
DUCTWORK/GR	ILLES	<u>PIPING</u>	
	POSITIVE PRESSURE DUCT - RISE		SHUT OFF VALVE
	POSITIVE PRESSURE DUCT - DROP	—ιφ⊢	BALL VALVE
	NEGATIVE PRESSURE DUCT - RISE		BUTTERFLY VALVE
	NEGATIVE PRESSURE DUCT - DROP	ſ	MOTOR OPERATED BUTTERFLY VALVE
	ROUND DUCT - RISE	—————————————————————————————————————	GATE VALVE
	ROUND DUCT - DROP		GATE VALVE - NON RISING STEM
	UNDER FLOOR DUCT		ANGLE VALVE
	TURNING VANES		GLOBE VALVE
	FRESH AIR LOUVER	—I∱⊢──ᠿ──	PLUG VALVE
<u>}</u>	FRESH AIN LOUVEN		SHUT OFF PLUG VALVE FOR FOR USE WITH PRESSURE GAUGE
	RELIEF AIR OR EXHAUST AIR LOUVER		CHECK VALVE
↓ ↓ 12X12	$\overline{\}$		LATERAL STRAINER WITH BLOW-OFF VALVE, PROVIDE HOSE END WITH CAP WHERE DISCHARGE IS NOT PIPED TO DRAIN
	CEILING SUPPLY DIFFUSER		F&T=FLOAT & THERMOSTATIC REDUCED PRESSURE BACKFLOW
	CEILING RETURN REGISTER CEILING EXHAUST REGISTER,		PREVENTOR W/ DRAIN PAN
	(BALANCE TO MATCH SUPPLY IF RETURN CFM IS NOT SHOWN)		PRESSURE REDUCING VALVE EXTERNAL PRESSURE
<u>}</u> 24X10 200200	SIDEWALL SUPPLY REGISTER SIDEWALL EXHAUST OR		PRESSURE REDUCING VALVE SELF CONTAINED
24X10 200 200 12X12	CEILING SUPPLY DIFFUSER		ATC - 2 WAY VALVE
	WITH FLEXIBLE DUCT CEILING AIR GRILLE WITH	————————————————————————————————————	ATC - 3 WAY VALVE
	FLEXIBLE DUCT	0.0 GPM	SOLENOID VALVE
	W/ SOUND BOOT		CALIBRATED BALANCING VALVE WITH GPM INDICATED
	CONNECTION. NO. OF SLOTS & SIZE OF SLOT ON TOP, ACTIVE LENGTH AND CFM ON BOTTOM		VENTURI FLOW METER
<u>}</u> }	FLEXIBLE DUCT CONNECTION		FLOW METER ORIFICE
↓ 	FLEXIBLE DUCT	<u>−−</u> \$ ⁺ OR−−\$ ⁺ 	RELIEF VALVE
12/8 FO	FLAT OVAL DUCT WITH FREE AREA DIMENSIONS SHOWN IN INCHES.	¥	AIR VENT-MANUAL
	RECTANGULAR DUCT WITH FREE AREA DIMENSIONS SHOWN IN INCHES.	[A] T	AIR VENT-AUTO
12ø	ROUND DUCT WITH FREE AREA DIMENSIONS SHOWN IN INCHES.		FLOW SWITCH
	INCLINED RISE WITH RESPECT TO AIR FLOW 15° NOMINAL INCLINE WITH RADIUS	s	PRESSURE SWITCH
	INCLINED DROP TURNS=DEPTH OF DUCT.	OR	TEMPERATURE AND PRESSURE TEST PORT
W R	R/W=1. ROUND DUCT SIMILAR TO RECTANGULAR RECTANGULAR TO RECTANGULAR OR ROUND TO ROUND	<u>}</u>	THERMOMETER WELL
12/12 8/8	DUCT TRANSFORMATION MAXIMUM 15° INCLUDED ANGLE EXCEPT WHERE SHOWN OTHERWISE.		THERMOMETER - TEMP RANGE AS INDICATED
F 12/12 120	RECTANGULAR TO ROUND DUCT TRANSFORMATION BRANCH DUCT SPLIT WITH 6" WIDTH AND MIN.		PRESSURE GAUGE WITH SHUT OFF PLUG VALVE
<u><u><u></u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u></u>	R=WIDTH OF BRANCH DUCT DOWNSTREAM. ELBOW TURNING VANE OPTIONAL.	0 F	PRESSURE GAUGE WITH PIGTAIL
	TAP ENTRY AREA EQUALS 150% OF BRANCH AREA	──┤ ├── OR ──ᠿ──	UNION
¹² 12/12 ¹ の最	HIGH EFFICIENCY FITTING	HOR∰	FLANGE
	MANUAL VOLUME DAMPER	—∞———————————————————————————————————	FLEXIBLE EXPANSION JOINT
	FIRE DAMPER IN DUCT, W/ ACCESS PANEL REQD.		REDUCER
	COMBINATION FIRE/SMOKE DAMPER W/ ACCESS PANEL		ECCENTRIC REDUCER
	SMOKE DAMPER W/ ACCESS PANEL	Į	BRANCH - BOTTOM CONNECTION
	BACK DRAFT DAMPER	U	BRANCH - TOP CONNECTION
	ATC DAMPER		BRANCH - SIDE CONNECTION
	ACCESS PANEL IN DUCT OR PLENUM	c	RISE OR DROP
	HEATING OR COOLING COIL IN DUCT	с	RISER - DOWN (ELBOW)
	SINGLE DUCT AIR TERMINAL BOX VARIABLE OR CONSTANT VOLUME. MIN. 1-1/2 TERMINAL INLET SIZE STRAIGHT DUCT AT TERMINAL INLET.		RISER - UP (ELBOW) PIPE CAP
	4-WAY BLOW	D	ARROW INDICATES DIRECTION OF FLOW IN
	PATTERN 3-WAY BLOW	<u>DN</u>	PIPE LEADER INDICATES DOWNWORD SLOPE
	PATTERN 2-WAY BLOW	ſĸ	VALVE IN RISE
	PATTERN 2-WAY BLOW		90° ELBOW
	PATTERN 1-WAY BLOW PATTERN		45° ELBOW
	DUCT SMOKE DETECTOR	 =	ALIGNMENT GUIDE
		X	ANCHOR

LEGEND OF MECHANICAL SYMBOLS AND ABBREVIATIONS

<u>PLUMBING</u>	-
5	THERMOSTATIC MIXING VALVE
ə×	HOSE BIBB
	FLOOR SINK
	FLOOR DRAIN
——ф ^{FCO} сотg	FLOOR CLEAN-OUT OR CLEAN-OUT TO GRADE
Ø	ROOF DRAIN
Î	DOWNSPOUT NOZZLE
o VTR	VENT THRU ROOF
P	WATER HAMMER ARRESTOR
	CLEAN-OUT
ې بې	FILL PORT
	DRAIN PAN AND P-TRAP
(NAME) O	FIXTURE FROM LEVEL ABOVE
<u> </u>	DEMOLITION

HOSE BIBB
FLOOR SINK
FLOOR DRAIN
FLOOR CLEAN-OUT OR CLEAN-OUT TO GRADE
ROOF DRAIN
DOWNSPOUT NOZZLE
VENT THRU ROOF
WATER HAMMER ARRESTOR
CLEAN-OUT
FILL PORT

LINETYPES

——E(NAME)——
─ × (NAME) ~×
HWR
HWS

DOMESTIC COLD WATER (DCW)

DOMESTIC HOT WATER (DHW) DOMESTIC HOT WATER RETURN (DHWR)

EXISTING PIPING

EXISTING PIPING TO BE REMOVED

HEATING HOT WATER RETURN

EQUIPMENT UNIT HEATER **|**_**/**► INLINE PUMP ₽ INLINE PUMP FAN

ESSURE	

₹	
资	
삼	
0	
F	

FIRE

HOSE VALVE NRS GATE VALVE WITH SUPERVISION FLOW SWITCH FIRE RISER

SPRINKLER HEAD FIRE SPRINKLER WATER

ANNOTATIONS

<u>P-1</u>	PLUMBING FIXTURES
Ø	POINT OF CONNECTIO
A M-101	SECTION TAG - TOP BOTTOM FIG
A M101	DETAIL TAG - TOP FI BOTTOM FIG
EF 1	EQUIPMENT IDENTIFIC
<u>_</u> 1	KEYED NOTE IDENTIF
S	SWITCH
S	SENSOR
Ē	THERMOSTAT
(T)n	NIGHT THERMOSTAT

JRES T OF CONNECTION

TION TAG - TOP FIGURE IS SECTION NO. BOTTOM FIGURE IS SHEET NO.

AIL TAG - TOP FIGURE IS DETAIL NO. BOTTOM FIGURE IS SHEET NO. PMENT IDENTIFICATION ED NOTE IDENTIFICATION СН SOR RMOSTAT

HEATING HOT WATER SUPPLY

MECHANICAL GENERAL NOTES

- 1 PROVIDE CD-1 TYPE DIFFUSER, AS SCHEDULED, FOR ALL CEILING SUPPLY DIFFUSERS UNLESS NOTED OTHERWISE. SEE DETAIL 2/M501.
- PROVIDE RG-1 TYPE GRILLE, AS SCHEDULED, FOR ALL CEILING RETURN GRILLES SHOWN AS SUCH. PROVIDE SIZE 22x22, OR 22x10 WITH SOUND BOOT FOR UNDUCTED GRILLES. SEE DETAIL 4/M501.
- 3 PROVIDE EG-1 TYPE GRILLE, AS SCHEDULED, FOR ALL CEILING EXHAUST GRILLES, SHOWN AS SUCH.
 - PROVIDE BALANCING DAMPERS AT EACH BRANCH TAKE OFF TO SERVE DIFFUSER OR GRILLE AS WELL AS WHERE INDICATED.
 - COORDINATE EXACT LOCATION OF DUCTS WITH STRUCTURAL MEMBERS, LIGHTS, REFLECTED CEILING, CABLE TRAY, PLUMBING, MECHANICAL PIPING, ETC.
 - BRANCH DUCTWORK SHALL BE SIZED TO MATCH THE NECK SIZE OF THE DIFFUSER, REGISTER OR GRILLE IT SERVES UNLESS NOTED OTHERWISE.
- INSTALL HARD ELBOWS AS SHOWN. HARD ELBOWS ARE REQUIRED 7. FOR SOUND ATTENUATION. INSTALL EQUIPMENT WITH CLEARANCE PER MANUFACTURER'S
- RECOMMENDATIONS. MAINTAIN PROPER SPACE FOR COIL PULL, CONTROLS, AND MAINTENANCE ACCESS.
- INSTALL TURNING VANES IN ALL SQUARE AND RECTANGULAR LOW 9 PRESSURE DUCTWORK.
- 10. DETAILS REFERENCE ALL SHEETS.
- 11. ALL FIRE DAMPERS ARE 1-1/2 HR RATED, UNLESS NOTED OTHERWISE.
- 12. DO NOT ROUTE DUCTS OR PIPES ABOVE ELECTRICAL PANELS. DO NOT ROUTE DUCTS OR PIPES IN ELECTRICAL ROOMS, EXCEPT DUCTS AND PIPES SERVING THE ROOM.
- 13. IF CONTRACTOR ENCOUNTERS MATERIAL WHICH MAY CONTAIN ASBESTOS, IMMEDIATELY STOP WORK IN THIS AREA AND NOTIFY THE OWNER.
- 14. PROVIDE CEILING ACCESS PANELS AS REQUIRED WHERE MECHANICAL EQUIPMENT, VALVES, VAV BOXES, FIRE DAMPERS, ETC, ARE LOCATED ABOVE INACCESSIBLE CEILINGS.
- 15. ALL DUCT DIMENSIONS ARE INSIDE FREE AREA DIMENSIONS. ADJUST SHEET METAL DIMENSION FOR LINED DUCT.

PLUMBING GENERAL NOTES

- 1. SLOPE PIPING AS FOLLOWS, UNLESS OTHERWISE NOTED. WASTE: BRANCHES 1/4" PER FOOT. WASTE MAINS: 1/8" PER FOOT.
- 2. SLEEVE PIPING THRU WALLS/FOUNDATIONS WHERE REQUIRED.
- PLUMBING DRAWINGS ARE SCHEMATIC IN NATURE. FIELD VERIFY 3 EXACT ROUTING AND COORDINATE WITH ALL OTHER TRADES.
- 4. ALL PIPING IN PLUMBING CHASES TO BE ARRANGED TO ALLOW MAINTENANCE ACCESS.
- NO PIPING TO RUN OVER ELECTRICAL PANELS, VFD'S, OR MCC'S.
- COORDINATE FAN ROOM FLOOR DRAIN LOCATIONS AND COOLING 6. COILS.
- NO FIRE PROTECTION LINE IS TO BE DESIGNED OR INSTALLED PRIOR 7 TO CLOSE COORDINATION WITH ALL OTHER DISCIPLINES. DUCTWORK, MECHANICAL PIPING, AND PLUMBING TAKE PRECEDENCE OVER FIRE PROTECTION PIPING. FAILURE TO COMPLY WILL RESULT IN FIRE PROTECTION REMOVAL AND REINSTALLATION AT THE CONTRACTOR'S EXPENSE.
- 8. SLEEVE/CONFIGURE CMU WALLS FOR EMBEDDED PIPING AND PIPE PENETRATIONS AS REQUIRED.
- REFER TO ARCHITECTURAL DRAWINGS FOR FIXTURE MOUNTING 9. HEIGHTS, DIMENSIONS, AND OTHER REQUIREMENTS.
- 10. CONTRACTOR TO VERIFY CONNECTION SIDE OF ADA FIXTURES AND ADJUST ACCORDINGLY.
- 11. LOCATE ALL VENTS MINIMUM 25 FT AWAY FROM AIR INTAKES.
- 12. INSTALL DOMESTIC WATER LINES BELOW DUCTWORK.
- 13. INSTALL A 24"x24" ACCESS DOOR BELOW ALL ISOLATION VALVES AND CIRCUIT SETTERS WHERE MOUNTED ABOVE HARD CEILINGS.
- 14. MOUNT ALL CEILING TYPE ISOLATION VALVES, CONTROL VALVES, CIRCUIT SETTERS, ETC. NEAR CEILING FOR ACCESSIBILITY.
- 15. DETAILS REFERENCE ALL SHEETS.
- 16. EXISTING PIPING SHOWN HAS BEEN TAKEN FROM INFORMATION PROVIDED BY OTHERS. FIELD VERIFY ALL SYSTEMS, SIZES, LOCATIONS, AND ELEVATIONS PRIOR TO STARTING ANY NEW WORK.





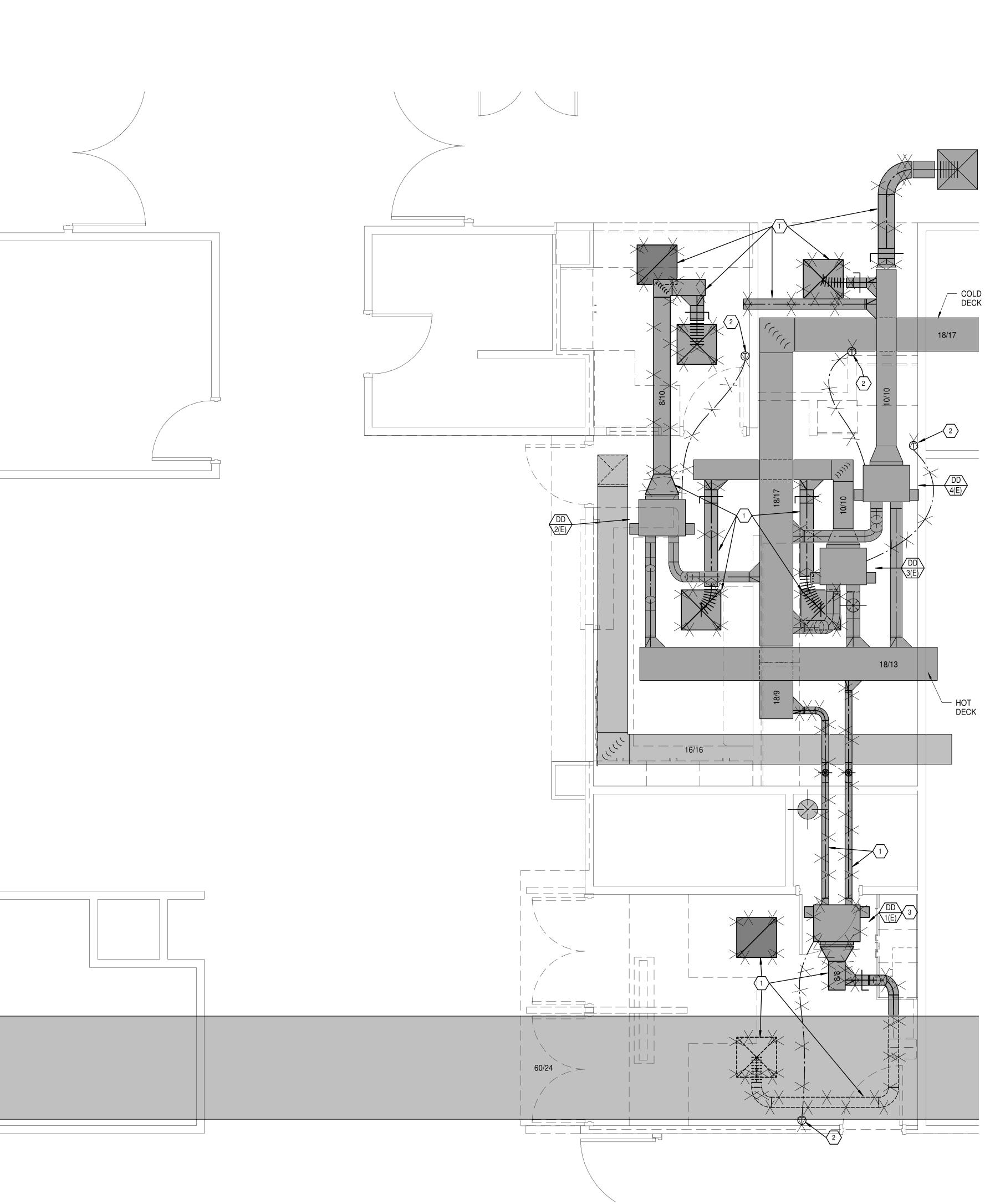


GENERAL

NOTES

M001





KEYED NOTES (#)

- DEMOLISH AND REMOVE EXISTING DIFFUSERS, GRILLES AND DUCTS AS SHOWN. REMOVE DUCT BACK TO ACTIVE MAIN AND CAP.
- REMOVE AND RELOCATE EXISTING THERMOSTAT. SEE NEW MECHANICAL PLAN FOR NEW LOCATION.
- DEMOLISH AND REMOVE EXISTING DUAL DUCT BOX AND ASSOCIATED DUCT AS SHOWN.





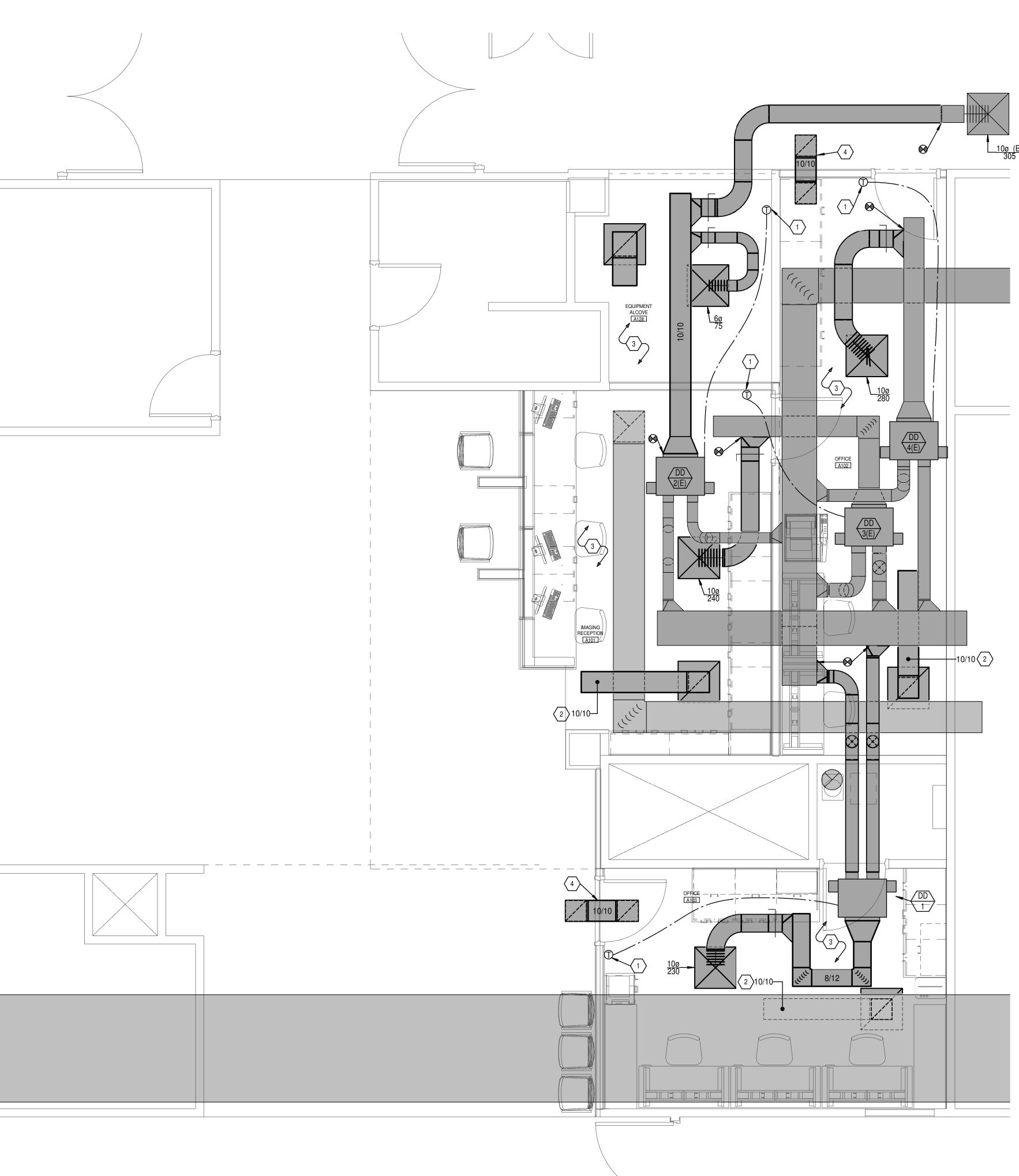




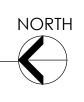








NOTED.



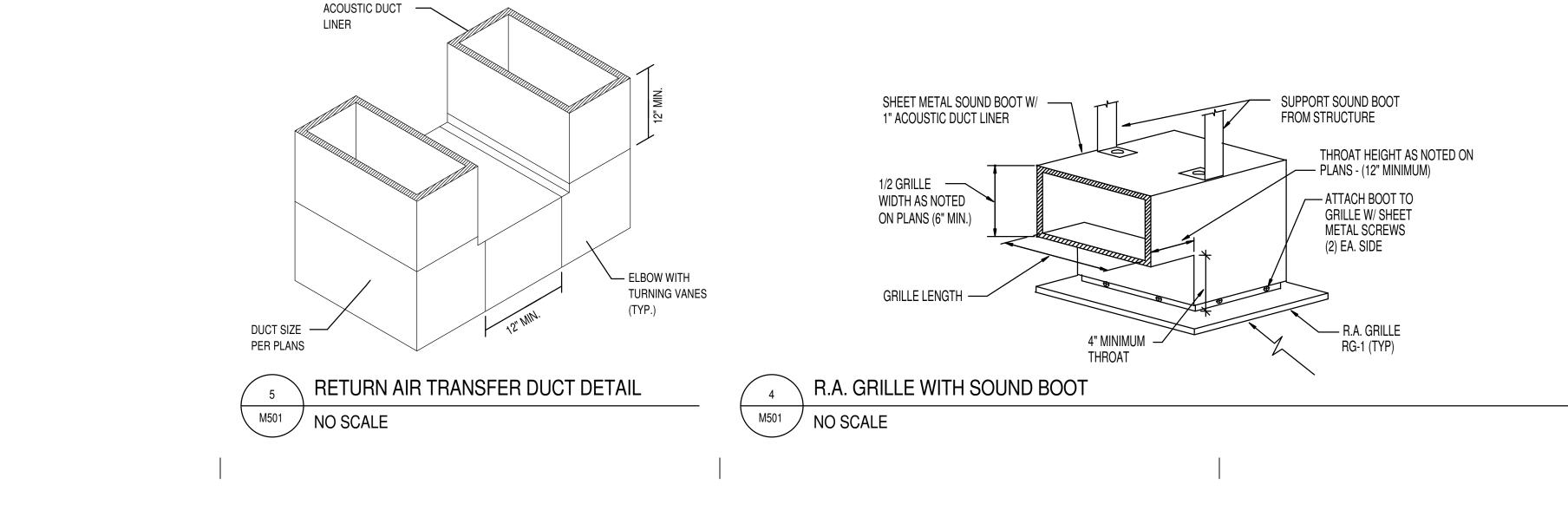






MECHANICAL PLAN

M123

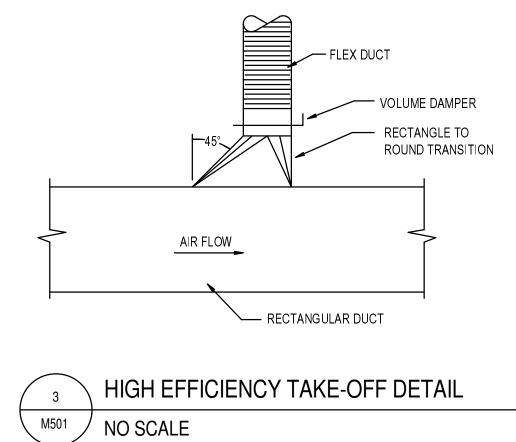


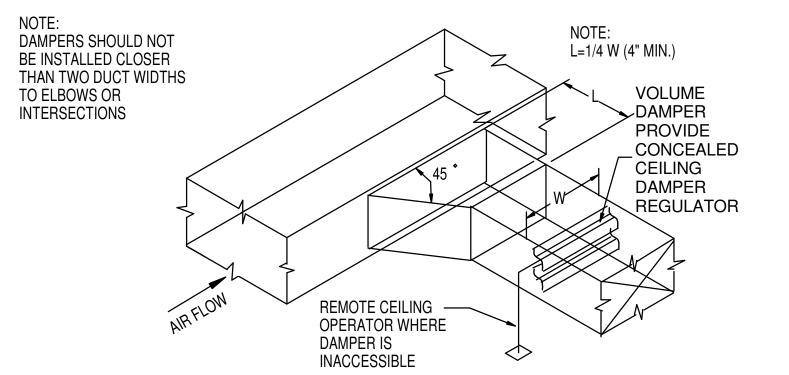


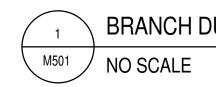
	DUAL DUCT VAV BOX SCHEDULE								
			AREA	INLET	SUP		MAXIMUM PRESSURE LOSS	MAX N.C.	
ID	MANUFACTURER	MODEL NUMBER	SERVED	SIZE	MAX	MIN (2)	(IN. W.G.)	AT 1.5" S.P.	NOTES
DD-1	PRICE	DDS 5000	FUTURE CASHIER 30	7	230	70	0.58	27	(2)(3)(4)
DD-2(E)	PRICE	DDS 5000	EXIST OFFICE	6	380	115	(1)	(1)	(1)
DD-3(E)	PRICE	DDS 5000	RADIOLOGY RECEPTION	8	240	75	(1)	(1)	(1)
DD-4(E)	PRICE	DDS 5000	EXIST OFFICE	7	280	85	(1)	(1)	(1)

(1) EQUIPMENT IS EXISTING. NEW AIRFLOW REQUIREMNTS SHOWN. (2) MINIMUM CFM SHALL BE 30% OF MAXIMUM OR LOWEST CONTROLLABLE CFM (BASED ON 400 FPM INLET VELOCITY). (3) EQUIPMENT SELECTIONS ARE BASED ON PRICE DUAL DUCT VALVE AT 4800 FT ELEVATION. (4) MAXIMUM ROOM CRITERION SOUND LEVEL NC 30.

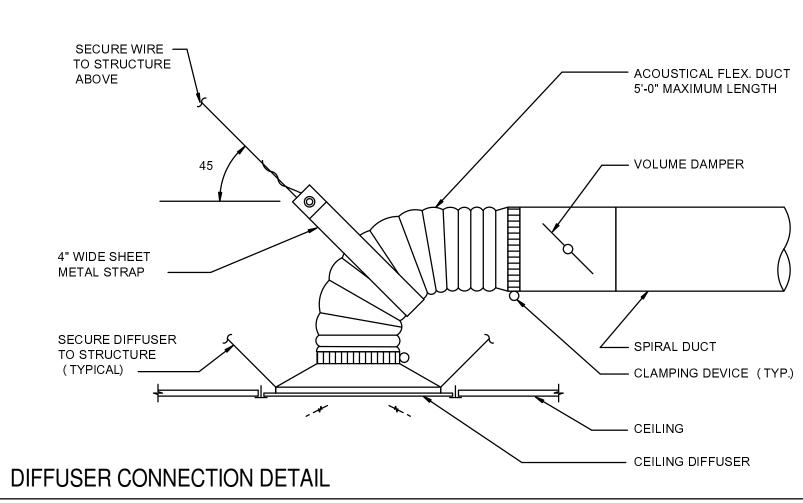
GRILLES, REGISTERS AND DIFFUSERS						
				MAX	MAX	
ID	MANUFACTURER	MODEL	SIZE	CFM	NC	DESCRIPTION
			6" DIA	200		SQUARE PLAQUE CEILING DIFFUSERS. REMOVABLE FACE & CORE
			8" DIA	315		ALL ALUMINUM CONSTRUCTION WITH OBD. FRAME SHALL BE FOR SURFACE
			10" DIA	490	30	OR LAY-IN MOUNTING AS REQUIRED BY CEILING TYPE. LAY-IN FRAMES
CD-1	EH PRICE	ASPD	12" DIA	630		SHALL BE 24" x 24", 24" x 12" OR 12" x 12" AS REQUIRED TO FIT CEILING
			14" DIA	750		TILE SPACE AVAILABLE. PROVIDE ROUND NECK ADAPTER.
			15" DIA	860		
			6 x 6	175		PERFORATED FACE EXHAUST AIR UNIT WITH SOUND BOOT, REMOVABLE
			8 x 8	315		FACE & CORE. FRAME SHALL BE FOR SURFACE OR LAY-IN MOUNTING AS
RG-1 / EG-1	EH PRICE	PDDR	10 x 10	485	30	REQUIRED BY CEILING TYPE. LAY-IN FRAMES HSLL BE 24" x 24", 24" x 12" OR
			12 x 12	700		12" x 12" AS REQUIRED TO FIT CEILING TILE SPACE AVAILABLE. AIR
			14 x 14	950		QUANTITY SHALL MATCH ROOM SUPPLY OR EXHAUST AIR QUANTITY.
			15 x 15	1100		







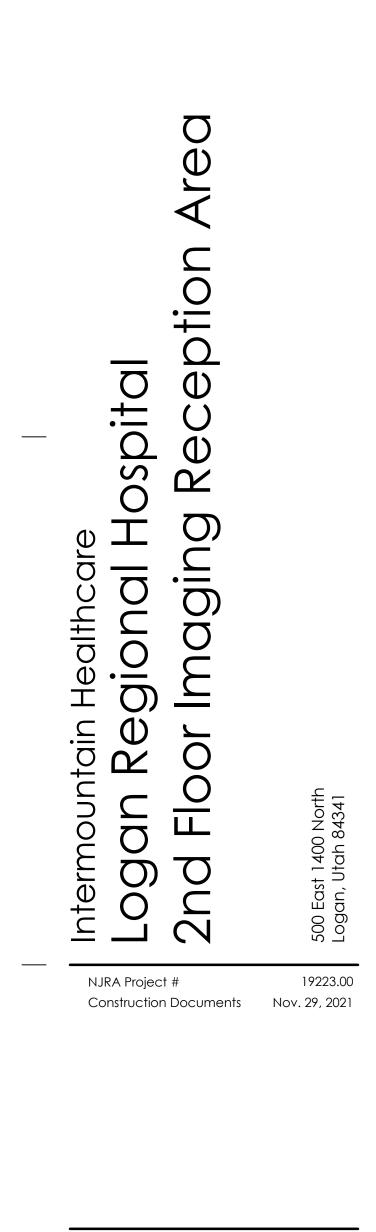
BRANCH DUCT TAKE-OFF & DAMPER



2 M501 NO SCALE







MECHANICAL SCHEDULES AND DETAILS



	SYMBOLS LEGEND
SYMBOL	DESCRIPTION
A5 E-501	DETAIL INDICATOR: A5 INDICATES DETAIL NUMBER, E-501 INDICATES DRAWING SHEET WHERE DETAIL IS SHOWN.
A5 E-201	ELEVATION OR SECTION INDICATOR, EXTERIOR: A5 INDICATE ELEVATION OR SECTION NUMBER, E-201 INDICATES DRAWING SHEET WHERE ELEVATION OR SECTION IS SHOWN.
A5 E-201	ELEVATION OR SECTION INDICATOR, INTERIOR: A5 INDICATES ELEVATION OR SECTION NUMBER, E-201 INDICATES DRAWING SHEET WHERE ELEVATION OR SECTION IS SHOWN.
ROOM NAME	ROOM IDENTIFIER WITH ROOM NAME AND NUMBER.
<u>/1</u> (CU-1)	REVISION INDICATOR.
X-X XMDP	MECHANICAL EQUIPMENT INDICATOR. "X-X" INDICATES EQUIPMENT MARK SHOWN ON EQUIPMENT SCHEDULE. "XM IDENTIFIES PANEL EQUIPMENT IS CIRCUITED TO. REFER TO EQUIPMENT SCHEDULE FOR ADDITIONAL INFORMATION.
	BREAK, STRAIGHT: TO BREAK PARTS OF DRAWING BREAK, ROUND
MATCH LINE SEE XX/X-XXX	MATCH LINE INDICATOR: CENTER, EXTRA WIDE LINE.
	NEW LINE: MEDIUM LINE.
	HIDDEN FEATURES LINE: HIDDEN, THIN LINE
	EXISTING TO REMAIN LINE: THIN LINE.
	DEMOLITION LINE: DASHED, MEDIUM LINE
	PROPERTY LINE: DASHED, WIDE LINE.
	THODS
	WIRING.
	WIRING TURNED UP OR TOWARDS OBSERVER.
<u> </u>	WIRING TURNED DOWN OR AWAY FROM OBSERVER.
A-1,3,5	BRANCH CIRCUIT HOME RUN TO PANELBOARD: NUMBER OF ARROWS INDICATES NUMBER OF CIRCUITS. LETTER AND NUMBER NOTATIONS IDENTIFY PANEL AND CIRCUIT NUMBEI USE #12 CONDUCTORS, EXCEPT #10 CONDUCTORS SHALL E INSTALLED IF DISTANCES EXCEED THOSE SPECIFIED IN THE ELECTRICAL SPECIFICATIONS.
1 -1,3,5	BRANCH CIRCUIT HOME RUN TO PANELBOARD: NUMBER OF ARROWS INDICATES NUMBER OF CIRCUITS. LETTER AND NUMBER NOTATIONS IDENTIFY PANEL AND CIRCUIT NUMBEI NUMBER IN BOX REFERS TO THE CONDUCTOR AND CONDU SCHEDULE. FOR BRANCH WIRING USE #12 CONDUCTORS, EXCEPT #10 CONDUCTORS SHALL BE INSTALLED IF DISTANC EXCEED THOSE SPECIFIED IN THE ELECTRICAL SPECIFICATIONS.
x	WIRING AND/OR RACEWAY: THIN LINE. WHERE "X" = :CATV =CABLE TELEVISIONNC =NURSE C/CCTV =CLOSED CIRCUITP =POWERTELEVISIONRC =RIGID COIFA =FIRE ALARMS =SOUNDFO =FIBER OPTICST =TELEPHOI=INTERCOMTV =TELEVISIOOTHERS AS NOTED IN OTHER SCHEDULES.RACEWAYS AND
	WIRING SHALL BE SIZED AS SHOWN AND/OR SPECIFIED.
+	CONDUIT STUB. DIMENSION RECORD DRAWINGS AND MARK
1	CONDUCTOR & CONDUIT ("CC") SCHEDULE INDICATOR. REF TO ONE-LINE DIAGRAM.
HC	ADA ACCESS PUSH PLATE
0	JUNCTION BOX.
© _{SC}	JUNCTION BOX, SYSTEMS FURNITURE COMMUNICATION CONNECTION. JUNCTION BOX, SECURITY SYSTEM. PROVIDE CONDUIT AND
O _{SE}	ROUGH-IN PER SECURITY DRAWINGS.
	CABLE TRAY ABOVE ACCESSIBLE CEILING.
	EARTH GROUND (ONE-LINE DIAGRAM).
Ф _с	JUNCTION BOX, CEILING.
•	MECHANICAL EQUIPMENT CONNECTION. REFER TO EQUIPM SCHEDULE FOR REQUIREMENTS.
TECHNOLC	OGY SYSTEMS TECHNOLOGY SYSTEM CABLE. SEE SPECIFIC JOB EQUIPME
	LIST FOR APPLICABLE DESIGNATIONS.
x	C = CONTROL CABLE G = GROUND CABLE, 10 AWG, 1 CONDUCTOR, GF
	INSULATED M = MICROPHONE CABLE S = SPEAKER CABLE, 70 VOLT SYSTEM Z = SPEAKER CABLE, 8 OHM SYSTEM
S _#	SPEAKER, CEILING MOUNTED.
CCTV	Γ
- P	CCTV CABLE, POWER.
	CCTV CABLE, VIDEO SIGNAL.
	CCTV CAMERA/ENCLOSURE WITH LENS, TYPICAL. SEE SCHE CCTV CAMERA WITH PAN, TILT AND ZOOM.
360°	PANNING CAMERA TRANSVERSE ANGLE.
SECURITY	
	SECURITY CABLE. SEE EQUIPMENT SCHEDULE FOR CABLE TYPE.
#1	CARD ACCESS DOOR TYPE #1 OR AS NOTED. SEE SCHEDULE.
	CARD READER.

		SYMBOLS LEGEND
	SYMBOL	DESCRIPTION
	WIRING DE	
	<u> </u>	RECEPTACLE, DUPLEX: NEMA 5-20R.
	<u></u> Ф А	RECEPTACLE, DUPLEX, ABOVE COUNTER: NEMA 5-20R.
3	фс	RECEPTACLE, DUPLEX, CEILING: NEMA 5-20R.
	₿s	RECEPTACLE, DUPLEX, SWITCHED: NEMA 5-20R.
		RECEPTACLE, DUPLEX, HOSPITAL GRADE: NEMA 5-20R.
	Ŏ	RECEPTACLE, DUPLEX ON EMERGENCY POWER: NEMA 5-20R.
	⊌	RECEPTACLE, DUPLEX, HOSPITAL GRADE ON EMERGENCY POWER: NEMA 5-20R.
	₿	RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER: NEMA 5-20R.
		RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE: NEMA 5-20R.
	₩	RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE ON EMERGENCY POWER: NEMA 5-20R.
	 """"	RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT
DP"	⊕ wp	INTERRUPTER, WEATHERPROOF: NEMA 5-20R. RECEPTACLE, QUADRAPLEX: NEMA 5-20R.
		RECEPTACLE, QUADRAPLEX ON EMERGENCY
		POWER: NEMA 5-20R. RECEPTACLE, QUADRAPLEX, HOSPITAL GRADE: NEMA 5-20R.
		RECEPTACLE, QUADRAPLEX, HOSPITAL GRADE. NEWA 5-20R. RECEPTACLE, QUADRAPLEX, HOSPITAL GRADE ON EMERGENCY
	→	POWER: NEMA 5-20R. RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT
		INTERRUPTER: NEMA 5-20R. RECEPTACLE, SPECIAL PURPOSE. PROVIDE RECEPTACLE TO
	\bigcirc	MATCH EQUIPMENT PLUG. RECEPTACLE, SPECIAL PURPOSE ON EMERGENCY POWER.
	•	PROVIDE RECEPTACLE TO MATCH EQUIPMENT PLUG.
		MULTI-OUTLET ASSEMBLY: NEMA 5-20R.
	ф — Х	SWITCH, DIMMER.
	\$ X	SWITCH, SINGLE POLE ("x" INDICATES FIXTURES CONTROLLED).
	\$2 X	SWITCH, DOUBLE POLE ("x" INDICATES FIXTURES CONTROLLED).
	\$3	SWITCH, THREE-WAY ("x" INDICATES FIXTURES CONTROLLED).
	X \$4	SWITCH, FOUR-WAY ("x" INDICATES FIXTURES CONTROLLED).
	₿т	RECEPTACLE, DUPLEX, TAMPER RESISTANT: NEMA 5-20R.
		RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE: NEMA 5-20R.
RS.		RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT
		INTERRUPTER, HOSPITAL GRADE ON EMERGENCY POWER: NEMA 5-20R.
	<u> </u>	RECEPTACLE, SINGLE PLEX, WITH USB OUTLET
rs.	FIRE ALAR	M
ES	С	AUTOMATIC DOOR CLOSERS: DOOR CLOSERS SHALL BE FURNISHED WITH DOOR HARDWARE AND CONNECTED TO BY FIRE ALARM INSTALLERS.
LL	СМ	
IDUIT		
IE N	Р	FIRE ALARM MANUAL PULL STATION.
	R	SHUT DOWN RELAY: INSTALL RELAY IN CONTROL CIRCUIT OF EQUIPMENT TO BE CONTROLLED IN THE EVENT OF A FIRE.
	9	MAGNETIC DOOR HOLDER.
	2	DETECTOR, SMOKE.
ER	(2)	DETECTOR, SMOKE, DUCT WITH HOUSING AND SAMPLING TUBE.
		STROBE.
	 又 75	STROBE. SUBSCRIPT INDICATES CANDELA RATING.
		ALARM, HORN/STROBE, ONE ASSEMBLY. ALARM, HORN/STROBE, ONE ASSEMBLY. SUBSCRIPT
		INDICATES CANDELA RATING.
	E	SPEAKER, EVACUATION, COMBINATION STROBE.
ENT		
NT	@ FSD	FIRE AND SMOKE DAMPER.
		ALARM, HORN/STROBE, ONE ASSEMBLY, CEILING MOUNTED.
•		SUBSCRIPT INDICATES CANDELA RATING. ALARM, HORN, CEILING MOUNTED. SUBSCRIPT INDICATES
		CANDELA RATING. ALARM, STROBE, CEILING MOUNTED. SUBSCRIPT
EEN		
EEN		
EEN		
EEN	00 STRUCTUR 01 ∇ 02	RED CABLING IHC IHC COMMUNICATIONS DEVICE (1 DATA).
EEN	00 STRUCTUR 01 ∇ 02 ▼ 03	ED CABLING IHC IHC COMMUNICATIONS DEVICE (1 DATA). IHC COMMUNICATIONS DEVICE (1 DATA / 1 ANALOG).
EEN	00 STRUCTUR 01 ∇ 02 ⊽ 03 ₹	RED CABLING IHC IHC COMMUNICATIONS DEVICE (1 DATA).
	00 STRUCTUR 01 ∇ 02 7 03 8 04 7	ED CABLING IHC IHC COMMUNICATIONS DEVICE (1 DATA). IHC COMMUNICATIONS DEVICE (1 DATA / 1 ANALOG).
EEN	$00 \\ STRUCTUR$ 01 ∇ $02∇03∇03∇03∇03∇03∇03∇03∇03∇03∇03∇03∇04∇04∇05∇05∇05 $	RED CABLING IHC IHC COMMUNICATIONS DEVICE (1 DATA). IHC COMMUNICATIONS DEVICE (1 DATA / 1 ANALOG). IHC COMMUNICATIONS DEVICE (1 DATA WALL PHONE).
	$ \begin{array}{c} 00 \\ STRUCTUR 01 $	RED CABLING IHC IHC COMMUNICATIONS DEVICE (1 DATA). IHC COMMUNICATIONS DEVICE (1 DATA / 1 ANALOG). IHC COMMUNICATIONS DEVICE (1 DATA WALL PHONE). IHC COMMUNICATIONS DEVICE (2 DATA).
	$000 \\ STRUCTUR 01 \\ \nabla \\ 02 \\ V \\ 03 \\ V \\ 03 \\ V \\ 04 \\ V \\ 05 \\ V \\ 3 \\ 06 \\ V \\ 05 \\ V \\ 3 \\ 06 \\ V \\ 05 \\ V \\ 3 \\ 06 \\ V \\ 05 \\ V \\ 3 \\ 06 \\ V \\ 05 \\ 05$	ED CABLING IHC IHC COMMUNICATIONS DEVICE (1 DATA). IHC COMMUNICATIONS DEVICE (1 DATA / 1 ANALOG). IHC COMMUNICATIONS DEVICE (1 DATA WALL PHONE). IHC COMMUNICATIONS DEVICE (2 DATA). IHC COMMUNICATIONS DEVICE (3 DATA).
	$ \begin{array}{c} 00\\ STRUCTUF\\ 01\\ \hline 02\\ \hline 03\\ \hline \hline 03\\ \hline \hline 03\\ \hline \hline 04\\ \hline 04\\ \hline \hline 05\\ \hline 04\\ \hline 05\\ \hline 06\\ \hline 04\\ \hline 05\\ \hline 06\\ \hline 04\\ \hline 07\\ \hline 06\\ \hline 07\\ \hline $	ED CABLING IHC IHC COMMUNICATIONS DEVICE (1 DATA). IHC COMMUNICATIONS DEVICE (1 DATA / 1 ANALOG). IHC COMMUNICATIONS DEVICE (1 DATA WALL PHONE). IHC COMMUNICATIONS DEVICE (2 DATA). IHC COMMUNICATIONS DEVICE (3 DATA). IHC COMMUNICATIONS DEVICE (4 DATA).

SYMBOLS LEGEND				
SYMBOL				
ELECTRICA	AL POWER AND DISTRIBUTION			
	FUSE WITH RATING (ONE-LINE DIAGRAM).			
	DISCONNECT, FUSED (ONE-LINE DIAGRAM).			
	DISCONNECT, NONFUSED (ONE-LINE DIAGRAM).			
	CIRCUIT BREAKER, MOLDED CASE (ONE-LINE DIAGRAM).			
r -(↓ 1	CIRCUIT BREAKER, MOLDED CASE WITH SHUNT TRIP (ONE-LINE DIAGRAM).			
	CIRCUIT BREAKER, MOTOR CIRCUIT PROTECTION (ONE-LINE DIAGRAM).			
	CIRCUIT BREAKER, SOLID STATE (ONE-LINE DIAGRAM).			
	CIRCUIT BREAKER, SOLID STATE WITH GROUND FAULT PROTECTION (ONE-LINE DIAGRAM).			
\sim	MOTOR.			
<u></u>	TRANSFORMER (ONE-LINE DIAGRAM).			
"1H"	PANELBOARD (ONE-LINE DIAGRAM).			
225/3 "1H"	PANELBOARD WITH MAIN LUGS ONLY. BUS SIZE AND PHASE AS SHOWN (ONE-LINE DIAGRAM).			
•)225/3 "1H"	PANELBOARD WITH MAIN CIRCUIT BREAKER. SIZE AND PHASE AS SHOWN (ONE-LINE DIAGRAM).			
225/3 "1H" 60/3	PANELBOARD WITH MAIN AND SUB FEED CIRCUIT BREAKER (ONE-LINE DIAGRAM).			
225/3 "1H" ••••••••••••••••••••••••••••••••••	PANELBOARD WITH MAIN LUGS ONLY AND SURGE PROTECTION WITH CIRCUIT BREAKER (ONE-LINE DIAGRAM).			
Ľ	DISCONNECT SWITCH, FUSED.			
	DISCONNECT SWITCH, UNFUSED.			
X 1	STARTER, COMBINATION WITH DISCONNECT SWITCH.			
	STARTER OR MOTOR CONTROLLER.			
	PANELBOARD CABINET, FLUSH MOUNTED.			
	PANELBOARD CABINET, SURFACE MOUNTED, 1 SECTION. PANELBOARD CABINET, SURFACE MOUNTED, 2 SECTION.			
	DISTRIBUTION PANEL OR SWITCHBOARD.			
	LIGHTING RELAY, CONTACTOR PANEL, OR DIMMING ENCLOSURE.			
LP \$ST	SWITCH, TOGGLE MOTOR STARTER WITH OVERLOAD PROTECTION.			
75	TRANSFORMER: NUMBER INDICATES KVA.			
LIGHTING (REFER TO FIXTURE SCHEDULE FOR SYMBOLS)			
(W-3)	FIXTURE IDENTIFICATION: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED.			
(W-3)	FIXTURE IDENTIFICATION, EMERGENCY WITH BATTERY PACK, CONNECTED TO GENERATOR AS INDICATED: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED.			
↑	EGRESS DIRECTION ARROW (EXIT SIGNS).			
۲	EXIT SIGN: SINGLE FACE; CEILING MOUNTED			
${}$	EXIT SIGN: SINGLE FACE; WALL MOUNTED			
$\mathbf{\Theta}$	EXIT SIGN: DOUBLE FACE; CEILING MOUNTED			
9	EXIT SIGN: DOUBLE FACE; WALL MOUNTED			
LIGHTING	CONTROL			
*	OCCUPANCY SENSOR, DUAL TECHNOLOGY, OMNI-DIRECTIONAL, CEILING. VACANCY SENSOR, DUAL TECHNOLOGY,			
*	OMNI-DIRECTIONAL, CEILING.			
тс а,b \$	TIME CLOCK. LOW VOLTAGE DIGITAL LIGHTING CONTROL SWITCH: LETTER "a,b" INDICATES ZONING WHERE SHOWN (REFER TO PLANS, SCHEDULES, AND DETAILS FOR EXACT BUTTON CONFIGURATION			
a,b D	AND PROGRAMMING REQUIREMENTS) LOW VOLTAGE DIGITAL DIMMING LIGHTING CONTROL SWITCH: LETTER "a,b" INDICATES ZONING WHERE SHOWN (REFER TO PLANS, SCHEDULES, AND DETAILS FOR EXACT BUTTON CONFIGURATION AND PROGRAMMING REQUIREMENTS)			
L				

ABBREVIATIONS

		17 \ 1	
	NOTE: ALL ABBREVIAT	IONS MAY	YNOT BE USED.
1P	SINGLE POLE	kV	KILOVOLT
1PH	SINGLE FOLL SINGLE-PHASE	kVA	KILOVOLT AMPE
1WAY	ONE-WAY	kVAR	KILOVOLT AMPE
2/C	TWO-CONDUCTOR	kW	KILOWATT
2WAY	TWO-WAY	kWh	KILOWATT HOUP
3/C	THREE-CONDUCTOR	LED	LIGHT EMITTING
3WAY		LFMC	LIQUID TIGHT FL CONDUIT
40UT	QUADRUPLE RECEPTACLE OUTLET	LFNC	LIQUID TIGHT FL
4PDT	FOUR-POLE DOUBLE THROW		NONMETALLIC C
4PST	FOUR-POLE SINGLE THROW	LPS	LOW PRESSURE
4W	FOUR-WIRE	LRA	LOCKED ROTOR
4WAY	FOUR-WAY	LTG LV	LIGHTING LOW VOLTAGE
A AC	ABOVE COUNTER ARMORED CABLE	MATV	MASTER ANTEN
AC	AMERICANS WITH DISABILITIES		SYSTEM
	ACT	MAX	MAXIMUM
ADJ	ADJACENT	MC	METAL CLAD
AFF	ABOVE FINISHED FLOOR	MCA MCB	MINIMUM CIRCU MAIN CIRCUIT BI
AFG AIC	ABOVE FINISHED GRADE AMPERE INTERRUPTING	MCC	MOTOR CONTRO
	CAPACITY	MCP	MOTOR CIRCUIT
ALUM	ALUMINUM	MDP	MAIN DISTRIBUT
AMP	AMPERE	MG	MOTOR GENERA
ANN AP		MH MIN	MANHOLE
	ACCESS POINT (WIRELESS DATA)	MLO	MINIMUM MAIN LUGS ONL
AR	AS REQUIRED	MOCP	MAXIMUM OVER
ASC	AMPS SHORT CIRCUIT		PROTECTION
ATS		NA	NOT APPLICABL
AV	SWITCH AUDIO VISUAL	NC NEC	NORMALLY CLOS
AWG	AMERICAN WIRE GAGE	NEC NEMA	NATIONAL ELEC
BB	BUCK-BOOST TRANSFORMER		MANUFACTURE
XFMR			ASSOCIATION
C CATV	CEILING MOUNTED COMMUNITY ANTENNA	NFC NFPA	NATIONAL FIRE
	TELEVISION		ASSOCIATION
СВ	CIRCUIT BREAKER	NIC	NOT IN CONTRA
CCBA	CUSTOM COLOR AS SELECTED BY ARCHITECT	NL	NIGHT LIGHT
ссти	CLOSED CIRCUIT TELEVISION	NO NTS	NORMALLY OPE
CF/CI	CONTRACTOR FURNISHED/	OC	ON CENTER
	CONTRACTOR INSTALLED	OCP	OVER CURRENT
CF/OI	CONTRACTOR FURNISHED/ OWNER INSTALLED	OF/CI	OWNER FURNIS
CFBA	CUSTOM FINISH AS SELECTED	OF/OI	CONTRACTOR IN OWNER FURNISI
	BYARCHITECT		INSTALLED
CKT CM	CIRCUIT CONSTRUCTION MANAGER	OFP	OBTAIN FROM P
	CONDUIT	OH DR	OVERHEAD (COI
CO	CONVENIENCE OUTLET	OL PB	OVERLOAD PUSHBUTTON
COR	CONTRACTING OFFICER'S	PF	POWER FACTOR
СР	REPRESENTATIVE CONTROL PANEL	PH	PHASE
CF	CURRENT TRANSFORMER	PNL	PANEL
CTV	CABLE TELEVISION	PT	POTENTIAL TRAI
CU	COPPER	PTZ QTY	PAN/TILT/ZOOM QUANTITY
dBA	UNIT OF SOUND LEVEL	R	REMOVE
DPDT	DOUBLE POLE, DOUBLE THROW	RCP	REFLECTED CEI
DS	DISCONNECT SWITCH	RMC	RIGID METAL CC
EA	EACH	RNC	RIGID NONMETA
EM	EMERGENCY	RPM RR	REVOLUTIONS P REMOVE AND RE
EMT	ELECTRICAL METALLIC TUBING	S/S	START/STOP
ENT	ELECTRIC NONMETALLIC TUBING	SCA	SHORT CIRCUIT
EPO	EMERGENCY POWER OFF	SCBA	STANDARD COL
EQUIP	EQUIPMENT	ог	SELECTED BY A
EX	EXISTING	SF SFBA	SQUARE FOOT (STANDARD FINIS
F FA	FURNITURE MOUNTED FIRE ALARM		SELECTED BY A
FA FCP	FIRE ALARM FIRE ALARM CONTROL PANEL	SPD	SURGE PROTEC
FLA	FULL LOAD AMPS	SPDT SPEC	SINGLE POLE, D
FMC	FLEXIBLE METAL CONDUIT	SPEC	SPECIFICATION SINGLE POLE, SI
FOB	FREIGHT ON BOARD	ST	SINGLE THROW
FVNR	FULL VOLTAGE NON-REVERSING	SWBD	SWITCHBOARD
FVR	FULL VOLTAGE REVERSING	SWGR	SWITCHGEAR
G	GROUND	TL TP	TWIST LOCK
GEN	GENERATOR	TP TP	TELEPHONE POI TWISTED PAIR
GFCI GFP	GROUND FAULT INTERRUPTER GROUND FAULT PROTECTION	TTB	TELEPHONE TEF
HD	HEAVY DUTY	тν	TELEVISION
HID	HIGH INTENSITY DISCHARGE	TVSS	TRANSIENT VOL
HOA	HAND-OFF-AUTOMATIC	TYP	SUPPRESSER TYPICAL
HP	HORSE POWER	UF	UNDERFLOOR
HPF HPS	HIGH POWER FACTOR HIGH PRESSURE SODIUM	UGND	UNDERGROUND
HPS HV	HIGH PRESSURE SODIUM HIGH VOLTAGE	UPS	
HZ	HERTZ	v	SUPPLY VOLTS
I/O	INPUT/ OUTPUT	V VA	VOLTS
IG	ISOLATED GROUND	VFC/VF	VARIABLE FREQ
IMC	INTERMEDIATE METAL CONDUIT	D	CONTROLLER
IN/IS	INSULATED/ ISOLATED	W/ W/O	WITH WITHOUT
IR	INFRARED	WP	WEATHERPROO
J-BOX	JUNCTION BOX	XFMR	TRANSFORMER

KILOVOLT KILOVOLT AMPERE AR KILOVOLT AMPERE REACTIVE KILOWATT KILOWATT HOUR LIGHT EMITTING DIODE MC LIQUID TIGHT FLEXIBLE METAL CONDUIT NC LIQUID TIGHT FLEXIBLE NONMETALLIC CONDUIT LOW PRESSURE SODIUM LOCKED ROTOR AMPS LIGHTING LOW VOLTAGE TV MASTER ANTENNA TELEVISION SYSTEM MAXIMUM METAL CLAD MINIMUM CIRCUIT AMPS MAIN CIRCUIT BREAKER MOTOR CONTROL CENTER MOTOR CIRCUIT PROTECTION MAIN DISTRIBUTION PANEL MOTOR GENERATOR MANHOLE MINIMUM MAIN LUGS ONLY CP MAXIMUM OVERCURRENT PROTECTION NOT APPLICABLE NORMALLY CLOSED NATIONAL ELECTRICAL CODE MA NATIOANL ELECTRICAL MANUFACTURERS ASSOCIATION NATIONAL FIRE CODE PA NATIONAL FIRE PROTECTION ASSOCIATION NOT IN CONTRACT NIGHT LIGHT NORMALLY OPEN NOT TO SCALE ON CENTER OVER CURRENT PROTECTION /CI OWNER FURNISHED/ CONTRACTOR INSTALLED OI OWNER FURNISHED/ OWNER INSTALLED OBTAIN FROM PLANS DR OVERHEAD (COILING) DOOR OVERLOAD PUSHBUTTON POWER FACTOR PHASE PANEL POTENTIAL TRANSFORMER PAN/TILT/ZOOM QUANTITY REMOVE REFLECTED CEILING PLAN RIGID METAL CONDUIT RIGID NONMETAL CONDUIT M REVOLUTIONS PER MINUTE REMOVE AND RELOCATE START/STOP SHORT CIRCUIT AMPS BA STANDARD COLOR AS SELECTED BY ARCHITECT SQUARE FOOT (FEET) BA STANDARD FINISH AS SELECTED BY ARCHITECT SURGE PROTECTIVE DEVICE DT SINGLE POLE, DOUBLE THROW PEC SPECIFICATION ST SINGLE POLE, SINGLE THROW SINGLE THROW BD SWITCHBOARD GR SWITCHGEAR TWIST LOCK TELEPHONE POLE TWISTED PAIR TELEPHONE TERMINAL BOARD TELEVISION SS TRANSIENT VOLTAGE SURGE SUPPRESSER TYPICAL UNDERFLOOR ND UNDERGROUND UNINTERRUPTIBLE POWER SUPPLY VOLTS VOLT AMPERE C/VF VARIABLE FREQUENCY MOTOR CONTROLLER WITH WITHOUT WEATHERPROOF MR TRANSFORMER

SUPPLIED AND THE INTENT OR FUNCTION OF THE EQUIPMENT, ETC, SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER IN WRITING FOR CLARIFICATION PRIOR

TO ISSUANCE OF THE FINAL ADDENDUM AND BIDDING OF THE PROJECT. WHERE DISCREPANCIES OR MULTIPLE INTERPRETATIONS OCCUR, THE MOST STRINGENT (WHICH IS GENERALLY RECOGNIZED AS THE MOST COSTLY) THAT MEETS THE INTENT OF THE DOCUMENTS SHALL BE ENFORCED. OWNER FURNISHED ITEMS: THE OWNER WILL FURNISH MATERIAL AND

THEMSELVES WITH THE DRAWINGS AND SPECIFICATIONS. ANY QUESTIONS,

MISUNDERSTANDINGS, CONFLICTS, DELETIONS, DISCONTINUED PRODUCTS,

- EQUIPMENT AS INDICATED IN THE CONTRACT DOCUMENTS TO BE INCORPORATED INTO THE WORK. THESE ITEMS ARE ASSIGNED TO THE INSTALLER AND COSTS FOR RECEIVING, HANDLING, STORAGE, IF REQUIRED, AND INSTALLATION ARE INCLUDED IN THE CONTRACT SUM.
- A. THE INSTALLER'S RESPONSIBILITIES ARE THE SAME AS IF THE INSTALLER FURNISHED THE MATERIALS OR EQUIPMENT. B. THE OWNER WILL ARRANGE AND PAY FOR DELIVERY OF OWNER
- FURNISHED ITEMS FREIGHT ON BOARD JOB SITE AND THE INSTALLER WILL INSPECT DELIVERIES FOR DAMAGE. IF OWNER FURNISHED ITEMS ARE DAMAGED, DEFECTIVE OR MISSING, DOCUMENT DAMAGED ITEMS WITH THE TRANSPORT COMPANY AND THE OWNER WILL ARRANGE FOR REPLACEMENT. THE OWNER WILL ALSO ARRANGE FOR MANUFACTURER'S FIELD SERVICES, AND THE DELIVERY OF MANUFACTURER'S WARRANTIES AND BONDS TO THE INSTALLER.
- C. THE INSTALLER IS RESPONSIBLE FOR DESIGNATING THE DELIVERY DATES OF OWNER FURNISHED ITEMS AND FOR RECEIVING, UNLOADING AND HANDLING OWNER FURNISHED ITEMS AT THE SITE. THE INSTALLER IS RESPONSIBLE FOR PROTECTING OWNER FURNISHED ITEMS FROM DAMAGE, INCLUDING DAMAGE FROM EXPOSURE TO THE ELEMENTS, AND TO REPAIR OR REPLACE ITEMS DAMAGED AS A RESULT OF HIS OPERATIONS.
- EXPOSED STRUCTURE AREAS (EXCLUDING MECHANICAL, ELECTRICAL, AND COMMUNICATION SPACES): INSTALL RACEWAYS BETWEEN DECK AND STRUCTURE WHEREVER POSSIBLE IN EXPOSED STRUCTURE CEILING AREAS. ROUTE RACEWAYS IN CONCEALED AREAS WHEREVER POSSIBLE. REFER ALL CONDITIONS WHERE RACEWAYS MUST BE INSTALLED WHICH CANNOT COMPLY WITH THESE REQUIREMENTS TO THE ARCHITECT.
- SUBMITTALS: PROVIDE ORIGINAL ELECTRONIC PDF FORMAT, BOUND, BOOKMARKED (EACH SECTION AND PRODUCT), AND HIGHLIGHTED. JOB NAME AND SUBCONTRACTOR SHALL BE ON THE FRONT COVER. PREPARE INDEX OF EQUIPMENT SUBMITTED IN EACH TAB.
- REFLECTED CEILING PLANS: COORDINATE THE LOCATION OF LIGHT FIXTURES WITH THE ARCHITECTURAL REFLECTED CEILING PLANS. REFER ALL DISCREPANCIES TO THE ARCHITECT AND ENGINEER.
- ALL WORK SHALL BE DONE ACCORDING TO THE CURRENT NATIONAL ELECTRIC CODE (NEC), IBC, NFPA, AND IFC. COMPLIANCE AND FINAL APPROVAL IS SUBJECT TO THE ON SITE FIELD INSPECTION OF THE AHJ.

ELECTRICAL SHEET INDEX

EE001 SHEET INDEX, ABBREVIATIONS, AND GENERAL NOTES EE002 ELECTRICAL SPECIFICATIONS EE121 LEVEL 2 ELECTRICAL DEMOLITION PLANS EE122 LEVEL 2 ELECTRICAL PLANS

- EE501 ELECTRICAL DETAILS EE502 TELECOMMUNICATION DETAILS
- EE503 TELECOMMUNICATION DETAILS EE601 ONE-LINE DIAGRAMS

EE602 ELECTRICAL SCHEDULES EE701 TYPICAL MOUNTING HEIGHT DETAILS

DEFINITIONS NOTE: ALL DEFINITIONS MAY NOT BE USED.

INDICATED: THE TERM "INDICATED" REFERS TO GRAPHIC REPRESENTATIONS, NOTES, OR SCHEDULES ON THE DRAWINGS, OTHER PARAGRAPHS OR SCHEDULES IN THE SPECIFICATIONS, AND SIMILAR REQUIREMENTS IN THE CONTRACT DOCUMENTS. WHERE TERMS SUCH AS "SHOWN", "NOTED", "SCHEDULED", AND "SPECIFIED" ARE USED, IT IS TO HELP THE READER LOCATE THE REFERENCE, NO LIMITATION ON LOCATION IS INTENDED.

DIRECTED: TERMS SUCH AS "DIRECTED", "REQUESTED", AUTHORIZED", "SELECTED", "APPROVED", "REQUIRED", AND "PERMITTED" MEAN "DIRECTED BY THE ENGINEER", "REQUESTED BY THE ENGINEER", AND SIMILAR PHRASES.

APPROVED: THE TERM "APPROVED", WHERE USED IN CONJUNCTION WITH THE ENGINEER'S ACTION ON THE CONTRACTOR'S SUBMITTALS, APPLICATIONS, AND REQUESTS, IS LIMITED TO THE ENGINEER'S DUTIES AND RESPONSIBILITIES AS STATED IN GENERAL AND SUPPLEMENTARY CONDITIONS.

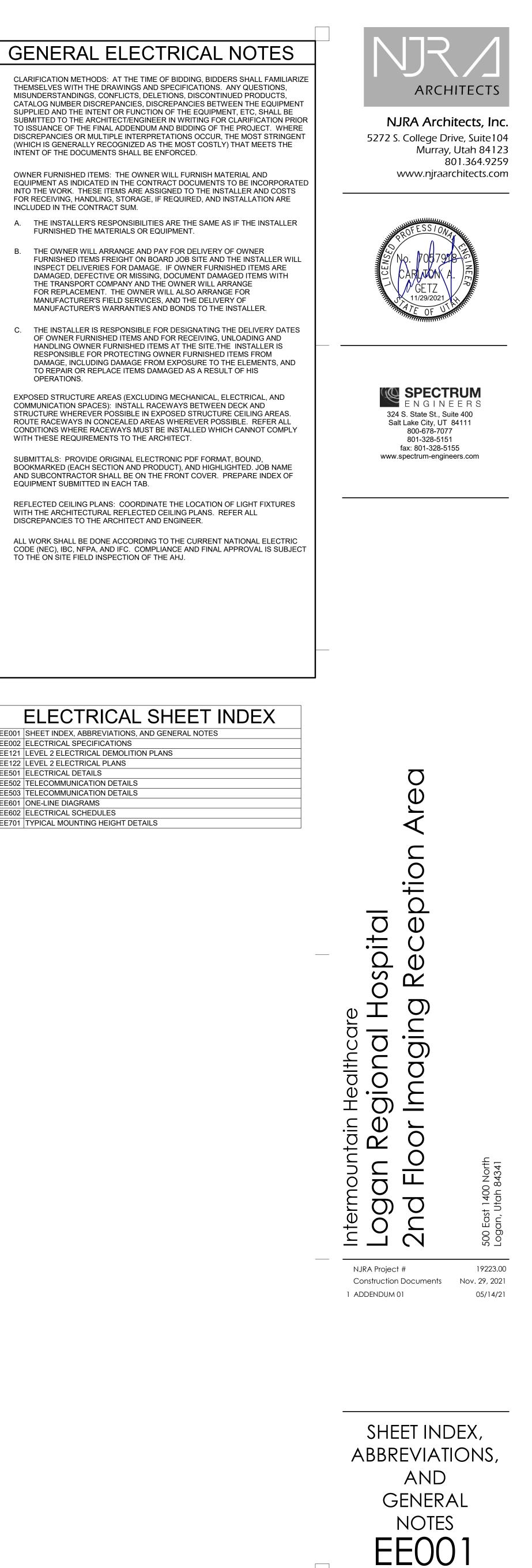
FURNISH: THE TERM "FURNISH" IS USED TO MEAN "SUPPLY AND DELIVER TO THE PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION, AND SIMILAR OPERATIONS."

INSTALL: THE TERM "INSTALL" IS USED TO DESCRIBE OPERATIONS AT PROJECT SITE INCLUDING THE ACTUAL "UNLOADING, UNPACKING, ASSEMBLY, ERECTION, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, AND SIMILAR OPERATIONS."

PROVIDE: THE TERM "PROVIDE" MEANS "TO FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE."

INSTALLER: AN "INSTALLER" IS THE CONTRACTOR OR AN ENTITY ENGAGED BY THE CONTRACTOR, EITHER AS AN EMPLOYEE, SUBCONTRACTOR, OR SUB-SUBCONTRACTOR, FOR PERFORMANCE OF A PARTICULAR CONSTRUCTION ACTIVITY, INCLUDING INSTALLATION, ERECTION, APPLICATION, AND SIMILAR OPERATIONS. INSTALLERS ARE REQUIRED TO BE EXPERIENCED IN THE OPERATIONS THEY ARE ENGAGED TO PERFORM.

TECHNOLOGY SYSTEMS: THE TERM "TECHNOLOGY SYSTEMS" IS USED TO DESCRIBE ALL LOW VOLTAGE SYSTEMS GENERALLY REFERRED TO AS "SPECIAL SYSTEMS". THESE SYSTEMS INCLUDE BUT ARE NOT NECESSARILY LIMITED TO ALL SYSTEMS WHICH UTILIZE VOLTAGES OF LESS THAN 71 VOLTS SUCH AS SOUND SYSTEMS, VIDEO SYSTEMS, TV SYSTEMS, SECURITY SYSTEMS, VOICE AND DATA CABLING SYSTEMS, ETC...



ELECTRICAL SPECIFICATI

SECTION 260100 - BASIC ELECTRICAL MATERIALS AND METHODS GENERAL

MATERIALS AND INSTALLATION SHALL COMPLY WITH THE LATEST AD EDITION OF THE NATIONAL ELECTRICAL CODE, OTHER APPLICABLE N

SECTIONS, STATE AND LOCAL CODES, AND RECOGNIZED INDUSTRY STANDARDS AND PRACTICES. LISTING AND LABELING: PROVIDE PRODUCTS THAT ARE UL LISTED AN

LABELED. NEMA COMPLIANCE: COMPLY WITH CONSTRUCTION AND INSTALLATIC REQUIREMENTS OF APPLICABLE NEMA STANDARDS.

SUBMITTALS: SUBMIT PRODUCT DATA AND SHOP DRAWING ON THE FOLLOWING EQUIPMENT FOR REVIEW:

WIRING DEVICES. LIGHTING FIXTURES. LIGHTING CONTROLS. FIRE ALARM SYSTEMS. TELE/DATA SYSTEMS.

PRIOR TO SUBMITTING BID, VISIT SITE TO VERIFY ALL EXISTING COND AND ANY ITEMS THAT WILL AFFECT THE PROJECT WORK. INCLUDE A IN BID.

MAINTAIN A SET OF REDLINED AS-BUILT DRAWINGS AND DELIVER TO UPON COMPLETION OF PROJECT.

DEMOLITION

PROTECT ADJACENT MATERIALS INDICATED TO REMAIN. INSTALL AN MAINTAIN DUST AND NOISE BARRIERS TO KEEP DIRT, DUST, AND NO BEING TRANSMITTED TO ADJACENT AREAS. MAINTAIN PROTECTION BARRIERS UNTIL AFTER DEMOLITION OPERATIONS ARE COMPLETE O OTHERWISE REQUIRED BY OWNER.

LOCATE, IDENTIFY, AND PROTECT EXISTING ELECTRICAL SERVICES V PASSING THROUGH DEMOLITION AREA AND SERVING OTHER AREAS THE DEMOLITION LIMITS. MAINTAIN SERVICES TO AREAS OUTSIDE DE LIMITS. WHEN SERVICES MUST BE INTERRUPTED, INSTALL TEMPORA SERVICES FOR AFFECTED AREAS. COORDINATE POWER INTERRUPT WEEK IN ADVANCE WITH OWNER. IF POWER INTERRUPTIONS DISTUF NORMAL OPERATIONS, THEN POWER INTERRUPTIONS ARE ONLY ALL DURING NON-BUSINESS OR NON-OPERATING HOURS.

SELECTIVE DEMOLITION: DEMOLISH, REMOVE, DEMOUNT, AND DISCO ABANDONED ELECTRICAL MATERIALS AND EQUIPMENT INDICATED TO REMOVED. SALVAGE AND DELIVER TO OWNER ITEMS INDICATED TO SALVAGED; OTHERWISE, REMOVE FROM SITE AND LEGALLY DISPOSE DEMOLISHED ITEMS. REMOVE ALL ABANDONED CABLING, CONDUCTO CONDUITS UNLESS SPECIFICALLY NOTED OTHERWISE.

PATCH AND REPAIR SURFACES THAT ARE DISTURBED OR DAMAGED RESULT OF ELECTRICAL INSTALLATION. RESTORE SURFACES TO OR CONDITION.

INSTALLATION OF FIRE-STOPPING SEALANT: INSTALL UL-LISTED SEAL INCLUDING FORMING, PACKING, AND OTHER ACCESSORY MATERIALS OPENINGS AROUND ELECTRICAL SERVICES PENETRATING FLOORS A WALLS, TO PROVIDE FIRE-STOPS WITH FIRE-RESISTANCE RATINGS II FOR FLOOR OR WALL ASSEMBLY IN WHICH PENETRATION OCCURS. WITH INSTALLATION REQUIREMENTS ESTABLISHED BY TESTING AND INSPECTING AGENCY.

SECTION 260519 - WIRES AND CABLES

PRODUCTS

WIRES AND CABLES: TYPE THHN/THWN COPPER CONDUCTOR. SOLID CONDUCTOR FOR 10 AWG AND SMALLER; STRANDED CONDUC LARGER THAN 10 AWG.

METAL CLAD CABLE: TYPE MC CABLE WHERE SUITABLE.

TELE/DATA CABLING: CAT 6A UNLESS SPECIFICALLY NOTED OTHERWING CONNECTORS AND SPLICES: UL-LISTED FACTORY-FABRICATED WIRIN CONNECTORS OF SIZE, AMPACITY RATING, MATERIAL, AND TYPE AND FOR APPLICATION AND FOR SERVICE INDICATED. SELECT TO COMPL PROJECT'S INSTALLATION REQUIREMENTS AND AS SPECIFIED IN THE "EXECUTION" SECTION BELOW.

EXECUTION INSTALL WIRES AND CABLES AS INDICATED, ACCORDING TO MANUFA WRITTEN INSTRUCTIONS AND THE NECA "STANDARD OF INSTALLATIO PULL CONDUCTORS INTO RACEWAY SIMULTANEOUSLY WHERE MORE

ONE IS BEING INSTALLED IN THE SAME RACEWAY. CONDUCTOR SPLICES: KEEP TO A MINIMUM.

INSTALL SPLICES AND TAPES THAT POSSESS EQUIVALENT OR BETTE MECHANICAL STRENGTH AND INSULATION RATINGS THAN CONDUCT BEING SPLICED. USE SPLICE AND TAP CONNECTORS THAT ARE COMP WITH CONDUCTOR MATERIAL.

WIRING AT OUTLETS: INSTALL WITH AT LEAST 12 INCHES (300 MM) OF CONDUCTOR AT EACH OUTLET.

CONNECT OUTLETS AND COMPONENTS TO WIRING AND TO GROUND INDICATED AND INSTRUCTED BY MANUFACTURER. TIGHTEN CONNECT TERMINALS, INCLUDING SCREWS AND BOLTS, ACCORDING TO EQUIPT MANUFACTURER'S PUBLISHED TORQUE-TIGHTENING VALUES FOR ECT CONNECTORS. WHERE MANUFACTURER'S TORQUING REQUIREMENT NOT INDICATED, TIGHTEN CONNECTORS AND TERMINALS ACCORDING TIGHTENING TORQUES SPECIFIED IN UL STANDARD 486A.

PROVIDE MC CABLE SUITABLE FOR PATIENT CARE AREAS WHERE RE INSTALL MC CABLE ONLY FOR BRANCH CIRCUITING; DO NOT UTILIZE N FOR HOME RUNS.

SECTION 260526 - GROUNDING

PRODUCTS

GROUNDING AND BONDING PRODUCTS: TYPES AS INDICATED. WHER SIZES, RATINGS, AND QUANTITIES INDICATED DIFFER FROM NEC REQUIREMENTS, THE MORE STRINGENT REQUIREMENTS AND THE GF SIZE, RATING, AND QUANTITY INDICATIONS GOVERN.

CONDUCTOR MATERIALS: COPPER.

BARE COPPER CONDUCTORS: CONFORM TO THE FOLLOWING: SOLID CONDUCTORS: ASTM B-3.

ASSEMBLY OF STRANDED CONDUCTORS: ASTM B-8. TINNED CONDUCTORS: ASTM B-33.

CONNECTOR PRODUCTS: LISTED AND LABELED AS GROUNDING CONF FOR THE MATERIALS WITH WHICH USED. EXECUTION

SIGNAL AND COMMUNICATIONS: FOR TELEPHONE, ALARM, AND COMMUNICATION SYSTEMS, PROVIDE A #4 AWG MINIMUM GREEN IN COPPER CONDUCTOR IN RACEWAY FROM THE GROUNDING ELECTR SYSTEM TO EACH TERMINAL CABINET OR CENTRAL EQUIPMENT LOC

INSTALLATION, GENERAL: GROUND ELECTRICAL SYSTEMS AND EQUIP ACCORDANCE WITH NEC EXCEPT WHERE GROUNDING IN EXCESS OF REQUIREMENTS IS INDICATED.

ROUTE GROUNDING AND BONDING CONDUCTORS USING THE SHORT STRAIGHTEST PATHS POSSIBLE WITHOUT OBSTRUCTING ACCESS OR CONDUCTORS WHERE THEY MAY BE SUBJECTED TO STRAIN, IMPACT DAMAGE, EXCEPT AS INDICATED.

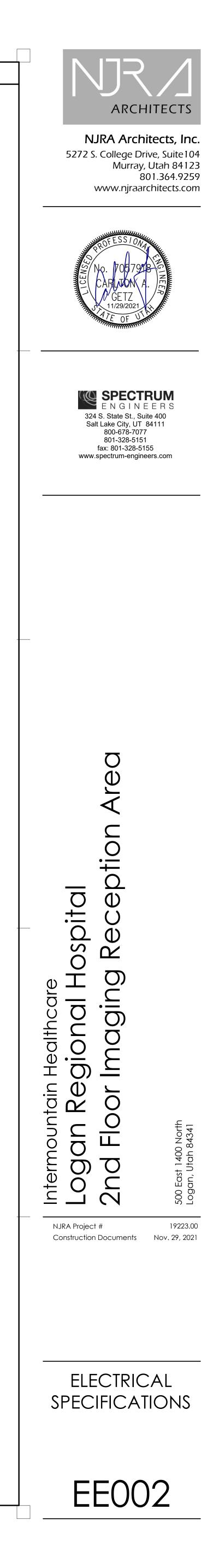
CONNECTIONS: MAKE CONNECTIONS IN SUCH A MANNER AS TO MINI POSSIBILITY OF GALVANIC ACTION OR ELECTROLYSIS. SELECT CONN CONNECTION HARDWARE, CONDUCTORS, AND CONNECTION METHO METALS IN DIRECT CONTACT WILL BE GALVANICALLY COMPATIBLE.

TIGHTEN GROUNDING AND BONDING CONNECTORS AND TERMINALS, INCLUDING SCREWS AND BOLTS, IN ACCORDANCE WITH MANUFACTU PUBLISHED TORQUE TIGHTENING VALUES FOR CONNECTORS AND BO WHERE MANUFACTURER'S TORQUING REQUIREMENTS ARE NOT IND TIGHTEN CONNECTIONS TO COMPLY WITH TIGHTENING TORQUE VALU SPECIFIED IN UL 486A AND UL 486B.

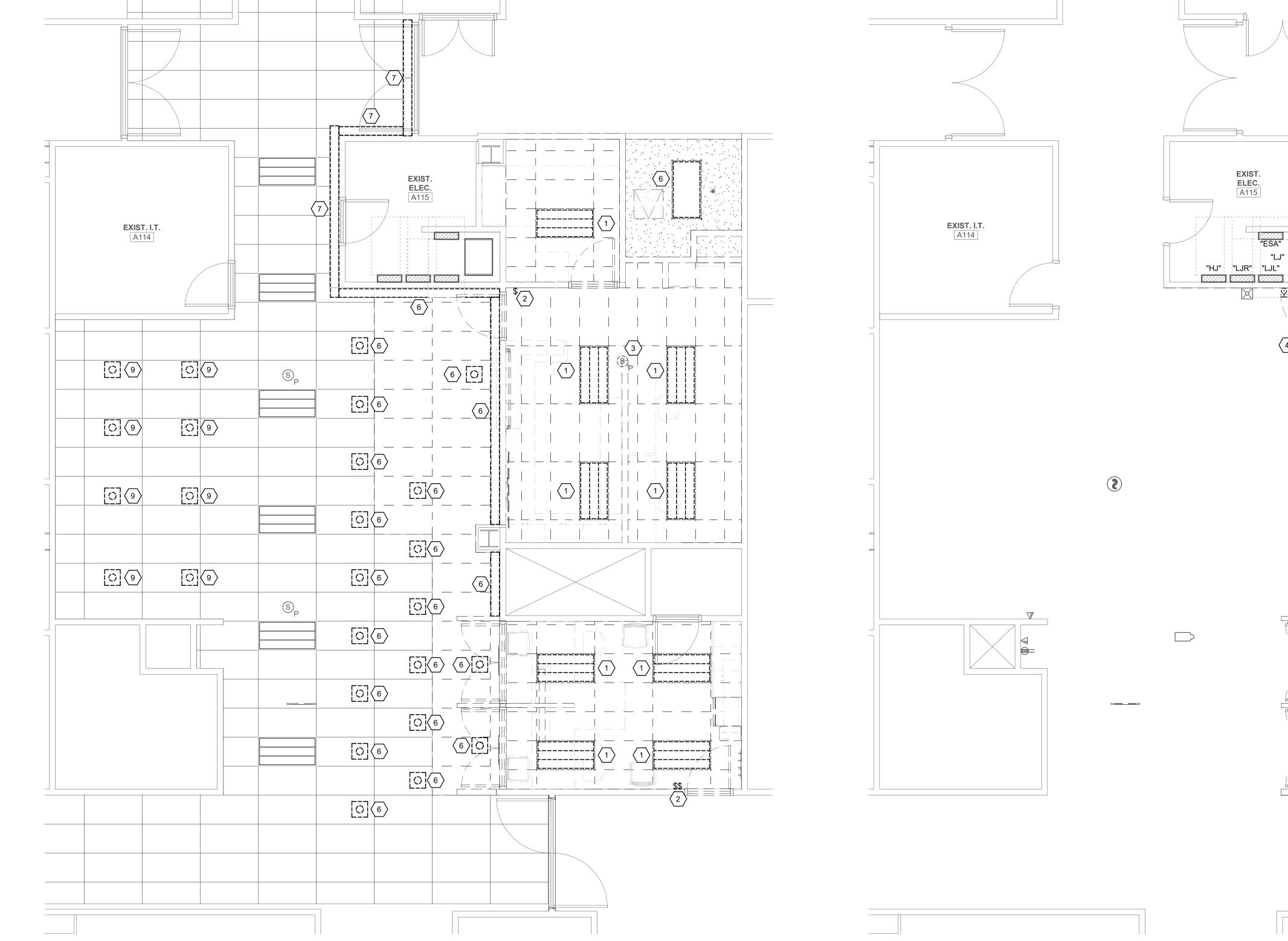
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IONS	ELECTRICAL SPECIFICATIONS	ELECTRICAL SPECIFICATIONS
ADOPTED	SECTION 260529- SUPPORTING DEVICES	<u>SECTION 262726 - WIRING DEVICES</u> <u>PRODUCTS</u> WIRING DEVICES: COMPLY WITH NEMA STANDARD WD 1, "GENERAL PURPOSE
E NFPA Y	MANUFACTURED SUPPORTING DEVICES: RACEWAY SUPPORTS: CLEVIS HANGERS, RISER CLAMPS, CONDUIT STRAPS, THREADED C-CLAMPS WITH RETAINERS, CEILING TRAPEZE HANGERS, WALL BRACKETS, AND SPRING STEEL CLAMPS.	COLOR: AS SELECTED BY ARCHITECT/OWNER, EXCEPT AS OTHERWISE INDICATED OR REQUIRED BY CODE.
AND ATION E	FASTENERS: TYPES, MATERIALS, AND CONSTRUCTION FEATURES AS FOLLOWS: EXPANSION ANCHORS: CARBON STEEL WEDGE OR SLEEVE TYPE. TOGGLE BOLTS: ALL STEEL SPRINGHEAD TYPE. POWDER-DRIVEN THREADED STUDS: HEAT-TREATED STEEL, DESIGNED SPECIFICALLY FOR THE INTENDED SERVICE.	STANDARD HOSPITAL GRADE DUPLEX RECEPTACLES: 20A DEVICES; PROVIDE NYLON OR LEXAN FACE, BACK AND SIDE WIRING. COMPLY WITH FEDERAL SPECIFICATION W-C-596 AND HEAVY-DUTY GRADE OF UL STANDARD 498, "ELECTRICAL ATTACHMENT PLUGS AND RECEPTACLES." PROVIDE NRTL LABELING OF DEVICES TO VERIFY THESE COMPLIANCES. PROVIDE TAMPER RESISTANT RECEPTACLES WHERE REQUIRED BY CODE.
	U-CHANNEL SYSTEMS: 16-GAGE STEEL CHANNELS, WITH 9/16-INCH- DIAMETER HOLES, AT A MINIMUM OF 8 INCHES ON CENTER, IN TOP SURFACE. PROVIDE FITTINGS AND ACCESSORIES THAT MATE AND MATCH WITH U-CHANNEL AND ARE OF THE SAME MANUFACTURER.	HOSPITAL GRADE GROUND-FAULT CIRCUIT INTERRUPTER (GFCI) RECEPTACLES: UL STANDARD 943, "GROUND FAULT CIRCUIT INTERRUPTERS," FEED-THROUGH TYPE, WITH INTEGRAL NEMA 5-20R DUPLEX RECEPTACLE ARRANGED TO PROTECT CONNECTED DOWNSTREAM RECEPTACLES ON THE SAME CIRCUIT. DESIGN UNITS FOR INSTALLATION IN A 2-3/4-INCH (70-MM) DEEP
NDITIONS E ALL COSTS	FABRICATED SUPPORTING DEVICES: SHOP- OR FIELD-FABRICATED SUPPORTS OR MANUFACTURED SUPPORTS ASSEMBLED FROM U-CHANNEL COMPONENTS.	OUTLET BOX WITHOUT AN ADAPTER. PROVIDE TAMPER RESISTANT RECEPTACLES WHERE REQUIRED BY CODE. WIREWAY: METAL WITH REMOVABLE COVER COMPLYING WITH APPLICABLE UL
TO OWNER	STEEL BRACKETS: FABRICATED OF ANGLES, CHANNELS, AND OTHER STANDARD STRUCTURAL SHAPES. CONNECT WITH WELDS AND MACHINE BOLTS TO FORM RIGID SUPPORTS. <u>EXECUTION</u>	STANDARDS. WHERE INDICATED, PROVIDE INTERNAL PHYSICAL BARRIER FOR DUAL-CHANNEL CONFIGURATION. DIMMER SWITCHES (NON LOW VOLTAGE): MODULAR FULL-WAVE SOLID-STATE UNITS WITH INTEGRAL, QUIET ON-OFF SWITCHES, AND AUDIBLE AND ELECTROMAGNETIC NOISE FILTERS. WATTAGE RATING EXCEEDS CONNECTED
AND NOISE FROM DN AND E OR AS	INSTALL SUPPORTING DEVICES TO FASTEN ELECTRICAL COMPONENTS SECURELY AND PERMANENTLY IN ACCORDANCE WITH NEC REQUIREMENTS. COORDINATE WITH THE BUILDING STRUCTURAL SYSTEM AND WITH OTHER ELECTRICAL INSTALLATION.	LOAD BY 30 PERCENT MINIMUM, EXCEPT AS OTHERWISE INDICATED. COMPATIBLE AND LISTED WITH THE LOAD CONTROLLED. LOW VOLTAGE SWITCHES: LOW VOLTAGE PUSH BUTTON ON/OFF SWITCH COMPLYING WITH APPLICABLE UL STANDARDS AND FUNCTIONAL WITH
S WITHIN OR AS OUTSIDE DEMOLITION RARY	 RACEWAY SUPPORTS: COMPLY WITH THE NEC AND THE FOLLOWING REQUIREMENTS: 1. CONFORM TO MANUFACTURER'S RECOMMENDATIONS FOR SELECTION AND INSTALLATION OF SUPPORTS. 	CORRESPONDING LOW VOLTAGE CONTROL RELAY. LOW VOLTAGE DIMMER SWITCHES: LOW VOLTAGE PUSH BUTTON ON/OFF/DIM SWITCH COMPLYING WITH APPLICABLE UL STANDARDS AND FUNCTIONAL WITH CORRESPONDING LOW VOLTAGE CONTROL RELAY. PROVIDE DIMMING CONTROL FUNCTIONALITY TO CORRESPOND TO SPECIFIED FIXTURE DIMMING
IPTIONS ONE IURB ALLOWED	2. STRENGTH OF EACH SUPPORT SHALL BE ADEQUATE TO CARRY PRESENT AND FUTURE LOAD MULTIPLIED BY A SAFETY FACTOR OF AT LEAST FOUR, BUT IN NO CASE SHALL BE LESS THAN 200 LBS IN THE STRENGTH OF EACH SUPPORT.	CONTROL FUNCTIONALITY TO CORRESPOND TO SPECIFIED FIXTURE DIMINING CONTROL (E.G., 0-10 VOLTS). VACANCY SENSORS: CEILING MOUNTED, SOLID STATE, DUAL TECHNOLOGY, WITH LED OCCUPANCY DETECTION INDICATOR, INTEGRAL LIGHT LEVEL SENSING CAPABILITY OVER 2-200 FOOTCANDLES, FIELD ADJUSTABLE OVER A
CONNECT D TO BE FO BE DSE OF ALL CTORS, AND	3. INSTALL INDIVIDUAL AND MULTIPLE (TRAPEZE) RACEWAY HANGERS AND RISER CLAMPS AS NECESSARY TO SUPPORT RACEWAYS. PROVIDE U-BOLTS, CLAMPS, ATTACHMENTS, AND OTHER HARDWARE NECESSARY FOR HANGER ASSEMBLY AND FOR SECURING HANGER RODS AND CONDUITS.	RANGE OF 1-30 MINUTES WITH BYPASS SWITCH IN CASE OF SENSOR FAILURE, SEPARATE RELAY, POWERED FROM RELAY UNIT AT 24 VOLTS DC, AND CONTACTS COMPLYING WITH UL773A. RELAY UNIT: DRY CONTACTS RATED FOR 20 AMPERE BALLAST LOAD AT 120 OR
ED AS A	MISCELLANEOUS SUPPORTS: SUPPORT MISCELLANEOUS ELECTRICAL COMPONENTS AS REQUIRED TO PRODUCE THE SAME STRUCTURAL SAFETY FACTORS AS SPECIFIED FOR RACEWAY SUPPORTS. INSTALL METAL CHANNEL RACKS FOR MOUNTING CABINETS, PANELBOARDS, DISCONNECTS, CONTROL ENCLOSURES, PULL BOXES, JUNCTION BOXES, TRANSFORMERS, AND OTHER	277 VOLTS AND FOR 1 HP AT 120 VOLTS. PROVIDE MINIMUM TWO (2) CONTACTS PER RELAY FOR CONTROL OF MULTIPLE LOADS. TELEPHONE JACK: RJ-45, 8-POSITION, MODULAR, LATCHING-PLUG TYPE, FLUSH IN FACE OF WALL PLATED.
ORIGINAL EALANT, ALS, TO FILL S AND S INDICATED S. COMPLY	DEVICES. IN OPEN OVERHEAD SPACES, CAST BOXES THREADED TO RACEWAYS NEED NOT BE SUPPORTED SEPARATELY EXCEPT WHERE USED FOR FIXTURE SUPPORT. SUPPORT SHEET METAL BOXES DIRECTLY FROM THE BUILDING STRUCTURE OR BY BAR HANGERS. WHERE BAR HANGERS ARE USED, ATTACH THE BAR TO RACEWAYS ON OPPOSITE SIDES OF THE BOX AND SUPPORT THE RACEWAY WITH AN APPROVED TYPE OF FASTENER NOT MORE THAN 24 INCHES	 WALL PLATES: SINGLE AND COMBINATION TYPES THAT MATE AND MATCH WITH CORRESPONDING WIRING DEVICES. 1. COLOR: MATCHES WIRING DEVICE EXCEPT AS OTHERWISE INDICATED. 2. PLATE-SECURING SCREWS: METAL WITH HEADS COLORED TO MATCH PLATE FINISH.
ND	FROM THE BOX. FASTENING: UNLESS OTHERWISE INDICATED, FASTEN ELECTRICAL ITEMS AND THEIR SUPPORTING HARDWARE SECURELY TO THE BUILDING STRUCTURE, INCLUDING BUT NOT LIMITED TO CONDUITS, RACEWAYS, CABLES, CABLE TRAYS, BUSWAYS, CABINETS, PANELBOARDS, TRANSFORMERS, BOXES, DISCONNECT SWITCHES, AND CONTROL COMPONENTS IN ACCORDANCE WITH THE FOLLOWING:	 MATERIAL FOR FINISHED SPACES: LEXAN OR NYLON EXCEPT AS OTHERWISE INDICATED. MATERIAL FOR UNFINISHED SPACES: GALVANIZED STEEL. PROVIDE LOW VOLTAGE LIGHTING CONTROL DEVICES (SWITCHES, RELAYS, SENSORS, ETC.) FROM THE SAME MANUFACTURER. EXECUTION
UCTOR FOR	FASTEN BY MEANS OF WOOD SCREWS OR SCREW-TYPE NAILS ON WOOD, TOGGLE BOLTS ON HOLLOW MASONRY UNITS, CONCRETE INSERTS OR EXPANSION BOLTS ON CONCRETE OR SOLID MASONRY, AND MACHINE SCREWS, WELDED THREADED STUDS, OR SPRING-TENSION CLAMPS ON STEEL. THREADED STUDS DRIVEN BY A POWDER CHARGE AND PROVIDED WITH LOCK WASHERS AND NUTS MAY BE USED INSTEAD OF EXPANSION BOLTS AND MACHINE OR WOOD SCREWS. DO NOT WELD CONDUIT, PIPE STRAPS, OR ITEMS OTHER THAN THREADED STUDS TO STEEL STRUCTURES. IN PARTITIONS OF LIGHT STEEL CONSTRUCTION, USE SHEET METAL SCREWS.	INSTALL DEVICES AND ASSEMBLIES PLUMB AND SECURE. PROTECT DEVICES AND ASSEMBLIES DURING PAINTING. DESIGN UNITS FOR INSTALLATION IN A 2-3/4-INCH (70-MM) DEEP OUTLET BOX WITHOUT WALL PLATES WHEN PAINTING IS COMPLETE. ARRANGEMENT OF DEVICES: EXCEPT AS OTHERWISE SPECIFICALLY INDICATED, MOUNT FLUSH, WITH LONG DIMENSION VERTICAL, AND GROUNDING TERMINAL OF RECEPTACLES ON TOP. GROUP ADJACENT RECEPTACLES AND/OR SWITCHES UNDER SINGLE, MULTIGANG WALL PLATES.
RWISE. RING ND CLASS	HOLES CUT TO A DEPTH OF MORE THAN 1-1/2 INCHES IN REINFORCED CONCRETE BEAMS OR TO A DEPTH OF MORE THAN 3/4 INCH IN CONCRETE SHALL NOT CUT THE MAIN REINFORCING BARS. FILL HOLES THAT ARE NOT USED.	REFER TO LIGHTING CONTROL DETAILS FOR LIGHTING CONTROL CONFIGURATIONS. INDENTIFICATION: PROVIDE LABEL ON EACH COVER PLATE INDICATING PANEL
PLY WITH HE	ENSURE THAT THE LOAD APPLIED TO ANY FASTENER DOES NOT EXCEED 25 PERCENT OF THE PROOF TEST LOAD. USE VIBRATION- AND SHOCK- RESISTANT FASTENERS FOR ATTACHMENTS TO CONCRETE SLABS.	AND BRANCH CIRCUIT NUMBER SERVING DEVICE EXCEPT IN RESIDENTIAL APPLICATIONS.
FACTURER'S TION." DRE THAN	<u>SECTION 260533 - RACEWAYS, BOXES, AND CABINETS</u> <u>PRODUCTS</u> RIGID STEEL CONDUIT (RSC): ANSI C80.1.	SECTIONS 262813/262816 - DISCONNECTS, CIRCUIT BREAKERS, AND FUSES PRODUCTS ENCLOSED MOLDED-CASE CIRCUIT BREAKER: NEMA AB 1, HANDLE LOCKABLE
TER	INTERMEDIATE METAL CONDUIT (IMC): ANSI C80.6. ELECTRICAL METALLIC TUBING (EMT) AND FITTINGS: ANSI C80.3 WITH SET- SCREW OR COMPRESSION-TYPE FITTINGS. CAST FITTINGS ARE NOT ALLOWED.	WITH 2 PADLOCKS. CHARACTERISTICS: 1. FRAME SIZE, TRIP RATING, NUMBER OF POLES, AND AUXILIARY DEVICES AS INDICATED.
CTORS MPATIBLE OF SLACK	FITTINGS: NEMA FB 1, COMPATIBLE WITH CONDUIT/TUBING MATERIALS AND SUITABLE FOR USE AND LOCATION. OUTLET AND DEVICE BOXES: USE ONE OF THE FOLLOWING:	2. INTERRUPTING CAPACITY RATING TO MEET AVAILABLE FAULT CURRENT (10,000 SYMMETRICAL RMS AMPERES MINIMUM). WITH APPROPRIATE APPLICATION LISTING WHEN USED FOR SWITCHING HEATING, AIR CONDITIONING, AND REFRIGERATION EQUIPMENT.
ND AS IECTORS AND JIPMENT EQUIPMENT	 SHEET METAL BOXES: NEMA OS 1. CAST METAL BOXES: NEMA FB 1, TYPE FD, CAST FERALLOY BOX WITH GASKETED COVER. <u>EXECUTION</u> 	 LUGS: MECHANICAL LUGS AND POWER-DISTRIBUTION CONNECTORS FOR NUMBER, SIZE, AND MATERIAL OF CONDUCTORS INDICATED. ENCLOSURE: NEMA AB 1, TYPE 1, UNLESS SPECIFIED OR REQUIRED OTHERWISE TO MEET ENVIRONMENTAL CONDITIONS OF INSTALLED
ENTS ARE VING TO REQUIRED.	 INDOORS WIRING METHODS: USE THE FOLLOWING WIRING METHODS: 1. EXPOSED: ELECTRICAL METALLIC TUBING (EMT), EXCEPT USE RIGID OR INTERMEDIATE METAL CONDUIT WHERE SUBJECT TO PHYSICAL DAMAGE. 	LOCATION. INTERIOR LOCATIONS: NEMA 1 EXTERIOR LOCATIONS: NEMA 3R OR NEMA 4
E MC CABLE	2. CONCEALED: ELECTRICAL METALLIC TUBING. CONCEAL CONDUIT AND EMT, UNLESS OTHERWISE INDICATED, WITHIN FINISHED WALLS, CEILINGS, AND FLOORS. DO NOT INSTALL ANY SURFACE MOUNTED CONDUIT OUTSIDE OF ELECTRICAL AND MECHANICAL ROOMS WITHOUT PRIOR APPROVAL.	EXECUTION CONNECT ENCLOSED SWITCHES AND CIRCUIT BREAKERS AND COMPONENTS TO WIRING SYSTEM AND TO GROUND AS INDICATED AND INSTRUCTED BY MANUFACTURER. TIGHTEN CONNECTORS AND TERMINALS, INCLUDING SCREWS AND BOLTS ACCORDING TO EQUIPMENT MANUFACTURER'S PUBLISHED TORQUE TIGHTENING VALUES FOR EQUIPMENT CONNECTORS.
IERE TYPES, GREATER	INSTALL RACEWAYS LEVEL AND SQUARE AND AT PROPER ELEVATIONS. RUN PERPENDICULAR AND AT RIGHT ANGLES TO BUILDING AND STRUCTURAL ELEMENTS. RUN PARALLEL OR BANKED RACEWAYS TOGETHER AND ON COMMON SUPPORTS WHERE PRACTICAL. MAKE BENDS IN PARALLEL OR BANKED RUNS FROM SAME CENTER LINE TO MAKE BENDS PARALLEL. SUPPORT RACEWAYS AS FOLLOWS, IN COMPLIANCE WITH DIVISION 26 SECTION "HANGERS AND SUPPORTS": TWO SUPPORTS PER 10' RUN, WITHIN 12" OF A COUPLING, FITTING, OR BEND GREATER THAN 45 DEGREES, AND WITHIN 12" OF EVERY BOX WHICH THE RACEWAY IS ENTERING OR EXITING. ALL RACEWAYS AND CABLES SHALL BE CONCEALED IN WALLS, FLOORS, AND CEILINGS UNLESS SPECIFICALLY NOTED OTHERWISE. PROVIDE A PROPOSED	 WHERE MANUFACTURER'S TORQUING REQUIREMENTS ARE NOT INDICATED, TIGHTEN CONNECTORS AND TERMINALS ACCORDING TO TIGHTENING TORQUES SPECIFIED IN UL STANDARD 486A. PROVIDE OVERCURRENT PROTECTION DEVICE(S) WITH A FAULT CURRENT RATING NOT LESS THAN THE FAULT CURRENT RATING OF THE PANEL OR SWITCHBOARD IN WHICH THE DEVICE(S) WILL BE INSTALLED. VERIFY THE FAULT CURRENT RATING OF EACH EXISTING PANEL OR SWITCHBOARD PRIOR TO PROCUREMENT OF ANY DEVICE(S).
ONNECTORS	ROUTING SKETCH TO ARCHITECT AND ENGINEER FOR ANY SURFACE MOUNTED RACEWAY FOR REVIEW PRIOR TO INSTALLATION. RUN CONCEALED RACEWAYS WITH A MINIMUM OF BENDS IN THE SHORTEST PRACTICAL LENGTH CONSIDERING THE TYPE OF BUILDING CONSTRUCTION AND OBSTRUCTIONS, EXCEPT AS SPECIFICALLY NOTED OTHERWISE.	
INSULATED FRODE DCATION.	JOINTS AND TERMINATIONS: JOIN RACEWAYS WITH FITTINGS DESIGNED AND APPROVED FOR THE PURPOSE. MAKE RACEWAY JOINTS AND TERMINATIONS TIGHT. USE BONDING BUSHINGS OR WEDGES AT CONNECTIONS SUBJECT TO VIBRATION. USE BONDING JUMPERS WHERE JOINTS CANNOT BE MADE TIGHT.	
UIPMENT IN OF NEC	USE INSULATING BUSHINGS TO PROTECT CONDUCTORS. INSTALL PULL CORDS IN ALL EMPTY RACEWAYS.	
RTEST AND OR PLACING .CT, OR	INSTALL BUSHINGS AT ALL CONDUIT ENDS. PROVIDE GROUNDING CONNECTIONS FOR RACEWAY, BOXES, AND COMPONENTS AS INDICATED AND INSTRUCTED BY MANUFACTURER. TIGHTEN CONNECTORS AND TERMINALS, INCLUDING SCREWS AND BOLTS, ACCORDING TO EQUIPMENT MANUFACTURER'S PUBLISHED TORQUE-TIGHTENING VALUES	
IINIMIZE INNECTORS, HODS SO	TO EQUIPMENT MANUFACTURER'S PUBLISHED TORQUE-TIGHTENING VALUES FOR EQUIPMENT CONNECTORS. WHERE MANUFACTURER'S TORQUING REQUIREMENTS ARE NOT INDICATED, TIGHTEN CONNECTORS AND TERMINALS ACCORDING TO TIGHTENING TORQUES SPECIFIED IN UL STANDARD 486A.	
LS, CTURER'S BOLTS. NDICATED, ALUES		

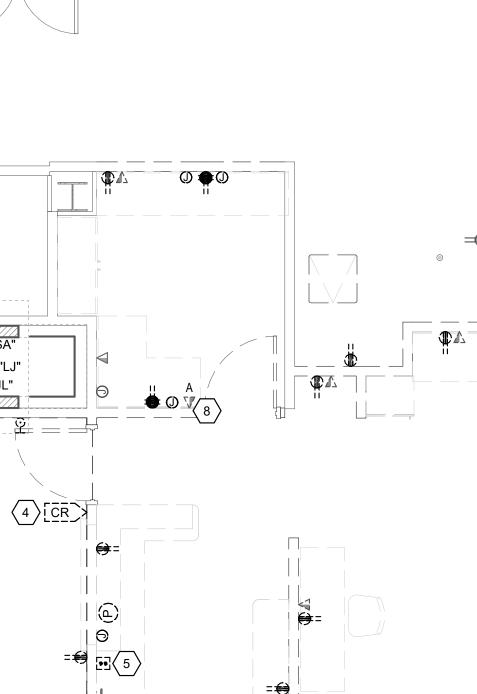
NS	ELECTRICAL SPECIFICATIONS	ELECTRICAL SPECIFICATIONS
	SECTION 265100 - LIGHTING	SECTION 284600 - DIGITAL, ADDRESSABLE FIRE-ALARM SYSTEM
RPOSE	<u>PRODUCTS</u> COMPLY WITH THE REQUIREMENTS SPECIFIED BELOW AND IN THE LIGHTING	SUMMARY
	FIXTURE SCHEDULE. METAL PARTS: FREE FROM BURRS AND SHARP CORNERS AND EDGES.	MULTIPLEXED SIGNAL TRANSMISSION, DEDICATED TO FIRE-ALARM SERVICE ONLY.
OVIDE	SHEET METAL COMPONENTS: STEEL, EXCEPT AS INDICATED. COMPONENTS	QUALITY ASSURANCE QUALITY STANDARD: NFPA 72.
RAL 3,	ARE FORMED AND SUPPORTED TO PREVENT WARPING AND SAGGING. DOORS, FRAMES, LENSES, AND OTHER INTERNAL ACCESS: SMOOTH	INSTALLER QUALIFICATIONS: CERTIFIED BY NICET AS FIRE-ALARM LEVEL II
PER	OPERATING AND FREE FROM LIGHT LEAKAGE UNDER OPERATING CONDITIONS. ARRANGE DOORS, FRAMES, LENSES, DIFFUSERS, AND OTHER PIECES TO PREVENT ACCIDENTAL FALLING DURING ACCESS AND WHEN SECURED IN THE	TECHNICIAN. <u>SYSTEM OPERATIONAL DESCRIPTION</u>
TERS,"	OPERATING POSITION. REFLECTING SURFACES: MINIMUM REFLECTANCES AS FOLLOWS, EXCEPT AS	INDICATING DEVICES: CONNECT TO EXISTING FIRE ALARM CONTROL PANEL AND ASSOCIATED NOTIFICATION APPLIANCE CIRCUIT POWER SUPPLIES.
LE NN THE M) DEEP	OTHERWISE INDICATED: 1. WHITE SURFACES: 85 PERCENT.	INCLUDE ALL NECESSARY DEVICES, MODULES, POWER SUPPLIES AND ALL APPURTENANCES FOR A COMPLETE AND OPERATIONAL SYSTEM WITH THE ADDITIONAL DEVICES INDICATED ON THE CONTRACT DOCUMENTS. THESE
,	2. SPECULAR SURFACES: 83 PERCENT.	DEVICES INCLUDE THE FOLLOWING: 1. STROBE ONLY.
BLE UL R FOR	 3. DIFFUSING SPECULAR SURFACES: 75 PERCENT. 4. LAMINATED SILVER METALLIZED FILM: 90 PERCENT. 	2. HORN/STROBES.
STATE	LENSES, DIFFUSERS, COVERS, AND GLOBES: 100 PERCENT VIRGIN ACRYLIC PLASTIC, POLYCARBONATE, OR WATER WHITE, ANNEALED CRYSTAL GLASS	PROGRAMMING: INCLUDE PROGRAMMING OF EXISTING SYSTEM TO ADD NEW INDICATING DEVICES SHOWN ON THE CONTRACT DOCUMENTS.
NECTED	EXCEPT AS SPECIFIED OTHERWISE. PLASTIC: HIGHLY RESISTANT TO YELLOWING AND OTHER CHANGES DUE TO	BATTERY CAPACITY: PROVIDE ADDITIONAL BATTERY CAPACITY TO SERVE THE NEW INDICATING DEVICES SHOWN. UPDATE CALCULATION FOR ENTIRE SYSTEM AND SUBMIT UPDATED SHOP DRAWINGS TO THE AUTHORITY HAVING
ЭН	AGING, EXPOSURE TO HEAT AND UV RADIATION.	JURISDICTION FOR REVIEW AND APPROVAL.
	ROD HANGERS: 3/16-INCH DIAMETER CADMIUM PLATED, THREADED STEEL ROD. HOOK HANGER: INTEGRATED ASSEMBLY MATCHED TO FIXTURE AND LINE	PRODUCTS MANUFACTURER: NOTIFIER.
FF/DIM AL WITH	VOLTAGE AND EQUIPPED WITH THREADED ATTACHMENT, CORD, AND LOCKING- TYPE PLUG.	CONTRACTOR: MANUFACTURER AUTHORIZED.
MMING	LED FIXTURES: SOLID STATE LED, MINIMUM 50,000 HOURS TO L70 WITH MINIMUM EFFICACY OF 75 LUMENS PER WATT UNLESS SPECIFICALLY SPECIFIED OTHERWISE. CONFORM TO AVAILABLE UL LISTING STANDARDS.	INDICATING DEVICE CIRCUITS: INITIATING DEVICE, NOTIFICATION APPLIANCE, AND SIGNALING LINE CIRCUITS: NFPA 72, CLASS A.
DGY,	LED DRIVERS: SOLID STATE LED DRIVER INTEGRAL TO FIXTURE WHERE	NOTIFICATION APPLIANCE CIRCUITS: STYLE Z
VER A ILURE,	POSSIBLE, THERMALLY PROTECTED, WITH 0-10V DIMMING CAPABILITY UNLESS SPECIFICALLY SPECIFIED OTHERWISE.	NOTIFICATION APPLIANCES: HORNS: ELECTRIC-VIBRATING-POLARIZED TYPE, 24-V DC.
	LISTINGS: UL OR ETL LISTING. VOLTAGE: MATCH CONNECTED CIRCUITS.	VISUAL ALARM DEVICES: XENON STROBE LIGHTS.
120 OR NTACTS	EXIT SIGNS: CONFORM TO UL 924, "EMERGENCY LIGHTING AND POWER	
, FLUSH	EQUIPMENT," AND THE FOLLOWING: 1. SIGN COLORS: CONFORM TO LOCAL CODE.	TESTING: BY CONTRACTOR.
CH WITH	 MINIMUM HEIGHT OF LETTERS: CONFORM TO LOCAL CODE. ARROWS: INCLUDE AS INDICATED. LAMPS FOR AC OPERATION: LED. 	
ED.	 ILLUMINANCE: COMPLY WITH NFPA ILLUMINATION STANDARDS. 	
СН	 BATTERY (WHERE SPECIFIED): SEALED, MAINTENANCE-FREE, LEAD-ACID TYPE WITH 10 YEAR NOMINAL LIFE MINIMUM, AND SPECIAL PROJECT WARRANTY. 	
AYS,	EMERGENCY LIGHTING UNITS: CONFORM TO UL 924, "EMERGENCY LIGHTING AND POWER EQUIPMENT" REQUIREMENTS FOR "UNIT EQUIPMENT." PROVIDE SELF-CONTAINED UNITS WITH THE FOLLOWING FEATURES AND ADDITIONAL CHARACTERISTICS AS INDICATED. 1. BATTERY: SEALED, MAINTENANCE-FREE, LEAD-ACID TYPE WITH 10 YEAR	
	NOMINAL LIFE MINIMUM, AND SPECIAL PROJECT WARRANTY.	
VICES	2. CHARGER: MINIMUM TWO-RATE, FULLY-AUTOMATIC, SOLID-STATE TYPE, WITH SEALED TRANSFER RELAY.	
IN A AINTING DUNDING S	 OPERATION: RELAY AUTOMATICALLY TURNS LAMP ON WHEN SUPPLY CIRCUIT VOLTAGE DROPS TO 80-PERCENT OF NOMINAL OR BELOW. LAMP AUTOMATICALLY DISCONNECTS FROM BATTERY WHEN VOLTAGE APPROACHES DEEP-DISCHARGE LEVEL. RELAY DISCONNECTS LAMPS AND BATTERY AUTOMATICALLY RECHARGES AND FLOATS ON TRICKLE CHARGE WHEN NORMAL VOLTAGE IS RESTORED. 	
5	4. WIRE GUARD: WHERE INDICATED, PROVIDE HEAVY CHROME PLATED WIRE GUARD ARRANGED TO PROTECT LAMP HEADS OR FIXTURES.	
PANEL AL	EMERGENCY LED FIXTURE POWER SUPPLY: CONFORM TO UL 924, "EMERGENCY LIGHTING AND POWER EQUIPMENT." 1. INTERNAL TYPE: SELF-CONTAINED, MODULAR, BATTERY-INVERTER UNIT FACTORY-MOUNTED WITHIN THE FIXTURE BODY, CAPABLE OF OPERATING WITH SWITCHED FIXTURE.	
	2. TEST SWITCH AND LED INDICATOR LIGHT: VISIBLE AND ACCESSIBLE WITHOUT OPENING FIXTURE OR ENTERING CEILING SPACE.	
	 BATTERY: SEALED, MAINTENANCE-FREE, NICKEL-CADMIUM TYPE, WITH A MINIMUM NOMINAL 10-YEAR LIFE. 	
ABLE	4. CHARGER: FULLY-AUTOMATIC, SOLID-STATE, CONSTANT-CURRENT TYPE.	
CES AS	 OPERATION: RELAY AUTOMATICALLY CONNECTS WHEN SUPPLY CIRCUIT VOLTAGE DROPS TO 80-PERCENT OF NOMINAL OR BELOW. RELAY DISCONNECTS AND BATTERY AUTOMATICALLY RECHARGES WHEN NORMAL VOLTAGE IS RESTORED. 	
ENT E	STEEL PARTS FINISH: MANUFACTURER'S STANDARD FINISH APPLIED OVER CORROSION-RESISTANT PRIMER, FREE OF STREAKS, RUNS, HOLIDAYS, STAINS, BLISTERS, AND DEFECTS. REMOVE FIXTURES SHOWING EVIDENCE OF CORROSION DURING PROJECT WARRANTY PERIOD AND REPLACE WITH NEW FIXTURES.	
S FOR	OTHER PARTS: MANUFACTURER'S STANDARD FINISH.	
	INSTALLATION: UNLESS OTHERWISE INDICATED, INSTALL LIGHTING FIXTURES AS FOLLOWS:	
	SETTING AND SECURING: SET FIXTURES PLUMB, SQUARE, AND LEVEL WITH CEILING AND WALLS, AND SECURE ACCORDING TO MANUFACTURER'S PRINTED INSTRUCTIONS AND APPROVED SHOP DRAWINGS.	
IENTS IY RS.	SUPPORT FOR RECESSED AND SEMIRECESSED FIXTURES: INSTALLED UNITS MAY BE SUPPORTED FROM SUSPENDED CEILING SUPPORT SYSTEM. INSTALL CEILING SYSTEM SUPPORT RODS OR WIRES AT A MINIMUM OF FOUR RODS OR WIRES PER FIXTURE LOCATED NOT MORE THAN 6 INCHES FROM FIXTURE CORNERS.	
NTED, NT R	FIXTURES SMALLER THAN CEILING GRID: INSTALL A MINIMUM OF FOUR RODS OR WIRES FOR EACH FIXTURE AND LOCATE AT CORNER OF THE CEILING GRID WHERE THE FIXTURE IS LOCATED. DO NOT SUPPORT FIXTURES BY CEILING ACOUSTICAL PANELS.	
ie Prior	FIXTURES OF SIZES LESS THAN CEILING GRID: CENTER IN THE ACOUSTICAL PANEL. SUPPORT FIXTURES INDEPENDENTLY WITH AT LEAST TWO 3/4-INCH METAL CHANNELS SPANNING AND SECURED TO THE CEILING TEES. INSTALL SUPPORT CLIPS FOR RECESSED FIXTURES, SECURELY FASTENED TO CEILING GRID MEMBERS, AT OR NEAR EACH FIXTURE CORNER.	
	ADJUSTING AND CLEANING: CLEAN FIXTURES UPON COMPLETION OF INSTALLATION. USE METHODS AND MATERIALS RECOMMENDED BY MANUFACTURER. ADJUST AIMABLE FIXTURES TO PROVIDE REQUIRED LIGHT INTENSITIES.	
	REFER TO LIGHTING CONTROL DETAILS FOR LIGHTING CONTROL CONFIGURATIONS.	
	CIRCUIT EXIT SIGNS AHEAD OF LIGHTING CONTROLS SERVING RESPECTIVE SPACE.	







1 LEVEL 2 ELECTRICAL DEMOLITION PLAN SCALE: 1/4" = 1'-0"



"LJ"

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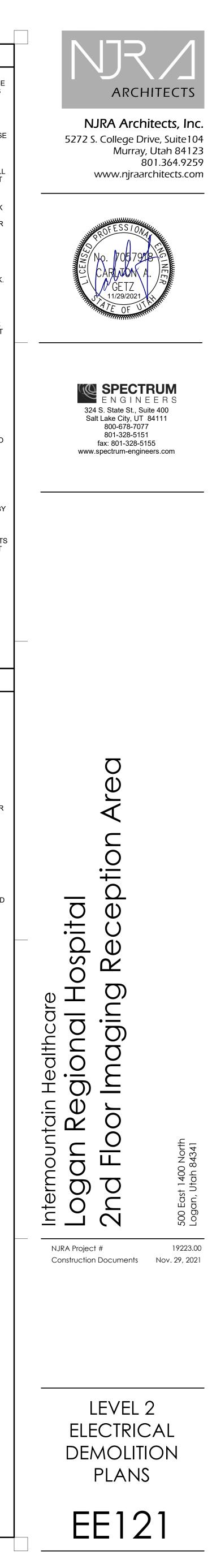
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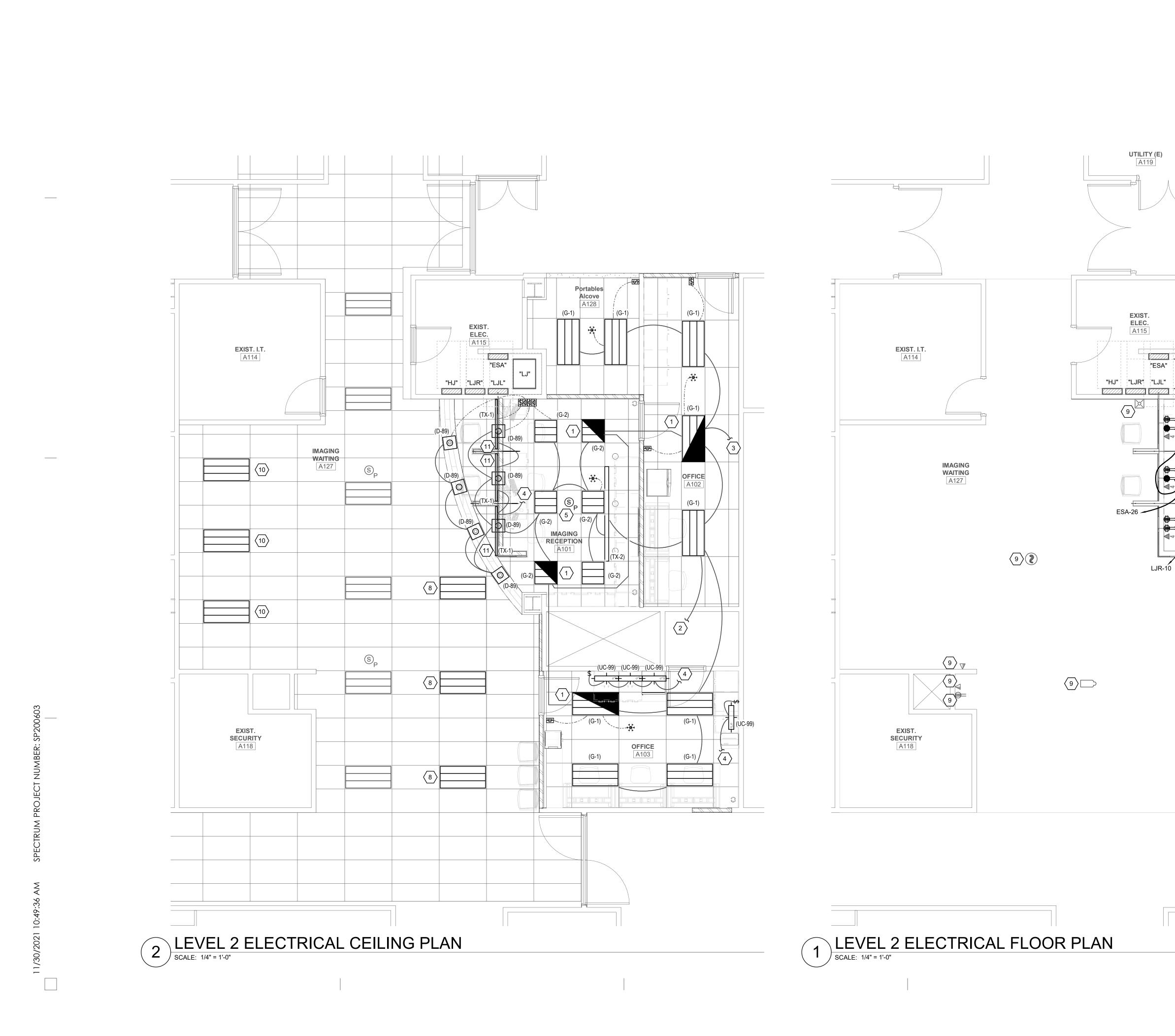
GENERAL SHEET NOTES

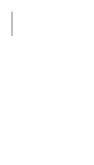
- DEMOLISH ALL ELECTRICAL EQUIPMENT, CONDUIT, AND WIRING TO BE REMOVED BACK TO THE PANELBOARD. DENOTE ALL REMOVED CIRCUITS AS "SPARE" ON THE PANEL SCHEDULE KEPT WITH EACH PANELBOARD. TURN ALL CIRCUIT BREAKERS AND SWITCHES PROTECTING CIRCUITS REMOVED DURING DEMOLITION TO THE "OFF" POSITION.
- REMOVE ALL UNUSED AND ABANDONED ELECTRICAL EQUIPMENT, CONDUIT, AND WIRING. DO NOT LEAVE ABANDONED COMPONENTS IN PLACE UNLESS OTHERWISE NOTED.
- WHERE THE SOURCE TO OTHER ELECTRICAL ITEMS WHICH ARE TO REMAIN IS INTERRUPTED BY THE REMOVAL OF AN ITEM OR DEVICE, THE CONTRACTOR SHALL INSTALL THE NECESSARY CONDUIT AND WIRE TO RECONNECT IT TO ITS NEAREST OR MOST CONVENIENT ORIGINAL SOURCE.
- WHERE CIRCUITS OR OTHER ELECTRICAL EQUIPMENT UNRELATED TO THIS WORK PASS THROUGH THE AREA AFFECTED BY DEMOLITION, THE CONTRACTOR SHALL MAKE ALL NECESSARY PROVISIONS TO MAINTAIN THE EXISTING INSTALLATION OR PERFORM THE NECESSARY WORK TO RELOCATE SUCH CIRCUITING OR OTHER ELECTRICAL EQUIPMENT AS NECESSARY TO MAINTAIN CONTINUITY.
- ALL DEMOLITION WORK SHALL BE FULLY COORDINATED WITH ALL TRADES.
- REFER TO ARCHITECTURAL PLANS FOR COMPLETE SCOPE OF DEMOLITION WORK. THE CONTRACTOR SHALL SURVEY THE EXISTING CONDITIONS PRIOR TO BIDDING TO INCORPORATE THE SCOPE OF DEMOLITION WORK INTO THE BID.
- THE BUILDING OWNER RESERVES THE RIGHT TO HAVE SOME OF THE REMOVED MATERIALS STORED ON SITE. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING, IN CONJUNCTION WITH THE BUILDING OWNER, THE LIST OF WHAT IS TO BE SALVAGED.
- ALL DEVICES AND EQUIPMENT SHOWN SHALL BE EXISTING TO REMAIN UNLESS OTHERWISE NOTED. REFER TO THE LIGHTING PLAN FOR ADDITIONAL INFORMATION ON EXISTING LIGHT FIXTURES TO BE RELOCATED UNDER THIS WORK.
- DEMOLISH ALL EXISTING DEVICES ON EXISTING WALLS TO BE DEMOLISHED UNLESS SPECIFICALLY NOTED OTHERWISE. REMOVE ALL ASSOCIATED CONDUIT, CONDUCTORS, ETC., BACK TO NEAREST SOURCE TO REMAIN.
- 0 PRIOR TO COMMENCEMENT OF DEMOLITION WORK, GENERAL CONTRACTOR IS TO COORDINATE WITH FACILITY SYSTEM VENDORS (BMS, DATA, LIGHTING CONTROL, NURSE CALL, PAGING, ETC.) AND INTERMOUNTAIN INFORMATION SERVICES A THREE WORKING DAY PERIOD FOR VENDOR REMOVAL, RELOCATION, AND PROTECTION OF EXISTING VENDOR SYSTEM CABLING WITHIN PROJECT AREA OF WORK. DEMOLITION WORK MAY COMMENCE ONLY AFTER VENDOR COMPLETION OR AS APPROVED BY INTERMOUNTAIN HEALTH CARE PROJECT MANAGER.
- EXISTING CABLING, CONDUIT, ETC., SERVING SPACES NOT DIRECTLY IMPACTED BY THE SCOPE OF WORK MAY BE IMPROPERLY SUPPORTED OR UNSUPPORTED. PROVIDE AN HOURLY TIME AND MATERIALS RATE FOR PROPERLY SUPPORTING ANY EXISTING TO REMAIN CABLING, CONDUIT, ETC., FOUND TO BE IMPROPERLY SUPPORTED OR UNSUPPORTED TO CONFORM WITH THE SUPPORT REQUIREMENTS IN THE PROJECT SPECIFICATIONS. CONTRACTOR SHALL DOCUMENT AND REPORT ALL INSTANCES OF IMPROPERLY SUPPORTED OR UNSUPPORTED CABLING, CONDUIT, ETC., TO OWNER AND ARCHITECT. RESUPPORT ANY EXISTING CABLING AND/OR CONDUIT AS NECESSARY TO ELIMINATE CONTACT WITH EXISTING FIRE PROTECTION PIPING AND AVOID CONTACT WITH NEW FIRE PROTECTION LINES.

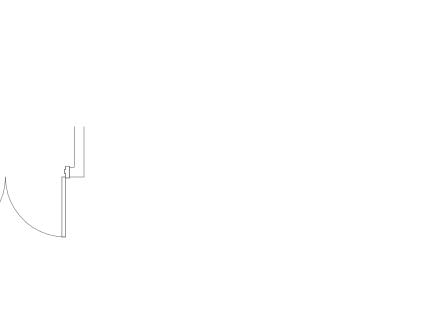
SHEET KEYNOTES

- REMOVE EXISTING LIGHT FIXTURE. REMOVE EXISTING LIGHTING BRANCH CIRCUIT BACK TO NEAREST SWITCH.
- REMOVE EXISTING LIGHT SWITCH(ES). MAINTAIN EXISTING LIGHTING BRANCH CIRCUIT FOR EXTENSION AND REUSE UNDER NEW WORK.
- REMOVE AND SALVAGE EXISTING PAGING SPEAKER. MAINTAIN EXISTING SPEAKER CABLING FOR EXTENSION AND RECONNECTION TO EXISTING PAGING SPEAKER REINSTALLED IN ADJACENT LOCATION UNDER NEW WORK.
- REMOVE AND SALVAGE EXISTING CARD READER AND ELECTRIC STRIKE. MAINTAIN EXISTING SECURITY CABLING FOR EXTENSION AND RECONNECTION TO EXISTING CARD READER AND ELECTRIC STRIKE REINSTALLED IN ADJACENT LOCATION UNDER NEW WORK.
- REMOVE EXISTING POWER CONNECTION TO OVERHEAD COILING GATE.
- REMOVE EXISTING LIGHT FIXTURE. MAINTAIN EXISTING LIGHTING BRANCH CIRCUIT FOR EXTENSION AND RECONNECTION TO NEW LIGHT FIXTURES INSTALLED UNDER NEW WORK.
- BASE BID: EXISTING LIGHT FIXTURE TO REMAIN. ADD ALTERNATE #1: REMOVE EXISTING LINEAR LIGHTING FIXTURE AND ASSOCIATED LIGHTING BRANCH CIRCUITING. MAINTAIN CONTINUITY OF EXISTING LIGHTING BRANCH CIRCUIT SERVING EXISTING FIXTURES TO REMAIN.
- REMOVE EXISTING DATA DEVICE. MAINTAIN EXISTING DATA CABLING FOR EXTENSION AND RECONNECTION TO NEW DATA DEVICE INSTALLED UNDER NEW WORK
- BASE BID: EXISTING LIGHT FIXTURE TO REMAIN. ADD ALTERNATE #2: REMOVE EXISTING LIGHT FIXTURE. MAINTAIN EXISTING LIGHTING BRANCH CIRCUIT FOR EXTENSION AND RECONNECTION TO NEW LIGHT FIXTURES INSTALLED UNDER NEW WORK.

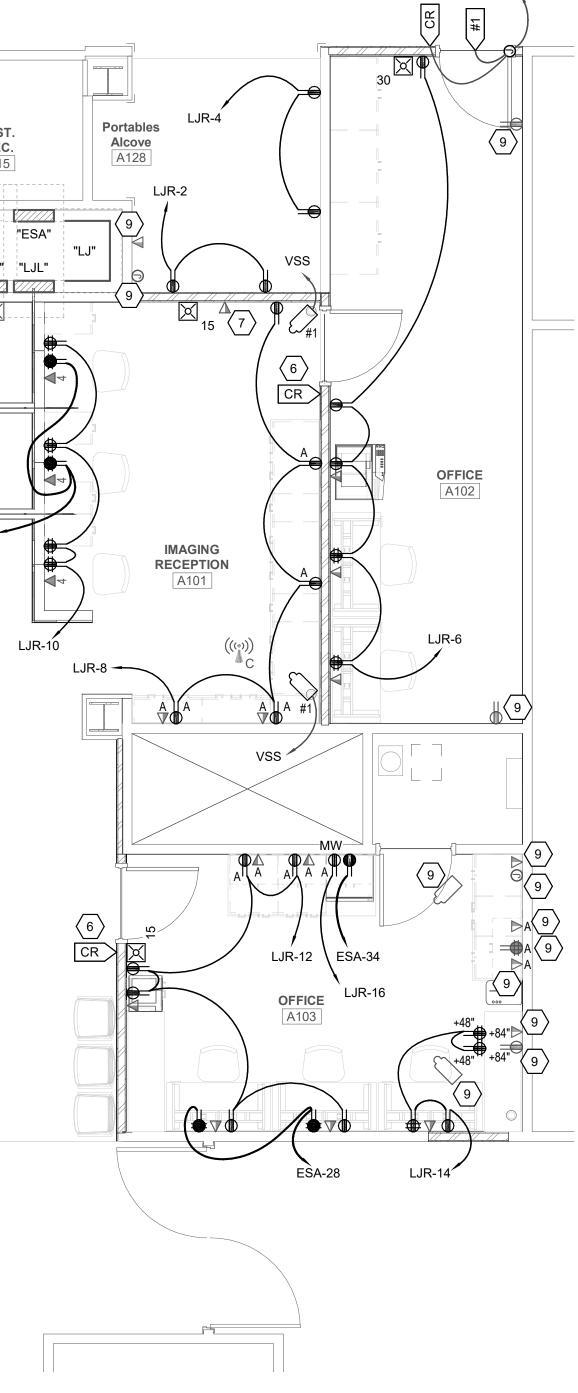








ACS



GENERAL SHEET NOTES

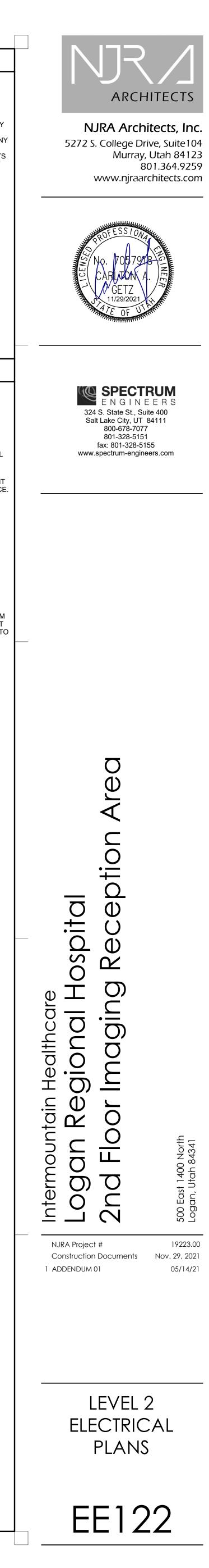
- PROVIDE LABELS ON ALL NEW DEVICES PER PROJECT SPECIFICATIONS CONFORMING WITH DIVISION 26 SPECIFICATIONS FOR IDENTIFICATION OF ELECTRICAL EQUIPMENT AND INTERMOUNTAIN'S DIVISION 27 SPECIFICATIONS PRIOR TO SUBSTANTIAL COMPLETION.
- 2 EXISTING CABLING, CONDUIT, ETC., SERVING SPACES NOT DIRECTLY IMPACTED BY THE SCOPE OF WORK MAY BE IMPROPERLY SUPPORTED OR UNSUPPORTED. PROVIDE AN HOURLY TIME AND MATERIALS RATE FOR PROPERLY SUPPORTING ANY EXISTING TO REMAIN CABLING, CONDUIT, ETC., FOUND TO BE IMPROPERLY SUPPORTED OR UNSUPPORTED TO CONFORM WITH THE SUPPORT REQUIREMENTS IN THE PROJECT SPECIFICATIONS. CONTRACTOR SHALL DOCUMENT AND REPORT ALL INSTANCES OF IMPROPERLY SUPPORTED OR UNSUPPORTED CABLING, CONDUIT, ETC., TO OWNER AND ARCHITECT. RESUPPORT ANY EXISTING CABLING AND/OR CONDUIT AS NECESSARY TO ELIMINATE CONTACT WITH EXISTING FIRE PROTECTION PIPING AND AVOID CONTACT WITH NEW FIRE PROTECTION LINES.
- 3 ACCEPTABLE SECURITY SYSTEM VENDOR: ALPHACORP / CONVERGINT.

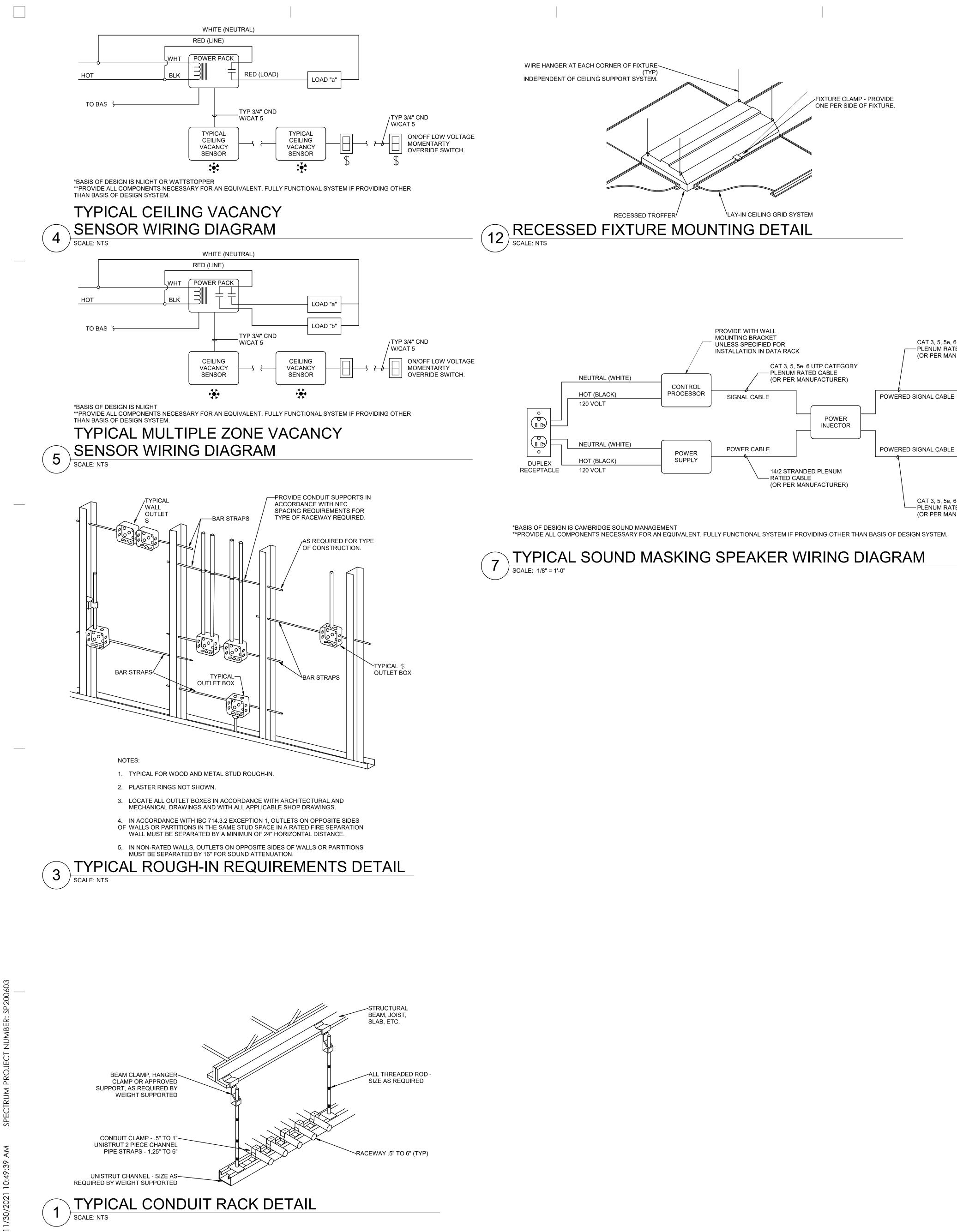
○ SHEET KEYNOTES

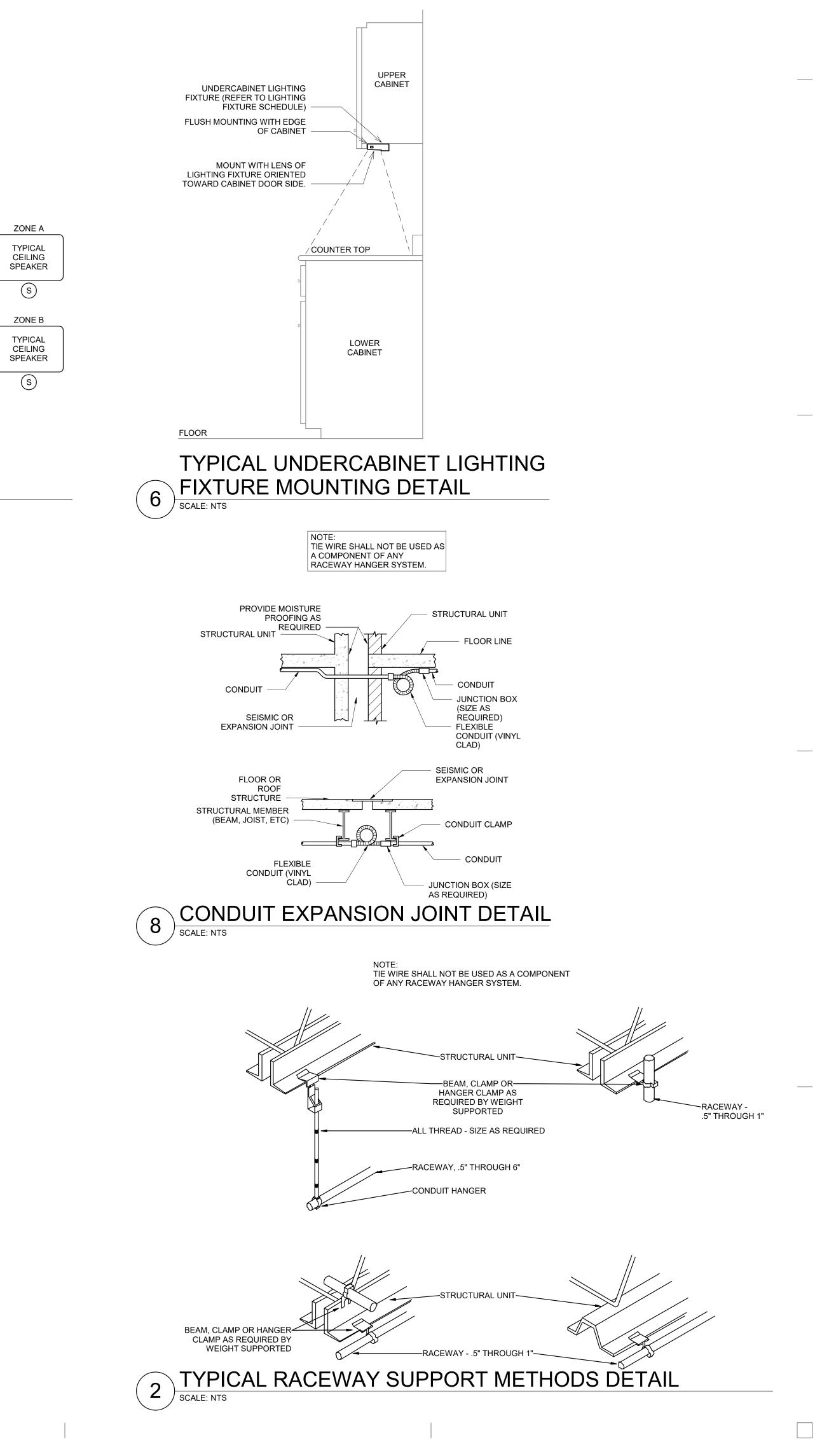
- 1 PROVIDE FIXTURE WITH GENERATOR TRANSFER DEVICE (BODINE GTD OR EQUIVALENT) FOR AUTOMATIC TRANSFER UPON DETECTION OF LOSS OF NORMAL POWER.
- 2 CONNECT TO EXISTING NORMAL POWER LIGHTING BRANCH CIRCUIT SERVING ORIGINAL SPACE MAINTAINED DURING DEMOLITION.
- 3 CONNECT TO EXISTING LIFE SAFETY LIGHTING BRANCH CIRCUIT SERVING ORIGINAL SPACE MAINTAINED DURING DEMOLITION.
- 4 CONNECT TO RECEPTACLE BRANCH CIRCUIT SERVING RESPECTIVE SPACE. CIRCUIT LIGHT FIXTURES THROUGH LIGHTING CONTROL RELAY SERVING RESPECTIVE SPACE.
- 5 REINSTALL EXISTING PAGING SPEAKER SALVAGED DURING DEMOLITION. EXTEND EXISTING SPEAKER CABLING MAINTAINED DURING DEMOLITION TO NEW LOCATION
- 6 REINSTALL EXISTING CARD READER AND ELECTRIC STRIKE SALVAGED DURING DEMOLITION. EXTEND EXISTING SECURITY CABLING MAINTAINED DURING DEMOLITION TO NEW LOCATION AND RECONNECT.
- 7 EXTEND EXISTING DATA CABLING MAINTAINED DURING DEMOLITION TO NEW DATA DEVICE AND RECONNECT.
- 8 PROVIDE 2X4 LED TROFFER TO MATCH EXISTING CORRIDOR FIXTURES. VERIFY EXISTING MANUFATURER AND PRODUCT NUMBER IN FIELD. PROVIDE FIXTURE FROM OWNER'S ATTIC STOCK IF AVAILABLE. EXTEND EXISTING LIGHTING BRANCH CIRCUIT SERVING ORIGINAL CORRIDOR LIGHT FIXTURES MAINTAINED DURING DEMOLITION TO NEW FIXTURE AND RECONNECT.
- 9 EXISTING DEVICE TO REMAIN.

AND RECONNECT.

- 10 BASE BID: EXISTING LIGHT FIXTURE TO REMAIN. ADD ALTERNATE #2: PROVIDE 2X4 LED TROFFER TO MATCH EXISTING CORRIDOR FIXTURES. VERIFY EXISTING MANUFATURER AND PRODUCT NUMBER IN FIELD. PROVIDE FIXTURE FROM OWNER'S ATTIC STOCK IF AVAILABLE. EXTEND EXISTING LIGHTING BRANCH CIRCUIT SERVING ORIGINAL CORRIDOR LIGHT FIXTURES MAINTAINED DURING DEMOLITION TO NEW FIXTURE AND RECONNECT.
- 11 COORDINTE LIGHT FIXTURE MOUNTING WITH ARCHITECTURAL DETAILS PRIOR TO INSTALLATION.







CAT 3, 5, 5e, 6 UTP CATEGORY

ZONE A

TYPICAL

CEILING

SPEAKER

ZONE B

TYPICAL

CEILING

CAT 3, 5, 5e, 6 UTP CATEGORY

(OR PER MANUFACTURER)

PLENUM RATED CABLE

SPEAKER

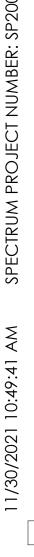
(OR PER MANUFACTURER)



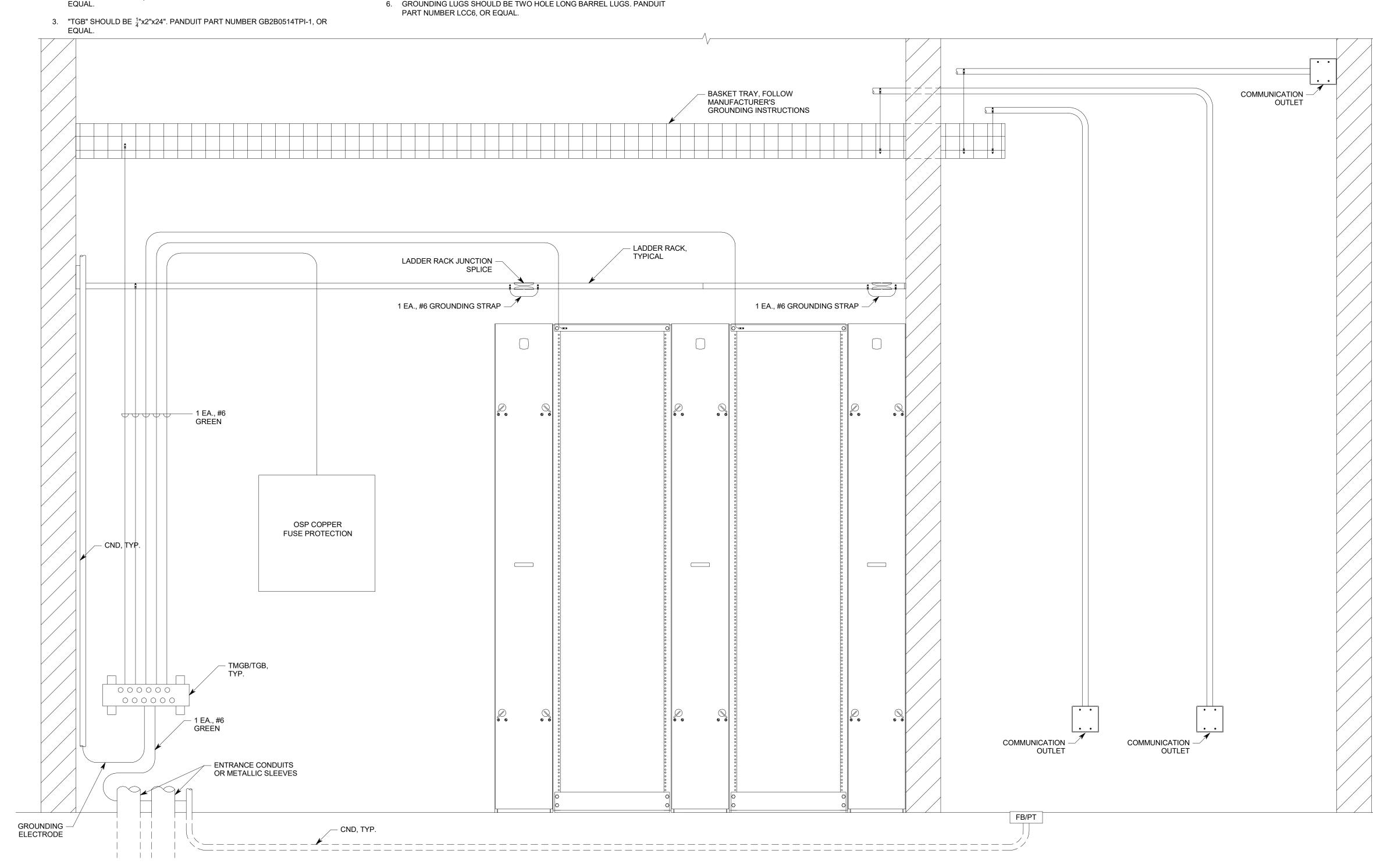




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			0 ADDITE00	
			ESS	YELLOW WIREI
			OR NETWORK	GREEN VEND
			PER PATCH COR EGORY 5E CABLES W/RJ-	
	UNIT COST (EACH)	QUANTITY	COLOR	LENGTH (FEET)
		10	BLUE	5'
		10	BLUE	7'
		10	BLUE	10'
LEN]			[
	SCHEDULE	CH CORD	ATCH CORD PAT	WIRELESS P/
	RS	5 CONNECTO	FEGORY 6A F/UTP W RJ/4	(CAT
	UNIT COST (EACH)	QUANTITY	COLOR	LENGTH (METER)
		100% OF TOTAL PORTS IN TDR'S	YELLOW	7'

GENERAL NOTES:

1. ALL LOW VOLTAGE COMMUNICATIONS CONDUIT SHALL BE GROUNDED TO

2. "TMGB" SHOULD BE $\frac{1}{4}$ "x4"x24". PANDUIT PART NUMBER GB4B1028TPI-1, OR

BASKET TRAY OR TELECOMMUNICATIONS GROUNDING BUS BAR.

CABLE/OUTLET COLOR SCHEDULE				
COLOR	TYPE			
BLACK	TV CC	AX		
BLUE	ANALO	DG PHONE		
BLUE	DATA			
BLUE	IP SEC	CURITY CAMERAS		
GREY	SECU	RITY CARD READERS		
ORANGE	CLINICAL ENGINEERING / NURSE CALL			
RED	FIRE S	FIRE SYSTEMS		
RED	FORE	FORESEER		
WHITE	IITE PUBLIC ADDRESS			
YELLOW	LOW WIRELESS			
GREEN VENDOR NETWORK				
COPPER PATCH CORD SCHEDULE (CATEGORY 5E CABLES W/RJ-45 CONNECTORS)				
LENGTH	(FEET)	COLOR	QUANTITY	UNIT COST (EACH)

COPPER PATCH CORD SCHEDULE

15'

EQUIPMEN
STRUED AS A "BILL OF MATERIALS
ATED ARE ONE PORTION OF AN AS
UPPORTS WHICH MAY NOT BE LIS

(CATEGORY 6A F/UTP CABLES W/RJ-45 CONNECTORS)					
LENGTH (FEET)	COLOR	QUANTITY	UNIT COST (EACH)		
5'	BLUE	20% OF TOTAL PORTS IN TDR'S			
7'	BLUE	60% OF TOTAL PORTS IN TDR'S			
10'	BLUE	20% OF TOTAL PORTS IN TDR'S			
		· · · · · ·			
STATION PATCH CORD SCHEDULE					
(CATEGORY 6A F/UTP CABLES W/RJ-45 CONNECTORS)					
LENGTH (FEET)	COLOR	QUANTITY	UNIT COST (EACH)		
7'	BLUE	40% OF TOTAL PORTS IN TDR'S			
10'	BLUE	40% OF TOTAL			

PORTS IN TDR'S

20% OF TOTAL

PORTS IN TDR'S

	COMPLETE SUBMITTAL FOR APPROVAL PRIOR TO PURCHASING ANY EQUIPMENT OR CABLE. REFER	TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
SYMBOL	ITEM DESCRIPTION	ACCEPTABLE TYPES
	STATION CABLE, DATA - CATEGORY 6A FUTP RISER, DATA, BLUE	SIEMON 9A6R4-A5-06-R1A
	STATION CABLE, DATA - CATEGORY 6A FUTP PLENUM, CLINICAL ENGINEERING, ORANGE	SIEMON 9A6P4-A5-02-R1A
	STATION CABLE, DATA - CATEGORY 6A FUTP PLENUM, WIRELESS, YELLOW	SIEMON 9A6P4-A5-05-R1A
	STATION CABLE, DATA - CATEGORY 6A FUTP PLENUM, SECURITY, BLUE	SIEMON 9A6P4-A5-06-R1A
	STATION CABLE, DATA - CATEGORY 5E RISER, GREEN VENDOR NETWORK	SIEMON 9C5R4-E2-07-R1A
W	VOICE OUTLET, SINGLE GANG FACEPLATE, WHITE W/WALL HUNG PHONE MOUNTING STUDS, ONE POSITION W/CATEGORY 6A INSERT	SIEMON MX-WP-Z6AS-SS
М	DATA OUTLET, SINGLE GANG FACEPLATE, WHITE, 2 POSITION	SIEMON 10GMX-FPS02-02
	CATEGORY 6A JACK - CLINICAL ENGINEERING, ORANGE	SIEMON Z6A-S09
	BLANK INSERT, WHITE	SIEMON MX-BL-02
	DATA OUTLET, SINGLE GANG FACEPLATE, WHITE, 2 POSITION	SIEMON 10GMX-FPS02-02
\bigtriangledown	CATEGORY 6A JACK - DATA, BLUE	SIEMON Z6A-S06
	BLANK INSERT, WHITE	SIEMON MX-BL-02
	DATA OUTLET, SINGLE GANG FACEPLATE, WHITE, 2 POSITION	SIEMON 10GMX-FPS02-02
$\mathbf{\Lambda}$	CATEGORY 6A JACK - DATA, BLUE	SIEMON Z6A-S06
	DATA OUTLET, SINGLE GANG FACEPLATE, WHITE, 4 POSITION	SIEMON 10GMX-FPS04-02
▼	CATEGORY 6A JACK - DATA, BLUE	SIEMON Z6A-S06
	BLANK INSERT, WHITE	SIEMON MX-BL-02
4	DATA OUTLET, SINGLE GANG FACEPLATE, WHITE, 4 POSITION	SIEMON 10GMX-FPS04-02
▼	CATEGORY 6A JACK - DATA, BLUE	SIEMON Z6A-S06
C V	DATA OUTLET, SURFACE MOUNT BOX, WHITE, 2 POSITION	SIEMON MX-SMZ2-02
V	CATEGORY 6A JACK - DATA, BLUE	SIEMON Z6A-S06
$((\mathbf{o}))$	DATA OUTLET, SURFACE MOUNT BOX, WHITE, 2 POSITION	SIEMON MX-SMZ2-02
` ≜ ć	CATEGORY 6A JACK - WIRELESS, YELLOW	SIEMON Z6A-S05
	DATA OUTLET, SURFACE MOUNT BOX, WHITE, 1 POSITION	SIEMON MX-SMZ1-02
تر	CATEGORY 6A JACK - SECURITY, BLUE	SIEMON Z6A-S06
SPP1	48 PORT, 1RU ANGLE PATCH PANEL WITH OUTLETS	SIEMON Z6AS-PA-48
CEPP1	48 PORT, 1RU ANGLED PATCH PANEL WITH OUTLETS	SIEMON Z6AS-PA-48
HWM	HORIZONTAL WIRE MANAGERS, 4RU	PANDUIT NCMHAEF4
VWM	VERTICAL WIRE MANAGERS, DOUBLE SIDED, BLACK, 10" WIDE x 8'-0" HIGH	CHATSWORTH 40096-715
•••	EQUIPMENT RACK 19" WIDE x 8'-0" HIGH, 52RU, BLACK	CHATSWORTH 55053-715

4. EMT CONDUIT GROUNDING CLAMP SHOULD BE ELECTROLYTIC CAST BRONZE. PANDUIT PART NUMBER GPL-"X"-"X", OR EQUAL.

5. RIGID CONDUIT GROUND CLAMP SHOULD BE O-Z/GEDNEY BLG-XXXX, OR HBLG-XXXX, OR EQUAL.

BLUE

6. GROUNDING LUGS SHOULD BE TWO HOLE LONG BARREL LUGS. PANDUIT

NT/CABLE LIST

GENERAL PROJECT NOTES

- 1. UNLESS OTHERWISE NOTED, INSTALL ALL CABLE INSIDE RACEWAY SYSTEMS. WHERE RACEWAY SYSTEMS HAVE NOT BEEN PROVIDED OR SPECIFIED, INSTALL CABLE THROUGH THE SPECIFIED "CADDY" CLIPS AT THE MINIMUM INTERVALS IDENTIFIED IN THE SPECIFICATIONS. SUPPORT "CADDY" CLIPS DIRECTLY FROM THE BUILDING STRUCTURE, NOT FROM OTHER BUILDING SYSTEM SUPPORT WIRES OR CABLE.
- 2. PROVIDE PLENUM RATED CABLE IN ALL AIR PLENUMS. IF A PLENUM RATED CABLE IS NOT SPECIFIED, PROVIDE THE PLENUM RATED EQUIVALENT TO THE SPECIFIED CABLE.
- 3. LABEL ALL CABLE INSTALLED UNDER THIS CONTRACT REGARDLESS OF LENGTH. 4. THE EQUIPMENT LABELING IDENTIFIED ON DETAILS IN THESE DRAWINGS ARE EXAMPLES ONLY OF THE ACTUAL LABELING WHICH IS REQUIRED AS PART OF THIS CONTRACT. PRIOR TO FABRICATION, SUBMIT THE NOMENCLATURE FOR ALL LABELS TO THE OWNER FOR REVIEW. THIS REQUIREMENT INCLUDES BUT IS NOT LIMITED TO ALL CABLE LABELING, AND ALL EQUIPMENT LABELING.
- 5. IF OUTLET IS TERMINATED IN CEILING SPACE, LABEL THE T-BAR GRID WITH THE OUTLET NUMBER FOR EASY LOCATION AND IDENTIFICATION.
- 6. GROUND ALL EQUIPMENT RACKS INSTALLED UNDER THIS CONTRACT IN COMPLIANCE WITH THE CONTRACT DOCUMENTS.
- 7. FOR EVERY CABLE PULL SPECIFIED, COIL 15' OF EXCESS CABLE AT THE STATION END FOR FUTURE USE. NEATLY COIL 15' ABOVE THE CEILING OR BELOW FLOOR WHERE APPLICABLE.
- 8. PROVIDE THE QUANTITY OF PATCH PANELS REQUIRED +20% FOR THE TOTAL DATA OUTLETS SHOWN ON FLOOR PLANS FOR THE PARTICULAR LEVEL.
- 9. RACK SPACE ALLOCATION SHOULD BE FOLLOWED PER DRAWINGS. IF YOU HAVE A SYSTEM THAT HAS NOT RACK ALLOCATION PLEASE CALL BOE SAUSEDO AT 801-707-3805.
- 10. ALL DATA LOCATIONS ARE NOT SHOWN IN ET SHEETS. REFER TO ENLARGED POWER PLANS FOR DATA LOCATIONS IF NOT SHOWN ON ET SHEETS.

ABBREVIATIONS

NOTE: ALL ABBREVIATIONS MAY NOT BE USED.

AUGMENTED CAT CATEGORY ENHANCED

- EA EACH ER EQUIPMENT ROOM
- FPP FIBER PATCH PANEL GIG GIGA HERTZ
- HORIZONTAL WIRE MANAGEMENT HWM NIC NOT IN CONTRACT OE OWNER ELECTRONICS
- PNM PLENUM PR PAIR
- PS POWER SUPPLY RPP RISER PATCH PANEL STATION PATCH PANEL
- SPP TC TYP TELECOMMUNICATIONS ROOM TYPICAL VWM VERTICAL WIRE MANANGEMENT

DEFINITIONS NOTE: ALL DEFINITIONS MAY NOT BE USED.

INDICATED: THE TERM "INDICATED" REFERS TO GRAPHIC REPRESENTATIONS, NOTES, OR SCHEDULES ON THE DRAWINGS, OTHER PARAGRAPHS OR SCHEDULES IN THE SPECIFICATIONS, AND SIMILAR REQUIREMENTS IN THE CONTRACT DOCUMENTS. WHERE TERMS SUCH AS "SHOWN", "NOTED", "SCHEDULED", AND "SPECIFIED" ARE USED, IT IS TO HELP THE READER LOCATE THE REFERENCE, NO LIMITATION ON LOCATION IS INTENDED.

DIRECTED: TERMS SUCH AS "DIRECTED", "REQUESTED", AUTHORIZED", "SELECTED", "APPROVED", "REQUIRED", AND "PERMITTED" MEAN "DIRECTED BY THE ENGINEER", "REQUESTED BY THE ENGINEER", AND SIMILAR PHRASES.

APPROVE: THE TERM "APPROVED", WHERE USED IN CONJUNCTION WITH THE ENGINEER'S ACTION ON THE CONTRACTOR'S SUBMITTALS, APPLICATIONS, AND REQUESTS, IS LIMITED TO THE ENGINEER'S DUTIES AND RESPONSIBILITIES AS STATED IN GENERAL AND SUPPLEMENTARY CONDITIONS.

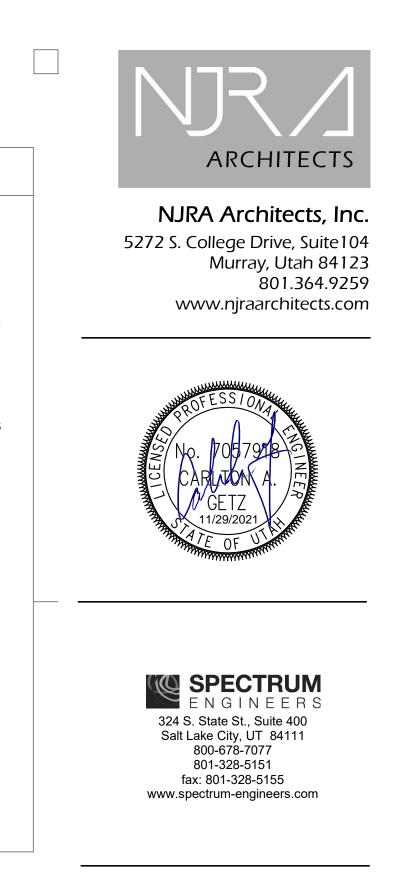
FURNISH: THE TERM "FURNISH" IS USED TO MEAN "SUPPLY AND DELIVER TO THE PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION, AND SIMILAR OPERATIONS."

INSTALL: THE TERM "INSTALL" IS USED TO DESCRIBE OPERATIONS AT PROJECT SITE INCLUDING THE ACTUAL "UNLOADING, UNPACKING, ASSEMBLY, ERECTION, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, AND SIMILAR OPERATIONS."

PROVIDE: THE TERM "PROVIDE" MEANS "TO FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE."

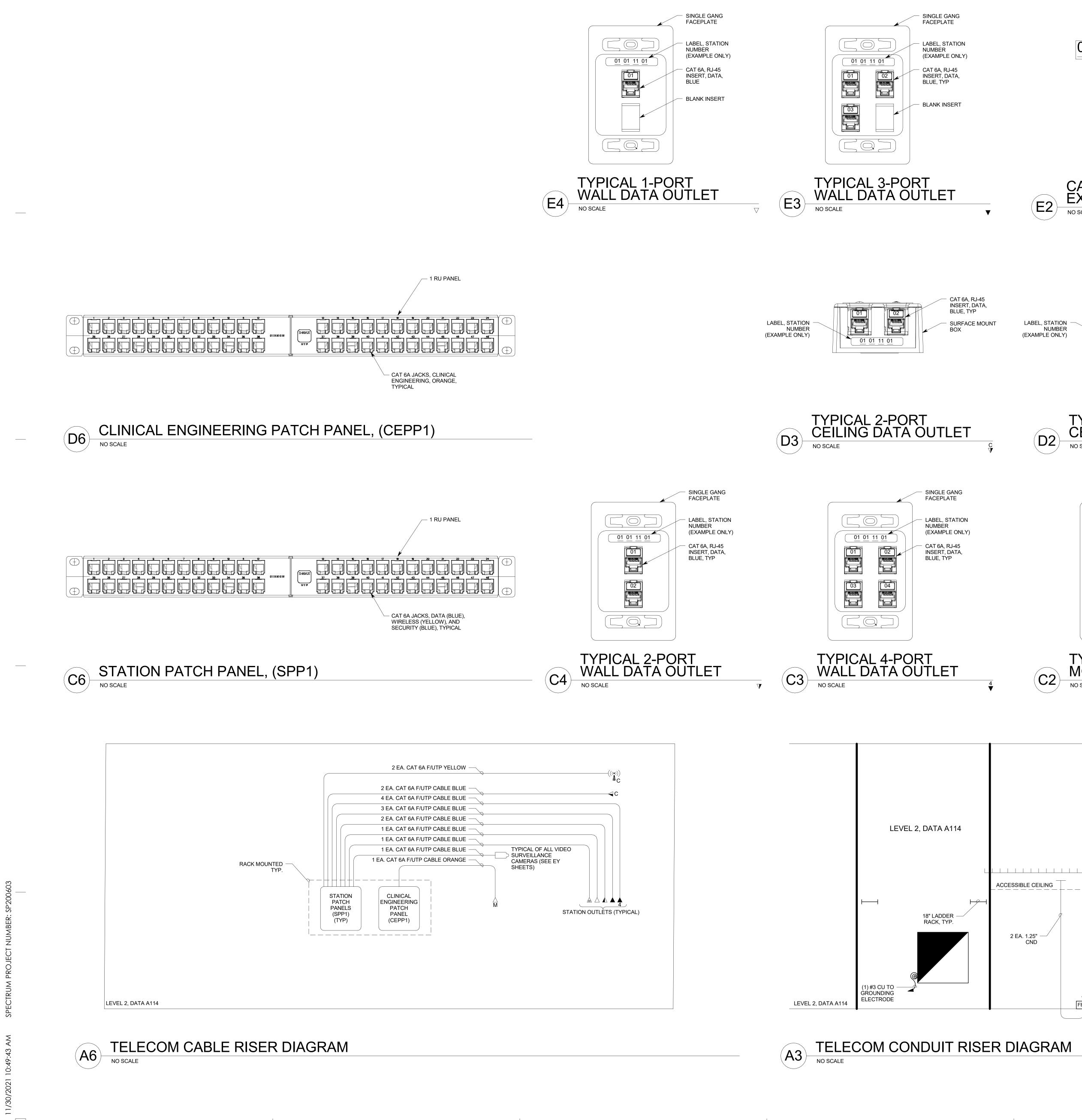
INSTALLER: AN "INSTALLER" IS THE CONTRACTOR OR AN ENTITY ENGAGED BY THE CONTRACTOR, EITHER AS AN EMPLOYEE, SUBCONTRACTOR, OR SUB-SUBCONTRACTOR, FOR PERFORMANCE OF A PARTICULAR CONSTRUCTION ACTIVITY, INCLUDING INSTALLATION, ERECTION, APPLICATION, AND SIMILAR OPERATIONS. INSTALLERS ARE REQUIRED TO BE EXPERIENCED IN THE OPERATIONS THEY ARE ENGAGED TO PERFORM.

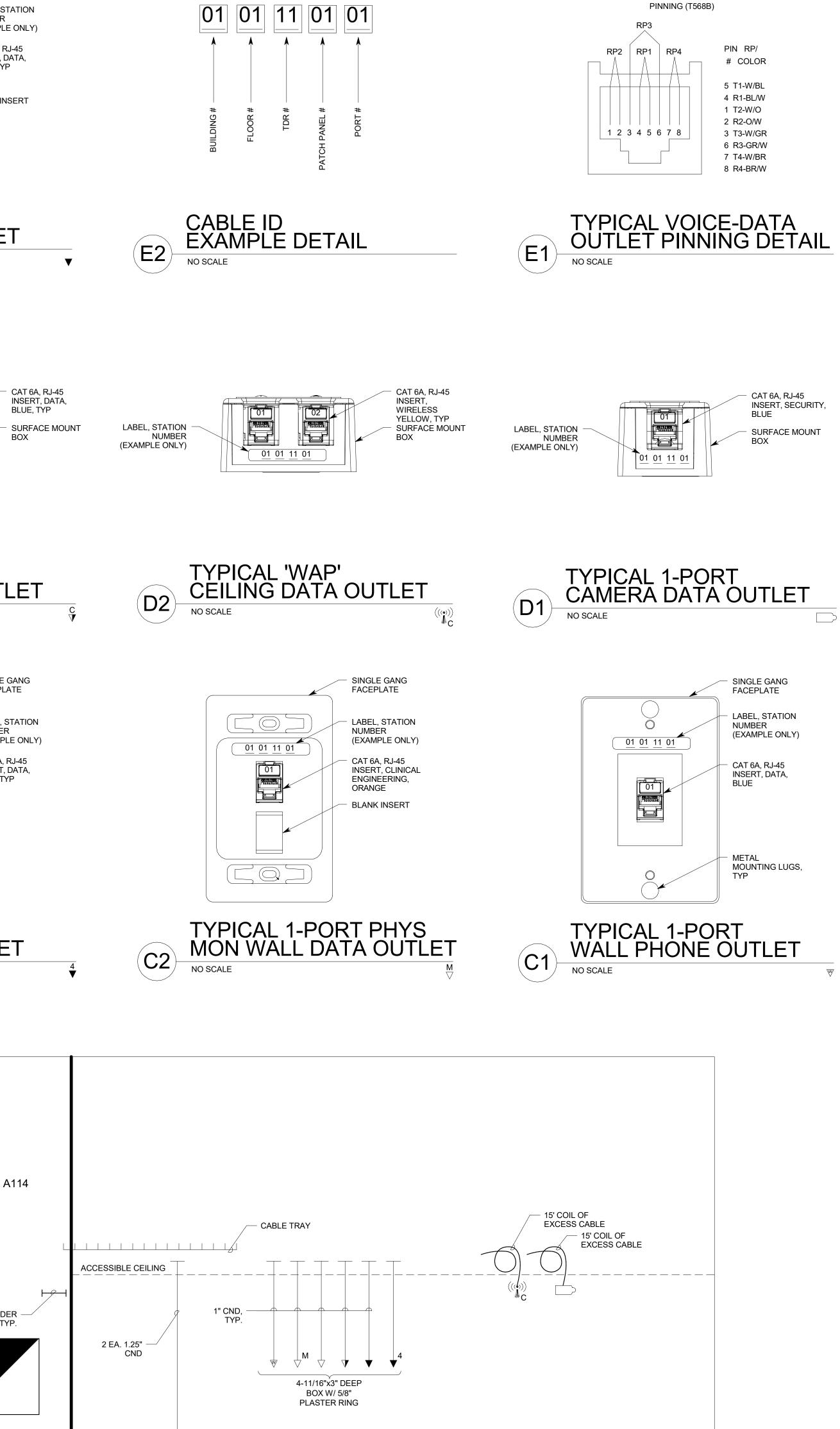
ELECTRONIC SYSTEMS: THE TERM "ELECTRONIC SYSTEMS" IS USED TO DESCRIBE ALL LOW VOLTAGE SYSTEMS GENERALLY REFERRED TO AS "SPECIAL SYSTEMS". THESE SYSTEMS INCLUDE BUT ARE NOT NECESSARILY LIMITED TO ALL SYSTEMS WHICH UTILIZE VOLTAGES OF LESS THAN 71 VOLTS SUCH AS SOUND SYSTEMS, VIDEO SYSTEMS, TV SYSTEMS, SECURITY SYSTEMS, VOICE AND DATA CABLING SYSTEMS, ETC...





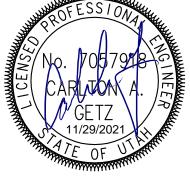
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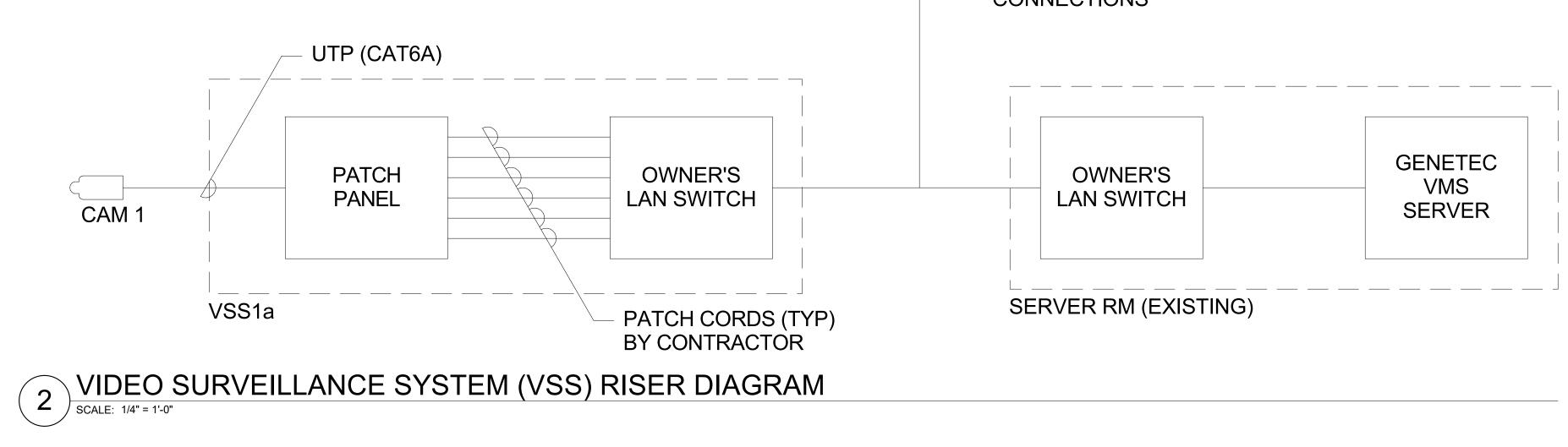








EE503





BRANCH CIRCUIT CONDUCTOR AND CONDUIT SIZING TABLE

CIRCUIT AMPACITY/VOLTAGE	CIRCUIT LENGTH	CONDUCTOR SIZE (PHASE, NEUTRAL AND GR)	CONDUIT SIZE			
20A/120V	0' - 60'	#12 AWG	0.75" Ø			
20A/120V	60' - 95'	#10 AWG	0.75" Ø			
20A/120V	95' - 150'	#8 AWG	1" Ø			
20A/120V	150' - 240'	#6 AWG	1.25" Ø			
20A/277V	0' - 140'	#12 AWG	0.75" Ø			
20A/277V	140' - 220'	#10 AWG	0.75" Ø			
20A/277V	220' - 350'	#8 AWG	1" Ø			
20A/277V	350' - 550'	#6 AWG	1.25" Ø			
NOTES: 1. WIRE SIZING IS BASED ON COPPER CONDUCTORS SUPPLYING A 20A, 120V CIRCUIT AT THE INDICATED VOLTAGE, ASSUMED TO BE 80%						

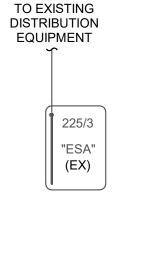
- LOADED (16A), WITH MAXIMUM VOLTAGE DROP OF 3% AT THE LOAD.
- 2. DOWN-SIZED WIRE AT DEVICE/LOAD AS REQUIRED AND TERMINATE CONDUCTORS IN A SAFE AND CODE COMPLIANT MANNER.
- 3. CONDUIT SIZE IS BASED ON A MAXIMUM OF 3 CIRCUITS PER CONDUIT, EACH WITH A SEPARATE NEUTRAL CONDUCTOR.

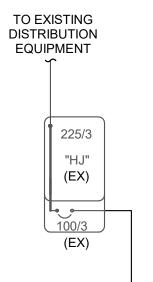
GENERAL SHEET NOTES

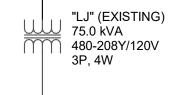
- PROVIDE NEMA 3R ENCLOSURES FOR EQUIPMENT LOCATED OUTDOORS. REFER TO PLANS FOR EQUIPMENT LOCATIONS.
- REFER TO PLANS FOR CONSTRAINTS ON PHYSICAL DIMENSIONS AND CLEARANCE REQUIREMENTS OF EQUIPMENT. PROVIDE EQUIPMENT DIMENSIONS THAT FALL WITHIN THE CONSTRAINTS OF EACH SPECIFIC LOCATION.
- ALL EQUIPMENT SHALL BE CONSTRUCTED AND BRACED FOR THE SEISMIC CONDITIONS OF THE PROJECT. REFER TO ELECTRICAL SPECIFICATIONS FOR REQUIREMENTS.
- PROVIDE PERFORMANCE TESTING FOR GROUND-FAULT PROTECTION SYSTEMS ON SITE WITH A WRITTEN RECORD OF THIS TEST SUBMITTED TO THE AUTHORITY HAVING JURISDICTION PER NEC 230.95(C).

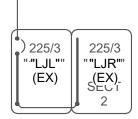
SHEET KEYNOTES

		_			10				
**	*		CRIPT (NOT			(E.C	G.)5 IG		
SYM	AMP	HH AMPS	CONDUIT SIZE	CONDI QTY	JCTOR (I SIZE	NOTE 1) G	IG/HH	SE	NOT
1	20	-	.75	2	12	12	12	8	2
$\frac{2}{2}$	20	-	.75	3	12	12	12	8	2,3
<u>3</u> (4)	20 30	24	.75 .75	4	12 10	12 10	12 10	8	2,3 2
5	30	-	.75	3	10	10	10	8	2
6	30	32	.75	4	10	10	10	8	2
	40	-	1	2	8	10	8	6	2
<u>(8)</u> (9)	40	- 44	1	3	8 8	10 10	8 8	6 6	2
10	55	-	1	2	6	10	8	4	2
11	55	-	1	3	6	10	8	4	2
(<u>12</u>) (13)	55 70	60 -	1.25 1	4	6 4	10 8	8	4	2
14	70	-	1.25	3	4	8	4	2	2
15	70	76	1.25	4	4	8	4	2	2
(<u>16</u>) (17)	85 85	-	1.25 1.25	2 3	3	8 8	3	2	2
18	85	92	1.25	4	3	8	3	2	2
19	95	-	1.25	3	2	8	2	2	2
<u>20</u> 21)	95	104	1.50	4	2	8	2	2	2
22	130 130	- 116	1.50 1.50	3	1	6 6	2	2	2
23	150	-	2	3	1/0	6	2	1/0	2
24	150	136	2	4	1/0	6	2	1/0	2
<u>25</u> 26	175 175	- 156	2 2	3 4	2/0 2/0	6 6	2 2	2/0 2/0	2
27	200	- 156	2	4	3/0	6	2	2/0	2
28	200	180	2.50	4	3/0	6	2	2/0	2
29	230	-	2.50	3	4/0	4	2	2/0	2
<u>30</u> 31	230 255	208	2.50 2.50	4 3	4/0 250	4	2	2/0 2/0	2
32	255	232	2.50	4	250	4	1	2/0	2
33	310	-	3	3	350	3	1/0	3/0	2
<u>34</u> 35	310 380	280	3 3.50	4 3	350 500	3 3	1/0 3/0	3/0 3/0	2
36	380	344	4	4	500	3	3/0	3/0	2
37	400	-	2 EA 2	3	3/0	3	3/0	3/0	2
<u>38</u>	400	360	2 EA 2.50	4	3/0	3	3/0	3/0	2
<u>39</u> 40	510 510	- 464	2 EA 2.50 2 EA 3	3 4	250 250	1	4/0 4/0	3/0 3/0	2
41	620	-	2 EA 3	3	350	1/0	4/0	3/0	2,4
42	620	560	2 EA 3	4	350	1/0	4/0	3/0	2,4
<u>43</u> 44	760	- 688	2 EA 3.50 2 EA 4	3 4	500 500	1/0 1/0	4/0 4/0	3/0 3/0	2,4 2,4
45	855		3 EA 3	3	300	2/0	4/0	3/0	2,4
46	855	768	3 EA 3	4	300	2/0	4/0	3/0	2,4
<u>47</u> <u>48</u>	1000	- 912	3 EA 3.50 3 EA 3.50	3 4	400 400	2/0 2/0	4/0 4/0	3/0 3/0	4
49	1140	-	3 EA 4	3	500	3/0	4/0	3/0	4
50	1140	1032	3 EA 4	4	500	3/0	4/0	3/0	4
<u>51</u> 52	1240 1240	- 1120	4 EA 3 4 EA 3	3 4	350 350	3/0 3/0	4/0 4/0	3/0 3/0	4
53	1675	1520	5 EA 4	4	400	4/0	4/0	4/0	4
54	2010	1824	6 EA 4	4	400	250	250	250	4
<u>55</u> 56	2660 3040	2408 2752	7 EA 4 8 EA 4	4	500 500	350 500	350 500	350 500	4
57	4180	3784	11 EA 4	4	500	500	500	500	4
58	-	-	5 EA 4	-	-	-	-	-	6
<u>59</u> 60	-	-	5 10 EA 4	-	-	-	-	-	6
<u> </u>			CONDUIT	AND C					
1	AS NOT OTHER	ED IN N NISE N	• • = = •	L CONE	UCTORS	SHOWN	ARE TH	WN UNLE	SS
(IPMENT GF KERS ARE						
-	PROVID COMPU		NEUTRALS	FOR MU	JLTIWIRE	BRANC	HCIRCUI	TS SERV	'ING
4.	GROUN	D (G) C	ONDUCTO	R MAY E	BE DELE	TED ON S	SERVICE	ENTRAN	CE
	CONDU	CTORS	5.						
5. 3			CRIPTS:						
	4	S	ICLUDE TW CHEDULED	FOR P	HASE AN	D NEUT	RAL CONE	DUCTOR	
			HERE THE SINGLE 20						
		Α	MPACITY C	F THE S	SCHEDUL	ED PHA	SE AND N	IEUTRAL	
		-	ONDUCTOF	≺ WHEF	KE THE C	UNDCUT	OR IS BE	LOW #1/(J
	"	С	ULL SIZE G ONDUCTOI ONDUCTOI	R TO BE					
	"		EUTRAL CU IONLINEAF					KMONIC	
		С	ONDUCTO	RS DER	ATED AC	CORDIN	IGLY. PR		ΗE
			6/HH SIZE F ONDUCTO		E EQUIPN	IENI GR		,	
		-							
	ו"	С	iclude Ig Onductof F Equipme	R) SCHE	EDULED A	ALONG V	VITH THE	GROUNE)
	"(SE"' S	UBSTITUTE	- "95" ()					

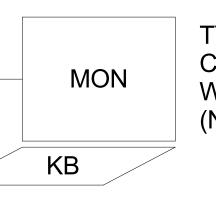






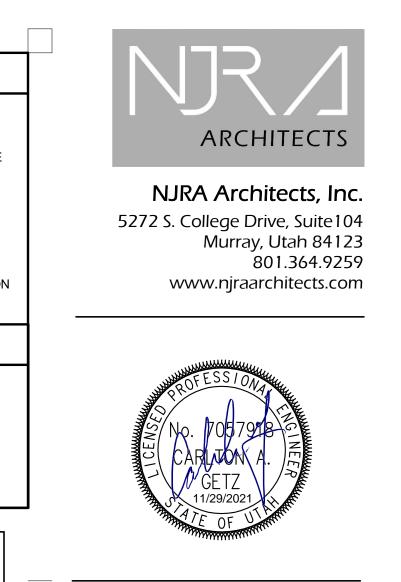


1 PARTIAL ONE-LINE DIAGRAMS SCALE: NTS



TYPICAL CLIENT WORKSTATION (NIC)

- BUILDING LAN NETWORK CONNECTIONS











- PROVIDE RACEWAY AND EQUIPMENT AS INDICATED FOR CARD ACCESS DOOR TYPE INDICATED. REFER TO SECTION 281300 AND CARD ACCESS LOCK CONTROL DETAILS FOR ADDITIONAL REQUIREMENTS.
- PROVIDE CONCEALED .75" C TYPICAL FOR LINES SHOWN TO DEVICE BOXES 2. ON PROTECTED SIDE AND UNPROTECTED SIDE ELEVATIONS.
- 3. CONFIRM CORRECT CARD ACCESS DOOR RACEWAY, LOCK VOLTAGE, AND EXIT SWITCH CURRENT RATING (2 AMPS MIN.) WITH DIV. 8 FURNISHED CARD ACCESS DOOR HARDWARE PER DIV. 8 DOOR HARDWARE SPECIFICATIONS.
- 4. LOCATE CARD READER BOX AS INDICATED ON FLOOR PLANS. RACEWAY AND BOXES BY DIV. 26. REFER TO 281300 FOR CARD ACCESS SYSTEM REQUIREMENTS.
- DOUBLE 4SQ J-BOX ON PROTECTED SIDE OF DOORWAY (SIDE OPPOSITE OF CARD READER) ABOVE ACCESSIBLE CEILING OR IN OTHER ACCESSIBLE LOCATION. PROVIDE COVER FOR J-BOX.
- ELECTRIC LOCKING HARDWARE (MAG LOCKS, ELECTRIC STRIKES, POWER TRANSFER HINGES, ETC.) BY DIV 8. REVIEW DOOR HARDWARE FURNISHED AND VERIFY LOCK VOLTAGES AND OPERATIONAL FUNCTIONALITY OF LOCKS. CONTACT ENGINEER WITH QUESTIONS OR CONCERNS.

PANEL · "H.I"(EXISTING)

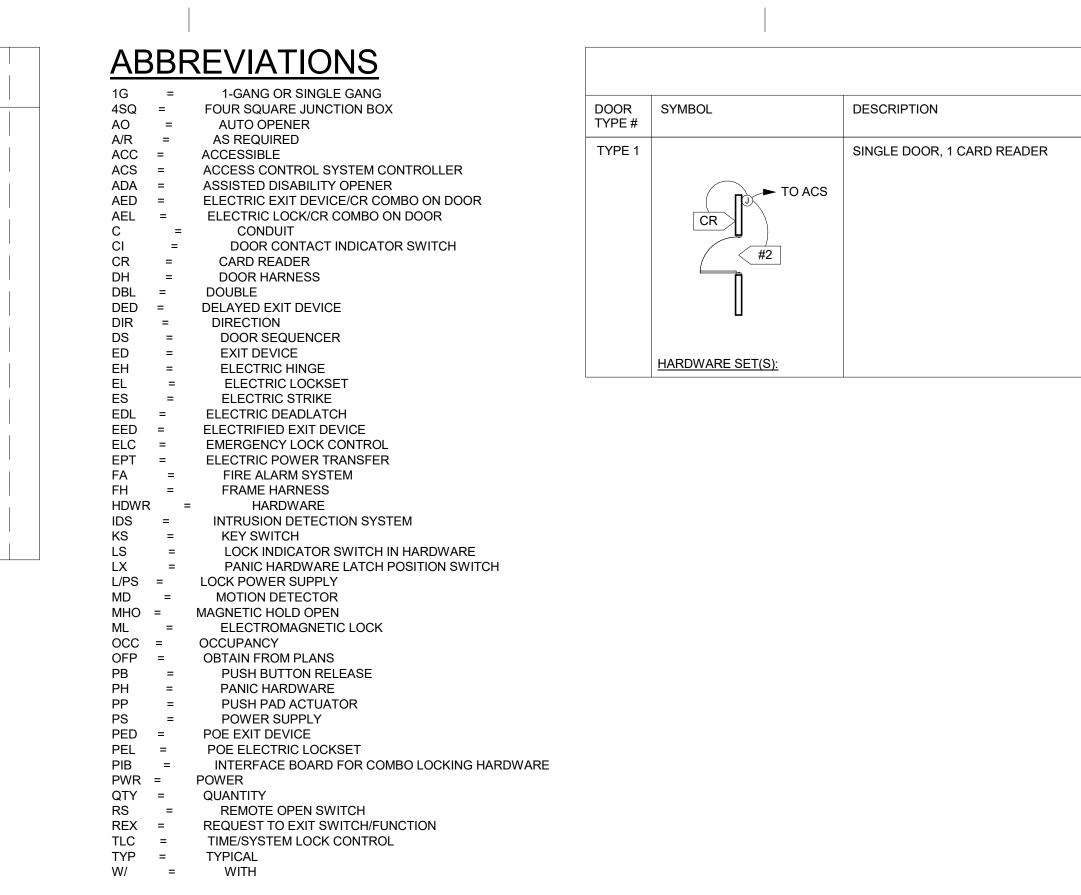
							P	AN	JE	L		1J		EXISTIC	NG)							
VOLT	S/PHA	SE/WIR	E:		PAN	IEL SIZ	ZE & TYPE: MAIN SIZE AND	TYPE:			FED	FROM	M:	CABINET:	LOCATION:		NC	DTES:				
120/20)8V, 3 F	PH 4 W	IRE		22" \	N x 6"	D, BOLT-ON 225 AMPERE MA	IN LU	GS					SURFACE	EXIST. ELEC. A115							
ACCE	SSORI	ES:			PAN	IEL DIF	RECTORY, IDENTIFICATION, GROU	NDINC	BAR		<u>.</u>				AIC	RATIN	G: (E)	XISTIN	IG)			
скт		OCP		LO	AD (k	VA)		Τ	Р	HASE	E LOA	D				LO	AD (k)	/A)		OCP	I	скт
NO		POLE	BKR		· · ·	,	DESCRIPTION		A		В	0	2	DESCR	RIPTION	со			BKR	POLE	AMP	NO
1							SPACE	0.0	1						ACE							2
3							SPACE			0.0	0.0			SP	ACE							4
5	20	1					(EXISTING)					0.0	0.0	(EXIS	TING)					1	20	6
7	20	1					(EXISTING)	0.0	0.0					(EXIS	TING)					1	20	8
9	20	1					(EXISTING)			0.0	0.0			(EXIS	TING)					1	20	10
11	20	1					(EXISTING)					0.0	0.0	(EXIS	TING)					1	20	12
13	20	1					(EXISTING)	0.0	0.0					SP	ACE							14
15	20	1					(EXISTING)			0.0	0.0			SP/	ACE							16
17							SPACE					0.0	0.0	SP/	ACE							18
19							SPACE	0.0	0.0					SP/	ACE							20
21							SPACE			0.0	0.0			SP/	ACE							22
23							(EX) SUBFEED LUGS					0.0	0.0	(EX) LG. HEAT PUN	IP/BLOW. OVER ER					3	30	24
25							(EX) SUBFEED LUGS	0.0	0.0					-	-							26
27							(EX) SUBFEED LUGS			0.0	0.0			-	-							28
29							(EX) SUBFEED LUGS					0.0	0.0	(EX) LIGHTIN	G XRAY RM #7					1	20	30
31	20	1					(EX) LIGHTING EMERG. RM. A,B,C	0.0	0.0					(EX) XRAY RN	1 #1 LIGHTING					1	20	32
33	20	1					(EX) XRAY GOWN. RMS STOR. RM	J		0.0	0.0			(EX) XRAY	RMS #3, #4					1	20	34
35	20	1					(EX) SPARE					0.0	0.0	(EX) LIGHTING PA	T WAIT. RM. COVE					1	20	36
37	20	1					(EX) LTG EEG, XRAY, DR. OFF	0.0	0.0					(EX) LIGHTING	ER ENTRANCE					1	20	38
39	20	1					(EX) LIGHTING XRAY RECORDS			0.0	0.0				ING CORR.					1	20	40
41	20	1					(EXISTING)					0.0	0.0	(EX) LIGHTING	ULTRA SOUND					1	20	42
43	30	3					(EX) HEAT PUMP ABOVE ELEV	0.0	0.0					(EXIS	TING)					3	30	44
45										0.0	0.0				-							46
47											<u> </u>	0.0	0.0		-							48
49	100	3					(EXISTING)	0.0	0.0					(EXIS	TING)					3	30	50
51										0.0	0.0	0.0	0.0	-	-							52
53												0.0		-			 					54
TOTA	L3:						CONNECTED KVA PER PHASE		0		0	(-							0		
		SIFIED					CONNECTED AMPS PER PHASE		0		0	(J	AVERAU	GE CONNECTED AM	PS PE	R PHA	45E =		0		
	GHTIN	G & CO	NTINU RE	JOUS CEPT	LOAD ACLE	S: S:	MO ⁻	ST 10k FOR T	VA @) 1009 S INC	%, RE CLUDE	imain Ed in	DER ALL (@ 50% OTHER LOADS WITI	DIVEF AVERAGE							
	ALI			-D3 @	1007	υ.		GEST	МОТ	OR C	ALCU	JLATE	D @	125% PER NEC								

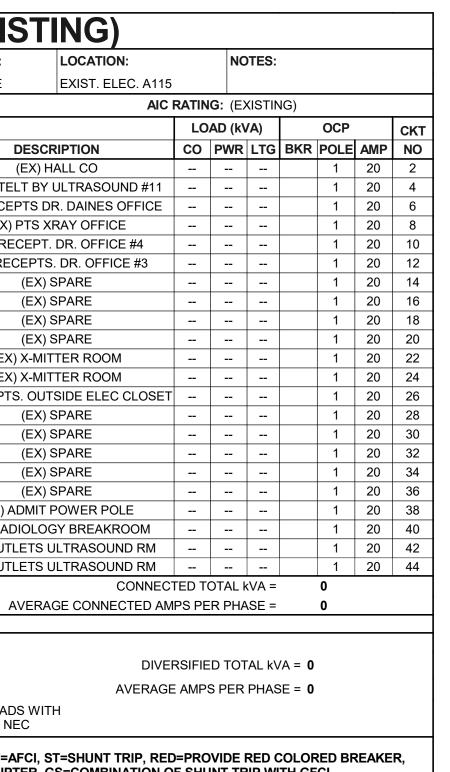
BKR: GF=GFCI, GF3=30mA GFCI CAPABLE OF BEING LOCAKED OUT IN OPEN POSITION, IG=ISOLATED GROUND, AF=AFCI, ST=SHUNT TRIP, RED=PROVIDE RED COLORED BREAKER, AF=ARC FAULT CURRENT INTERRUPTER, GA=COMBINATION OF GROUND FAULT AND ARC FAULT CIRCUIT INTERRUPTER, GS=COMBINATION OF SHUNT TRIP WITH GFCI

PANEL: "LJL"(EXISTING) VOLTS/PHASE/WIRE: PANEL SIZE & TYPE: MAIN SIZE AND TYPE: FED FROM: CABINET: LOCATION: 22" W x 6" D, BOLT-ON 225 AMPERE MAIN LUGS SURFACE EXIST. ELEC. A115 120/208V. 3 PH 4 WIRE PANEL DIRECTORY, IDENTIFICATION, GROUNDING BAR ACCESSORIES: OCP LOAD (kVA) PHASE LOAD СКТ A B DESCRIPTION NO AMP POLE BKR LTG PWR CO DESCRIPTION С 1 | 20 | 1 | -- - -- (EX) VIEW BOXES DR. D., DR. E. 0.0 0.0 (EX) HALL CO (EX) OUTELT BY ULTRASOUND #11 3 20 (EX) VIEW BOXES X-RAY READ.. 0.0 0.0 | -- | -- | 5 20 1 (EX) DISHWASHER EXT. FAN MOT 0.0 0.0 (EX) RECEPTS DR. DAINES OFFICE -- ---- -- --(EX) OUTLET HALL LAB WAITING 0.0 0.0 (EX) PTS XRAY OFFICE 7 | 20 | 1 | (EX) RECEPT. DR. OFFICE #4 0.0 0.0 9 20 (EX) OUTPAT. EXAM RM... -----(EX) GFI OUTPAT. EXAM RM... 0.0 0.0 (EX) RECEPTS. DR. OFFICE #3 11 | 20 | (EX) SPARE (EX) SPARE -- -- --0.0 0.0 ____ (EX) SPARE 0.0 0.0 -- -- --(EX) SPARE 15 20 -- - (EX) CO XRAY RECORDS, XRAY.. (EX) SPARE 17 20 0.0 0.0 (EX) SPARE -- -- (EX) CO EAST WALL RESP. T., ILL. 0.0 0.0 -- -- --(EX) FUTURE ULTRASOUND 0.0 0.0 (EX) X-MITTER ROOM 20
 0.0
 0.0
 0.0
 (EX) X-MITTER ROOM
 - - -

 0.0
 0.0
 0.0
 (EX) RECPTS. OUTSIDE ELEC CLOSET
 - - -

 0.0
 0.0
 0.0
 (EX) RECPTS. OUTSIDE ELEC CLOSET
 - - - -- -- --(EX) SPARE 23 20 (EX) SPARE --- -- ---- -- --25 20 27 | 20 | (EX) SPARE 29 | 20 | -- -- --(EX) SPARE 0.0 0.0 (EX) SPARE (EX) FILM PROCESSORS (EX) SPARE -- -- --0.0 0.0 31 30 (EX) SPARE 0.0 0.0 -- -- --(EXISTING) 35 20 0.0 0.0 (EX) SPARE -- -- --(EX) ADMIT POWER POLE (EX) SPARE 0.0 0.0 0.0 0.0 (EX) RADIOLOGY BREAKROOM 39 -- -- -----SPACE 0.0 0.0 (EX) OUTLETS ULTRASOUND RM - - - - -- - - -41 --SPACE (EX) OUTLETS ULTRASOUND RM 43 -- --0.0 0.0 TOTALS: CONNECTED kVA PER PHASE 0 0 0 CONNECTED AMPS PER PHASE 0 0 0 NEC DIVERSIFIED LOAD CALCULATIONS LIGHTING & CONTINUOUS LOADS: - 100% CONNECTED LOAD PLUS 25% RECEPTACLES: - FIRST 10kVA @ 100%, REMAINDER @ 50% MOTOR TOTALS INCLUDED IN ALL OTHER LOADS WITH ALL OTHER LOADS @ 100% : 0.0 kVA LARGEST MOTOR CALCULATED @ 125% PER NEC BKR: GF=GFCI, GF3=30mA GFCI CAPABLE OF BEING LOCAKED OUT IN OPEN POSITION, IG=ISOLATED GROUND, AF=AFCI, ST=SHUNT TRIP, RED=PROVIDE RED COLORED BREAKER, AF=ARC FAULT CURRENT INTERRUPTER, GA=COMBINATION OF GROUND FAULT AND ARC FAULT CIRCUIT INTERRUPTER, GS=COMBINATION OF SHUNT TRIP WITH GFCI





VOLT	S/PHA	SE/WIF	RE:		PAN	EL SIZ	ZE & TYPE:	MAIN SIZE AND T	YPE:			FED	FRO	M:	CABINET:	LOCATION:
120/20	8V, 3	PH 4 W	/IRE		22" \	W x 6"	D, BOLT-ON	225 AMPERE MAI	N LU	GS					SURFACE	EXIST. ELEC. A1
ACCE	SSOR	IES:			PAN	IEL DIF	RECTORY, IDENT	FICATION, GROUN	IDING	BAR	1				1	A
скт		OCP		LC	DAD (k	VA)				Р	HASE		D			
NO	AMP	POLE	BKR	LTG	PWR	CO	DESCI	RIPTION		4	E	3	(C	DESC	RIPTION
1	20	1					(EX) PM+R TDR	CO - PHONE SWI.	0.0	0.0					(EX) STERILIZER	CNTL CENTER CO
3	20	1					(EX) MORGUE	RECEPTACLES			0.0	0.0			(EX) CAT S	SCAN LIGHTS
5	20	1					(EX) RESP. TH	ERAPY EAST CO					0.0	0.0	(EX) RAD/LAE	B TELE/DATA CO
7	20	1					(EX) RESP. TH	ERAPY EAST CO	0.0	0.0					(EX) HISTOL	OGY OUTLETS
9	20	1					(EX) XRAY I	NORTHWALL			0.0	0.0			(EX) HISTOL	OGY OUTLETS
11	20	1					(EX) EM. LA	AB OUTLETS					0.0	0.0	(EX) EMER	RGENCY SIGN
13	20	1					(EX) PH	ARMACY	0.0	0.0					(EX) RADIO	OLOGY RM #6
15	20	1					(EX) PH	ARMACY			0.0	0.0			(EX) RADIOLOG	BY DESK OUTLETS
17	20	1					(EX) PH	ARMACY					0.0	0.0	(EX)	SPARE
19	20	1					(EX) FILM	I VIEWER	0.0	0.0					(EX) RADIOLOG	GY EXAM RM 3+4
21	20	1					(EX) DAI	RK ROOM			0.0	0.0			(EX) HONE	EYWELL DGP
23	20	1					(EX) EXA	M LIGHTS					0.0	0.0	(EX) NURSES C/	ALL RECOVERY CE
25	20	2					(EX) 208V PH	IONE SWITCH	0.0	1.8					CO - IMAGING	RECEPTION A101
27											0.0	1.8			CO - OF	FICE A103
29	20	1					. ,	D. ADMIT. DOOR					0.0	0.0	(EX) HONEYWEL	L IN ER ADMITTIN
31	30	2					(EX) FILM PROC	ESSOR IN FILM	0.0	0.0					(EX) F/A POWER	SUPPLY (FCPS-24
33											0.0	0.2			FRIDGE -	OFFICE A103
35	20	2					(EX) 208V PH	IONE SWITCH					0.0	0.0	(EX) DOCTORS AN	NSWERING SERVIC
37									0.0	0.0					(EX)	SPARE
39	20	2					(EX) POW	ER TO CRT			0.0	0.0			(EX) COMPUTE	ER 120V RECEPT.
41													0.0	0.0	(EX) ROLL UP DO	OORS 2ND FLOOR.
ΤΟΤΑΙ	_S:						CONNECTE	D kVA PER PHASE	2	2	2	2	(0		CONNE
							CONNECTED /	AMPS PER PHASE	1	7	1	9		0	AVERA	AGE CONNECTED /
NEC D	IVER	SIFIED	LOAD		CULAT	IONS										
LIC	GHTIN	G & CC	ONTINU	JOUS	LOAD	S:		- 100%		NEC	TED	OAD	PLU	S 25%	0	DIV
			RE	ECEPT	ACLE	S: 3.8	kVA @ 100% = 3.8	8 kVA - FIRS	T 10k	VA @) 100 ⁹	%, RE	MAIN	IDER	@ 50%	AVERA
	AL	L OTHE	ER LO	ADS @	<u>)</u> 100%	6:	0.0 kVA								OTHER LOADS WIT 125% PER NEC	ГН
4																

PANEL: "ESA" (EXISTING)

LARGEST MOTOR CALCULATED @ 125% PER NEC BKR: GF=GFCI, GF3=30mA GFCI CAPABLE OF BEING LOCAKED OUT IN OPEN POSITION, IG=ISOLATED GROUND, AF=AFCI, ST=SHUNT TRIP, RED=PROVIDE RED COLORED BREAKER,

CESSORIES: PANEL DIRECTORY, IDENTIFICATION, GROUNDING BAR CT OCP LOAD (kVA) PHASE LOAD O AMP POLE BKR LTG PWR CO DESCRIPTION A B C DESCRIPTION 20 1 (EX) SPARE 0.0 0.4 CO - PORTABLES	L	LOAD (k		OCP		
AMP POLE BKR LTG PWR CO DESCRIPTION A B C DESCRIPTION 20 1 (EX) SPARE 0.0 0.4 Image: Color Portables	L	LOAD (k	,	OCP		
D AMP POLE BKR LTG PWR CO DESCRIPTION A B C DESCRIPTION 20 1 (EX) SPARE 0.0 0.4 CO - PORTABLES		· · ·	VA)	OCP		
O AMP POLE BKR LTG PWR CO DESCRIPTION A B C DESCRIPTION 20 1 (EX) SPARE 0.0 0.4 Image: CO - PORTABLES	PTION CO			001		ск
		;o ∣PWR		R POLE	AMP	NC
	S ALCOVE A128 0.4	.4 0.0	0.0	1	20	2
20 1 (EX) SPARE 0.0 0.4 CO - PORTABLES	S ALCOVE A128 0.4	.4 0.0	0.0	1	20	4
20 1 (EX) SPARE 0.0 1.3 CO - OFFIC	CE A102 1.3	.3 0.0	0.0	1	20	6
20 1 (EX) SPARE 0.0 0.9 CO - IMAGING RE	ECEPTION A101 0.9	.9 0.0	0.0	1	20	8
20 1 (EXISTING) 0.0 1.6 CO - IMAGING RE	ECEPTION A101 1.0	.6 0.0	0.0	1	20	10
1 20 1 (EX) SPARE 0.0 1.1 CO - OFFIC	CE A103 1.	.1 0.0	0.0	1	20	12
3 20 1 (EX) X-RAY DRESSING RM 1-4 0.0 1.4 CO - OFFIC	CE A103 1.4	.4 0.0	0.0	1	20	14
5 20 1 (EX) XRAY DRESS RMS W/ TOILET 0.0 1.5 MICROWAVE -	OFFICE A103 0.0	.0 1.5	0.0	1	20	16
7 20 1 (EX) FEMALE DRESS RM. XRAY 0.0 0.0 (EX) SF	PARE			1	20	18
9 20 1 (EX) NUMER BREAK 0.0 0.0 (EX) SF	PARE			1	20	20
1 20 1 (EX) SPARE 0.0 0.0 (EX) SF	PARE			1	20	22
3 20 1 (EX) CO TELE RM. OUTSIDE ER 0.0 0.0 (EX) CAMERAS EL	EVATOR LOBBY			1	20	24
5 20 1 (EX) SPARE 0.0 0.0 (EX) SF	PARE			2	20	26
7 20 1 (EX) MAMO BATH & DRESSING RM 0.0 0.0						28
9 20 1 (EXISTING) 0.0 0.0 (EX)SF	PARE			1	20	30
1 20 1 (EX) COKE MACH. NURSE CONF 0.0 0.0 (EX) E.D.F. AND	RESTROOMS			1	20	32
3 20 1 (EX) RADIANT HEATERS NURSERY 0.0 0.0 (EX) CAMERA/MONIT	TOR XRAY-F.DESK			1	20	34
5 20 1 (EX) ULTRASOUND BATH 0.0 0.0 (EX) SF	PARE			1	20	36
7 20 1 (EX) RADIOLOGY EQUIP. ALCOVE 0.0 0.0 (EX) SF	PARE			1	20	38
9 20 1 (EXISTING) 0.0 0.0 (EX) EXHAUST FA	ANS BATH BY			1	20	40
1 20 1 (EX) SPARE 0.0 0.0 (EX) SF	PARE			2	20	42
B SPACE 0.0 0.0						44
TALS:CONNECTED kVA PER PHASE332	CONNECTED	D TOTAL	kVA =	9		
			ASE =	24		
7 20 1 (EX) RADIOLOGY EQUIP. ALCOVE 0.0 0.0 0 0 0 (EX) SF 9 20 1 (EX) RADIOLOGY EQUIP. ALCOVE 0.0 0.0 0.0 0.0 (EX) SF 1 20 1 (EX) SPARE 0.0 0.0 0.0 (EX) EXHAUST FA 3 SPACE 0.0 0.0 0.0 0.0 (EX) SF	PARE ANS BATH BY PARE CONNECTED	 D TOTAL	 kVA =	 9	-	20 20

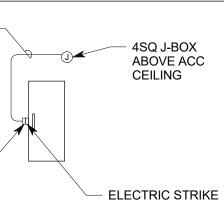
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PROTECTED SIDE ELEVATION

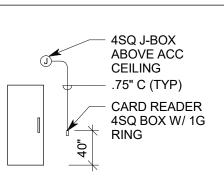
.75" C (TYP) -



CARD ACCESS DOOR TYPE SCHEDULE



UNPROTECTED SIDE ELEVATION



LOCK TYPE(S)

W/ LOCKSET

DIVISION OF WORK AND COMMENTS

ELECTRIC STRIKE <u>SECURITY CONTRACTOR PROVIDES:</u> CR, L/PS HARDWARE CONTRACTOR PROVIDES: • ES LOCK CONTROLLED BY:

• CR



DIVERSIFIED TOTAL kVA = 4 RAGE AMPS PER PHASE = **10**

AF=ARC FAULT CURRENT INTERRUPTER, GA=COMBINATION OF GROUND FAULT AND ARC FAULT CIRCUIT INTERRUPTER, GS=COMBINATION OF SHUNT TRIP WITH GFCI

LIGHTING FIXTURE SCHEDULE

) BIDDERS	: COMPLY WITH THE SPECIFICATIONS.						
		ICATIONS FOR IMPORTANT TECHNICAL REQU	JIREMENTS F	OR LIGHTING F	XTURES, E	ALLASTS, AND LAM	IPS. THE CATALOG NUMBERS LISTED	
BELOW H	HAVE BEEI	N CAREFULLY PREPARED TO ASSIST BIDDER	S IN SELECT	ING PRODUCTS	TO ACHIE	/E THE DESIGN COI	NCEPT, HOWEVER, PRIOR TO BIDDING,	
		IRER SHALL COMPARE THE CATALOG NUMBE						
		ITECT/ENGINEER OF ANY DISCREPANCIES. S						
		RIES TO FACILITATE INSTALLATION AS SHOW						
		ES THAT WERE NOT REPORTED TO THE ARC						
		IY AMBIGUITY IS THE RESPONSIBILITY OF THE E TYPES SHOWN WITHIN 48 BUSINESS HOUR						
		MPOWER THE ENGINEER TO DETERMINE FAIL						
		INSTALLER. SUBMITTAL PACKAGE SHALL INC				,		
		ED FIXTURES, PROVIDE A SECOND SET OF PE						
		NO ADDITIONAL CHARGE. ALL FIXTURES SH	,		,		*	
INTENDE	D AND WI	TH THE LAMP AND BALLAST PROPOSED. CON	ITRACTOR A	LLOWANCE PRI	CES ARE A	CCURATE WHEN TH	IIS JOB WAS SPECIFIED,	
CONTRAC	CTOR AND	DELECTRICAL DISTRIBUTOR SHALL VERIFY T	HIS ALLOWA	NCE AND REPO	RT ANY PR	OBLEMS TO THE EN	NGINEER BEFORE THE BID.	
ALLOWA	NCE PRIC	E MAY OR MAY NOT INCLUDE LAMP(S) OR FRI	EIGHT AS NO	DTED, AND DO N	OT INCLUE	E ANY TAXES. UNIV	/ERSAL VOLTAGE (120/277)	
BALLAST	S REQUIR	ED UNLESS NOTED OTHERWISE. DIMENSION	SEQUENCE	= (LENGTH X W	IDTH X DEF	PTH) IN INCHES.		
	MADK	BODY / AIR / MOUNTING / DOOR LENS/LOUVER/REFLECTOR/OTHER		WATTS	VOLTS		R CATALOG NUMBER	NOTES
SYMBOL	DX	RECESSED LED: SOLID STATE LED LIGHT E			-			NUTES
	DX	SYSTEM RATED LIFE 50,000 HOURS AT 70%	,					
		DRIVER, AND JUNCTION BOX ACCESSIBLE	,				Distance Evolution, Form Endine,	
	D-89	6" APERTURE: COMFORT CLEAR	LED	15W	UNV	LIGHTOLIER	6R-N/C6L-15-8-30-M-U/C6-R-DL-WH	
		DIFFUSER; 3000K COLOR TEMP LED;				PRESCOLITE		
		~1500 LUMENS; 15 INPUT WATTS;				GOTHAM		
		0-10V SOLID STATE DIMMING				PORTFOLIO		
		DRIVER; LENS; WHITE FLANGE.						
	G	DECORATIVE LENSED TROFFERS: RECESS						
	0	0-10 VOLT DIMMING DRIVER WHERE INDICA		,		CHO LENO, LAITING		
	G-1	RECESSED LED FIXTURE, 2X4, ACRYLIC	LED	50W	UNV	DAYBRITE	2-EV-G-38L-840-2-D-UNV-DIM	
		DIFFUSER, ~4800 LUMENS, MULTI						
						LITHONIA	2VTL4-48L-ADP-EZ1-LP840	
		VOLT, 4000K, GRID MOUNTED,				LITHONIA METALUX	2VTL4-48L-ADP-EZ1-LP840 24-RTC-48-UNV-GL-L840-HCD	
	6.2	VOLT, 4000K, GRID MOUNTED, 1% DIMMING, MINIMUM 82 CRI		4510/		METALUX	24-RTC-48-UNV-GL-L840-HCD	
	G-2	VOLT, 4000K, GRID MOUNTED, 1% DIMMING, MINIMUM 82 CRI RECESSED LED FIXTURE, 2X2, ACRYLIC	LED	45W	UNV	METALUX	24-RTC-48-UNV-GL-L840-HCD 2-EV-G-48L-840-4-D-UNV-DIM	
	G-2	VOLT, 4000K, GRID MOUNTED, 1% DIMMING, MINIMUM 82 CRI RECESSED LED FIXTURE, 2X2, ACRYLIC DIFFUSER, ~4000 LUMENS, MULTI	LED	45W	UNV	METALUX DAYBRITE LITHONIA	24-RTC-48-UNV-GL-L840-HCD 2-EV-G-48L-840-4-D-UNV-DIM 2VTL2-40L-ADP-EZ1-LP840	
	G-2	VOLT, 4000K, GRID MOUNTED, 1% DIMMING, MINIMUM 82 CRI RECESSED LED FIXTURE, 2X2, ACRYLIC	LED	45W	UNV	METALUX	24-RTC-48-UNV-GL-L840-HCD 2-EV-G-48L-840-4-D-UNV-DIM	
	G-2	VOLT, 4000K, GRID MOUNTED, 1% DIMMING, MINIMUM 82 CRI RECESSED LED FIXTURE, 2X2, ACRYLIC DIFFUSER, ~4000 LUMENS, MULTI VOLT, 4000K, GRID MOUNTED,	LED	45W	UNV	METALUX DAYBRITE LITHONIA	24-RTC-48-UNV-GL-L840-HCD 2-EV-G-48L-840-4-D-UNV-DIM 2VTL2-40L-ADP-EZ1-LP840	
	G-2 TX	VOLT, 4000K, GRID MOUNTED, 1% DIMMING, MINIMUM 82 CRI RECESSED LED FIXTURE, 2X2, ACRYLIC DIFFUSER, ~4000 LUMENS, MULTI VOLT, 4000K, GRID MOUNTED,			-	METALUX DAYBRITE LITHONIA METALUX	24-RTC-48-UNV-GL-L840-HCD 2-EV-G-48L-840-4-D-UNV-DIM 2VTL2-40L-ADP-EZ1-LP840 22-RTC-48-UNV-GL-L840-HCD	
	ТХ	VOLT, 4000K, GRID MOUNTED, 1% DIMMING, MINIMUM 82 CRI RECESSED LED FIXTURE, 2X2, ACRYLIC DIFFUSER, ~4000 LUMENS, MULTI VOLT, 4000K, GRID MOUNTED, MINIMUM 82 CRI SPECIAL FIXTURES AS INDICATED. MEET A FINISH APPROVAL REQUIRED.	LL REQUIRE	MENTS OF SPEC	CIFICATION	METALUX DAYBRITE LITHONIA METALUX S AND FIXTURE SC	24-RTC-48-UNV-GL-L840-HCD 2-EV-G-48L-840-4-D-UNV-DIM 2VTL2-40L-ADP-EZ1-LP840 22-RTC-48-UNV-GL-L840-HCD HEDULE. VISUAL AND	
		VOLT, 4000K, GRID MOUNTED, 1% DIMMING, MINIMUM 82 CRI RECESSED LED FIXTURE, 2X2, ACRYLIC DIFFUSER, ~4000 LUMENS, MULTI VOLT, 4000K, GRID MOUNTED, MINIMUM 82 CRI SPECIAL FIXTURES AS INDICATED. MEET A FINISH APPROVAL REQUIRED. LED TAPE FIXTURE; 35K; MINIMUM			-	METALUX DAYBRITE LITHONIA METALUX	24-RTC-48-UNV-GL-L840-HCD 2-EV-G-48L-840-4-D-UNV-DIM 2VTL2-40L-ADP-EZ1-LP840 22-RTC-48-UNV-GL-L840-HCD HEDULE. VISUAL AND WAC LIGHTING # LED-TX2435-1-WT	
	ТХ	VOLT, 4000K, GRID MOUNTED, 1% DIMMING, MINIMUM 82 CRI RECESSED LED FIXTURE, 2X2, ACRYLIC DIFFUSER, ~4000 LUMENS, MULTI VOLT, 4000K, GRID MOUNTED, MINIMUM 82 CRI SPECIAL FIXTURES AS INDICATED. MEET A FINISH APPROVAL REQUIRED. LED TAPE FIXTURE; 35K; MINIMUM 80 CRI; SEE PLANS FOR LENGTH	LL REQUIRE	MENTS OF SPEC	CIFICATION	METALUX DAYBRITE LITHONIA METALUX S AND FIXTURE SC	24-RTC-48-UNV-GL-L840-HCD 2-EV-G-48L-840-4-D-UNV-DIM 2VTL2-40L-ADP-EZ1-LP840 22-RTC-48-UNV-GL-L840-HCD HEDULE. VISUAL AND WAC LIGHTING # LED-TX2435-1-WT WAC LIGHTING # EN-2460-RB2-T	
	ТХ	VOLT, 4000K, GRID MOUNTED, 1% DIMMING, MINIMUM 82 CRI RECESSED LED FIXTURE, 2X2, ACRYLIC DIFFUSER, ~4000 LUMENS, MULTI VOLT, 4000K, GRID MOUNTED, MINIMUM 82 CRI SPECIAL FIXTURES AS INDICATED. MEET A FINISH APPROVAL REQUIRED. LED TAPE FIXTURE; 35K; MINIMUM	LL REQUIRE	MENTS OF SPEC	CIFICATION	METALUX DAYBRITE LITHONIA METALUX S AND FIXTURE SC	24-RTC-48-UNV-GL-L840-HCD 2-EV-G-48L-840-4-D-UNV-DIM 2VTL2-40L-ADP-EZ1-LP840 22-RTC-48-UNV-GL-L840-HCD HEDULE. VISUAL AND WAC LIGHTING # LED-TX2435-1-WT	
	TX TX-1	VOLT, 4000K, GRID MOUNTED, 1% DIMMING, MINIMUM 82 CRI RECESSED LED FIXTURE, 2X2, ACRYLIC DIFFUSER, ~4000 LUMENS, MULTI VOLT, 4000K, GRID MOUNTED, MINIMUM 82 CRI SPECIAL FIXTURES AS INDICATED. MEET A FINISH APPROVAL REQUIRED. LED TAPE FIXTURE; 35K; MINIMUM 80 CRI; SEE PLANS FOR LENGTH ~275 LUMENS/FOOT	LED	MENTS OF SPEC		METALUX DAYBRITE LITHONIA METALUX S AND FIXTURE SC WAC LIGHTING	24-RTC-48-UNV-GL-L840-HCD 2-EV-G-48L-840-4-D-UNV-DIM 2VTL2-40L-ADP-EZ1-LP840 22-RTC-48-UNV-GL-L840-HCD HEDULE. VISUAL AND WAC LIGHTING # LED-TX2435-1-WT WAC LIGHTING # LED-TX2435-1-WT WAC LIGHTING # LED-T-CH2	
	ТХ	VOLT, 4000K, GRID MOUNTED, 1% DIMMING, MINIMUM 82 CRI RECESSED LED FIXTURE, 2X2, ACRYLIC DIFFUSER, ~4000 LUMENS, MULTI VOLT, 4000K, GRID MOUNTED, MINIMUM 82 CRI SPECIAL FIXTURES AS INDICATED. MEET A FINISH APPROVAL REQUIRED. LED TAPE FIXTURE; 35K; MINIMUM 80 CRI; SEE PLANS FOR LENGTH ~275 LUMENS/FOOT RECESSED LED FIXTURE, LINEAR	LL REQUIRE	MENTS OF SPEC 4W/FT 9W	CIFICATION	METALUX DAYBRITE LITHONIA METALUX S AND FIXTURE SC	24-RTC-48-UNV-GL-L840-HCD 2-EV-G-48L-840-4-D-UNV-DIM 2VTL2-40L-ADP-EZ1-LP840 22-RTC-48-UNV-GL-L840-HCD HEDULE. VISUAL AND WAC LIGHTING # LED-TX2435-1-WT WAC LIGHTING # EN-2460-RB2-T	
	TX TX-1	VOLT, 4000K, GRID MOUNTED, 1% DIMMING, MINIMUM 82 CRI RECESSED LED FIXTURE, 2X2, ACRYLIC DIFFUSER, ~4000 LUMENS, MULTI VOLT, 4000K, GRID MOUNTED, MINIMUM 82 CRI SPECIAL FIXTURES AS INDICATED. MEET A FINISH APPROVAL REQUIRED. LED TAPE FIXTURE; 35K; MINIMUM 80 CRI; SEE PLANS FOR LENGTH ~275 LUMENS/FOOT RECESSED LED FIXTURE, LINEAR ASYMMETRIC WALL WASH, 4"	LED	MENTS OF SPEC		METALUX DAYBRITE LITHONIA METALUX S AND FIXTURE SC WAC LIGHTING	24-RTC-48-UNV-GL-L840-HCD 2-EV-G-48L-840-4-D-UNV-DIM 2VTL2-40L-ADP-EZ1-LP840 22-RTC-48-UNV-GL-L840-HCD HEDULE. VISUAL AND WAC LIGHTING # LED-TX2435-1-WT WAC LIGHTING # LED-TX2435-1-WT WAC LIGHTING # LED-T-CH2	
	TX TX-1	VOLT, 4000K, GRID MOUNTED, 1% DIMMING, MINIMUM 82 CRI RECESSED LED FIXTURE, 2X2, ACRYLIC DIFFUSER, ~4000 LUMENS, MULTI VOLT, 4000K, GRID MOUNTED, MINIMUM 82 CRI SPECIAL FIXTURES AS INDICATED. MEET A FINISH APPROVAL REQUIRED. LED TAPE FIXTURE; 35K; MINIMUM 80 CRI; SEE PLANS FOR LENGTH ~275 LUMENS/FOOT RECESSED LED FIXTURE, LINEAR ASYMMETRIC WALL WASH, 4" APERATURE, ACRYLIC DIFFUSER, 4000K,	LED	MENTS OF SPEC 4W/FT 9W		METALUX DAYBRITE LITHONIA METALUX S AND FIXTURE SC WAC LIGHTING	24-RTC-48-UNV-GL-L840-HCD 2-EV-G-48L-840-4-D-UNV-DIM 2VTL2-40L-ADP-EZ1-LP840 22-RTC-48-UNV-GL-L840-HCD HEDULE. VISUAL AND WAC LIGHTING # LED-TX2435-1-WT WAC LIGHTING # LED-TX2435-1-WT WAC LIGHTING # LED-T-CH2	
	TX TX-1	VOLT, 4000K, GRID MOUNTED, 1% DIMMING, MINIMUM 82 CRI RECESSED LED FIXTURE, 2X2, ACRYLIC DIFFUSER, ~4000 LUMENS, MULTI VOLT, 4000K, GRID MOUNTED, MINIMUM 82 CRI SPECIAL FIXTURES AS INDICATED. MEET A FINISH APPROVAL REQUIRED. LED TAPE FIXTURE; 35K; MINIMUM 80 CRI; SEE PLANS FOR LENGTH ~275 LUMENS/FOOT RECESSED LED FIXTURE, LINEAR ASYMMETRIC WALL WASH, 4"	LED	MENTS OF SPEC 4W/FT 9W		METALUX DAYBRITE LITHONIA METALUX S AND FIXTURE SC WAC LIGHTING	24-RTC-48-UNV-GL-L840-HCD 2-EV-G-48L-840-4-D-UNV-DIM 2VTL2-40L-ADP-EZ1-LP840 22-RTC-48-UNV-GL-L840-HCD HEDULE. VISUAL AND WAC LIGHTING # LED-TX2435-1-WT WAC LIGHTING # LED-TX2435-1-WT WAC LIGHTING # LED-T-CH2	
	TX TX-1	VOLT, 4000K, GRID MOUNTED, 1% DIMMING, MINIMUM 82 CRI RECESSED LED FIXTURE, 2X2, ACRYLIC DIFFUSER, ~4000 LUMENS, MULTI VOLT, 4000K, GRID MOUNTED, MINIMUM 82 CRI SPECIAL FIXTURES AS INDICATED. MEET A FINISH APPROVAL REQUIRED. LED TAPE FIXTURE; 35K; MINIMUM 80 CRI; SEE PLANS FOR LENGTH ~275 LUMENS/FOOT RECESSED LED FIXTURE, LINEAR ASYMMETRIC WALL WASH, 4" APERATURE, ACRYLIC DIFFUSER, 4000K, GRID MOUNTED, MINIMUM 80 CRI,	LED	MENTS OF SPEC 4W/FT 9W		METALUX DAYBRITE LITHONIA METALUX S AND FIXTURE SC WAC LIGHTING	24-RTC-48-UNV-GL-L840-HCD 2-EV-G-48L-840-4-D-UNV-DIM 2VTL2-40L-ADP-EZ1-LP840 22-RTC-48-UNV-GL-L840-HCD HEDULE. VISUAL AND WAC LIGHTING # LED-TX2435-1-WT WAC LIGHTING # LED-TX2435-1-WT WAC LIGHTING # LED-T-CH2	
	TX TX-1	VOLT, 4000K, GRID MOUNTED, 1% DIMMING, MINIMUM 82 CRI RECESSED LED FIXTURE, 2X2, ACRYLIC DIFFUSER, ~4000 LUMENS, MULTI VOLT, 4000K, GRID MOUNTED, MINIMUM 82 CRI SPECIAL FIXTURES AS INDICATED. MEET A FINISH APPROVAL REQUIRED. LED TAPE FIXTURE; 35K; MINIMUM 80 CRI; SEE PLANS FOR LENGTH ~275 LUMENS/FOOT RECESSED LED FIXTURE, LINEAR ASYMMETRIC WALL WASH, 4" APERATURE, ACRYLIC DIFFUSER, 4000K, GRID MOUNTED, MINIMUM 80 CRI, VERIFY EXACT LENGTHS ON PLAN;	LED	MENTS OF SPEC 4W/FT 9W		METALUX DAYBRITE LITHONIA METALUX S AND FIXTURE SC WAC LIGHTING	24-RTC-48-UNV-GL-L840-HCD 2-EV-G-48L-840-4-D-UNV-DIM 2VTL2-40L-ADP-EZ1-LP840 22-RTC-48-UNV-GL-L840-HCD HEDULE. VISUAL AND WAC LIGHTING # LED-TX2435-1-WT WAC LIGHTING # LED-TX2435-1-WT WAC LIGHTING # LED-T-CH2	
	TX TX-1	VOLT, 4000K, GRID MOUNTED, 1% DIMMING, MINIMUM 82 CRI RECESSED LED FIXTURE, 2X2, ACRYLIC DIFFUSER, ~4000 LUMENS, MULTI VOLT, 4000K, GRID MOUNTED, MINIMUM 82 CRI SPECIAL FIXTURES AS INDICATED. MEET A FINISH APPROVAL REQUIRED. LED TAPE FIXTURE; 35K; MINIMUM 80 CRI; SEE PLANS FOR LENGTH ~275 LUMENS/FOOT RECESSED LED FIXTURE, LINEAR ASYMMETRIC WALL WASH, 4" APERATURE, ACRYLIC DIFFUSER, 4000K, GRID MOUNTED, MINIMUM 80 CRI, VERIFY EXACT LENGTHS ON PLAN;	LL REQUIRE	WENTS OF SPEC 4W/FT 9W PER FOOT	LIFICATION 120V UNV	METALUX DAYBRITE LITHONIA METALUX S AND FIXTURE SC WAC LIGHTING FOCAL POINT	24-RTC-48-UNV-GL-L840-HCD 2-EV-G-48L-840-4-D-UNV-DIM 2VTL2-40L-ADP-EZ1-LP840 22-RTC-48-UNV-GL-L840-HCD HEDULE. VISUAL AND WAC LIGHTING # LED-TX2435-1-WT WAC LIGHTING # EN-2460-RB2-T WAC LIGHTING # EN-2460-RB2-T WAC LIGHTING # LED-T-CH2 FSM4AL-FFL-625LF-40K-1C-UNV-LD1-G1-WH-X	
	TX TX-1 TX-2	VOLT, 4000K, GRID MOUNTED, 1% DIMMING, MINIMUM 82 CRI RECESSED LED FIXTURE, 2X2, ACRYLIC DIFFUSER, ~4000 LUMENS, MULTI VOLT, 4000K, GRID MOUNTED, MINIMUM 82 CRI SPECIAL FIXTURES AS INDICATED. MEET A FINISH APPROVAL REQUIRED. LED TAPE FIXTURE; 35K; MINIMUM 80 CRI; SEE PLANS FOR LENGTH ~275 LUMENS/FOOT RECESSED LED FIXTURE, LINEAR ASYMMETRIC WALL WASH, 4" APERATURE, ACRYLIC DIFFUSER, 4000K, GRID MOUNTED, MINIMUM 80 CRI, VERIFY EXACT LENGTHS ON PLAN; ~625 LUMENS PER LINEAR FOOT LED UNDERCABINET LIGHT: LOW PROFILE EXTRUDED CLEAR, POLYCARBONATE LENS	LED LED LED 1" HIGH X 1 S; INTERNAL	9W PER FOOT 3/4"DEEP X LEN LED DRIVER; EI	UNV GTH AS NC	METALUX DAYBRITE LITHONIA METALUX S AND FIXTURE SC WAC LIGHTING FOCAL POINT TED; EXTRUDED A	24-RTC-48-UNV-GL-L840-HCD 2-EV-G-48L-840-4-D-UNV-DIM 2VTL2-40L-ADP-EZ1-LP840 22-RTC-48-UNV-GL-L840-HCD HEDULE. VISUAL AND WAC LIGHTING # LED-TX2435-1-WT WAC LIGHTING # EN-2460-RB2-T WAC LIGHTING # EN-2460-RB2-T WAC LIGHTING # LED-T-CH2 FSM4AL-FFL-625LF-40K-1C-UNV-LD1-G1-WH-X	
	TX TX-1 TX-2	VOLT, 4000K, GRID MOUNTED, 1% DIMMING, MINIMUM 82 CRI RECESSED LED FIXTURE, 2X2, ACRYLIC DIFFUSER, ~4000 LUMENS, MULTI VOLT, 4000K, GRID MOUNTED, MINIMUM 82 CRI SPECIAL FIXTURES AS INDICATED. MEET A FINISH APPROVAL REQUIRED. LED TAPE FIXTURE; 35K; MINIMUM 80 CRI; SEE PLANS FOR LENGTH ~275 LUMENS/FOOT RECESSED LED FIXTURE, LINEAR ASYMMETRIC WALL WASH, 4" APERATURE, ACRYLIC DIFFUSER, 4000K, GRID MOUNTED, MINIMUM 80 CRI, VERIFY EXACT LENGTHS ON PLAN; ~625 LUMENS PER LINEAR FOOT LED UNDERCABINET LIGHT: LOW PROFILE EXTRUDED CLEAR, POLYCARBONATE LENS 50,000 HOUR RATED LAMP LIFE; WIRING CO	LED LED LED 1" HIGH X 1 S; INTERNAL DMPARTMEN	MENTS OF SPEC 4W/FT 9W PER FOOT 3/4"DEEP X LENG LED DRIVER; EN IT; FLUSH END.	UNV GTH AS NC	METALUX DAYBRITE LITHONIA METALUX S AND FIXTURE SC WAC LIGHTING FOCAL POINT TED; EXTRUDED A REATER THAN 40 LU	24-RTC-48-UNV-GL-L840-HCD 2-EV-G-48L-840-4-D-UNV-DIM 2VTL2-40L-ADP-EZ1-LP840 22-RTC-48-UNV-GL-L840-HCD HEDULE. VISUAL AND WAC LIGHTING # LED-TX2435-1-WT WAC LIGHTING # EN-2460-RB2-T WAC LIGHTING # LED-T-CH2 FSM4AL-FFL-625LF-40K-1C-UNV-LD1-G1-WH-X LUMINUM BODY; JMENS PER WATT;	
	TX TX-1 TX-2	VOLT, 4000K, GRID MOUNTED, 1% DIMMING, MINIMUM 82 CRI RECESSED LED FIXTURE, 2X2, ACRYLIC DIFFUSER, ~4000 LUMENS, MULTI VOLT, 4000K, GRID MOUNTED, MINIMUM 82 CRI SPECIAL FIXTURES AS INDICATED. MEET A FINISH APPROVAL REQUIRED. LED TAPE FIXTURE; 35K; MINIMUM 80 CRI; SEE PLANS FOR LENGTH ~275 LUMENS/FOOT RECESSED LED FIXTURE, LINEAR ASYMMETRIC WALL WASH, 4" APERATURE, ACRYLIC DIFFUSER, 4000K, GRID MOUNTED, MINIMUM 80 CRI, VERIFY EXACT LENGTHS ON PLAN; ~625 LUMENS PER LINEAR FOOT LED UNDERCABINET LIGHT: LOW PROFILE EXTRUDED CLEAR, POLYCARBONATE LENS 50,000 HOUR RATED LAMP LIFE; WIRING CO CONNECTORS FOR ROW INSTALLATION (C	LED LED LED 1" HIGH X 1 S; INTERNAL DMPARTMEN ONNECTORS	MENTS OF SPEC 4W/FT 9W PER FOOT 3/4"DEEP X LEN LED DRIVER; EI IT; FLUSH END. S ARE NOT INCL	UNV CIFICATION 120V UNV GTH AS NC FFICACY GI UDED IN TI	METALUX DAYBRITE LITHONIA METALUX S AND FIXTURE SC WAC LIGHTING FOCAL POINT TED; EXTRUDED A REATER THAN 40 LU HE FIXTURE SCHED	24-RTC-48-UNV-GL-L840-HCD 2-EV-G-48L-840-4-D-UNV-DIM 2VTL2-40L-ADP-EZ1-LP840 22-RTC-48-UNV-GL-L840-HCD HEDULE. VISUAL AND WAC LIGHTING # LED-TX2435-1-WT WAC LIGHTING # LED-TX2435-1-WT WAC LIGHTING # EN-2460-RB2-T WAC LIGHTING # LED-T-CH2 FSM4AL-FFL-625LF-40K-1C-UNV-LD1-G1-WH-X LUMINUM BODY; JMENS PER WATT; ULE CATALOG	
	TX TX-1 TX-2 UC	VOLT, 4000K, GRID MOUNTED, 1% DIMMING, MINIMUM 82 CRI RECESSED LED FIXTURE, 2X2, ACRYLIC DIFFUSER, ~4000 LUMENS, MULTI VOLT, 4000K, GRID MOUNTED, MINIMUM 82 CRI SPECIAL FIXTURES AS INDICATED. MEET A FINISH APPROVAL REQUIRED. LED TAPE FIXTURE; 35K; MINIMUM 80 CRI; SEE PLANS FOR LENGTH ~275 LUMENS/FOOT RECESSED LED FIXTURE, LINEAR ASYMMETRIC WALL WASH, 4" APERATURE, ACRYLIC DIFFUSER, 4000K, GRID MOUNTED, MINIMUM 80 CRI, VERIFY EXACT LENGTHS ON PLAN; ~625 LUMENS PER LINEAR FOOT LED UNDERCABINET LIGHT: LOW PROFILE EXTRUDED CLEAR, POLYCARBONATE LENS 50,000 HOUR RATED LAMP LIFE; WIRING CC CONNECTORS FOR ROW INSTALLATION (C NUMBERS - CONNECTOR CONFIGURATION	LED LED LED 1" HIGH X 1 S; INTERNAL DMPARTMEN ONNECTORS TO BE FIELD	MENTS OF SPEC 4W/FT 9W PER FOOT 3/4"DEEP X LEN LED DRIVER; EI IT; FLUSH END. S ARE NOT INCL D DETERMINED	CIFICATION 120V UNV GTH AS NC FFICACY GI UDED IN TI BY CONTR.	METALUX DAYBRITE LITHONIA METALUX S AND FIXTURE SC WAC LIGHTING FOCAL POINT TED; EXTRUDED A REATER THAN 40 LU HE FIXTURE SCHED ACTOR PRIOR TO P	24-RTC-48-UNV-GL-L840-HCD 2-EV-G-48L-840-4-D-UNV-DIM 2VTL2-40L-ADP-EZ1-LP840 22-RTC-48-UNV-GL-L840-HCD HEDULE. VISUAL AND WAC LIGHTING # LED-TX2435-1-WT WAC LIGHTING # LED-TX2435-1-WT WAC LIGHTING # LED-T-CH2 FSM4AL-FFL-625LF-40K-1C-UNV-LD1-G1-WH-X LUMINUM BODY; JMENS PER WATT; ULE CATALOG URCHASE).	
	TX TX-1 TX-2	VOLT, 4000K, GRID MOUNTED, 1% DIMMING, MINIMUM 82 CRI RECESSED LED FIXTURE, 2X2, ACRYLIC DIFFUSER, ~4000 LUMENS, MULTI VOLT, 4000K, GRID MOUNTED, MINIMUM 82 CRI SPECIAL FIXTURES AS INDICATED. MEET A FINISH APPROVAL REQUIRED. LED TAPE FIXTURE; 35K; MINIMUM 80 CRI; SEE PLANS FOR LENGTH ~275 LUMENS/FOOT RECESSED LED FIXTURE, LINEAR ASYMMETRIC WALL WASH, 4" APERATURE, ACRYLIC DIFFUSER, 4000K, GRID MOUNTED, MINIMUM 80 CRI, VERIFY EXACT LENGTHS ON PLAN; ~625 LUMENS PER LINEAR FOOT LED UNDERCABINET LIGHT: LOW PROFILE EXTRUDED CLEAR, POLYCARBONATE LENS 50,000 HOUR RATED LAMP LIFE; WIRING CO CONNECTORS FOR ROW INSTALLATION (C NUMBERS - CONNECTOR CONFIGURATION SURFACE MOUNTED UNDERCABINET	LED LED LED 1" HIGH X 1 S; INTERNAL DMPARTMEN ONNECTORS	MENTS OF SPEC 4W/FT 9W PER FOOT 3/4"DEEP X LEN LED DRIVER; EI IT; FLUSH END. S ARE NOT INCL	UNV CIFICATION 120V UNV GTH AS NC FFICACY GI UDED IN TI	METALUX DAYBRITE LITHONIA METALUX S AND FIXTURE SC WAC LIGHTING FOCAL POINT FOCAL POINT TED; EXTRUDED A REATER THAN 40 LU HE FIXTURE SCHED ACTOR PRIOR TO PI ALKCO	24-RTC-48-UNV-GL-L840-HCD 2-EV-G-48L-840-4-D-UNV-DIM 2VTL2-40L-ADP-EZ1-LP840 22-RTC-48-UNV-GL-L840-HCD HEDULE. VISUAL AND WAC LIGHTING # LED-TX2435-1-WT WAC LIGHTING # LED-TX2435-1-WT WAC LIGHTING # EN-2460-RB2-T WAC LIGHTING # LED-T-CH2 FSM4AL-FFL-625LF-40K-1C-UNV-LD1-G1-WH-X LUMINUM BODY; JMENS PER WATT; ULE CATALOG	
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