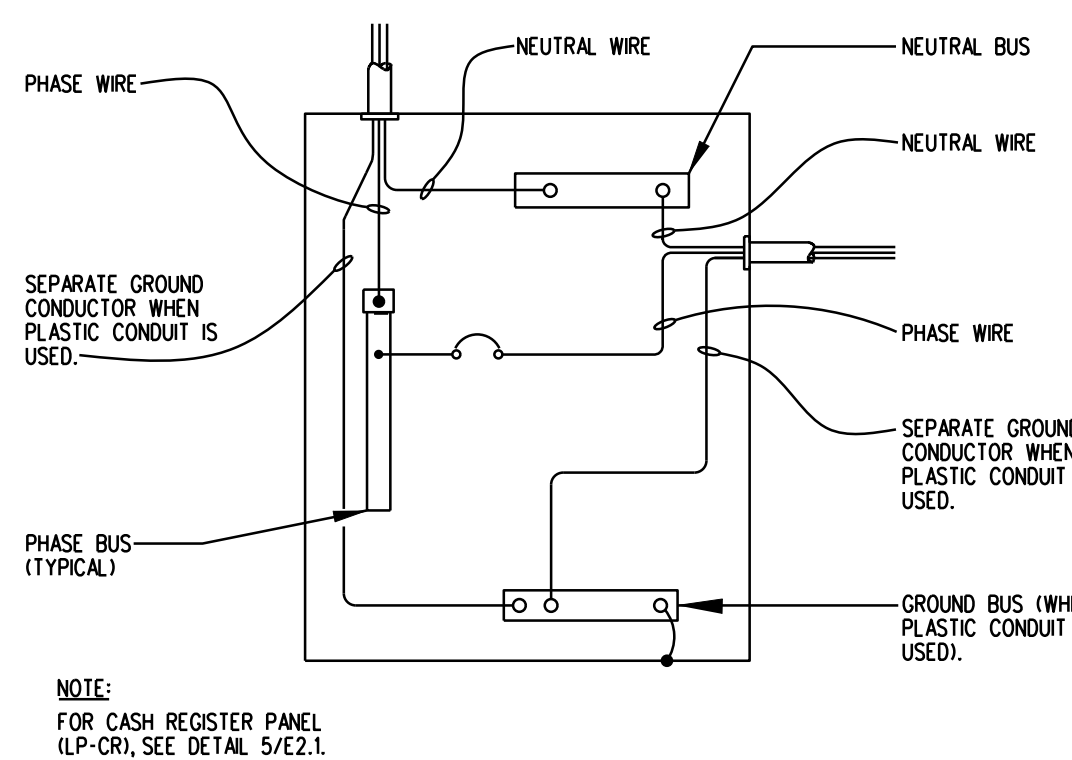
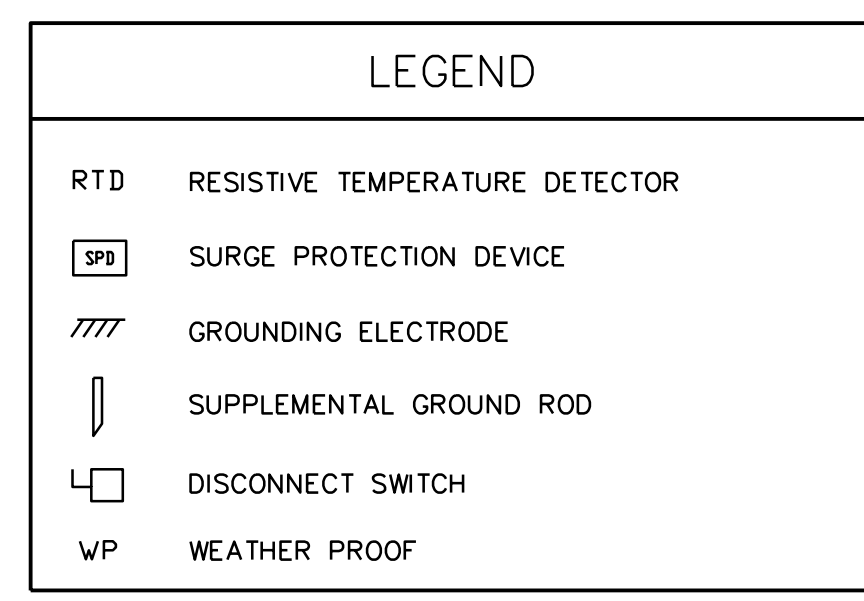


NO.	FEEDER CONDUIT & FEEDER SIZE	OVERCURRENT PROTECTION DEVICE	DESIGN CONNECTED LOAD	FIELD MEASURED LOADS		
				Aa	Ba	Ca
1	(2) 4" RIGID CONDUITS EACH WITH 4#600KCMIL-XXHW COPPER	800 AT	259,824 WATTS			
2	1/2" C. (3 NO. 2 & 1 NO. 6 GREEN GROUND) (WALL PANEL "LP-CR")	70 A	17,760 WATTS			
3	4*3/0-2" C. (PANEL "LP-SP")	200 A	33,360 WATTS			
4	4*3/0-2" C. (PANEL "LP-1")	200 A	25,320 WATTS			
5	4*3/0-2" C. (PANEL "LP-2")	200 A	46,440 WATTS			
6	4*3/0-2" C. (PANEL "LP-3")	200 A	20,400 WATTS			
7	4*3/0-2" C. (PANEL "LP-4")	200 A	6,240 WATTS			
8	3*2-1/4" C. (RTU-3)	80 A	23,400 WATTS			
9	3*6-1" C. (RTU-1)	60 A	18,108 WATTS			
10	3*6-1" C. (RTU-2)	45 A	11,556 WATTS			
11	3*6-1" C. (RTU-4)	45 A	11,556 WATTS			
12	3*10-3/4" C. (RTU-5)	30 A	7,884 WATTS			
13	1-1/2" C.I.S. NO. 10 (THHN) & 1 NO. 6 (THHN GND) (WG-3)	125 A	37,800 WATTS			
G1	1/2" C. (1 NO. 6 INSULATED GROUND)					
G2	3/4" C. (1 NO. 6 INSULATED GROUND)					

1 FEEDER DIAGRAM FOR 208Y/120V, 3Ø, 4W. MAIN SERVICE
N.T.S.



2 TYPICAL ELECTRICAL PANEL DETAIL
N.T.S.

- 1. GROUNDING (ELECTRICAL SYSTEM)**
- ONE OF THE MOST IMPORTANT PARTS OF THE INSTALLATION OF ELECTRICAL SYSTEMS IS GROUNDING. PROPER GROUNDING WILL PROVIDE PROTECTION OF PERSONNEL, EQUIPMENT, AND CIRCUITS BY ELIMINATING THE POSSIBILITY OF DANGEROUS OR EXCESSIVE VOLTAGES.
- THE GROUND PATH MUST BE PERMANENT AND CONTINUOUS, AND THE RESISTANCE OF THE GROUND PATHS MUST NOT EXCEED TWO (2) OHMS.
 - ALL GROUNDING ELECTRODES OF DIFFERENT SYSTEMS MUST BE BONDED TOGETHER.
 - METALLIC CONDUIT THAT IS USED TO ENCLOSE A GROUNDING CONDUCTOR MUST BE BONDED TO THE GROUNDING CONDUCTOR AT BOTH ENDS TO REDUCE IMPEDANCE.
 - RECEPTACLE BOXES MUST BE GROUNDING BY RACEWAY BACK TO THE GROUNDING LP-CR PANEL.
 - GROUNDING SYSTEM FOR THE LP-CR PANEL MUST BE BONDED TO THE MAIN DISTRIBUTION PANELBOARD GROUNDING SYSTEM AND IN TURN BONDED TO THE SYSTEM'S NEUTRAL.
- 2. GROUNDING TESTS**
- AFTER INSTALLATION OF THE LP-CR PANEL, TESTS MUST BE PERFORMED TO CHECK AND VERIFY THE FOLLOWING:
- EXCESSIVE GROUND POTENTIAL DIFFERENCES BETWEEN DIFFERENT AREAS ARE NOT EXISTENT.
 - GROUNDING SYSTEM INTEGRITY.
- TEST TO BE PERFORMED IS:
- GROUND POTENTIAL DIFFERENCE MEASUREMENT

3 GROUNDING NOTES (LP-CR CIRCUITS)
N.T.S.

ELECTRICAL CIRCUITS FOR THE STORE CASH REGISTERS AND RELATED COMPUTER/ELECTRONIC SYSTEMS MUST BE PROVIDED AND INSTALLED IN A SPECIFICALLY PRESCRIBED MANNER. THE INTENT OF THIS TEXT IS TO EXPLAIN THE NEW TERMINOLOGY AND WHAT IS NEEDED FOR A SUCCESSFUL INSTALLATION IN TERMS THAT ARE EASY TO UNDERSTAND.

A.C. ELECTRICAL POWER REQUIRED TO OPERATE COMPUTERS AND RELATED EQUIPMENT MUST BE AS CLEAN AS POSSIBLE. I.E., NO OTHER EQUIPMENT (NON-COMPUTER RELATED) CAN BE CONNECTED TO THESE CIRCUITS. THIS IS REFERRED TO AS A DEDICATED CIRCUIT. THIS WILL INSURE THAT NO OTHER EQUIPMENT CAN INDUCE NOISE OR LINE SPIKES INTO THE CASH REGISTERS, OFFICE SYSTEM EQUIPMENT, PHARMACY TERMINALS, TIME ATTENDANCE SYSTEM, SATELLITE ANTENNA SYSTEM, BURGLAR ALARM SYSTEM AND TELEPHONE SYSTEM. IN ADDITION, COMPUTER-TYPE CIRCUITS MUST NEVER BE RUN IN CONDUITS, TROUGHS OR JUNCTION BOXES TOGETHER WITH NON-COMPUTER RELATED CIRCUITS. PHYSICAL CONTACT BETWEEN THESE TWO TYPES WOULD POTENTIALLY CAUSE NOISE OR LINE SPIKES THAT CAN BE MAGNETICALLY INDUCED INTO THE COMPUTER-TYPE CIRCUITS.

INSTALL A CONDUIT (SIZE IN ACCORDANCE WITH NEC) FROM EACH SYSTEMS EQUIPMENT OUTLETS (AS MENTIONED ABOVE) TO THE CRITICAL (DEDICATED) PANEL "LP-CR". EACH CONDUIT "HOMERUN" SHALL CONSIST OF A MAXIMUM OF THREE CIRCUITS. THE PANEL "LP-CR" WILL RECEIVE ELECTRICAL POWER FROM THE MAIN DISTRIBUTION PANEL.

EACH "LP-CR" CONDUIT SHALL HAVE A MECHANICAL GROUND CONDUCTOR FROM PANEL "LP-CR" TO THE RECEPTACLE. THE GROUND WIRE FOR THIS CIRCUIT SHALL BE RUN BACK TO THE MAIN DISTRIBUTION PANELBOARD GROUND (EARTH GROUND). ALL CIRCUIT BREAKERS (ON "LP-CR") FOR THE COMPUTER SYSTEMS MUST BE LOCKED IN THE "ON" POSITION AND MUST BE CLEARLY LABELED AT THE PANEL.

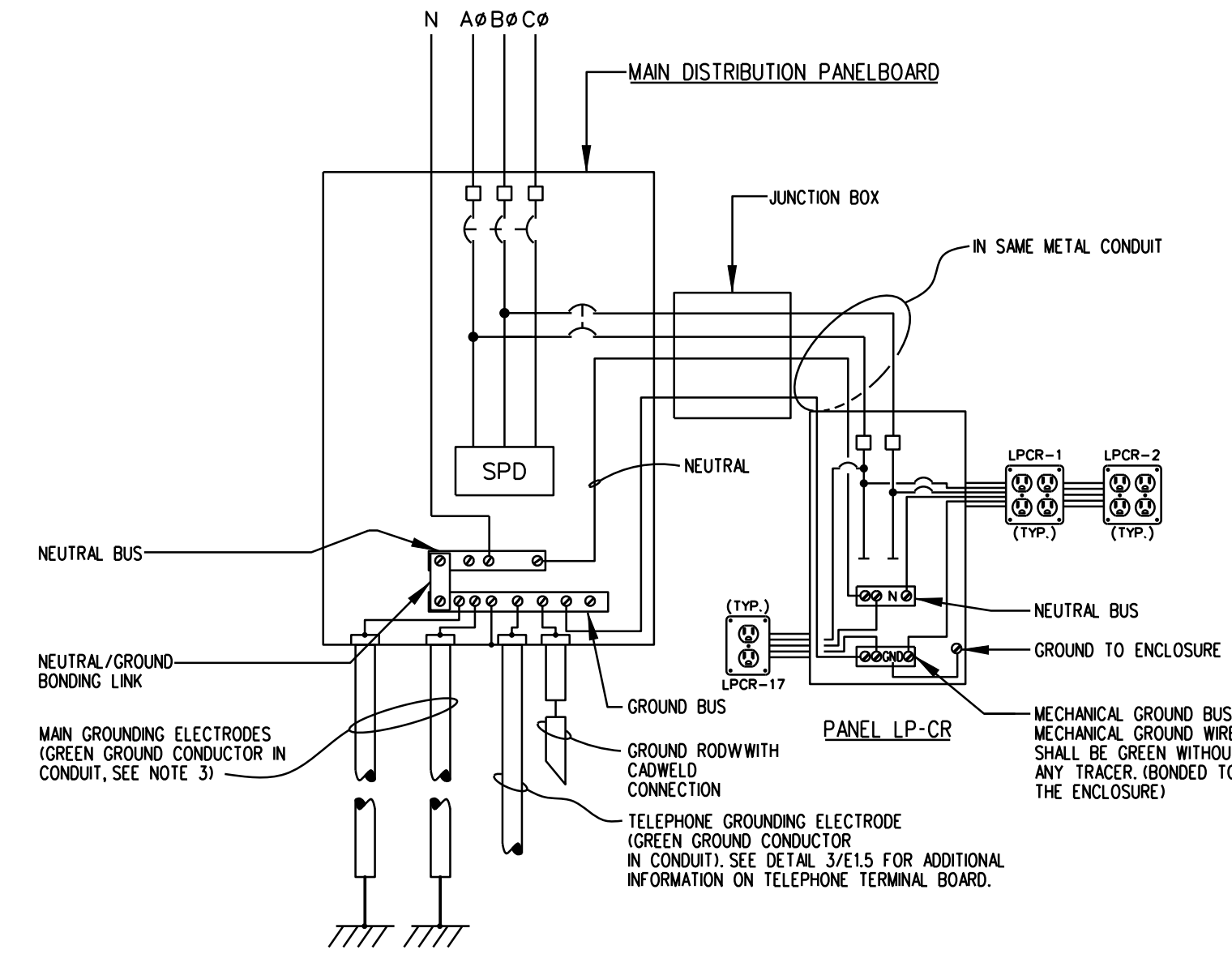
CASH REGISTER NOTE

RECEPTACLES ARE FED FROM PANEL "LP-CR". PROVIDE "LOCK-ON" HARDWARE FOR EACH "LP-CR" CIRCUIT. (CIRCUITS & JUNCTION BOXES ARE NOT TO SERVE OTHER LOADS (e.g. LIGHTING, GENERAL PURPOSE RECEPTACLES, ETC.). RECEPTACLES ARE TO BE HUBBELL #HLS252 (BROWN IN COLOR). WALGREENS SUPERINTENDENT TO HAVE HOLE CUT IN CASH REGISTER COUNTER TO ALLOW FOR CORD INSERTION DOWN TO THE OUTLET BELOW (AS REQUIRED), CORD NOT TO BE EXPOSED.

(NO SUBSTITUTIONS ACCEPTED FOR HUBBELL)

- NOTES:**
- A.C. BRANCH CIRCUITING - 12 WIRE, CONDUIT SIZE IN ACCORDANCE WITH NEC.
 - ALL CIRCUIT BREAKERS AND PANELS MUST BE CLEARLY LABELED WITH ELECTRICAL DECALS.
 - SEE DRAWING E3.1 FOR PANEL LP-CR SCHEDULE.
 - SEE POWER PLAN (DRAWING E1.2) FOR QUANTITIES AND LOCATIONS OF WIRING AND CIRCUITS.
 - UTILIZE CONVENTIONAL WIRING METHODS (i.e. NETWORK HOMERUNS) FOR ALL WIRING SHOWN.

4 PANEL "LP-CR" BRANCH CIRCUITING
N.T.S.



- NOTES:**
- GROUND CONDUCTOR FROM MAIN DISTRIBUTION PANELBOARD TO EARTH GROUND MUST BE SIZED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL AND LOCAL CODES.
 - FEEDER AND GROUND CONDUCTOR FROM PANEL LP-CR TO MAIN DISTRIBUTION PANELBOARD SHALL BE INSTALLED IN ONE CONTINUOUS LENGTH WITHOUT SPLICES OR JOINTS IN THE SAME RACEWAY.
 - MAIN GROUNDING ELECTRODES:
 - A. METAL UNDERGROUND WATER PIPE
 - B. METAL FRAME OF BUILDING WITH CADWELD CONNECTION.
 - C. IF ONE OF THE ABOVE TWO ITEMS ARE NOT AVAILABLE, THEN FURNISH A CONCRETE ENCASED ELECTRODE. (SEE NEC 250.52 (A) (3)).
 - ALL EQUIPMENT CONDUCTOR AND RACEWAY SIZES SHALL BE IN ACCORDANCE WITH FACILITIES PLANNING, DRAWINGS AND SPECIFICATIONS.
 - INSTALLATION SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE, LOCAL REQUIREMENTS AND ALL APPLICABLE LAWS AND REGULATIONS.

5 SERVICE CONFIGURATION - LP-CR PANEL
(FOR 120/208 VOLT MAIN SERVICE)

NOTES

- CONDUIT SHALL BE ELECTRICAL METALLIC TUBING (EMT) RIGID STEEL (SIZE IN ACCORDANCE WITH NEC) OR MC CABLE WHERE ALLOWED BY CODE. WHERE MC CABLE IS USED, PROPER SECUREMENT AND SUPPORT (AT INTERVALS NOT EXCEEDING 6-FEET) SHALL BE FOLLOWED PER NEC ART. 330.
- MAIN DISTRIBUTION PANELBOARD SHALL BE CIRCUIT BREAKER TYPE.
- EXIT SIGNS & EMERGENCY LIGHTS SHALL HAVE THEIR OWN SELF-CONTAINED STAND BY BATTERY POWER SUPPLY. IF LOCAL CODE REQUIRES A DIRECT TAP BEFORE ANY CIRCUIT BREAKERS, THEN INCORPORATE INTO THE FEEDER DIAGRAM AT LEFT.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE THIS INSTALLATION IN COMPLIANCE WITH ALL ELECTRICAL AND FIRE PREVENTION CODES, SUPERSEDING ALL SPECIFICATIONS, DRAWINGS AND NOTES.
- MDP IS SHIPPED WITH A FACTORY MOUNTED SURGE PROTECTION DEVICE (SPD). REFER TO SPECIFICATIONS SECTION 16400, PARAGRAPH *2.0F.
- PANEL "LP-CR" FEEDER AND BRANCH CIRCUIT CONDUCTORS MUST BE RUN SEPARATE FROM OTHER PANEL CONDUCTORS. (DO NOT RUN THROUGH A COMMON RACEWAY OR TROUGH).
- FEEDERS TO BE SIZED UTILIZING A 25% SPARE ALLOWANCE FACTOR FOR FUTURE ADDED LOADS.
- THE AVAILABLE SHORT CIRCUIT CURRENT FROM THE ELECTRICAL UTILITY COMPANY IS ----- AMPERES. INTERRUPTING RATING OF ALL PROTECTIVE DEVICES IS THE RESPONSIBILITY OF THE DESIGNER ENGINEER.
- ALL BUSES IN ELECTRICAL SERVICE EQUIPMENT, DISTRIBUTION PANELS, ETC. ARE TO BE STANDARD ALUMINUM ALLOY. ALL FEEDERS AND BRANCH CIRCUITS ARE TO BE COPPER.
- PANELBOARDS SHALL NOT BE USED AS RACEWAY OR JUNCTION BOX.
- WALGREENS MASTER-BILT WALK-IN COOLER/FREEZER HAS 9-CLASS FREEZER DOORS AND 12-CLASS COOLER DOORS. WITH DIMENSION 56"-1" W X 8'-8" D X 7'-3" H. THE MAXIMUM OVERCURRENT PROTECTION (MOP) REQUIREMENT FOR THE MASTER-BILT CONDENSING UNIT IS 200A FOR MASTER-BILT WALK-IN COOLER/FREEZER, CONTACT MASTER-BILT @ (662) 534-9061 EXT. 234, FOR ADDITIONAL INFORMATION OR FOR ADDITIONAL REQUIREMENT.

NATIONAL ACCOUNTS

ELECTRICAL POWER DISTRIBUTION EQUIPMENT AND LIGHTING CONTROL SYSTEM

THE GENERAL CONTRACTOR WILL SELECT AN ELECTRICAL CONTRACTOR TO PURCHASE AND INSTALL THE ELECTRICAL POWER DISTRIBUTION EQUIPMENT AND LIGHTING CONTROL SYSTEM. TO COORDINATE THE PURCHASE ORDER AGREEMENT AND EQUIPMENT DELIVERY, CALL:

SQUARE D
NATIONAL ACCOUNT TEAM @ (866) 773-8326 EXT. 3

Camburas & Theodore, Ltd.
Architecture | Planning | Interiors | Engineering
2454 E. Dempster St., Des Plaines, IL
Tel (847) 298-1525 Fax (847) 298-0228
www.camburasandtheodore.com

PROJECT NO. 91126746

PROJECT TYPE

DRAWINGS/SPECIFICATIONS BY:

- WALGREENS' CONSULTANT
- LANDLORD'S CONSULTANT

ALL CONSTRUCTION WORK, UNLESS NOTED OTHERWISE, BY:

- WALGREENS' CONTRACTOR
- 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"/>	

NLD HOLDINGS HUDSON, LLC.
50 S. 6TH ST. SUITE 1480
MINNEAPOLIS, MN 55402

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

NO.	DATE	BY	DESCRIPTION
3	7/26/11	SD	ISSUE FOR CONSTRUCTION
2	8/22/11	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
FEEDER DIAGRAM AND ELECTRICAL DETAILS

CADD PLOT:	SCALE:	DRAWING NO.
VOID PLOT:	DRAWN BY:	E2.1
SUPERSEDES PLAN DATED:	DATE:	4/8/11
	REVIEWED BY:	

OF DWGS.