## **ELECTRICAL SPECIFICATIONS**

CODES AND PERMITS: ALL WORK TO BE DONE IN ACCORDANCE WITH APPLICABLE LOCAL AND STATE CODES. PERMIT AND CONNECTION FEES TO BE PAID BY CONTRACTORS AS REQUIRED.

WARRANTY: WORK AND MATERIALS TO BE WARRANTED FOR ONE (1) YEAR AFTER PROJECT COMPLETION.

MANUFACTURER'S INSTALLATION INSTRUCTIONS: ALL EQUIPMENT TO BE INSTALLED IN STRICT ACCORD WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.

EQUIPMENT NAMEPLATE DATA: ADJUST RATINGS AND TYPES OF OVERCURRENT PROTECTION DEVICES TO COMPLY WITH ACTUAL NAMEPLATE DATA OF EQUIPMENT. COORDINATE REQUIREMENTS WITH OTHER CONTRACTORS AND

RACEWAYS: INTERIOR - EMT WITH COMPRESSION OR SET-SCREW FITTINGS. CONCEAL IN FINISHED AREAS.

EQUIPMENT AND RECESSED LIGHTING FIXTURE CONNECTIONS - FLEXIBLE METALLIC CONDUIT, LIQUIDTIGHT

INTERIOR, EXISTING CONSTRUCTION WHERE CONCEALMENT IS IMPRACTICAL - SURFACE METAL RACEWAY SYSTEM EQUAL TO WIREMOLD 2000, UNLESS OTHERWISE DIRECTED.

OUTLET BOXES: INTERIOR - GALVANIZED STEEL, EXTERIOR - CAST ALUMINUM. DO NOT INSTALL BOXES BACK-TO-BACK IN FIRE-RATED WALLS, MINIMUM HORIZONTAL OFFSET TO BE 24".

WIRING DEVICES:
TOGGLE SWITCHES: SPECIFICATION GRADE, AC ONLY, 20A 120-277V RATING, FULL SIZE HANDLE (FRAMED TOGGLE NOT ACCEPTABLE.), SIDE WIRED, VERIFY COLOR.

DUPLEX RECEPTACLES: SPECIFICATION GRADE, AC/DC, 20A 125V RATING, AUTOMATIC GROUNDING CLIP, SIDE WIRED, TAMPER-RESISTANT, GFCI-TYPE WHERE INDICATED OR REQUIRED. VERIFY COLOR. IN ADDITION, DEVICES TO BE HOSPITAL GRADE IN AREAS CLASSIFIED AS "PATIENT CARE AREAS" BY NEC ARTICLE 517.

WIRING DEVICES WITH ISOLATED GROUND TO BE CIRCUITED WITH EQUIPMENT GROUNDING AND ISOLATED GROUNDING CONDUCTORS, EACH WITH UNIQUE COLOR CODING.

## FLOOR MOUNTED DEVICES:

FLOOR RECEPTACLES (POKE-THROUGH, FLUSH MOUNTED): FIRE-RATED POKE-THROUGH ASSEMBLY, 3/4"
CONDUIT STUB DOWN TO GALVANIZED STEEL BOX WITH BLANK COVERPLATE, PRE-WIRED 20A DUPLEX
RECEPTACLE, TWO LOW VOLTAGE KNOCKOUTS, PAINTED ALUMINUM TOP AND TRIM, INSTALL ASSEMBLY IN 3"
DIAMETER CORE-DRILLED HOLE.

SINGLE DUPLEX - HUBBELL PT7FSDGY

NOTE: USE ASSEMBLY BELOW IF HOSPITAL-GRADE RECEPTACLE IS REQUIRED.

FLOOR RECEPTACLES (POKE-THROUGH, FLUSH MOUNTED): FIRE-RATED POKE-THROUGH ASSEMBLY, 3/4" TOOD RECEIVED THROUGH, TUSH OF THE BOX WITH BLANK COVERPLATE; THREE (3) GANG CONFIGURATION WITH (2) PRE-MIRED ZOO DUPLEX RECEPTACLES, AND CENTER SECTION WITH DECORA STYLE HOSPITAL-GRADE DUPLEX RECEPTACLES, AND CENTER SECTION WITH DECORA STYLE HOSPITAL-GRADE DUPLEX RECEPTACLE (AS APPLICABLE), PAINTED ALUMINUM TOP AND TRIM. INSTALL ASSEMBLY IN 6" DIAMETER CORE-DRILLED HOLE.

DOUBLE DUPLEX - LEGRAND (WIREMOLD) 6ATC2PGY

### COVER PLATES:

INTERIOR - STAINLESS STEEL ON FLUSH BOXES (FINISHED AREAS), GALVANIZED STEEL WITH ROUNDED EDGES ON SURFACE MOUNTED BOXES (UNFINISHED AREAS ONLY).

EXTERIOR - WEATHERPROOF GFI COVERPLATES TO BE CAST ALUMINUM

DIMMER SWITCHES, WALL-MOUNT
DIMMERS (LED,0-10V): SOLID STATE CIRCUITRY, ARCHITECTURAL PRESET SLIDE DIMMER, SEPARATE ON-OFF
SWITCH, JOOD-1% DIMMING OF LED DRIVERS USING 0-10 VDC, DESIGNER-STYLE FACEPLATE WITH IVORY
FINISH, 8.0 AMPS CAPACITY, 120V-277V RATED, UL LISTED.

SINGLE POLE FUNCTION LUTRON "DIVA" DVSCTV 3-WAY FUNCTION LUTRON "DIVA" DVSCTV

DIMMERS (LED,ELV): SOLID STATE CIRCUITRY, ARCHITECTURAL PRESET SLIDE DIMMER, SEPARATE ON-OFF SMITCH, 100%—1% DIMMING OF LED FIXTURES USING ELECTRONIC LOW VOLTAGE, DESIGNER-STYLE FACEPLATE WITH IVORY FINISH, 600 VA CAPACITY, 120V RATED, UL LISTED.

SINGLE POLE FUNCTION LUTRON "LYNEO LX" LXELV-600PL 3-WAY FUNCTION LUTRON "LYNEO LX" LXELV-603PL

MOTION DETECTOR SWITCHES: ELECTRONIC, PASSIVE INFRARED, WALL BOX SWITCH, SPST, AUTO/ON, LED SENSING VERIFICATION, 30-SECOND TO 30-MINUTE TIME DELAY OFF, PUSH BUTTON FOR MANUAL OFF CAPABILITY, RATED BOOW INCANDESCENT/1000W FLUORESCENT AT 1277 VOLTS, MOUNT IN SINGLE GANG J-BOX, 2-WIRE OPERATION.

MOUNTING HEIGHTS:

MIRING DEVICES, AND OTHER EQUIPMENT TO, UNLESS NOTED OTHERWISE, BE MOUNTED WITH RESPECT TO INDICATED SURFACE AS FOLLOWS:

RECEPTACLES:

16" AFF (GENERAL USE)

8" ABOVE WORK SURFACE (AT BUILT—IN MILLWORK)

42" AFF (ADJACENT TO LAVATORY OR SINK IN TOILET)

SMITCHES:

48" AFF

VOICE/DATA:

5ME AS RECEPTACLES

THERMOSTATS:

48" AFF

F/A FULL STATION:

80" AFF

F/A SIGNAL:

80" AFF

ON FINANCIAN OF SMITCH (PER NEC 380-54)

PANELBOARDS:

78" TO TOP CKT BKR OR SMITCH (PER NEC 380-54)

WIRING: COPPER, TYPE THW, XHHW-2 OR THHN/THWN-2, 600 VOLTS, #12

METAL CLAD CABLE (MC):
METAL CLAD CABLE (TYPE MC) TO HAVE INDIVIDUALLY INSULATED COPPER COND
INSULATED GREEN GROUNDING WIRE, 600V INSULATION, TYPE THHM
ARMOR.

CLAD CALLER
ATED GREEN GROUNDING MALES,

ATED GREEN GROUNDING MALES,

USE: 20-AMP BRANCH CIRCUITS (MMEN ACCEPTABLE TO LO APPLICATION FOR PONE)

THAT CLAD CABLE (TYPE MC-PCS) TO BE ALL FUNGTION FOR PONE

TANDIACTORS FOR POMER ACLUDE TINSULATED OF THE TANDIACTORS FOR POMER ACLUDE TINSULATED OF THE TANDIACTORS FOR POMER ACLUDE TINSULATED OF THE TANDIACTORS FOR POMER ACCEPTABLE TO THE TANDIACTORS FOR THE TANDIACTORS FOR POMER ACCEPTABLE TO THE TANDIACTORS FOR THE TANDIACTORS FOR POMER ACCEPTABLE TO THE TANDIACTORS FOR POMER METAL CLAD CABLE (TYPE MC-PCS) TO BE ND CONTROL WITH INDIVIDUALLY INSULATED COPPER CONDUCTORS FOR POW INSULATION, TYPE THHN/THWN, PLUS 16, EN GROUNDING WIRE, 600V AND GRAY COLOR), AND OVERALL

USE: 20-AMP\_LIGHTING SIMMING (WHEN ACCEPTABLE TO LOCAL AHJ)

EVERED BY NEC ARTICLE 517. TO HAVE INDIVIDUALLY INSULATED COPPER EEN GROUNDING WIRE, 600V INSULATION, TYPE THHN/THWN REEN COLOR, AND ADDITIONAL FULL-SIZE ALUMINUM INTERLO

NON-ESSENTIAL ELECTRICAL SYSTEMS (WHEN ACCEPTABLE TO LOCAL AHJ).

WIRES AND CABLES INSTALLATION:
ALL SPLICES, TAPS, CONNECTIONS, TERMINATIONS, ETC., TO BE MADE WITH APPROPRIATE CONNECTORS IN A WORKMANLIKE MANNER AND IN COMPLIANCE WITH N.E.C

MULTIWIRE BRANCH CIRCUITS ARE NOT PERMITTED. MULTIPLE LIGHTING AND APPLIANCE CIRCUITS MAY NOT BE COMBINED TO UTILIZE COMMON NEUTRAL CONDUCTOR. (REFER TO 2008 NEC 210.4)

ALL 15A AND 20A CIRCUIT WIRING TO BE MINIMUM #12 AWG, OR LARGER AS INDICATED. PROVIDE #10 AWG WHERE CIRCUIT HOMERUNS EXCEED 60 FEET (120V)

USE CONDUCTORS NOT SMALLER THAN #14 AWG FOR CLASS 1 CONTROL AND SIGNAL CIRCUITS, USE CONDUCTORS NOT SMALLER THAN #16 AWG FOR CLASS 2 LOW ENERGY REMOTE CONTROL AND SIGNAL CIRCUITS. CONDUCTORS FOR SPECIAL SIGNAL, COMMUNICATIONS, AND SIMILAR SYSTEMS SHALL BE SIZED AS INDICATED ON DRAWINGS OR AS REQUIRED BY VENDOR.

SPLICES FOR ANY COMBINATION OF STRANDED AND/OR SOLID COPPER WIRE UP TO 3#8 OR 2#6 TO BE MADE WITH SOLDERLESS ELECTRICAL SPRING CONNECTOR TYPE. SPLICES FOR LARGER WIRE TO BE SOLDERLESS COMPRESSION INDENTION TYPE PROPERLY TAPED.

LIGHTING FIXTURES: AS SCHEDULED. COMPLETE WITH LAMPS OR LED SOURCES.

## EXIT AND EMERGENCY LIGHTING:

PROVIDE EXIT LIGHTING FIXTURES LOCATED AND ARRANGED TO CLEARLY INDICATE EGRESS PATHS.
FIXTURES AND INSTALLATION SHALL COMPLY WITH NFPA #101 SECTION 5-10.

PROVIDE EMERGENCY LIGHTING FIXTURES LOCATED AND ARRANGED TO ILLUMINATE EGRESS PATHS WITH 1.0

FOOTCANDLE (MIN.). FIXTURES AND INSTALLATION SHALL COMPLY WITH NFPA #101 SECTION 5-9

CONNECT FIXTURES TO UNSWITCHED CONDUCTOR OF LOCAL LIGHTING CIRCUIT SUCH THAT BATTERY POWER SUPPLY AUTOMATICALLY ILLUMINATES LAMPS WHEN NORMAL POWER SUPPLY IS DISRUPTED. TELEPHONE CONDUIT SYSTEM: PROVIDE OUTLET BOX, BLANK COVER PLATE WITH BUSHED HOLE, AND 3/4" EMT STUB INTO ACCESSIBLE CEILING SPACE FOR EACH OUTLET.

COMPUTER CONDUIT SYSTEM: PROVIDE OUTLET BOX, BLANK COVER PLATE WITH SUITABLE TERMINATION, AND 3/4" EMT STUB INTO ACCESSIBLE CEILING SPACE FOR EACH OUTLET.

# PANELBOARDS: USE EXISTING. CIRCUIT BREAKERS TO BE FULL MODULE TYPE. HALF-SIZE OR PIGGY-BACK TYPE ARE NOT ACCEPTABLE. PROVIDE AIC RATINGS AS REQUIRED TO ACCOMMODATE AVAILABLE FAULT CURRENT VALUES.

CIRCUIT BREAKER PARAMETERS FOR CIRCUITS SERVING EQUIPMENT AND MOTOR LOADS ARE PROVIDED FOR ESTIMATING PURPOSES ONLY. CIRCUIT BREAKERS TO BE COMBINATED WITH VENDORS AND OTHER CONTRACTORS TO MATCH NAMEPLATE DATA OF INSTALLED EQUIPMENT.

ADJUST CIRCUIT BREAKER LOCATIONS ON PANELBOARD BUSES AS REQUIRED TO BALANCE LOADS BETWEEN ALL PHASES TO WITHIN 10%.

PROVIDE PRINTED LABELS FOR PANELS INDICATING "MARK/ID", AND VOLTAGE/PHASE DESCRIPTION. PROVIDE BREAKER LABELS (NUMERICAL) AND TYPED CIRCUIT DIRECTORY

DISCONNECTS: HEAVY-DUTY SAFETY SWITCHES, QUICK-MAKE, QUICK-BREAK OPERATION. ENCLOSURES AS SPECIFIED BELOW.

ENCLOSURES FOR ELECTRICAL EQUIPMENT:
GENERAL: PROVIDE SUITABLE ENCLOSURES FOR SAFETY SWITCHES, STARTERS, CONTACTORS, PANELBOARDS, TVSS UNITS, CONTROL DEVICES, AND OTHER ELECTRICAL EQUIPMENT

CONSTRUCTION: ENCLOSURES IN LOCATIONS NOT SUBJECT TO CORROSION TO BE CONSTRUCTED OF CODE GAUGE STEEL WITH BAKED ENAMEL FINISH. IN LOCATIONS SUBJECT TO CORROSION, ENCLOSURES TO BE CONSTRUCTED OF SUITABLE MATERIALS AND FINISHES.

NEMA TYPE: ENCLOSURES TO HAVE NEMA CONFIGURATIONS AS FOLLOWS:

NEMA 1 - INDOOR, DRY LOCATIONS NEMA 3R - OUTDOOR, LOCATIONS SUBJECT TO RAIN, SLEET, ICE

GENERAL: CLEARLY AND PERMANENTLY IDENTIFY ALL MAJOR ELECTRICAL COMPONENTS AS SPECIFIED BELLOW.

PRINTED LABELS: LABELS TO BE PREPARED USING "LABEL-MAKING MACHINE", WITH 1/2" HIGH PRIMALETTERS AND 5/16" HIGH SECONDARY LETTERS (BLACK LETTERS ON WHITE SURFACE). LABELS TO BE SECURED WITH SELF-ADHESIVE BACKING, OR OTHER APPROVED PERMANENT MOUNTING METHOD. PROVIDE LABELS FOR THE FOLLOWING COMPONENTS:

CONTACTORS, TIME CLOCKS, DISCONNECT SWITCHES.

MISCELLANEOUS LABELS REQUIRED BY CODE - EXAMPLES INCLUDE: NEC 110-22 AMAZ 230-2

CIRCUIT ORIGIN: PROVIDE CIRCUIT/FEEDER DATA (CIRCUIT DESIGNATI COMPONENT, AND POWER CIRCUITS FOR HVAC AND PLUMBING EQUIPMENT.

ELECTRICAL GROUNDING AND BONDING TO CONFORM TO ARTICLE 250
CABLE SHIELDS AND SHEATHS, METALLIC CONDUITS, JUNEAU BOX
NON-CURRENT CARRYING PARTS OF EQUIPMENT SHALL BE GROUNDED.

ALL BRANCH CIRCUITS AND FEEDERS TO BE PRO CONDUCTORS SIZED PER NEC 250.122.

METAL COMPONENTS THAT COULD GO CONNECTION, CONNECT CONDUCTOR CONNECT GROUNDING CONDUCTORS BECOME ENERGIZED. WHEPE DEVICE DESS NOT HAVE A GROUN TO BOX (OR GROUNDING CLIP) WHERE DEVICE IS INSTALLED.

ZE ND BE GER TO BE TERMINATED AT ENCLOSURES, WIREWAYS, PULLBOXES, GOUNDING TYPE BUG OR SBLG.
EDITY 46 JG SCLID BASE, COPPER BONDING JUMPER TO EQUIPMENT GOUND STATE OF SCHIPMENT GOUND STREET OF SCHIPMENT GOUND STREET OF STATE OF SCHIPMENT GOUND STREET OF SCHIPMENT GOUND STREET OF SCHIPMENT STREET OF SCHIPMENT STREET ALL RACEWAYS 1\_1 PANELBOARDS, ETC BUSHINGS TO BE C TO COMPLY WITH

FIRETO ING AND FIRESHORE CAULKING
PROTRATIONS OF FIRE-WAYS, BUILDING COMPONENTS BY PIPES, RACEWAYS, AND WIRING/CABLING SHALL
BE WITH APPROPRIATE TIES BARRIERS. METHODS AND MATERIALS SHALL BE UL LISTED AND
WHALL CONFORT TO THE REQUIREMENTS OF ASTM-E814/UL1479.

NINGS SHALL BE SEALED WITH INTUMESCENT CAULK/SEALANT. EQUAL TO STI "LCI SEALANT". OR DOW CORNING #2000. INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S

, HHERE ELECTRICAL BOXES ARE INSTALLED IN STUD WALL RATED ASSEMBLIES, PROVIDE INTUMESCENT PUTTY PADS AROUND EXTERIOR OF BOX, EQUAL TO STI "SSP PUTTY PADS".

WHERE UL LISTED SYSTEMS (XHEZ THROUGH-PENETRATION FIRESTOP SYSTEMS) ARE REQUIRED, USE COMPONENTS AS MANUFACTURED BY: 3M, DOW CORNING, HILTI. METALINES, STI, HEVI-DUTY NELSON, OR JOHNS-MANVILLE,

PENETRATIONS OF SMOKE-TIGHT BUILDING COMPONENTS BY RACEWAYS AND WIRING/CABLING SHALL BE PROVIDED WITH APPROPRIATE SMOKE-TIGHT CAULKING. METHODS AND MATERIALS SHALL BE UL LISTED AND SHALL CONFORM TO THE REQUIREMENTS OF APPLICABLE ASTM/UL STANDARDS.

FIRE ALARM SYSTEM MODIFICATIONS:
PROVIDE EXTENSIONS/MODIFICATIONS OF BUILDING FIRE ALARM SYSTEM IN TENANT-FINISH AREA AND,
CONSISTING OF ALARM INITIATION DEVICES AND NOTIFICATION DEVICES. ALL EQUIPMENT TO BE UL LISTED.
SYSTEM AND INSTALLATION TO CONFORM TO NFPA 72, 101, NEC ARTICLE 760, AND LOCAL AUTHORITIES
HAVING JURISDICTION.

NEW DEVICES TO BE COMPATIBLE WITH EXISTING SYSTEM, AS APPLICABLE.

INSTALLATION: MANUFACTURER TO FURNISH QUALIFIED EMPLOYEE TO SUPERVISE INSTALLATION, TO CHECK OUT ON FINAL, AND TO SERVICE FROM BRANCH OFFICE LOCATED WITHIN 100 MILES DURING WARRANTY PERIOD.

ALL EQUIPMENT TO BE WIRED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS AND SYSTEM SHALL BE WARRANTED FOR A PERIOD OF ONE YEAR (1 YEAR).

STROBE SYNCHRONIZATION: STROBES INSTALLED IN THE SAME "FIELD OF VIEW" AND LESS THAN 55 FEET APART MUST BE SYNCHRONIZED. SYSTEM WIRING: WIRING TO BE INSTALLED IN RACEWAYS. SYSTEM WIRING AND INSTALLATION TO BE IN COMPLIANCE WITH APPLICABLE CODES, PROJECT DRAWINGS AND AS REQUIRED BY MANUFACTURER. ALL

JUNCTION BOXES CONTAINING FIRE ALARM SYSTEM WIRING TO BE CLEARLY IDENTIFIED WITH RED PAINT. HARD-WIRED DEVICE CIRCUITS: WIRE TO BE #16 AWG (MIN.) SOLID COPPER, 300 VOLT INSULATION

ADDRESSABLE DEVICE CIRCUITS: WIRE TO BE DATA-GRADE CABLE, EQUAL TO WPW #D975 OR #D976, #18 AWG SOLID COPPER, SHIELDED, 300 VOLT INSULATION

SYSTEM TESTING: COMPLETED SYSTEM TO BE TESTED IN ACCORDANCE WITH NEPA STANDARD 72H PROVIDE LETTER TO ARCHITECT AFTER COMPLETION AND FINAL CHECK-OUT OF SYSTEM VERIFYING THAT SYSTEM HAS BEEN CHECKED OUT AND IS OPERATING PROPERLY.

	LIGHTING FIXTURE SCHEDULE									
MARK	DESCRIPTION	MOUNTING	LAMPS QTY & TYPE FIXTURE WATTS	MANUFACTURER AND CATALOG NO.	ACCESSORIES AND REMARKS					
А	2'X4' VOLUMETRIC GRID 5000 LUMEN	CEILING RECESSED	LED ARRAY 44 WATTS	COLUMBIA CCL24-5035	DIRECT/INDIRECT, RIBBED ACRYLIC CENTER LENS, WHITE REFLECT, 3500K, 0-10V DIM					
A2	2'X2' VOLUMETRIC GRID 3300 LUMEN	CEILING RECESSED	LED ARRAY 29 WATTS	COLUMBIA CCL22-3335	DIRECT/INDIRECT, RIBBED ACRYLIC CENTER LENS, WHITE REFLECT, 3500K, 0-10V DIM					
В	2'X4' FLAT PANEL 5500 LUMEN	CEILING RECESSED	LED ARRAY 49 WATTS	COLUMBIA CFP24-5535	PANEL 1.18" THICK, ALUM. FRAME W/ TRANSLUCENT PLASTIC LENS, 0-10V DIM					
B2	2'X2' FLAT PANEL FLANGE 4000 LUMEN	CEILING RECESSED	LED ARRAY 41 WATTS	COLUMBIA CFP22-4035 W/ FK22	PANEL 1.18" THICK, ALUM. FRAME, 3500K, TRANSLUCENT PLASTIC LENS, 0-10V DIM					
F	3" RD. DOWNLIGHT LED - 675 LUMEN	CEILING RECESSED	LED ARRAY 13.5 WATTS	WAC R3CRPL-930-WT	3" RD. ADJUSTABLE 1100 E, 3000K, 4" HGT, 0-10y-51					
G	DECORATIVE PENDANT	CEILING PENDANT	LED LAMP 3.5 WATTS	TECH LTG 700TD G S-LED927	16" DIA SS GL F, SURF SEN, SATIN NICKEL FI SH, LEE AMPIN, 120V					
N	"X-RAY IN USE" WARNING LIGHT	WALL AS DIRECTED	LONG LIFE LED'S	DUAL-LITE SE-S-R-W-SW4 SW-16 NOTE WL	WHITE CKGRAND, A ONLY, RED LEVERS A SOLLOWS: X-RAY IN USE					
х	SGL/DBL FACE EXIT THERMOPLASTIC EMER POWER PACK	CEILING OR WALL 7'-6"AFF	LONG LIFE LED'S 5 WATTS	COMPASS CER	NIVERS MOUNT, RED LETTERS, EMER. PACK, CONNECT TO UNSWITCHED CONDUCTOR					
XA	EMERGENCY LIGHT EMER POWER PACK	CEILING RECESSED	(4) LED UNITS 4 WATTS	DUAL-LUMANA 4R	FOUR LED LAMPS, TEST SWITCH, EMER. BATTERY PACK, CONNECT TO UNSWITCHED CONDUCTOR, 120V/277V DUAL RATED					
XD	SGL/DBL FACE EXIT THERMOPLASTIC COMBINATION UNIT	CLG/WALL AS DIRECTED	LONG LIFE LED'S B LED HEADS	JAL MASE EVCUME	UNIVERSAL MOUNT, RED LETTERS ON WHITE, BATTERY PACK, CONNECT TO UNSWITCHED CONDUCTOR, 120V/277V DUAL RATED					

- ER PACKS WITH PURE-LEAD, LEAD-CALCIUM, OR NICAD BATTERIES. POWER PACKS WANNECT POWER PACKS TO UNSWITCHED CONDUCTOR OF LOCAL LIGHTING CIRCUIT.
  FACE CONFIGURATION APPROPRIATE FOR SPECIFIC LOCATION AND APPLICATION.
- EXIT LIGHTI CTURES WITH ARCHITECT/ENGINEER PRIOR TO PLACING FIXTURE ORDER.
- CES OF FIXTURES WITH ARCHITECT PRIOR TO PLACING FIXTURE ORDER VERIFY ACTUAL MOUNTING HEIGHTS WITH ARCHITECT/ENGINEER PRIOR TO ROUGH-IN.
- PMENT CONTROL PANEL(S) SO FIXTURE ILLUMINATES WHEN X-RAY EQUIPMENT IS ENERGIZED.

	ELECTRICAL SYMBOLS	
TO WARE	DESCRIPTION	MOUNTING .
	ARROW INDICATES CIRCUIT HOMERUN	
₩	TICK MARKS INDICATE WIRE QUANTITY (MORE THAN 2)	
00000	PANELBOARD	78" AFF
(223	SPECIAL CABINET OR ENCLOSURE	VERIFY
O	DISCONNECT SWITCH	48" AFF
<b>-</b> √	JUNCTION BOX (PIGTAIL SHOWN)	AS NOTED
J	JUNCTION BOX	AS NOTED
Ø	MOTOR	
200	DUPLEX RECEPTACLE	16" AFF •
.@a:	EXIST. DUPLEX RECEPTACLE TO REMAIN WHERE 'GF' INDICATED, PROVIDE GFCI PROTECTION	EXIST.
÷	DUPLEX RECEPTACLE ABOVE COUNTER	
· wP	DUPLEX RECEPTACLE W/ WEATHERPROOF COVER	16" AFF +
୍ତି GF	DUPLEX RECEPTACLE W/ GROUND FAULT INTERRUPTER	16" AFF •
41	QUADRAPLEX RECEPTACLE	16" AFF •
<del> </del>	QUADRAPLEX RECEPTACLE ABOVE COUNTER	
U	DUPLEX RECEPTACLE W/ USB PORTS LEVITON T-5632	36" AFF *
9	SPECIAL RECEPTACLE - NEMA CONFIG. NOTED	16" AFF •
ю	SPECIAL RECEPTACLE - NEMA CONFIG. NOTED	16" AFF •
•	DUPLEX RECEPTACLE - FLUSH MOUNT IN FLOOR	FLOOR
•0	MULTIPLE SERVICE FLOOR OUTLET	FLOOR
s	SWITCH - SINGLE POLE	48" AFF **
S <sub>3</sub>	SWITCH - 3 WAY	48" AFF **
S <sub>4</sub>	SWITCH - 4 WAY	48" AFF **
Sp	SWITCH W/ PILOT LIGHT	48" AFF **
So	SWITCH - DIMMER	48" AFF **
S <sub>03</sub>	SWITCH - DIMMER (3-WAY)	48" AFF **
Sc	SWITCH - SPEED CONTROL	48" AFF **
Su	SWITCH - MOTION DETECTOR	48" AFF **
4	COMBINATION VOICE/DATA OUTLET FLUSH WALLBOX WITH 3/4°C. STUB ABV CLG	16" AFF
×i	EXIST. VOICE/DATA OUTLET	EXIST.
H	TV/POWER WALL BOX, EQUAL TO ARLINGTON TVBS505 WITH NEMA 5-20R RECEPT & 1°C. STUB ABV CLG	48" AFF OR AS NOTED +
T	THERMOSTAT	48" AFF **
AFF	ABOVE FINISHED FLOOR	
AFC	ABOVE FINISHED CEILING	
BFC	BELOW FINISHED CEILING	
FACP Cast	FIRE ALARM CONTROL PANEL (EXISTING)	FLUSH WALL
	FIRE ALARM SIGNAL - HORN AND STROBE	80" AFF
<b>Z</b> O	FIRE ALARM SIGNAL - STROBE ONLY	80" AFF
ED TO DRAWIN	OS AND SDECKERATIONS FOR ADDITIONAL INCORNATION	

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**	1	V	NC	Œ	0	R	OF	ER	OTA	R-	DE	VIC	E	MU	ST	BE	1	LO	Α	ED	NC	)	MORE	E T	HAN	48	۸,	FF,	FOR	8	COMPLIANO	Ε	WITH	ADA

BRANCH CIRCUIT WIRING SCHEDULE											
Description Circuit Ove Protectio	er-Current	Description of Wiring									
15A/1P, 20A/1I	•	2 #12 + #12 EG, 3/4°C									
25A/1P, 30A/1	•	2 #10 + #10 EG, 3/4"C.									
15A/1P/IG, 20/	V/1P/IG	2 #12 + #12 EG + #12 IG, 3/4°C.									
25A/1P/IG, 30/	A/1P/IG	2 #10 + #10 EG + #10 IG, 3/4" C									
15A/2P, 20A/2I	,	2 #12 + #12 EG, 3/4°C									
25A/3P, 30A/3I	•	3 #10 + #10 EG, 3/4°C									
35A/2P, 40A/2	•	2 #8 + #10 EG, 3	/4°C								
35A/3P, 40A/3I	•	3 #8 + #10 EG, 3	/4°C								
45A/2P,50A/2F	, 60A/2P	2 #6 + #10EG, 3/4°C									
45A/3P, 50A/3	P, 60A/3P	3 #6 + #10 EG, 3	/4°C								
70A/2P, 80A/2	,	2 #4 + #8 EG, 3/4°C									
70A/3p, 80A/3I	,	3 #4 + #8 EG, 1"C									
90A/2P		2 #3 + #8 EG, 1°C.									
100A/2P		2 #2 + #8 EG, 1 1/4'C.									
90A/3P		3 #3 + #8 EG, 1°C									
100A/3P		3 #2 + #8 EG, 1 1/4°C									
110A/2P, 125A	/2P, 130A/2P	2 #1 + #6EG, 1 1/4°C									
110A/3P, 125A	/3P, 130A/3P	3 #1 + #6EG 1 1/4"C									
150A/2P		2 #1/0 + #6 EG, 1 1/4°C									
150A/3P		3 #1/0 + 6 EG, 1 1/4°C.									
175A/2P		2 #2/0 + 6 EG, 1 1/4°C.									
175A/3P		3 #2/0 + 6 EG, 1 1/2°C.									
200A/2P		2 #3/0 + 6 EG, 1 1/2°C.									
200A/3P		3 #3/O + 6 EG, 2°C.									
Abbreviation	s:										
A = AMP	SP = SINGLE POLE	2P = TWO POLE	O POLE 3P = THREE POLE								
N = NEUTRAL	C = CONDUIT	EG = EQUIPMENT GROUNDING CONDUCTOR	IG = ISOLATED GROUND CIRCUIT								
NOTES: 1. Confirm neces conductor is requ	isity of neutral cor rired. Size it the s	ductor prior to bid. ame as the associate	If the neutral								

PRELIMINARY PRICING SET

NOT FOR CONSTRUCTION

Project #: A2021 mith Engineering Mechanical & Electrical 03 Jordan Drive STE 1 Chattanooga, TN 37421 Phone: (423)499-9532 Fax: (423)894-4440

E3.01

architecture

Street planning interipret TIVET architecture

7th :

SMITH MEDICAL OFFICES ORTHOPEDIC OFFICES BRUCE & DRS

Revision Schedule Rev. # Rev. Date Revision Description

elease Date: 05.10.2020 roject No.: 20021 ELECTRICAL SCHEDULES & SPECS