

BEFORE STARTING ANY PROJECT WORK, SUBMIT A WRITTEN ELECTRICAL SAFETY PLAN TO THE OWNER THAT COMPLIES WITH OSHA AND LATEST NFPA 70E, "ELECTRICAL SAFETY IN THE WORKPLACE". ARRANGE AN ELECTRICAL SAFETY MEETING WITH THE OWNER'S REPRESENTATIVE AND DISCUSS ELECTRICAL SAFETY INCLUDING IDENTIFICATION OF HAZARDS AND PROCEDURES FOR DAILY WORK PLANS, MAINTAINING RESTRICTED AND PROHIBITED ACCESS BY QUALIFIED AND UNQUALIFIED PERSONNEL. EACH ATTENDEE SHALL SIGN AN ATTENDANCE SHEET FOR THIS MEETING.

SOME INFORMATION TAKEN FROM EXISTING DRAWINGS. FIELD VERIFY ALL BREAKER, SWITCH, FUSE, CONDUCTOR, CONDUIT AND PANEL SIZES BEFORE REMOVING, EXTENDING OR RECONNECTING TO EXISTING CIRCUITS.

EXISTING PANEL CIRCUIT DIRECTORIES MUST BE VERIFIED. TRACE ALL EXISTING POWER CIRCUITS THAT ARE REMOVED, RELOCATED, REWED, OR REUSED. UPDATE PANEL SCHEDULES WITH NEW TYPED CIRCUIT DIRECTORIES, INDICATED SOURCE FEED ON DIRECTORY. UPDATE AND RETYPE PANEL CIRCUIT DIRECTORIES.

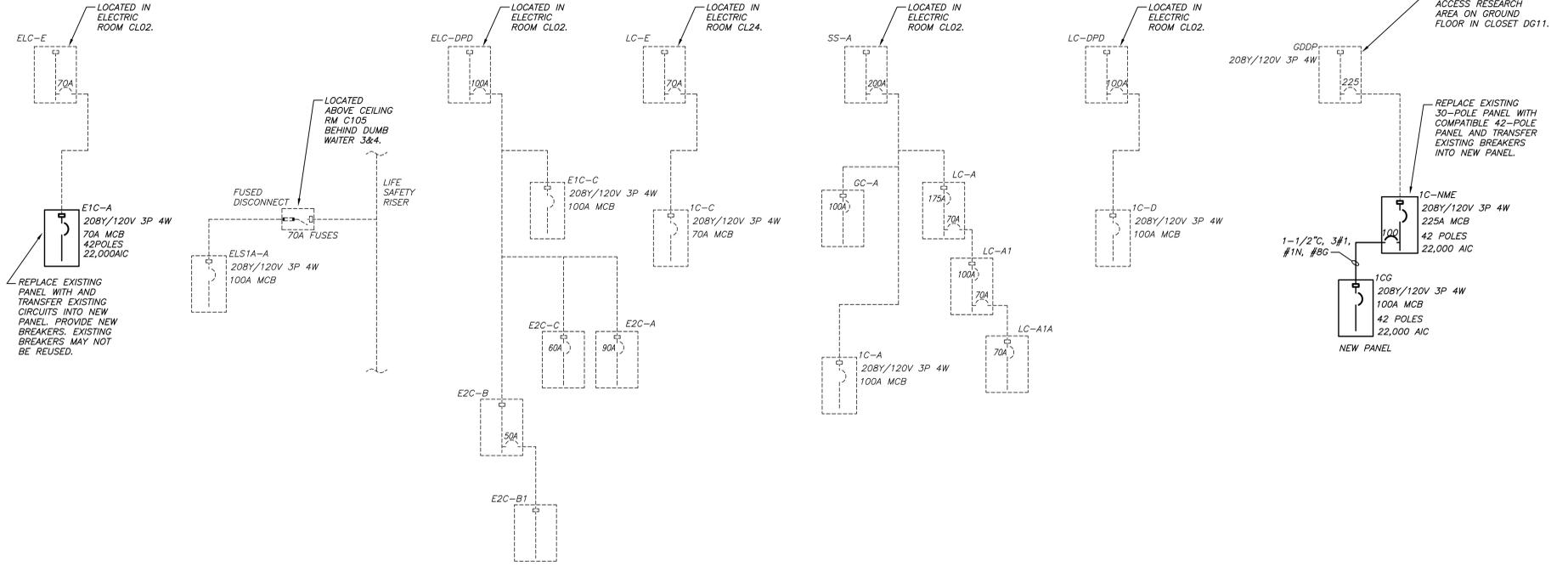
ALL PANEL BOARDS SHALL BE PROVIDED WITH PRINTED IDENTIFICATION LABEL IDENTIFYING WHAT EACH BREAKER FEEDS. PROVIDE PERMANENT LABELS ON EACH FIELD DEVICE (RECEPTACLE BACK BOXES, SYSTEMS FURNITURE POWER WHIPS, ETC.) INDICATING WHICH ELECTRICAL PANEL AND CIRCUIT THE DEVICE IS FED FROM.

UNLESS OTHERWISE REQUIRED BY THE CONNECTED EQUIPMENT MANUFACTURER OR THE NEC:

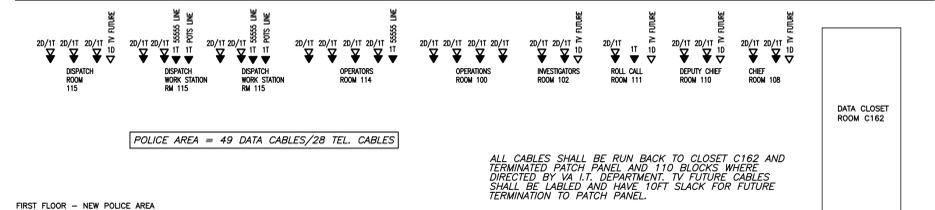
MINIMUM CIRCUIT FOR 115V SHALL BE 2#12, #12ECC, IN 3/4" C/B FED FROM A 1P-20A C/B. SHARED NEUTRALS ARE NOT ACCEPTABLE. MINIMUM CIRCUIT SIZE FOR 208Y/1A SHALL BE 2#12, #12ECC, IN 3/4" C/B FED FROM A 3P-20A C/B. MINIMUM CIRCUIT SIZE FOR 208Y/3Ø SHALL BE 3#12, #12ECC, IN 3/4" C/B FED FROM A 3P-20A C/B. PROVIDE FULL SIZE NEUTRAL CONDUCTOR WHEN NEUTRAL IS INDICATED OR REQUIRED BY CONNECTED EQUIPMENT. PROVIDE AN INSULATED GREEN EQUIPMENT GROUNDING CONDUCTOR (EGC) WITH EACH CIRCUIT. BOND RACEWAY, JUNCTION BOXES, DISCONNECTS AND PANEL BOXES TO EQUIPMENT GROUNDING CONDUCTOR PER NEC. PROVIDE INSULATED GREEN WITH YELLOW TRACER ISOLATED GROUNDING CONDUCTOR WHERE IG IS CALLED FOR.

ALL WIRE SIZES ARE BASED ON COPPER CONDUCTORS. ALUMINUM CONDUCTORS SHALL NOT BE USED UNLESS APPROVED BY OWNER AND LOCAL AUTHORITY. PROVIDE THHN/THWN-2 INSULATION FOR GENERAL CONDUCTORS. PROVIDE XHHW-2 INSULATION FOR SERVICE ENTRANCE CONDUCTORS OR AS REQUIRED BY THE UTILITY COMPANY.

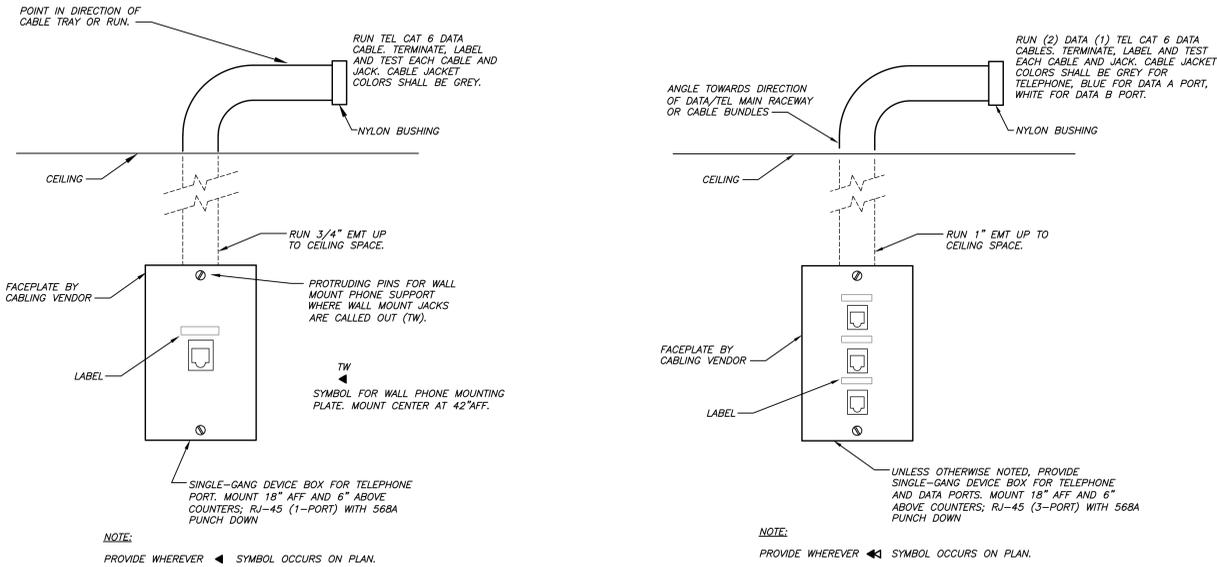
INCREASE CONDUIT SIZE PER THE NEC WHEN THE COMBINATION OF SWITCHING AND POWER CONDUCTORS EXCEED THE CONDUIT CAPACITY. DERATE CONDUCTORS PER NEC WHEN MULTIPLE CIRCUITS ARE RUN IN SAME CONDUIT.



**4 PARTIAL ONE-LINE DIAGRAMS**  
SCALE: NOT TO SCALE



ALL CABLES SHALL BE RUN BACK TO CLOSET C162 AND TERMINATED PATCH PANEL AND 110 BLOCKS WHERE DIRECTED BY VA I.T. DEPARTMENT. TV FUTURE CABLES SHALL BE LABELED AND HAVE TOFT SLACK FOR FUTURE TERMINATION TO PATCH PANEL.



**3 TELEPHONE OUTLET DETAIL**  
SCALE: NOT TO SCALE

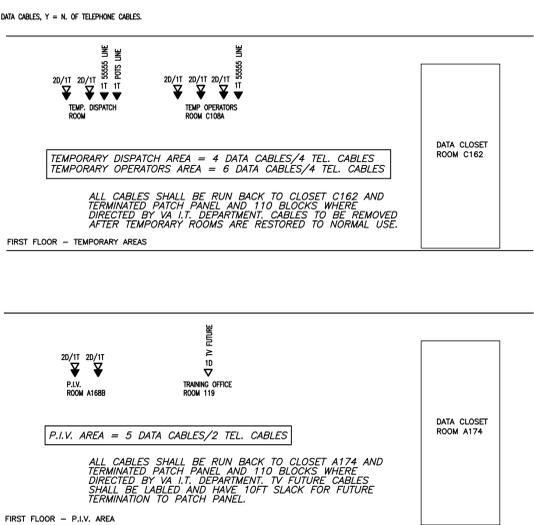
**2 D/T (DATA/TELEPHONE OUTLET) DETAIL**  
SCALE: NOT TO SCALE

EMT CONDUIT CAT. 6 CABLE CAPACITY SCHEDULE

SIZE	# CABLES	CAT. 5 OR 6 DIA./AREA (IN./SQ. IN.)	EMT AREA 40% FILL (SQ. IN.)	FMC AREA 40% FILL (SQ. IN.)
3/4"	4	0.24/0.045	0.213	0.213
1"	7	0.24/0.045	0.346	0.327
1-1/4"	11	0.24/0.045	0.598	0.511
1-1/2"	16	0.24/0.045	0.814	0.743
2"	29	0.24/0.045	1.342	1.307
2-1/2"	43	0.24/0.045	2.343	1.963
3"	62	0.24/0.045	3.538	2.827
3-1/2"	85	0.24/0.045	4.618	3.848
4"	111	0.24/0.045	5.901	5.027

PROVIDE PULL STRINGS IN ALL CONDUIT RUNS. TABLE IS A GUIDE. DIFFERENT CABLE QUANTITIES MAY BE USED PER NEC OR EIA/70A-569 GUIDELINES.

NOTE: ONLY VA DATA/TEL CABLES ARE SHOWN. ADDITIONAL DATA AND COMMUNICATION CABLES ARE REQUIRED FOR BER-NATIONAL AND UNITED RADIO SYSTEMS.



ALL CABLES SHALL BE RUN BACK TO CLOSET A174 AND TERMINATED PATCH PANEL AND 110 BLOCKS WHERE DIRECTED BY VA I.T. DEPARTMENT. TV FUTURE CABLES SHALL BE LABELED AND HAVE TOFT SLACK FOR FUTURE TERMINATION TO PATCH PANEL.

Revisions:

Revised	By	Date

SUB-CONSULTANTS:

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Drawing Title: ELECTRICAL DETAILS AND SCHEMATICS

Approved Project Director

Project Title: SYRACUSE VAMC RENOVATE POLICE STATION

Project Number: 528A7-12-708

Building Number: 1

Location: SYRACUSE VA MEDICAL CENTER NY

Date: 4/19/13

Checked: PJM

Drawn: PJM

Drawing Number: E0.3

Dwg 29 of 31

Office of Construction and Facilities Management

Department of Veterans Affairs

three inches = one foot  
one and one half inches = one foot  
one inch = one foot  
three quarters inch = one foot  
one half inch = one foot  
three eighths inch = one foot  
one eighth inch = one foot  
one quarter inch = one foot  
one eighth inch = one foot