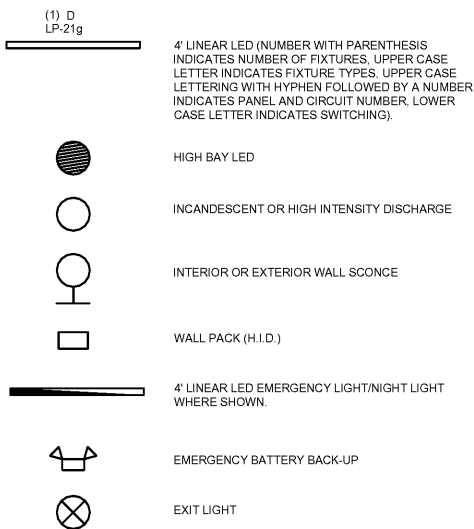


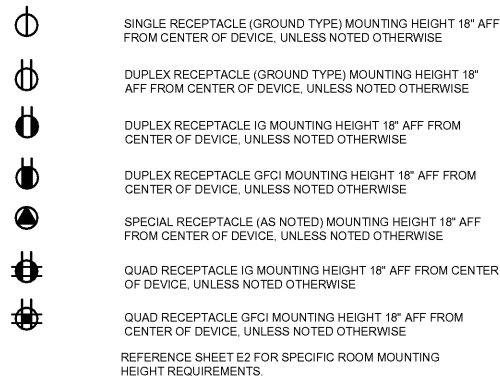
ELECTRICAL SYMBOLS

(NOT ALL SYMBOLS ARE NECESSARILY USED ON DRAWINGS, ALL MOUNTING HEIGHTS ARE TO BE FROM THE CENTER OF THE DEVICE)

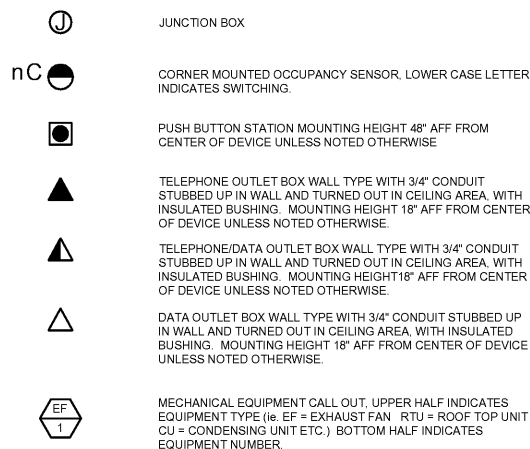
LIGHTING FIXTURES



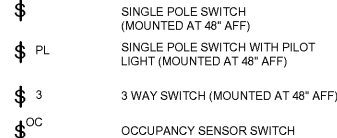
RECEPTACLES



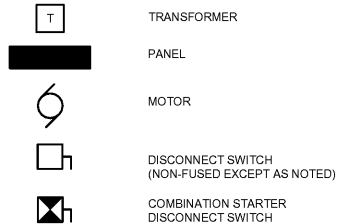
MISCELLANEOUS



SWITCHES



POWER AND CONTROL



ELECTRICAL ABBREVIATIONS

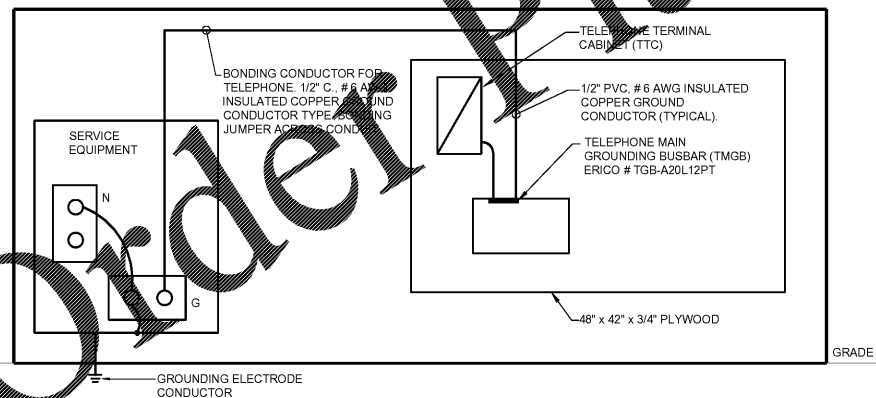
AFF	ABOVE FINISHED FLOOR	NF	NON FUSED
BFC	BELOW FINISHED CEILING	NIC	NOT IN CONTRACT
C	CONDUIT	NO (N.O.)	NORMALLY OPEN
CB	CIRCUIT BREAKER	SW	SWITCH
EC	EMPTY CONDUIT	UF	UNDER FLOOR
(G)	GROUND (EQUIPMENT)	UG	UNDER GROUND
GFCI	GROUND FAULT INTERRUPTER	UNO (UNO)	UNLESS NOTED OTHERWISE
IC	INTERRUPTING CAPACITY	W	WIRE GUARD
IG	ISOLATED GROUND	WP	WEATHERPROOF
MTD	MOUNT OR MOUNTED	FMR	TRANSFORMER
NC (N.C.)	NORMALLY CLOSED	EL	END OF LINE

NOTES

- INSULATED #6 AWG IN 1/2" C. ROUTED OVERHEAD.
- INCLUDE NONMETALLIC LABEL "WARNING IF THIS CONNECTOR ON CABLE IS LOOSE OR MUST BE REMOVED PLEASE CALL THE BUILDING MANAGER" AT ALL GROUND BARS.
- RUN CONDUCTOR FROM GROUND TO TELEPHONE TERMINAL CABINET.
- ALL CONNECTORS TO GROUND BARS SHALL BE 2 HOLE COMPRESSION TYPE.
- GROUNDING BARS SHALL BE ELECTROLYTIC COPPER, MOUNTED ON FIBERGLASS INSULATORS, AND NEMA BOLT HOLE SIZING AND SPACING.
- ALL BONDING CONDUCTORS SHALL BE CONTINUOUS AND ROUTED IN THE SHORTEST POSSIBLE STRAIGHT LINE PATH.
- ROUTE INSULATED #6 AWG FROM EACH "TMGB" AND "TTC" TO NEAREST VERTICAL STRUCTURAL STEEL MEMBER AND CADWELD.
- ROUTE CONDUCTOR FROM "TMGB" AND "TTC" TO RELAY RACK IN IT CLOSET AND CADWELD TO RACK.
- ALL TELEPHONE CLOSETS WITH MULTIPLE WIRE MANAGEMENT RACKS WILL HAVE BONDING JUMPER INSTALLED.

1 TELEPHONE GROUNDING DETAIL AND NOTES

SCALE: NONE



LIGHT FIXTURE SCHEDULE

FIXTURE TAG	MANUFACTURER	MODEL #	LAMP	VOLTAGE	INSTALLATION	DESCRIPTION	WATTS	QUANTITY	NOTES
D	CREE	LS4-40L-35K-10V	LED	120V	CEILING AND SUSPENDED	4' LINEAR LED FIXTURE	44	38	6,7.8
DE	CREE	LS4-40L-35K-10V-EB14	LED	120V	CEILING AND SUSPENDED	4' LINEAR LED FIXTURE WITH EMERGENCY BACKUP	44	13	6,7.8
D2	CREE	LS4-50L-35K-10V	LED	120V	CEILING AND SUSPENDED	4' LINEAR LED FIXTURE	50	9	6,7
E	CREE	E.XML1W	LED	120V	SEE NOTES	EMERGENCY LIGHTING UNIT	1.8	11	7
EA	CREE	E.XHL2WW	LED	120V	SEE NOTES	EMERGENCY EXTERIOR REMOTE HEADS			
F	CREE	CXB-A-UV-M-40K-8-UL-10V-L515P-CXB16M-WG-A	LED	120V	13'-0" AFF	HIGH BAY LED LIGHTING FIXTURE		21	3
K	PROVIDED BY OWNER	FIRESTONE REEL CORD LIGHT	INTEGRAL	120V	SUSPEND	PROVIDED BY OWNER			
PL1	CREE	OSQ-A-NM-4ME-8-57K-UL-BK, OSQ-DABK, OSQ-BLSMF	LED	120V	25'-0" AFG	SINGLE HEAD SITE LIGHTING FIXTURE	86	4	10
N	CREE	XSPW-A-O-3-M-G-U-XX	LED	120V	SEE ARCH ELEVATIONS	EXTERIOR LED WALL PACK	25	14	9
X	CREE	E.XCLRRCWW-E.XHL2WW	LED	120V	SEE NOTES	EXIT SIGN WITH PHOTO LUMINOUSITY	3.4	5	4

NOTES

- FIXTURE IS TO BE INSTALLED ON WALL MINIMUM OF 1'-0" BELOW CEILING OR 13'-6" IN SERVICE AREA, SHOWROOM, UTILITY AREA AND CLEAN UP AREA.
- REMOTE HEAD WALL MINIMUM OF 1'-0" ABOVE DOOR JAMB CONNECTED TO BATTERY SIDE OF EXIT LIGHT.
- INSTALL LIGHTS AT 13'-0" A.F.F. IN THE FOLLOWING AREAS: SERVICE BAY
- INSTALL ON WALL 6" ABOVE DOOR OR SURFACE MOUNT ON CEILING AS APPLICABLE.
- COORDINATE EXACT FIXTURE PLACEMENT WITH ARCHITECTURAL DRAWINGS.
- INSTALL LIGHTS AT 8'-0" A.F.F. IN THE FOLLOWING AREAS: UTILITY AREA, BREAK AREA, CHANGING AREA, SHOP TOILET, UNisex TOILET, AND IT CLOSET
- INSTALL LIGHTS AT JOIST LEVEL. IN THE FOLLOWING AREAS: USED INVENTORY AND INVENTORY ROOM
- INSTALL LIGHTS AT 10'-0" A.F.F. IN THE FOLLOWING AREAS: CUSTOMER SHOW ROOM, AND OFFICE
- REFERENCE ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHT
- PROVIDE SITE LIGHTING FIXTURE WITH CREE 29' X 4' SQUARE STREET POLE MODEL NUMBER CL-14011-25-D-120V-BK AS REQUIRED.

LIGHTING GENERAL NOTES

- ALL LIGHTING FIXTURES SHALL BE RATED FOR BUILDING SYSTEM VOLTAGE. CONTRACTOR MUST VERIFY ALL LOCATIONS. CONTRACTOR SHALL FURNISH AND INSTALL EACH LIGHTING FIXTURE COMPLETE WITH PLASTER FRAMES AND ALL OTHER INSTALLATION AND HANGING HARDWARE AS REQUIRED FOR A COMPLETE AND FINISHED INSTALLATION AT EACH FIXTURE LOCATION.
- VERIFY AND COORDINATE ALL LIGHTING FIXTURE CATALOG NUMBERS AND LOCATIONS WITH THE INTENT OF FIXTURE DESCRIPTIONS, LISTED, AND VERIFY FIXTURE QUANTITIES. FIXTURE QUANTITIES SHOWN ARE FOR INFORMATION ONLY. ANY DISCREPANCY SHALL BE REPORTED IN WRITING TO THE ARCHITECT PRIOR TO INSTALLATION.
- ALL FIXTURES SHALL BE "U.L." LABELED. ALL LIGHTING FIXTURES EXPOSED TO WEATHER OR MOISTURE SHALL BEAR U.L. "WET LOCATION" LABEL AND LIGHTING FIXTURES EXPOSED TO DAMPNESS SHALL BEAR U.L. "DAMP LOCATION" LABEL.
- ALL EXIT SIGNS SHALL BE INSTALLED COMPLETE WITH ALL INSTALLATION AND HANGING ACCESSORIES TO PROVIDE AN UNOBSTRUCTED VIEW OF EACH SIGN FACE AS REQUIRED. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION AND LOCATION OF ALL EXIT SIGNS WITH LOCAL AUTHORITIES. MOUNT SIGNS AT MAXIMUM 8'-0". EXIT SIGNS WILL BE ADJUSTED AS NECESSARY WITHOUT ADDITIONAL COST.
- REFER TO APPLICABLE SECTIONS OF THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS FOR LIGHTING FIXTURES.
- ALL EXIT SIGNS AND BATTERY EMERGENCY UNITS MUST BE APPROVED BY LOCAL CODE, AND MAINTAIN A MINIMUM OF 90 MINUTES OF CONTINUOUS ILLUMINATION, AND SHALL PROVIDE A MINIMUM OF 1 FOOT-CANDLE AT THE WALKING SURFACE LEVEL IN SPACES THAT REQUIRE TWO OR MORE MEANS OF EGRESS. THE CONTRACTOR WILL FURNISH AND INSTALL ANY ADDITIONAL EMERGENCY UNITS AS REQUESTED BY THE LOCAL AUTHORITY HAVING JURISDICTION AT THE FINAL INSPECTION ANY ADDITIONAL COST TO BE APPROVED BY THE OWNER.
- FIELD ADJUST AIMING PATTERN OF EXTERIOR LIGHTS AT NIGHT SESSION. OWNER AND ARCHITECT TO DETERMINE TIME AND DATE.
- ALL WALL WASH LIGHTING TO BE ON SEPARATE SWITCHES.

GENERAL ELECTRICAL NOTES

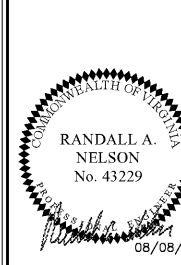
- THESE GENERAL NOTES APPLY TO ALL WORK IN THIS PROJECT, AND THE WORD "PROVIDE" SHALL MEAN "FURNISH AND INSTALL".
- REFER TO ARCHITECTURAL PLANS AND SPECIFICATIONS FOR ADDITIONAL GENERAL NOTES WHICH WILL APPLY HERE.
- DO NOT SCALE DRAWINGS. USE FIELD MEASUREMENTS.
- NOTES ON DRAWINGS MAY APPLY TO ALL SIMILAR CONDITIONS WHETHER THEY ARE REPEATED OR NOT.
- THE COMPLETE INSTALLATION SHALL BE IN ACCORDANCE WITH THE A.D.A.G. (AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES).
- WHERE SEVERAL DEVICES ARE GANGED TOGETHER, THE COVER PLATE SHALL BE OF THE GANGED STYLE FOR THE NUMBER OF DEVICES USED.
- CONTRACTOR MUST VISIT THE SITE TO FAMILIARIZE THEMSELVES WITH THE EXISTING SITE CONDITIONS WHICH WILL BE AFFECTED DURING CONSTRUCTION PRIOR TO SUBMITTING HIS BID PROPOSAL.
- BOXES LOCATED ON OPPOSITE SIDES OF NON-FIRE RATED WALLS SHALL BE OFFSET A MINIMUM OF 6" HORIZONTALLY. BOXES ON OPPOSITE SIDES OF FIRE RATED WALL SHALL BE OFFSET A MINIMUM OF 24" HORIZONTALLY. "THRU-THE-WALL" BOXES SHALL NOT BE ALLOWED WITH OUT PRIOR WRITTEN APPROVAL OF THE ARCHITECT/ENGINEER.
- VERIFY TOTAL CONNECTED LOADS AND HORSE POWER WITH OTHER TRADES CONTRACTORS PRIOR TO WIRING OF ALL EQUIPMENT. MAKE ANY CHANGES TO OVERCURRENT DEVICES OR FEEDER SIZE PER LOCAL ELECTRICAL CODE.
- COORDINATE THE LOCATION OF ALL DETECTORS WITH LIGHT FIXTURES, AND CEILING DIFFUSERS.
- ALL TEMPERATURE CONTROL WIRING AND CONDUIT SHALL BE FURNISHED AND INSTALLED BY CONTRACTOR. CONTRACTOR SHALL ADJUST CONDUIT ROUTING TO NOT INTERFERE WITH ANY HANGING SIGNS OR BOARDS. COORDINATE ALL CONDUIT LOCATIONS WITH THE "F1" DRAWING PRIOR TO ROUGH-IN TO ENSURE NO ENCROACHMENT OF CONDUIT OR DEVICE WITH SIGNS OR BOARDS.
- VERIFY ALL FURNITURE, MODULAR FURNITURE AND EQUIPMENT LOCATIONS WITH ARCHITECTURAL PLANS, ELEVATIONS AND REVIEWED SHOP DRAWINGS. PRIOR TO MAKING THE ACTUAL ELECTRICAL INSTALLATION THIS CONTRACTOR SHALL ADJUST RECEPTACLES, OUTLETS OR CONNECTION LOCATIONS TO ACCOMMODATE FURNITURE AND/OR EQUIPMENT.
- FIELD VERIFY LOCATION OF AREA SMOKE DETECTORS AND HEAT DETECTORS. DO NOT LOCATE WITHIN 36" OF A HVAC DIFFUSER (SUPPLY OR RETURN), IN A DIRECT AIR FLOW OR WITHIN 36" OF A SPRINKLER HEAD.
- THE COLOR OF ALL ISOLATED GROUND RECEPTACLES AND COVER PLATES SHALL MATCH THOSE OF OTHER DEVICES ON THE JOB. COVER PLATES SHALL BE ENGRAVED "COMPUTER".
- ROUTE ALL CONDUITS CONCEALED ABOVE ALL CEILING TYPES. ONLY IN "SERVICE BAY AREA" AND "INVENTORY AREA" CONDUIT SHOULD BE ROUTED 1-1/2" AWAY OR AS TIGHT AS POSSIBLE TO THE UNDERSIDE OF THE STRUCTURE. IN A CLEAN AND ORDERLY MANNER. IN AREAS WHERE NO CEILING EXISTS, AND STEEL OPEN WEB JOISTS ARE BEING USED, CONTRACTOR TO ROUTE CONDUIT TIGHT TO BOTTOM OF TOP CORD OF JOIST, AND THRU JOIST WEBBING, IN A CLEAN AND ORDERLY MANNER. ABSOLUTELY NO CONDUITS ARE TO BE ROUTED UNDER OR IN THE BUILDING SLAB. SEE ARCHITECTURAL PLANS FOR LOCATION OF ACCESS PANELS IN CEILINGS.
- ALL ELECTRICAL WORK AND MATERIALS SHALL COMPLY WITH LATEST "N.E.C." AND ALL LOCAL CODES AND ORDINANCE. IN CASE OF CONFLICT AMONG REQUIREMENTS THE MORE RESTRICTING SHALL APPLY. ALL WORKING CLEARANCES AROUND THE PANELS SHALL CONFORM TO NEC ARTICLE 110 WHICH INCLUDES ALL TRADES. CONTRACTOR MAY USE PULL BOXES, WIREWAYS ETC. AS NECESSARY TO MANAGE CONDUIT ROUTING CLEAR OF THE WORK SPACE AS DEFINED BY THE NEC. THIS SHALL BE CONSIDERED "MEANS AND METHODS"

Professional Engineer of Record
Randall A. Nelson, P. E.
148 West 95th Street
Lenexa, Kansas 66215
Phone 913 322 5150



REGISTRATION NO. 0000000000
THESE DRAWINGS ARE PREPARED FOR USE ON A SPECIFIC SITE AT WILLIAMSBURG, VA. CONTRACTOR SHALL VERIFY ALL LOCATIONS, CONTRACTOR SHALL FURNISH AND INSTALL EACH LIGHTING FIXTURE COMPLETE WITH PLASTER FRAMES AND ALL OTHER INSTALLATION AND HANGING HARDWARE AS REQUIRED FOR A COMPLETE AND FINISHED INSTALLATION AT EACH FIXTURE LOCATION. VERIFY AND COORDINATE ALL LIGHTING FIXTURE CATALOG NUMBERS AND LOCATIONS WITH THE INTENT OF FIXTURE DESCRIPTIONS, LISTED, AND VERIFY FIXTURE QUANTITIES. FIXTURE QUANTITIES SHOWN ARE FOR INFORMATION ONLY. ANY DISCREPANCY SHALL BE REPORTED IN WRITING TO THE ARCHITECT PRIOR TO INSTALLATION. ALL FIXTURES SHALL BE "U.L." LABELED. ALL LIGHTING FIXTURES EXPOSED TO WEATHER OR MOISTURE SHALL BEAR U.L. "WET LOCATION" LABEL AND LIGHTING FIXTURES EXPOSED TO DAMPNESS SHALL BEAR U.L. "DAMP LOCATION" LABEL. ALL EXIT SIGNS SHALL BE INSTALLED COMPLETE WITH ALL INSTALLATION AND HANGING ACCESSORIES TO PROVIDE AN UNOBSTRUCTED VIEW OF EACH SIGN FACE AS REQUIRED. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION AND LOCATION OF ALL EXIT SIGNS WITH LOCAL AUTHORITIES. MOUNT SIGNS AT MAXIMUM 8'-0". EXIT SIGNS WILL BE ADJUSTED AS NECESSARY WITHOUT ADDITIONAL COST.

NEW FCAC STORE
2015 - JUNE - ER - RIGHT
1900 RICHMOND ROAD
WILLIAMSBURG, VA



PROPERTY NO:	167739
6 DIGIT NO:	785533
4 DIGIT NO:	6868
AOR PROJECT NUMBER:	1655B14
TO PERMIT:	DATE: 08/10/17
TO BID:	DATE: TBD
DRAWN BY:	ZS,MJ,RC
CHECKED BY:	CF,AR
SHEET TITLE:	ELECTRICAL SYMBOLS, NOTES AND SCHEDULES
SHEET NUMBER:	E3