

ELECTRICAL KEYED NOTES:

(FOR SHEET E1.00)

- 1 REFER TO SHEET E2.01 FOR COOLER LIGHTING REQUIRED.
- 2 HOOD LIGHT SWITCH PROVIDED BY HOOD MANUFACTURER.
- 3 MOUNT EMERGENCY LIGHTING UNIT AT 6" BELOW FINISHED CEILING.
- 4 PROVIDE LEVITON #D4208 ARCHITECTURAL LIGHTING CONTROL SYSTEM FOR DIMMING AND SCENE CONTROL OF MAIN DINING, BAR, AND LOBBY LIGHTING CIRCUITS. INTEGRATED ASTRONOMICAL TIME CLOCK FOR AUTO SHUT-OFF. OWNER TO COORDINATE PROGRAMMING OF SCENES W/ CONTRACTOR. AUTOMATIC FADE IN/OUT FROM ONE SCENE TO NEXT IS POSSIBLE. REFER TO DETAIL #2 ON SHEET E3.2 FOR MORE INFORMATION.
- 5 TO DIMMING CONTROL SYSTEM. REFER TO DETAIL #2 ON SHEET E3.2 FOR MORE INFORMATION.
- 6 REFER TO DETAIL 1 ON SHEET E2.00 FOR LIGHTING IN THIS AREA.

ISSUE
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PROJECT NAME
GUADALUPANA RESTAURANT



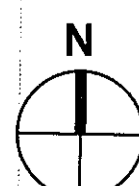
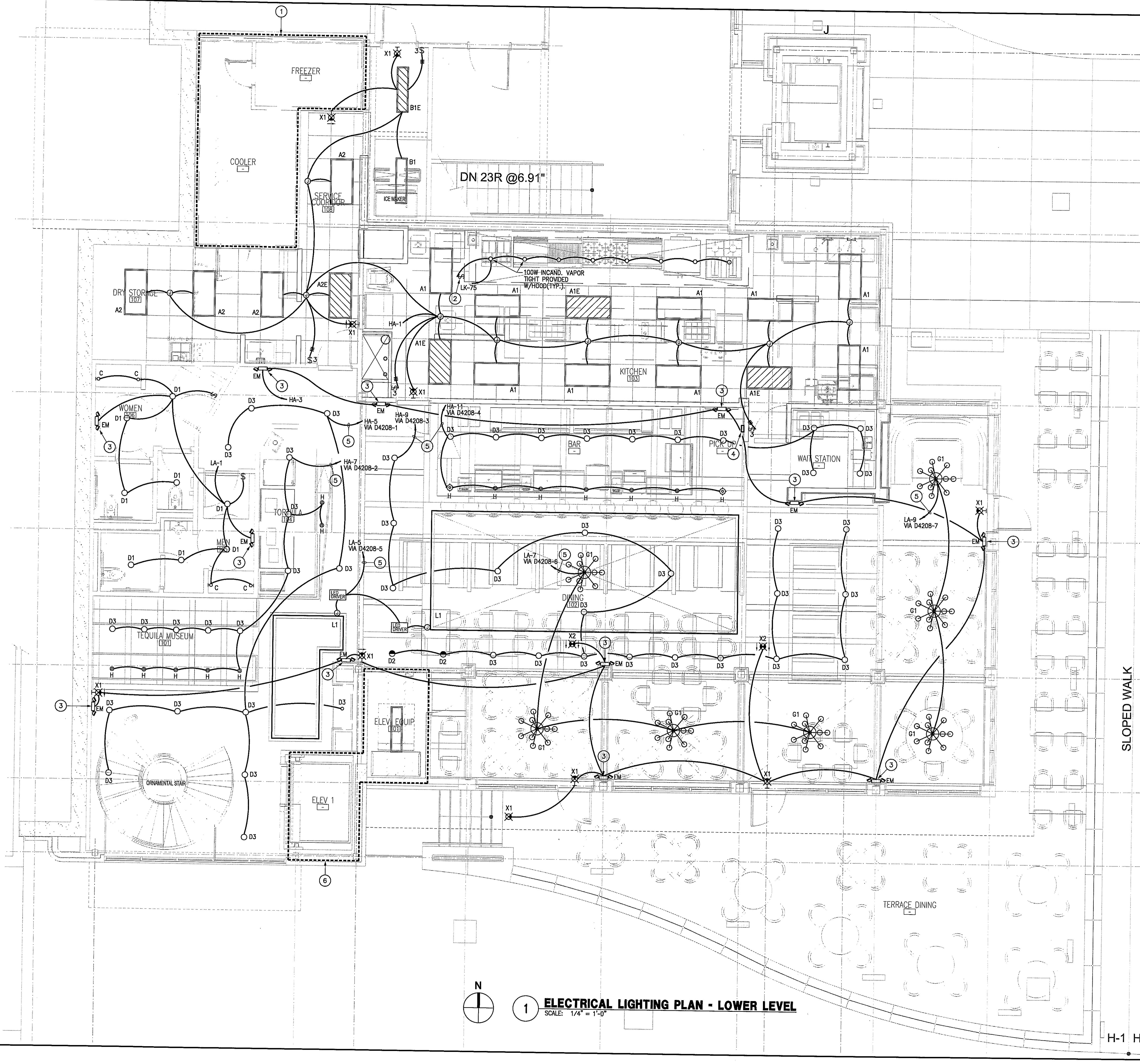
PROJECT ADDRESS
20 WATERWAY
THE WOODLANDS, TEXAS

PROJECT NUMBER
—
SHEET NAME

ELECTRICAL LIGHTING PLAN

SHEET NUMBER

E1.00



1 ELECTRICAL LIGHTING PLAN - LOWER LEVEL
SCALE: 1/4" = 1'-0"

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ELECTRICAL GENERAL NOTES:

- (FOR SHEET E2.00)
- REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION AND MOUNTING HEIGHTS OF ALL ELECTRICAL OUTLETS.
 - EACH CONDUIT SHALL BE LIMITED TO (3) CIRCUITS MAXIMUM.
 - NO MORE THAN THREE SINGLE PHASE CIRCUITS AND NO MORE THAN SIX CURRENT CARRYING CONDUCTORS SHALL BE INSTALLED IN A SINGLE RACEWAY. WHEN FOUR, FIVE, OR SIX CURRENT CARRYING CONDUCTORS ARE INSTALLED IN A SINGLE RACEWAY, THEIR CURRENT CARRYING CAPACITIES SHALL BE DERATED AS REQUIRED BY THE NEC FOR NON-DIVERSIFIED LOADS. THE INSTALLED WIRE SIZE SHALL HAVE A NOMINAL AMPACITY RATING OF 125% OF THAT REQUIRED OR SPECIFIED WHEN FOUR OR MORE CURRENT CARRYING CONDUCTORS ARE INSTALLED IN A SINGLE RACEWAY. NEUTRAL CONDUCTORS SHALL BE CONSIDERED A CURRENT CARRYING CONDUCTOR IN ALL NON-LINEAR LOADED CIRCUITS AS REQUIRED BY THE NEC.
 - VERIFY MOUNTING HEIGHTS OF RECEPTACLES WITH CASEWORK ELEVATIONS PRIOR TO ROUGH-IN. REFER TO ARCHITECTURAL DRAWINGS FOR ROOM ELEVATIONS FOR LOCATION AND COORDINATION OF ELECTRICAL OUTLETS. AT KNEESPACE LOCATIONS, LOCATE ELECTRICAL OUTLETS WITHIN KNEESPACE, UNLESS NOTED OTHERWISE. AT COUNTERTOPS WITH OUT KNEESPACE, LOCATE OUTLETS HORIZONTALLY 6" ABOVE BACK SPLASH, UNLESS NOTED OTHERWISE.
 - ALL RECEPTACLE AND EQUIPMENT BRANCH CIRCUIT CONDUITS SHALL CONTAIN A GROUND WIRE. USING THE CONDUIT SYSTEM AS THE ONLY GROUND PATH IS NOT ACCEPTABLE.
 - ELECTRICIAN OF RECORD, & BONDED PER DIVISION 0-"CONTRACT" SPECIFICATIONS, AND BE FAMILIAR & EXPERIENCED WITH SUCH WORK INDICATED HEREIN, & QUALIFIED BY MOST RECENT OSHA CERTIFICATION TO WORK ON ENERGIZED EQUIPMENT. REFER TO & COMPLY WITH OSHA 29CFR.1910 & 1926 ELECTRICAL SAFETY PORTIONS. CONSTRUCTION METHOD AND MEANS AND THEIR REQUIREMENTS. CONTRACTOR SHALL PROVIDE WORK WITHIN STANDARD OF CARE FOR PROFESSION.
 - MOUNT ALL RECEPTACLES AT +18" A.F.F. UNLESS OTHERWISE NOTED.
 - REFER TO SHEET E6.00 FOR SYMBOL LEGEND.
 - ALL ELECTRICAL WORK INCLUDED IN THIS PROJECT SHALL MEET THE REQUIREMENTS OF THE 2008 NATIONAL ELECTRICAL CODE (N.E.C.).
 - TEMPORARY POWER & HEAT ARE PROVIDED BY OTHERS.
 - REFER TO SHEET E2.01 FOR KITCHEN EQUIPMENT SCHEDULE.
 - COORDINATE ALL FINAL ROUGH-IN LOCATIONS OF TELEVISIONS WITH OWNER. PROVIDE CATV CABLE AND POWER AS REQUIRED.
 - REFER TO SHEET E2.02 FOR HVAC & ELECTRICAL EQUIPMENT LOCATED IN MEZZANINE ABOVE.
 - REFER TO SHEET E2.03 FOR HVAC & ELECTRICAL EQUIPMENT LOCATED IN MEZZANINE ABOVE.

ELECTRICAL KEYED NOTES:

- (FOR SHEET E2.00)
- FIELD VERIFY EXACT LOCATION AND ACCESS FOR TENANT SIGNAGE. PROVIDE PHOTOCELL ON/TIMELOCK OFF FOR CONTROL OF SIGN.
 - REFER TO DETAIL #1 ON SHEET E2.01 FOR PLAN OF THIS AREA.
 - REFER TO DETAIL #2 ON SHEET E2.01 FOR PLAN OF THIS AREA.
 - FURNISH AND INSTALL "WIREMOLD" SINGLE-OUTLET FLUSHFLOOR BOX WITH (1) DUPLEX RECEPTACLE. PROVIDE ALL NECESSARY HARDWARE AND FITTINGS INCLUDING PROPER COVER FOR TYPE OF FLOOR. VERIFY WITH OWNER. REFER TO DETAIL #1 ON SHEET E6.00 FOR MORE INFORMATION.
 - PROVIDE NEW ELECTRICAL METER AND DISCONNECT SWITCH MOUNTED ON EXISTING UNISTRUT RACK. LABEL SERVICE AS SUITE #100. REFER TO ONE-LINE DIAGRAM ON SHEET E4.00 FOR MORE INFORMATION.
 - ALL EXISTING EQUIPMENT IN THIS TO ROOM TO REMAIN UNLESS NOTED OTHERWISE.

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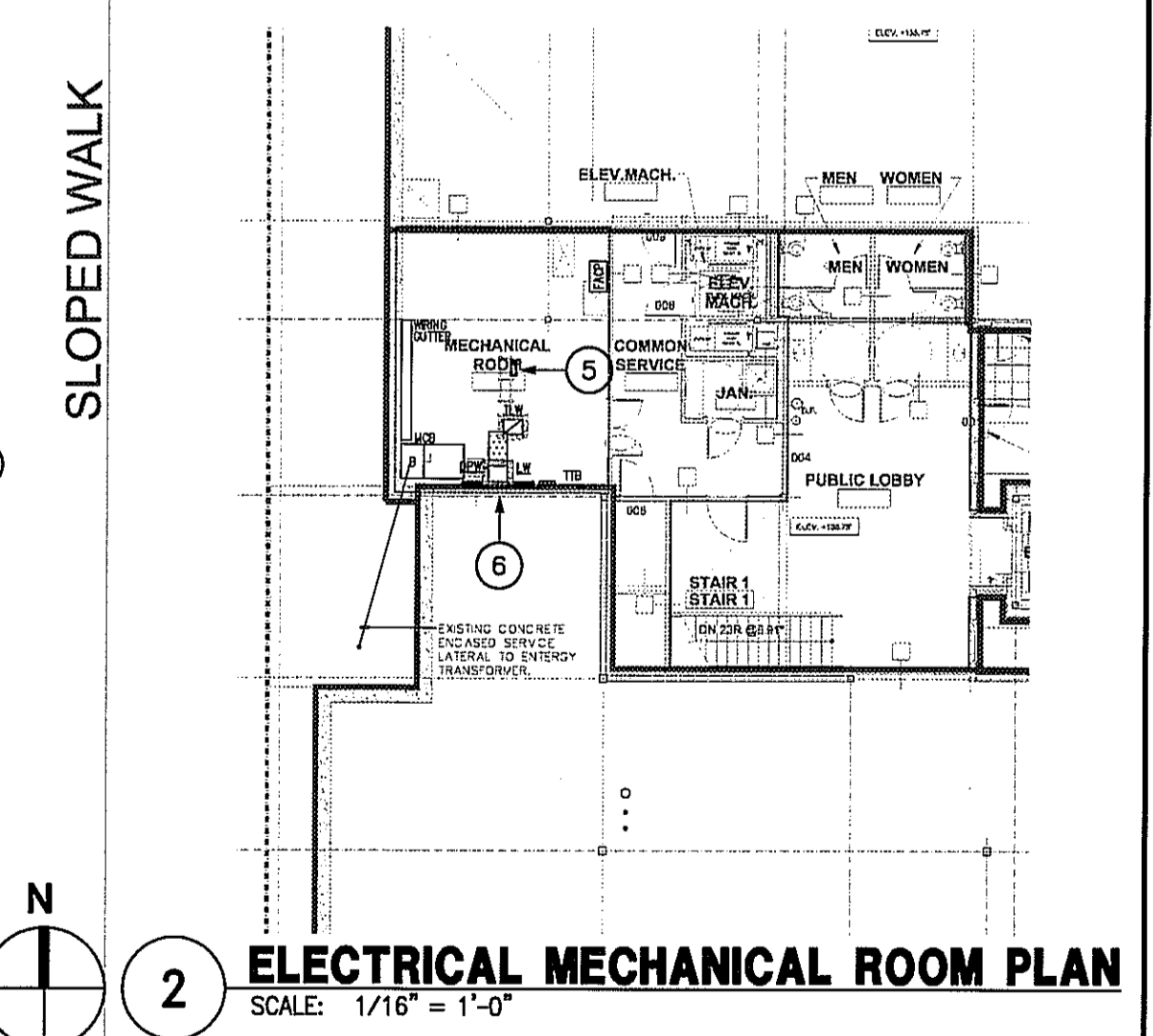
PROJECT NUMBER

SHEET NAME

ELECTRICAL POWER PLAN

SHEET NUMBER

E2.00



ELECTRICAL MECHANICAL ROOM PLAN
SCALE: 1/16" = 1'-0"

NO WORK IN THIS AREA U.N.O.

DN 23R @6.91"

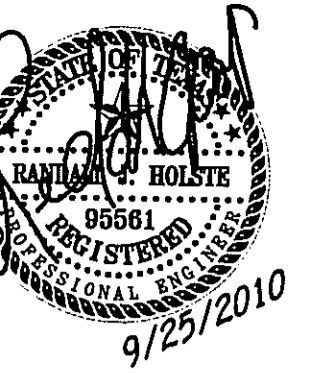
ELEVATOR KEYED NOTES:

- COORDINATE LOCATION OF ELECTRICAL EQUIPMENT WITH ELEVATOR MANUFACTURERS SHOP DRAWINGS FOR CLEARANCES AND PREFERRED LOCATIONS AS RECOMMENDED BY ELEVATOR MANUFACTURER.
- KEYLESS PORCELAIN SOCKET WITH 150W/A-19 LAMP AND WIREGUARD. INSTALL IN ELEVATOR PIT AT EACH LEVEL.
- LOCATE SWITCHES FOR PIT LIGHT AND SUMP PUMP NEAR THE TOP OF ELEVATOR PIT LADDER.
- TELEPHONE FOR CAB COMMUNICATION. PROVIDE CAT3 6C CABLE TO TELEPHONE DEMARICATION POINT.
- PROVIDE "BUSSMAN" POWER MODULE SWITCH #PS1T48R1R2KGN2B. UNIT TO BE LOCKABLE AND FUSED WITH SHUNT TRIP. CONTROL POINTS FOR HEAT AND SMOKE DETECTION, CONTROL POWER TRANSFORMER, FIRE ALARM INTERFACE, TEST SWITCH, PILOT LIGHT, 200% NEUTRAL, AND INTERLOCK FOR HYDRAULIC ELEVATOR RECALL.

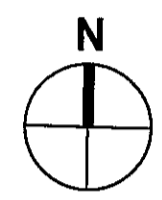
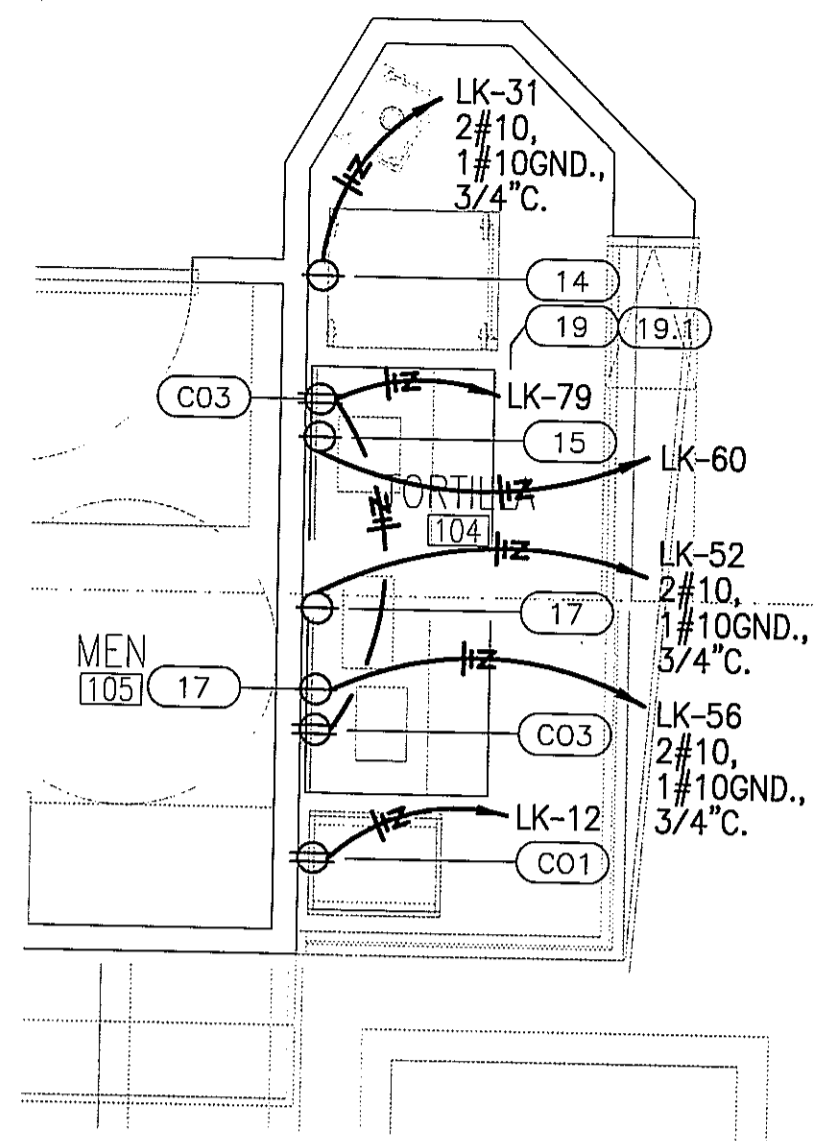
ELECTRICAL POWER PLAN - LOWER LEVEL

SCALE: 1/4" = 1'-0"

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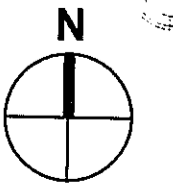
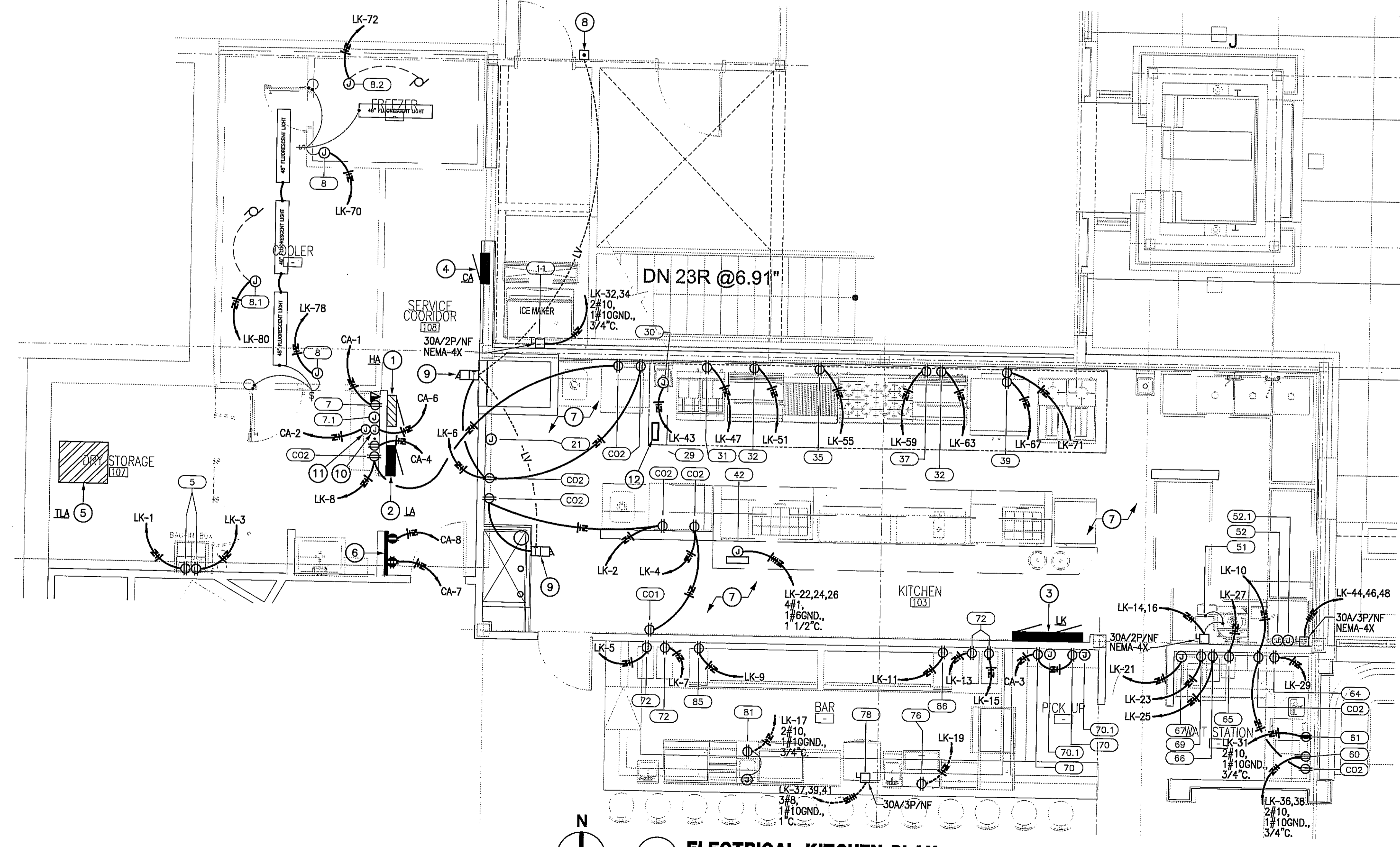
2 ELECTRICAL PARTIAL POWER PLAN
SCALE: 1/4" = 1'-0"

ELECTRICAL KEYED NOTES:

- (FOR SHEET E2.01)
- 277/480V, 3ø, 4W PANELBOARD HA REFER TO SHEET E4.00 FOR PANEL SCHEDULE INFORMATION.
 - 120/208V, 3ø, 4W PANELBOARD LA REFER TO SHEET E4.00 FOR PANEL SCHEDULE INFORMATION.
 - 120/208V, 3ø, 4W PANELBOARD LK (2-SECTION). REFER TO SHEET E4.00 FOR PANEL SCHEDULE INFORMATION.
 - 120/208V, 3ø, 4W PANELBOARD CA REFER TO SHEET E4.00 FOR PANEL SCHEDULE INFORMATION.
 - 480V: 120/208V, 3ø, 4W (150KVA) TRANSFORMER TLA MOUNTED ON ROOF. REFER TO RISER DIAGRAM ON SHEET E4.00 FOR MORE INFORMATION.
 - LINE ENTIRE WALL WITH 3/4" THICK PLYWOOD TELEPHONE BACKBOARD. UTILIZE SHELL BUILDING STUB AND EXTEND (1) 1 1/2" C. FROM BUILDING TELEPHONE NETWORK DEMARCATION POINT. FIELD VERIFY EXACT LOCATION OF TELEPHONE COMPANY CABINET.
 - ALL 15A/1P AND 20A/1P RECEPTACLES WITHIN KITCHEN AND SERVING AREAS SHALL BE GFCI PROTECTED PER NEC.
 - PROVIDE EDWARDS LOW VOLTAGE PUSH BUTTON #603-L MOUNTED AT +48" A.F.G.
 - PROVIDE EDWARDS ADAPTBUZZER "340A SERIES" WITH 24V LOW VOLTAGE TRANSFORMER.
 - J-BOX FOR ALARM EQUIPMENT.
 - J-BOX FOR SECURITY EQUIPMENT.
 - PRE-WIRED ELECTRICAL PACKAGE PROVIDED BY HOOD MANUFACTURER. ADDITIONAL SHUNT TRIP BREAKERS SHALL BE PROVIDED BY CONTRACTOR. INTERLOCKING OF KITCHEN SUPPLY AND EXHAUST FANS IS CONTROLLED BY PRE-WIRED ELECTRICAL PACKAGE. 3 PHASE MOTOR STARTERS SHALL BE PROVIDED FOR THE PRE-WIRED ELECTRICAL PACKAGE. COORDINATE/CONSULT WITH HOOD MANUFACTURER FOR MORE INFORMATION. REFER TO SHEET E1.00 FOR LIGHTING UNDER HOOD.

ELECTRICAL SCHEDULE

NO.	VOLTS	PH.	LOAD	HEIGHT A.F.F.	LOC.	CONN.	REMARKS
CO1	120	1	15.0 A	18"	WALL	DCO	GENERAL USE OUTLET
CO2	120	1	15.0 A	50"	WALL	DCO	GENERAL USE OUTLET - MOUNT HORIZONTAL
CO3	120	1	15.0 A	50"	WALL	DCO	GENERAL USE OUTLET - MOUNT HORIZONTAL
5	120	1	15.0 A	90"	WALL	DCO	FOR CARBONATORS
7	120	1	20.0 A	18"	WALL	DCO	FOR P.O.S. SYSTEM - N.L.K.E.C. - VERIFY REQUIREMENTS WITH OWNER
7.1	—	—	—	18"	WALL	J-BOX	EMPTY W/ PULL STRING, HOME RUN TO MNGR OFFICE. VERIFY WITH OWNER
8	120	1	8.0 A	108"	DFA	J-BOX	ETC ON WALK-IN LIGHT CIRCUIT/DOOR HEATER
8.1	120	1	4.4 A	108"	DFA	J-BOX	ETC ON WALK-IN COOLER COIL
11	208	1	18.1 A	72"	WALL	J-BOX	ETC ON ICE MACHINE. INTERCONNECT TO REMOTE CONDENSER LOCATED ON ROOF
14	120	1	16.7 A	48"	WALL	SCO	FOR MOBILE HEATED CABINET
15	120	1	20.0A	48"	WALL	DCO	CO2
17	120	1	20.0 A (VERIFY)	48"	WALL	SCO	FOR TORTILLA PRESS
19	120	1	14.0 A	DFA	CEILING	J-BOX	ETC ON EXHAUST HOOD CONTROL PANEL FOR LIGHT CIRCUIT SEE MANUFACTURER'S DRAWINGS FOR ADDITIONAL INFORMATION
19.1	208	3	4.0 A	DFA	CEILING	J-BOX	ETC ON CONTROL PANEL FOR EXHAUST FANS SEE MANUFACTURER'S DRAWINGS FOR ADDITIONAL INFORMATION
20	120	1	4.7 A	18"	WALL	DCO	FOR REFRIGERATED PREP TABLE
21	208	1	18.1 A	36"	WALL	J-BOX	ETC ON MIXER
24	120	1	3.9 A	18"	WALL	DCO	FOR REFRIGERATED PREP TABLE
26	120	1	4.7 A	18"	WALL	DCO	FOR REFRIGERATED PREP TABLE
29	120	1	14.0 A	DFA	CEILING	J-BOX	ETC ON EXHAUST HOOD CONTROL PANEL FOR LIGHT CIRCUIT SEE MANUFACTURER'S DRAWINGS FOR ADDITIONAL INFORMATION
29.1	208	3	4.0 A	DFA	CEILING	J-BOX	ETC ON CONTROL PANEL FOR EXHAUST FANS SEE MANUFACTURER'S DRAWINGS FOR ADDITIONAL INFORMATION
30	120	1	20.0 A	DFA	CEILING	J-BOX	ETC ON EXHAUST MAIN COOKLINE FIRE SUPPRESSION SYSTEM (ON CIRCUIT) SEE MANUFACTURER'S DRAWINGS FOR ADDITIONAL INFORMATION
31	120	1	1.0 A	18"	WALL	DCO	FOR FRYER
32	120	1	1.0 A	18"	WALL	DCO	FOR GRIDDLE
35	120	1	9.9 A	18"	WALL	DCO	FOR REFRIGERATED EQUIPMENT STAND
37	120	1	10.3 A	18"	WALL	DCO	FOR REFRIGERATED EQUIPMENT STAND
39	120	1	6.0 A EACH	24"X48"	WALL	TWO(2) DCO	FOR CONVECTION OVEN (4 REQ'D)
42	120/208	3	125.0 A	6"	FLOOR	J-BOX	FOR CHEF COUNTER LOAD CENTER
51	208	1	11.8A / 1 1/2 HP	18"	WALL	J-BOX	ETC ON DISPOSER THROUGH CONTROL PANEL
52	120	1	23.0 A (VERIFY)	66"	WALL	J-BOX	ETC ON DISHMACHINE - VERIFY REQUIREMENTS - N.L.K.E.C.
52.1	—	—	—	66"	WALL	CONDUIT	CONDUIT FOR INTERWIRING BETWEEN DISHMACHINE AND CONDENSATE HOOD FAN - VERIFY LOCATION OF FAN ON ROOF
52.3	120	1	4.1 A	—	ROOF	J-BOX	ETC ON CONDENSATE EXHAUST FAN - VERIFY REQUIREMENTS AND LOCATION
60	208	1	20.0 A	50"	WALL	SCO	FOR COFFEE BREWER - VERIFY REQUIREMENTS W/ OWNER - N.L.K.E.C.
61	120	1	20.0 A	18"	WALL	SCO	FOR TEA BREWER - VERIFY REQUIREMENTS W/ OWNER - N.L.K.E.C.
64	120	1	5.0 A	18"	WALL	SCO	FOR SODA DISPENSER - VERIFY REQUIREMENTS W/ OWNER - N.L.K.E.C.
65	120	1	1.0 A	50"	WALL	DCO	FOR MILK DISPENSER
66	120	1	4.0 A	50"	WALL	DCO	FOR COFFEE GRINDER
67	120	1	15.0 A	50"	WALL	SCO	FOR ESPRESSO MACHINE
69	120	1	2.2 A	18"	WALL	DCO	FOR UNDERCOUNTER REFRIGERATOR
70	120	1	20.0 A	18"	WALL	DCO	FOR P.O.S. SYSTEM - N.L.K.E.C. - VERIFY REQUIREMENTS WITH OWNER
70.1	—	—	—	18"	WALL	J-BOX	EMPTY W/ PULL STRING, HOME RUN TO MNGR OFFICE. VERIFY WITH OWNER
72	120	1	20.0 A	50"	WALL	SCO	FOR MARGARITA MACHINE - VERIFY REQUIREMENTS W/ OWNER - N.L.K.E.C.
76	120	1	8.2 A	18"	WALL	DCO	FOR GLASS CHILLER
78	208	3	38.0 A	18"	WALL	J-BOX	ETC ON DISHMACHINE - VERIFY REQUIREMENTS - N.L.K.E.C.
81	120	1	20.0 A	8"	WALL	J-BOX	ETC ON DCO ON BLENDER STATION
85	120	1	6.5 A	18"	WALL	DCO	FOR BACKBAR REFRIGERATOR
86	120	1	6.5 A	18"	WALL	DCO	FOR BACKBAR REFRIGERATOR



1 ELECTRICAL KITCHEN PLAN
SCALE: 1/4" = 1'-0"

ELECTRICAL NOTES

- ALL ELECTRICAL OUTLETS SHOWN ON THIS PLAN ARE FOR FIXTURES SPECIFIED AS FURNISHED BY THE KITCHEN EQUIPMENT SUPPLIER. FOR FURTHER BUILDING ELECTRICAL REQUIREMENTS (TELEPHONES, CLOCKS, SIGNS, ETC) SEE OTHER PLANS.
- ALL DIMENSIONS GIVEN ARE IN INCHES TO 4'-0" AND ARE FROM CENTERLINES AND/OR FINISHED WALLS. ELEVATIONS GIVEN ARE FROM FINISHED FLOOR TO CENTERLINE OF OUTLET. ALL ROUGH-INS SHOWN ARE TO BE RUN INSIDE WALLS (EXCEPT STUB-UPS). LOCATION INDICATES POINT OF EXIT FROM WALLS, CEILINGS OR FLOORS. ALL CONDENSATE OUTLETS ARE TO SET HORIZONTALLY. ALL 120 VOLT OUTLETS NOT DESIGNATED WITH SPECIFIC LOADS TO BE RATED AT 20.0 AMPS.
- ELECTRICIAN TO CONNECT ALL ELECTRICAL EQUIPMENT AND FIXTURES AS REQUIRED BY THE SPECIFICATIONS. ALL ELECTRICAL OUTLET COVER PLATES ARE TO BE STAINLESS STEEL AND ARE TO BE FURNISHED BY THE ELECTRICIAN, AS WELL AS THE RECEPTACLE, UNLESS OTHERWISE SPECIFIED IN THE ITEM SPECIFICATIONS. ALL DISCONNECT SWITCHES ARE TO BE FURNISHED AND INSTALLED BY THE ELECTRICIAN AT TIME OF INSTALLATION.
- ALL WORK TO BE PERFORMED IN FULL ACCORDANCE WITH ALL APPLICABLE CODES RELATING TO HOOD-UP INSTALLATION AND WIRING OF EQUIPMENT. OMISSIONS OR ERRORS ON THE SCHEDULE DO NOT RELIEVE THE ELECTRICIAN FROM COMPLETE FINAL CONNECTION RESPONSIBILITY.
- IF ELECTRICAL OUTLETS AND/OR RECEPTACLES ARE CHANGED FROM "STUB-UP" TO "WALL-MOUNTED", THE "WALL-MOUNTED" OUTLETS AND/OR RECEPTACLES ARE TO BE SET AT 12" A.F.F.

ELECTRICAL SYMBOLS/ABBREVIATIONS

⊕	JUNCTION BOX (J-BOX)	A	AMPERES
Ⓞ	CONDUIT	V	VOLTS
•	STUB-UP	W	WATTS
⊖	DUPLEX CONVENIENCE OUTLET (DCO)	PH	PHASE
⊖	SINGLE CONVENIENCE OUTLET (SCO)	AF	ABOVE FINISHED FLOOR
⊖	SINGLE POWER OUTLET (208)	DFA	DOWN FROM ABOVE
⊖	LIGHT INDICATION	ETC	BRANCH TO CONNECTION POINT AND CONNECT EQUIPMENT
⊖	BREAKER PANELBOARD	SU	STUB UP ABOVE FINISHED FLOOR
⊖	SWITCH AS NOTED	HP	HORSE POWER
⊖	MOTOR	KW	KILLOWATTS
⊖	HEATING ELEMENT	DC	DIRECT CONNECTION
EL	ELEVATION ABOVE FINISHED FLOOR	KES	KITCHEN EQUIPMENT SUPPLIER



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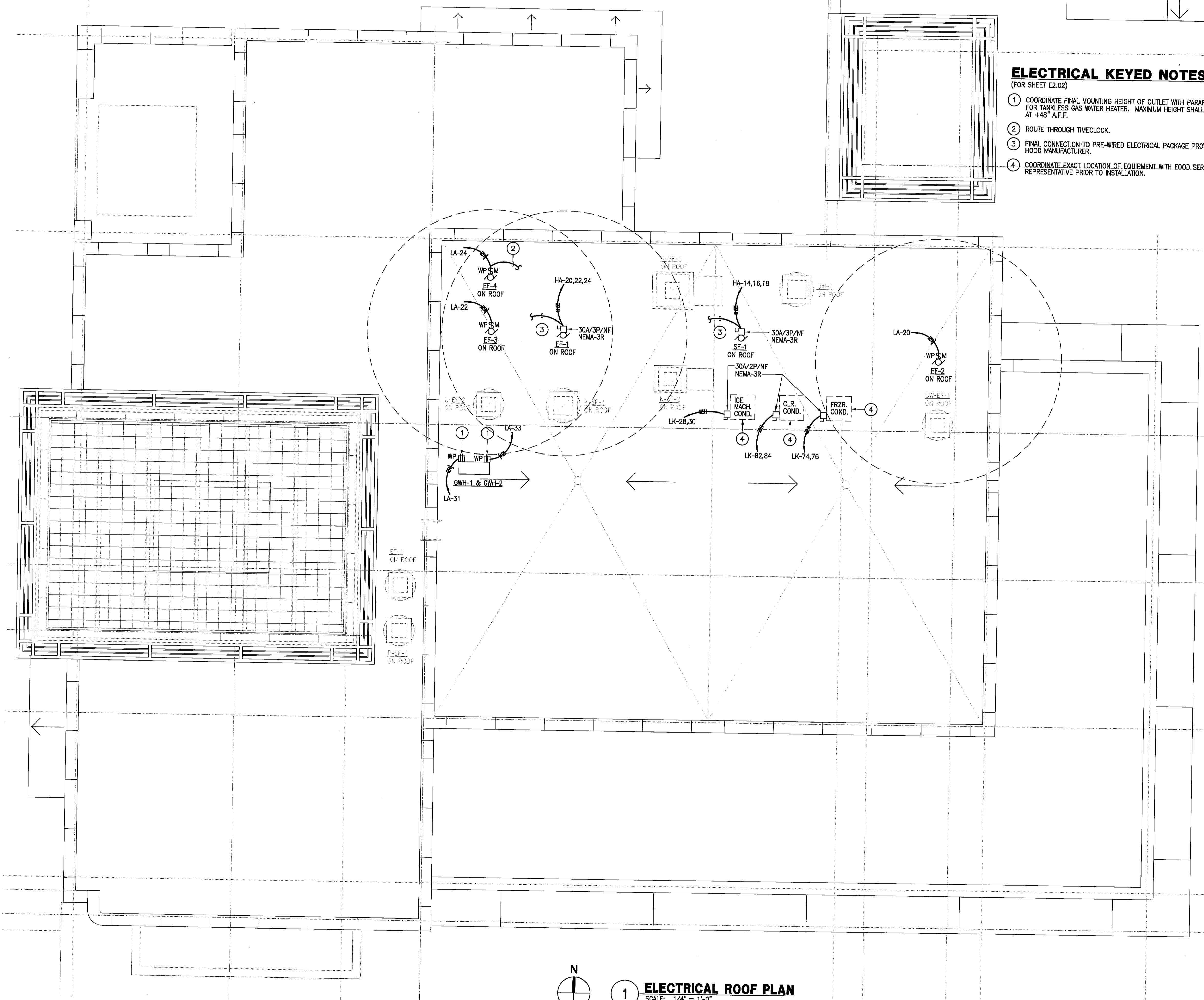
E2.01



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ELECTRICAL KEYED NOTES,
(FOR SHEET E2.02)

- ① COORDINATE FINAL MOUNTING HEIGHT OF OUTLET WITH PARAPET WALL FOR TANKLESS GAS WATER HEATER. MAXIMUM HEIGHT SHALL BE AT +48" A.F.F.
- ② ROUTE THROUGH TIMELOCK.
- ③ FINAL CONNECTION TO PRE-WIRED ELECTRICAL PACKAGE PROVIDED BY HOOD MANUFACTURER.
- ④ COORDINATE EXACT LOCATION OF EQUIPMENT WITH FOOD SERVICE REPRESENTATIVE PRIOR TO INSTALLATION.

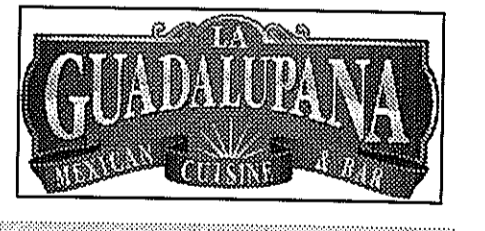


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 ① **ELECTRICAL ROOF PLAN**
 SCALE: 1/4" = 1'-0"

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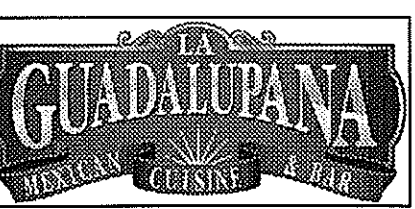


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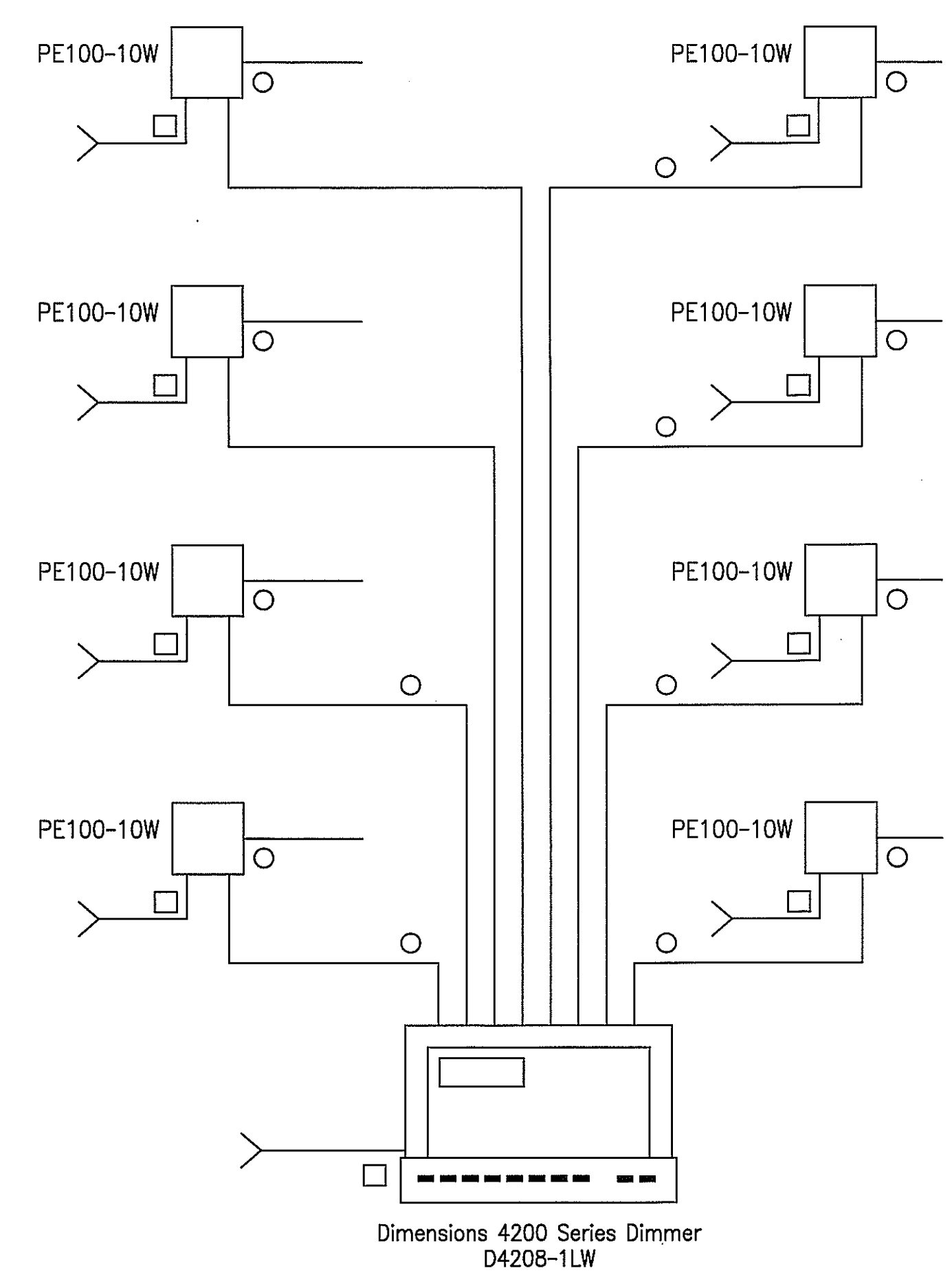
PROJECT NUMBER

SHEET NAME

**DIMMING SYSTEM
SCHEMATIC**

SHEET NUMBER

E3.00



- SYMBOL KEY**
- △ TWO POWER CONDUCTORS AND DATA CABLE. SEE PRODUCT DATA SHEETS FOR TYPE AND SIZE.
 - CLASS 1 WIRING 2 CONDUCTORS.
 - CLASS 1 WIRING 3 CONDUCTORS.
 - CLASS 2 WIRING 4 CONDUCTORS.
 - #18 AWG MINIMUM CLASS 2 WIRING. SEE INPUT SCHEDULE FOR QTY OF CONDUCTORS.
 - ◆ #18 AWG MINIMUM CLASS 2 WIRING 3 CONDUCTORS PER DEVICE.
 - ▲ CAT 5 OR CAT 5E NETWORK CABLE.

- DIMMING SYSTEM NOTES:**
1. WHEREVER CONTROL WIRES SHOWN MUST BE RUN CLOSE TO CLASS 1 REMOTE CONTROL AND SIGNALING CIRCUITS AND/OR ELECTRICAL LIGHT AND POWER CIRCUITS, THESE CONTROL WIRES MUST BE RUN IN SEPARATE METAL CONDUIT.
 2. PROVIDE AN EQUIPMENT GROUND, AS REQUIRED BY THE NATIONAL ELECTRICAL CODE, BETWEEN BUILDING SERVICE ENTRANCE AND THE DIMMER/RELAY EQUIPMENT.
 3. REFER TO DEVICE INSTALLATION MANUAL FOR ADDITIONAL INFORMATION.

BACK BOXES ARE NOT SUPPLIED WITH DEVICES AND MUST BE PURCHASED SEPARATELY. BACK BOXES MUST BE GROUNDED.
 4. THE INTERFACE OF LEVITON EQUIPMENT WITH EQUIPMENT BY OTHERS IS THE SOLE RESPONSIBILITY OF THE ELECTRICAL/THEATRICAL CONTRACTOR. LEVITON ASSUMES NO RESPONSIBILITY FOR THE FUNCTIONALITY OF EQUIPMENT BY OTHERS AS IT RELATES TO THIS SYSTEM.
 5. CABLE RUNS ARE CONTINUOUS BETWEEN CONNECTED DEVICES. NO SPLICING ALLOWED.
 6. REFER TO BILL OF MATERIALS FOR INCLUDED ACCESSORIES AND EQUIPMENT NOT SHOWN ON THESE DRAWINGS.
 7. PULL SEPARATE NEUTRALS FOR ALL DIMMED CIRCUITS.
 8. BALLASTS NOT BY LEVITON. LEVITON WILL NEED TO KNOW BALLAST TYPE, MANUFACTURER, AND MODEL NUMBER IN ORDER TO INSURE COMPATIBILITY WITH THE DIMMING CONTROL SYSTEM. FLUORESCENT DIMMING RANGE IS FROM 100% TO THE LOWEST LEVEL ALLOWED BY THE BALLAST USED. FOR 0-10V CONTROL TYPE BALLASTS, 2 #18AWG MINIMUM WIRES PER ZONE ARE REQUIRED (VIOLET & GRAY) AND ADDITIONAL EQUIPMENT MAY BE REQUIRED.
 9. MAGNETIC STEP-DOWN TRANSFORMER PRIMARY MUST BE FUSED FOR LOW VOLTAGE LIGHTING CIRCUITS, MAGNETIC TRANSFORMERS ONLY.

1 DIMMING SYSTEM DIAGRAM
SCALE: NONE

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ISSUE
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PANEL 'HA' 277/480V, 3ø, 4W MOUNTING: SURFACE NEMA-1 25K ISCA
LOCATION: SERVICE CORRIDOR 108 400 AMP MLO

CKT LOAD	* KVA	WIRE	BKR	BKR WIRE	KVA	* LOAD	CKT		
1 KITCHEN LIGHTING	1.3	#12	20/1	60/3	#6	32.8	1 AHU-1	2	
3 EMERGENCY/EXIT LTG.	2	0.1	#12	20/1	-	-	-	4	
5 ENTRY LIGHTING	3	0.6	#10	20/1	-	-	-	6	
7 TEQUILA MESUEM LTG.	3	0.7	#10	20/1	90/3	#3	51.3	1 AHU-2	8
9 DINING LIGHTING	3	1.3	#10	20/1	-	-	-	10	
11 BAR LIGHTING	3	0.9	#10	20/1	-	-	-	12	
13 OUTDOOR LIGHTING	3	1.7	#10	20/1	20/3	#12	6.3	SE-1	14
15 SPACE	-	-	-	-	-	-	-	16	
17 SPACE	-	-	-	-	-	-	-	18	
19 SPACE	-	-	-	-	20/3	#12	6.3	EE-1	20
21 SPACE	-	-	-	-	-	-	-	22	
23 SPACE	-	-	-	-	-	-	-	24	
25 SPACE	-	-	-	-	-	-	-	26	
27 SPACE	-	-	-	-	-	-	-	28	
29 SPACE	-	-	-	-	-	-	-	30	
31 SPACE	-	-	-	-	-	-	-	32	
33 ELEVATOR (25HP)	35.0	#6	60/3	-	-	-	-	34	
35	-	-	-	-	-	-	-	36	
37	-	-	-	225/3	#4/0	127.3	XFMR ILA (150KVA)	38	
39 SHUNT TRIP	-	-	-	-	-	-	-	40	
41 SHUNT TRIP	0.2	-	20/1	-	-	-	-	42	

CONTINUOUS (LTG.) LOAD x 1.25 = 5.0
MISC. LOAD x 1.0 = 267.9
TOTAL KVA = 269.0

- * NOTES
1. PROVIDE H.A.C.R. CIRCUIT BREAKER AT THIS LOCATION.
 2. PROVIDE CIRCUIT BREAKER WITH LOCK-ON DEVICE.
 3. CONTROLLED BY "LEVITON" D4208 DIMMING SYSTEM (TIMECLOCK OFF).

(SECTION-1)
PANEL 'LK' 120/208V, 3ø, 4W MOUNTING: RECESSED NEMA-1 (S.S.) FRONT 10K ISCA
LOCATION: KITCHEN 400 AMP MCB W/ FEED THRU LUGS

CKT LOAD	* KVA	WIRE	BKR	BKR WIRE	KVA	* LOAD	CKT	
1 CARBONATOR	0.8	#12	20/1	20/1	#12	0.4	RECEPTACLES	2
3 CARBONATOR	0.8	#12	20/1	20/1	#12	0.4	RECEPTACLES	4
5 MARGARITA MACHINE	1.5	#12	20/1	20/1	#12	0.4	RECEPTACLES	6
7 MARGARITA MACHINE	1.5	#12	20/1	20/1	#12	0.4	RECEPTACLES	8
9 BACKBAR REFRIGERATOR	0.8	#12	20/1	20/1	#12	0.4	RECEPTACLES	10
11 BACKBAR REFRIGERATOR	0.8	#12	20/1	20/1	#12	0.2	RECEPTACLE	12
13 MARGARITA MACHINE	1.5	#12	20/1	20/2	#12	2.5	DISPOSER	14
15 MARGARITA MACHINE	1.5	#12	20/1	-	-	-	-	16
17 BLENDER STATION	2.4	#10	30/1	30/1	#10	2.4	TORTILLA PRESS	18
19 GLASS CHILLER	1.0	#10	30/1	20/1	-	-	SPARE	20
21 EXPRESSO MACHINE	1.8	#12	20/1	125/3	#1	36.0	CHEF COUNTER LOAD CTR.	22
23 UNDERCOUNTER REFRIG.	0.3	#12	20/1	-	-	-	-	24
25 COFFEE GRINDER	0.5	#12	20/1	-	-	-	-	26
27 MILK DISPENSER	1.2	#12	20/1	20/2	#12	1.3	ICE MACHINE CONDENSER	28
29 SODA DISPENSER	0.7	#12	20/1	20/1	#12	2.2	ICE MACHINE	30
31 TEA BREWER	2.4	#10	30/1	20/2	#12	2.2	ICE MACHINE	32
33 MOBILE HEATED CABINET	2.0	#10	30/1	30/2	#10	4.2	COFFEE BREWER	34
36 SPARE	-	-	-	-	-	-	-	38
37 DISHWASHER	13.7	#8	50/3	-	-	-	-	40
39	-	-	-	-	-	-	-	42
41	-	-	-	-	-	-	-	42

KITCHEN x .65% = (SEE SECTION-2)
MISC. LOAD x 1.0 = (SEE SECTION-2)
TOTAL KVA = (SEE SECTION-2)

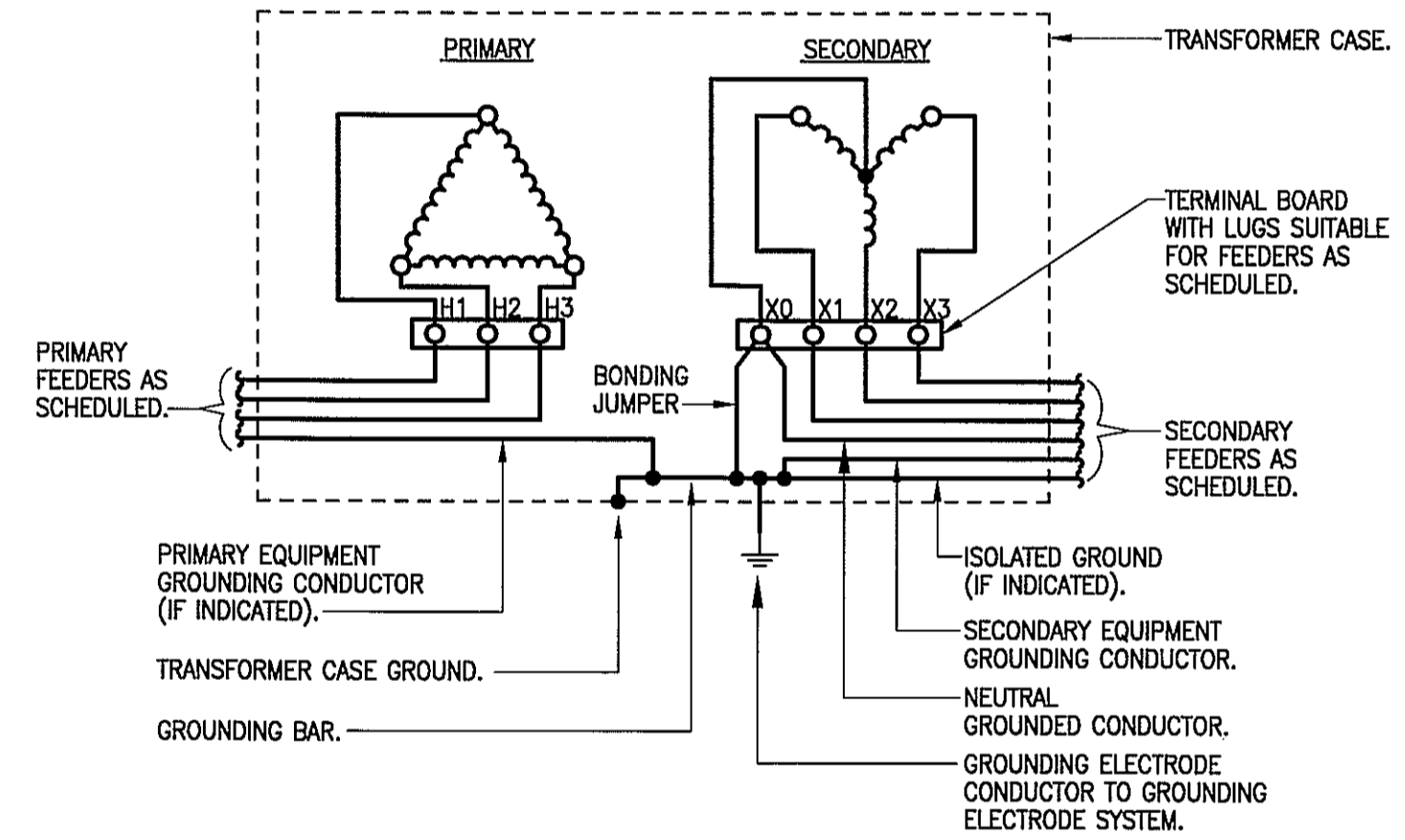
- * NOTES
1. VERIFY EXACT AMPERAGE AND LOAD WITH KITCHEN EQUIPMENT SUPPLIER.

(SECTION-2)
PANEL 'LK' 120/208V, 3ø, 4W MOUNTING: RECESSED NEMA-1 (S.S.) FRONT 10K ISCA
LOCATION: KITCHEN 400 AMP MLO

CKT LOAD	* KVA	WIRE	BKR	BKR WIRE	KVA	* LOAD	CKT		
43 FIRE SUPPRESSION	1	1.8	#12	20/1	20/3	#12	4.5	1,2 DISH MACHINE	44
45 SHUNT TRIP	-	-	-	-	-	-	-	-	46
47 FRYER	1	0.1	#12	20/1	-	-	-	-	48
49 SHUNT TRIP	-	-	-	-	-	-	-	-	50
51 GRIDDLE	1	0.1	#12	20/1	30/1	#10	2.4	1 TORTILLA PRESS	52
53 SHUNT TRIP	-	-	-	-	-	-	-	-	54
55 REFRIG. EQUIP. STAND	1	1.2	#12	20/1	30/1	#10	2.4	1 TORTILLA PRESS	56
57 SHUNT TRIP	-	-	-	-	-	-	-	-	58
59 REFRIG. EQUIP. STAND	1	1.2	#12	20/1	20/1	#12	0.5	CO2	60
61 SHUNT TRIP	-	-	-	-	-	-	-	-	62
63 GRIDDLE	1	0.1	#12	20/1	20/1	-	-	SPARE	64
65 SHUNT TRIP	-	-	-	-	-	-	-	SPARE	66
67 CONNECTION OVEN	0.7	#12	20/1	20/1	-	-	-	SPARE	68
69 SHUNT TRIP	-	-	-	-	-	-	-	-	70
71 CONNECTION OVEN	1	0.7	#12	20/1	20/1	#12	0.8	WALK-IN FRZR. HTR./LTS	72
73 SHUNT TRIP	-	-	-	-	-	-	-	WALK-IN FRZR. COIL	74
75 HOOD LIGHTS	0.7	#12	20/1	20/1	#12	0.5	2	FREEZER CONDENSER	76
77 SHUNT TRIP	-	-	-	-	-	-	-	WALK-IN CLR. HTR./LTS	78
79 RECEPTACLES	0.4	#12	20/1	20/1	#12	0.8	2	WALK-IN CLR. COIL	80
81 SPARE	-	-	-	-	-	-	-	COOLER CONDENSER	82
83 SHUNT TRIP	0.2	#12	20/1	-	-	-	-	-	84

KITCHEN 22.6 x .65% = 14.7
MISC. LOAD x 1.0 = 85.0
TOTAL KVA = 99.7

- * NOTES
1. PROVIDE SHUNT TRIP CIRCUIT BREAKER FOR THIS CIRCUIT.
 2. VERIFY EXACT AMPERAGE AND LOAD WITH KITCHEN EQUIPMENT SUPPLIER.



3 TRANSFORMER GROUNDING DETAIL
SCALE: NONE

ELECTRICAL LOAD ANALYSIS

PROJECT: LA GUADALUPANA MEXICAN CUISINE AND BAR
LOCATION: 20 WATER WAY, SUITE 100 THE WOODLANDS, TX
DESCRIPTION: NEW RESTAURANT BUILD-OUT
VOLTAGE: 277/480V, 3ø, 4W

LOAD DESCRIPTION	LOAD KVA
LIGHTING CONNECTED LOAD = 10.1 KVA AT 1.25% = <12.6>	-
LIGHTING 3W X 4,419 SQ. FT AT 1.25% =	16.6
RECEPTACLES - FIRST 10 KW 1ST 50% OF REMAINDER AT 100% = 4.6	4.6
COMPUTERS AT 100% =	1.7
H.V.A.C. AT 100% =	98.3
25% LARGEST MOTOR = 6.3 X .25 =	1.6
MISCELLANEOUS AT 100% =	64.0
KITCHEN (NON CONTINUOUS) 22.6 X 65% =	14.7
ELEVATOR =	-
TOTAL ESTIMATED CONNECTED LOAD =	164.4
164.4 KVA / 480 / √3 = AMPS	197.8 AMPS

NEW FACILITY SERVICE SIZE = 400 AMPS AT 480V, 3ø, 4W
SPARE CAPACITY = 2.2 AMPS

(SECTION-1)
PANEL 'LA' 120/208V, 3ø, 4W MOUNTING: SURFACE NEMA-1 10K ISCA
LOCATION: MEZZANINE 200 AMP MCB

CKT LOAD	* KVA	WIRE	BKR	BKR WIRE	KVA	* LOAD	CKT		
1 RR AREA LIGHTING	0.6	#12	20/1	20/1	#12	0.4	RECEPTACLES	2	
3 OUTDOOR FANS	0.5	#12	20/1	20/1	#12	0.8	RECEPTACLES	4	
5 LED LIGHTING	1	0.5	#10	20/1	20/1	#12	0.6	RECEPTACLES	6
7 CHANDELIER LIGHTING	1	1.0	#10	20/1	20/1	#12	0.6	RECEPTACLES	8
9 CHANDELIER LIGHTING	1	0.8	#10	20/1	20/1	#12	0.3	UNIT HEATER	10
11 EXTERIOR SIGNAGE	2	0.5	#12	20/1	20/1	#12	0.3	UNIT HEATER	12
13 EXTERIOR SIGNAGE	2	0.5	#12	20/1	20/1	#12	0.3	UNIT HEATER	14
15 EXTERIOR SIGNAGE	2	0.5	#12	20/1	20/1	#12	0.3	UNIT HEATER	16
17 SPARE	-	-	-	-	-	-	-	UNIT HEATER	18
19 SPARE	-	-	-	-	-	-	-	EE-2 (DISHWASHER HOOD)	20
21 SPARE	-	-	-	-	-	-	-	EE-3 (TORTILLA HOOD)	22
23 SPARE	-	-	-	-	-	-	-	EE-4 (TOILET)	24
25 SPACE	-	-	-	-	-	-	-	SPACE	26
27 SPACE	-	-	-	-	-	-	-	SPACE	28
29 SPACE	-	-	-	-	-	-	-	SPACE	30
31 GWH-1	0.5	#12	20/1	-	-	-	-	SPACE	32
33 GWH-2	0.5	#12	20/1	-	-	-	-	SPACE	34
35 ELEV. PIT LITS. & REC.	0.6	#12	20/1	-	-	-	-	SPACE	36
37 ELEV. SLUMP PUMP	0.5	#12	20/1	100/3	#1	6.2	PANEL CA	38	
39 ELEV. CAB LITS.	0.5	#12	20/1	-	-	-	-	-	40
41 ELEV. CONTROLS	0.5	#12	20/1	-	-	-	-	-	42

CONTINUOUS (LTG.) LOAD 3.1 x 1.25 = 3.3
MISC. LOAD x 1.0 = 18.7
TOTAL KVA = 22.0

- * NOTES
1. CONTROLLED BY "LEVITON" D4208 DIMMING SYSTEM (TIMECLOCK OFF).
 2. PROVIDE PHOTOCELL FOR ON/OFF CONTROL OF THIS CIRCUIT.
 3. COORDINATE ELECTRICAL CHARACTERISTICS WITH EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN.
 4. PROVIDE TIMECLOCK FOR ON/OFF CONTROL OF THIS CIRCUIT.

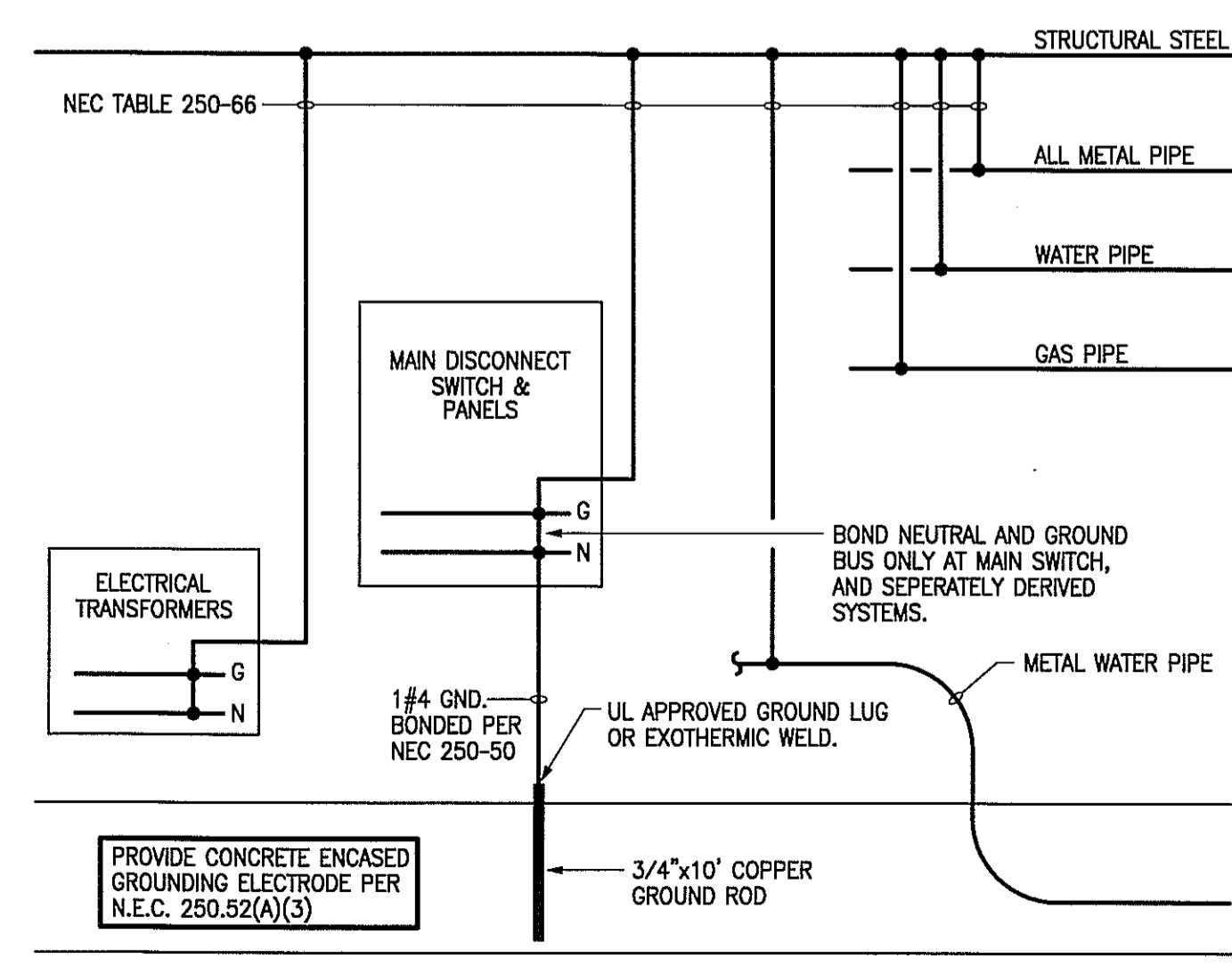
(SECTION-2)
PANEL 'CA' 120/208V, 3ø, 3W MOUNTING: RECESSED NEMA-1 (S.S.) FRONT 10K ISCA
LOCATION: MEZZANINE 100 AMP MLO

CKT LOAD	* KVA	WIRE	BKR	BKR WIRE	KVA	* LOAD	CKT		
1 P.O.S.	0.5	#12	20/1	20/1	#12	0.5	1 SECURITY EQUIPMENT	2	
3 P.O.S.	1.2	#12	20/1	20/1	#12	0.5	1 MUSIC SYSTEM	4	
5 SPARE	-	-	-	-	-	-	-	1 ALARM EQUIPMENT	6
7 TELEPHONE BOARD	1.2	#12	20/1	20/1	#12	1.0	DATA EQUIPMENT	8	
9 SPARE	-	-	-	-	-	-	-	SPACE	10
11 SPARE	-	-	-	-	-	-	-	SPACE	12
13 SPARE	-	-	-	-	-	-	-	SPACE	14
15 SPARE	-	-	-	-	-	-	-	SPACE	16
17 SPARE	-	-	-	-	-	-	-	SPACE	18
19 SPARE	-	-	-	-	-	-	-	SPACE	20
21 SPARE	-	-	-	-	-	-	-	SPACE	22
23 SPARE	-	-	-	-	-	-	-	SPACE	24
25 SPACE	-	-	-	-	-	-	-	SPACE	26
27 SPACE	-	-	-	-	-	-	-	SPACE	28
29 SPACE	-	-	-	-	-	-	-	SPACE	30

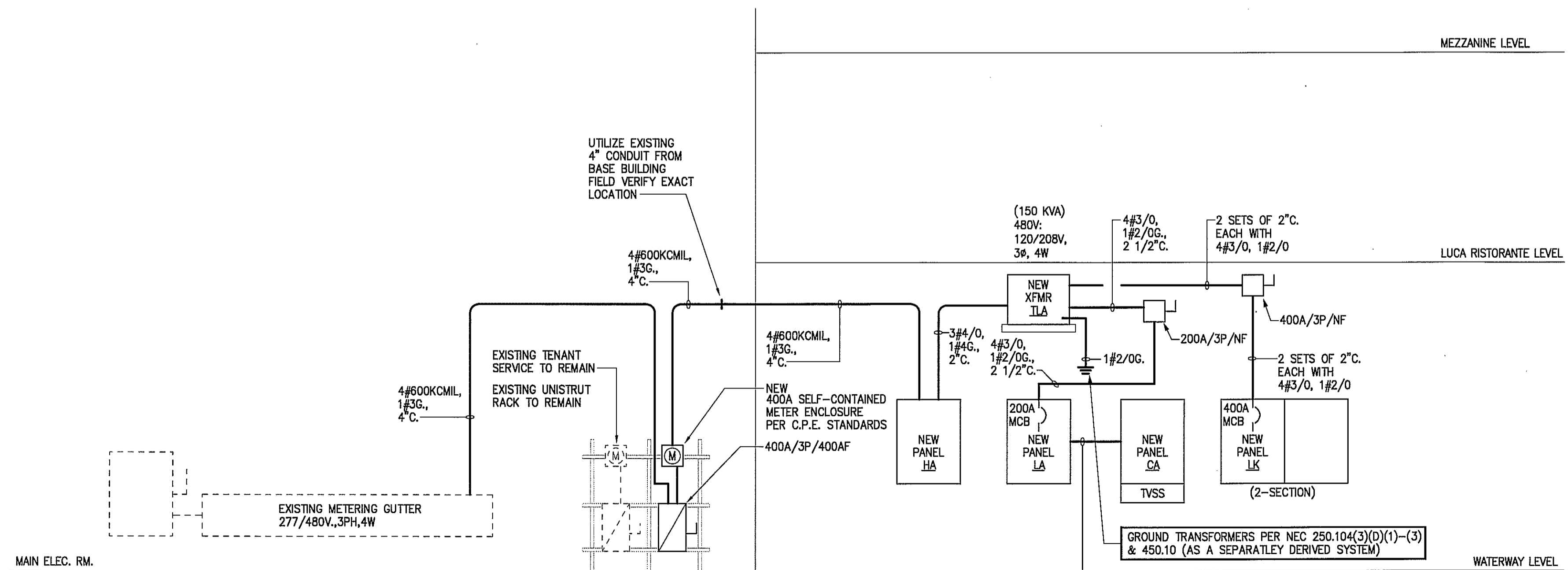
MISC. LOAD x 1.0 = 6.2
TOTAL KVA = 6.9

ISOLATED GROUND BUS
200% NEUTRAL
TVSS EQUIP
"CURRENT TECHNOLOGY"

- * NOTES
1. PROVIDE LOCK-ON DEVICE WITH THIS CIRCUIT.
 2. -



2 BUILDING GROUNDING DETAIL
SCALE: NONE



1 ELECTRICAL RISER DIAGRAM
SCALE: NONE

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HOLSTE & ASSOCIATES
MEP Engineers

PROJECT NAME
GUADALUPANA RESTAURANT



PROJECT ADDRESS
20 WATERWAY
THE WOODLANDS, TEXAS

PROJECT NUMBER

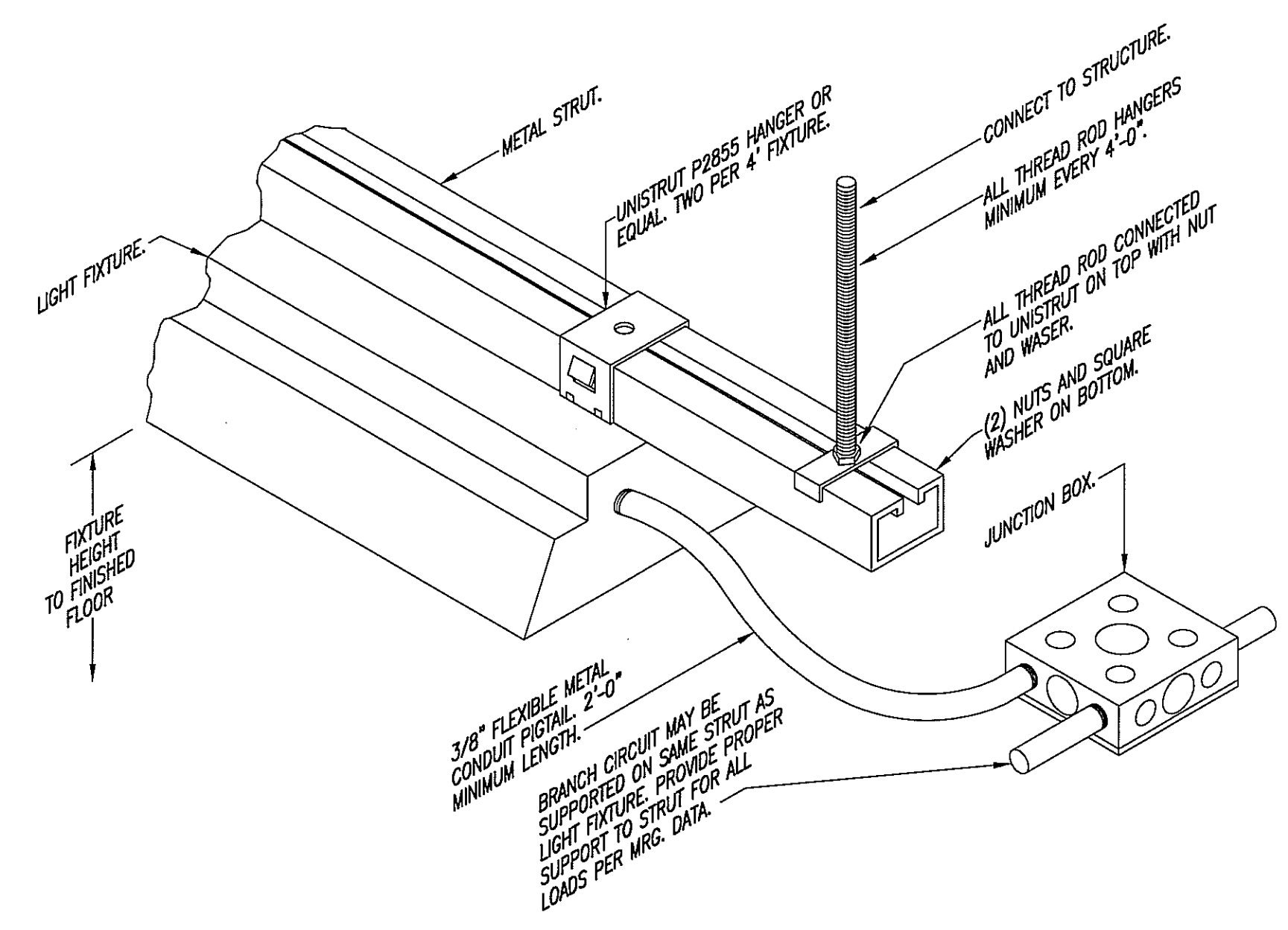
SHEET NAME
ELECTRICAL RISER DIAGRAM
SHEET NUMBER

E4.00

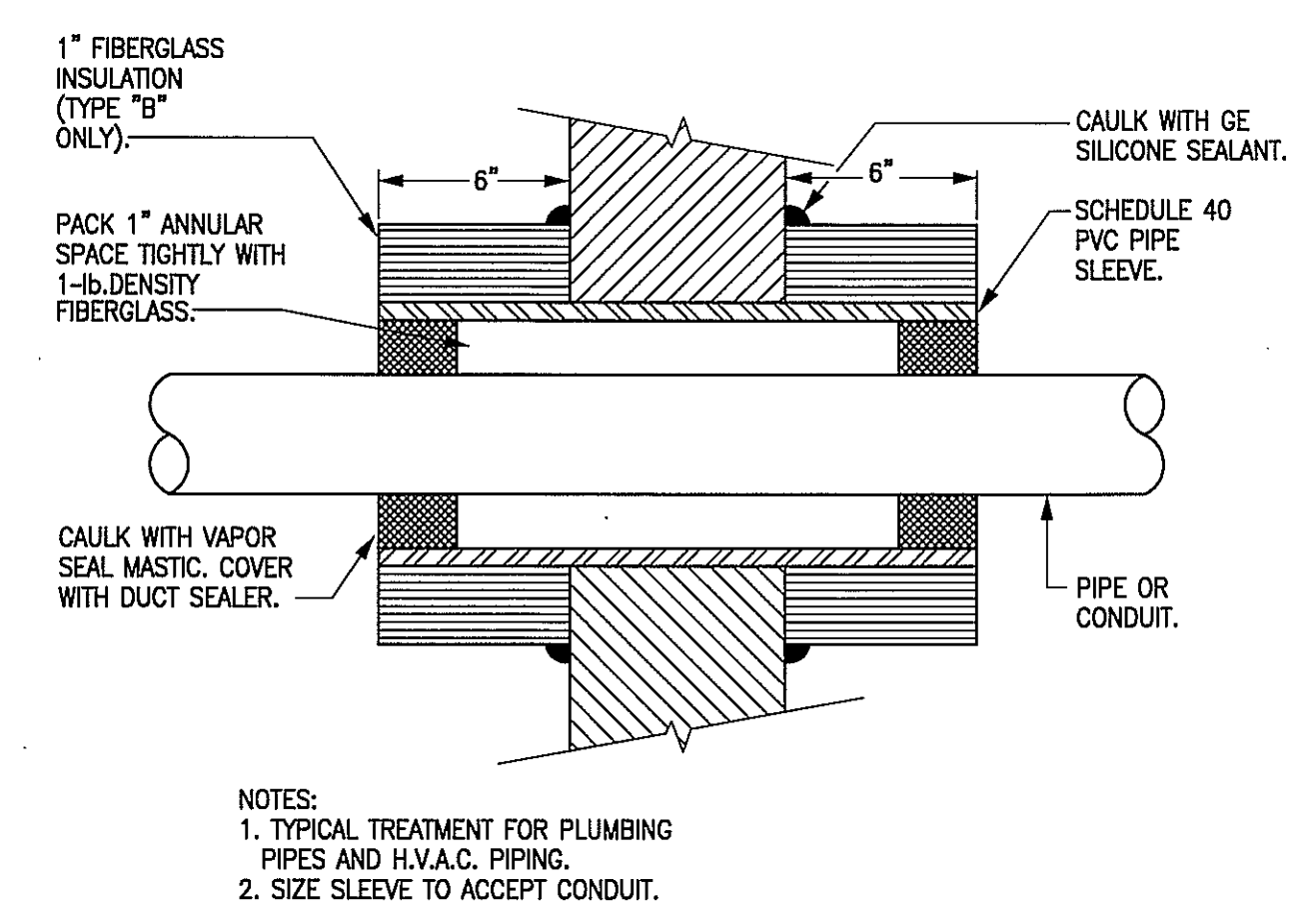
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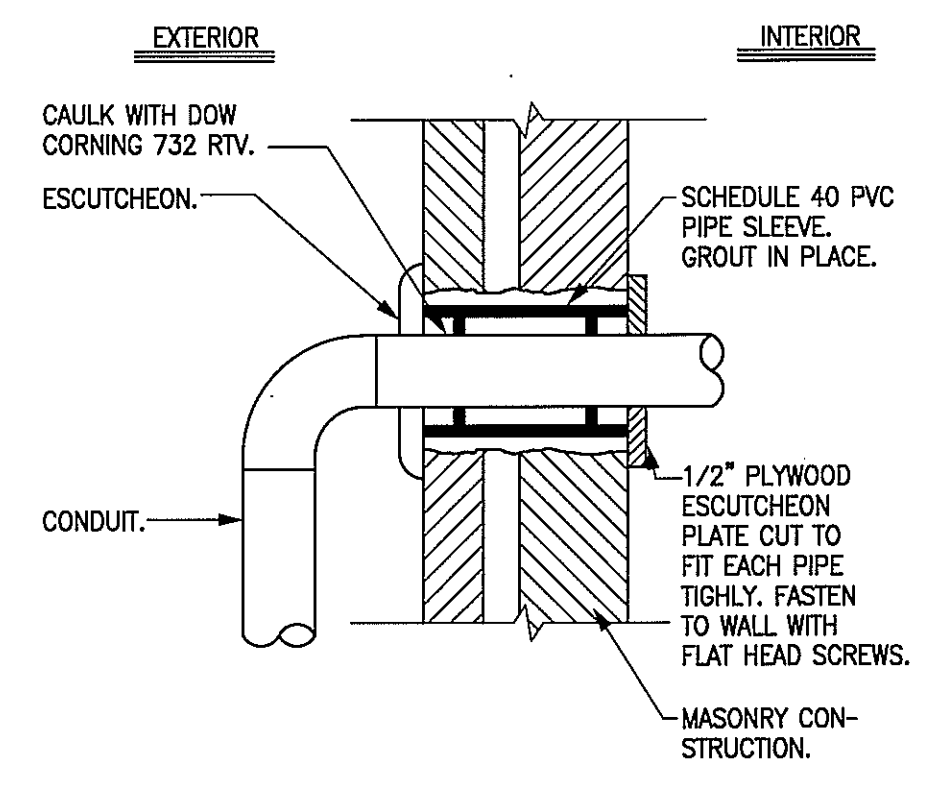
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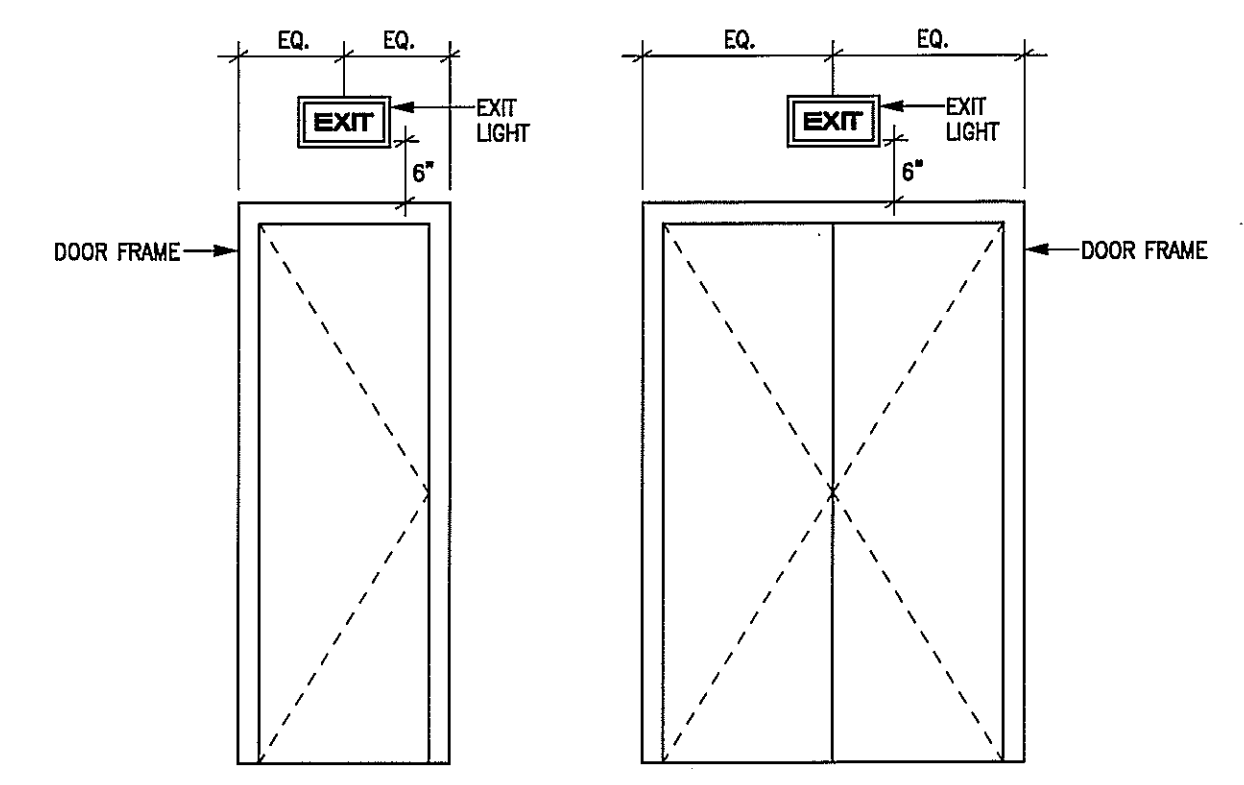
5 LIGHT FIXTURE MOUNTING DETAIL
SCALE: NONE



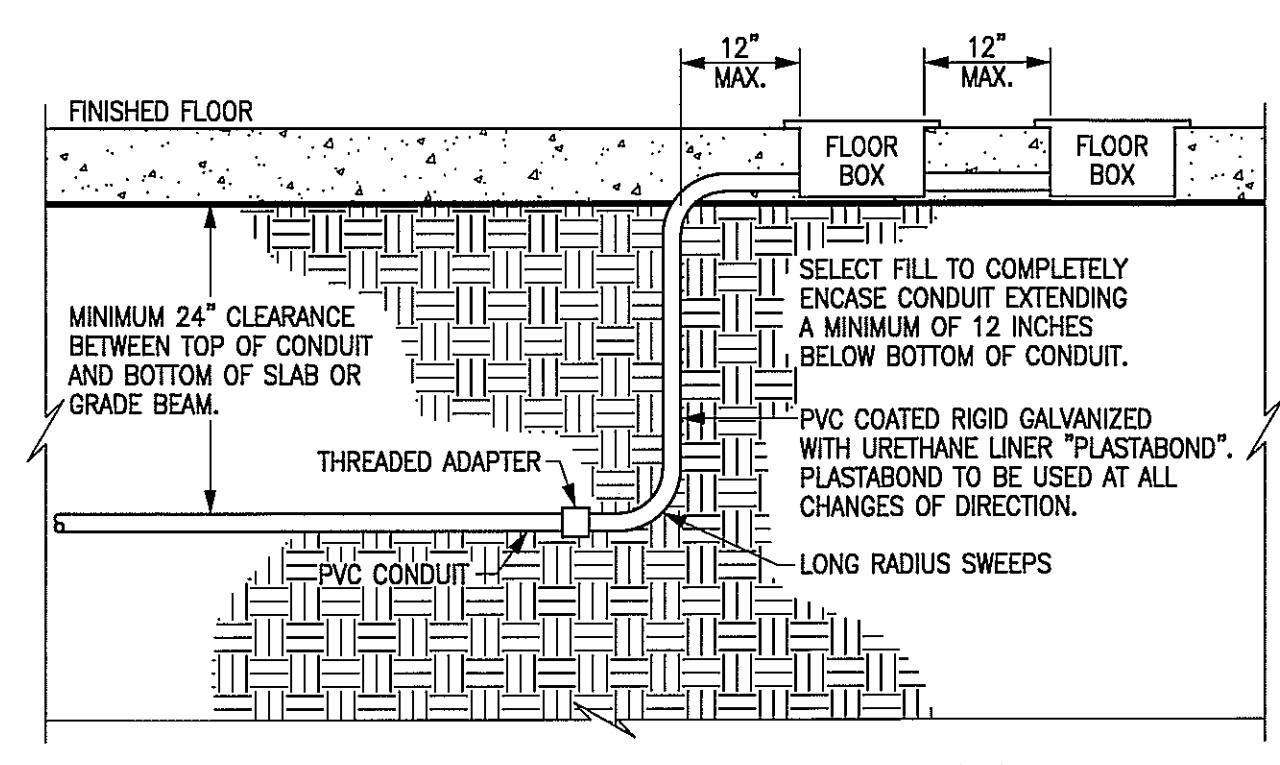
4 CONDUIT SEALANT THRU EXTERIOR WALL
SCALE: NOT TO SCALE



3 CONDUIT ENTRY THRU EXTERIOR WALL
SCALE: NONE



2 TYPICAL EXIT SIGN LOCATION
SCALE: NONE



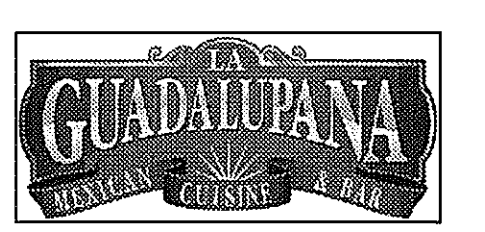
NOTE:
REFER TO STRUCTURAL SPECIFICATIONS, DRAWINGS, OR DETAILS FOR SPECIAL REQUIREMENTS FOR INSTALLING CONDUIT, FLOOR BOXES, ETC. IN SLAB.

1 CONDUIT/ FLOOR BOX
SCALE: NONE

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CONSULTANTS
HOLSTE & ASSOCIATES
MEP Engineers

PROJECT NAME
GUADALUPANA RESTAURANT



PROJECT ADDRESS
20 WATERWAY
THE WOODLANDS, TEXAS

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LIGHTING FIXTURE SCHEDULE							
MARK	WATTS	NO.	MANUFACTURER AND CATALOG NUMBER	MOUNTING	LAMPS		REMARKS
					NO.	TYPE	
A1	130	7	LITHONIA #2SRTG432FWA12125VMVOLTGEB10PS1/4LG-A268	RECESSED	4	F032XP/835/ECO 35K	2'x4', 4-LAMP FLUORESCENT LAY-IN WITH .125" THICK ACRYLIC LENS & ADDITIONAL LENS GASKETING.
A1E	130	3	LITHONIA #2SRTG432FWA12125VMVOLTGEB10PS1/4LG-EL14SD-A268	RECESSED	4	F032XP/835/ECO 35K	SAME AS TYPE "A1" EXCEPT WITH EMERGENCY BATTERY PACK W/ 90 MIN. OF BACK-UP.
A2	115	7	LITHONIA #2SRTG332FWA12125VMVOLTGEB10PS1/4LG-A268	RECESSED	3	F032XP/835/ECO 35K	2'x4', 3-LAMP FLUORESCENT LAY-IN WITH .125" THICK ACRYLIC LENS & ADDITIONAL LENS GASKETING.
A2E	115	3	LITHONIA #2SRTG332FWA12125VMVOLTGEB10PS1/4LG-EL14SD-A268	RECESSED	3	F032XP/835/ECO 35K	SAME AS TYPE "A1" EXCEPT WITH EMERGENCY BATTERY PACK W/ 90 MIN. OF BACK-UP.
B1	61	1	LITHONIA #DMW232MOLTGEB10BRS-A268	SURFACE	2	F032XP/841/ECO 41K	4', 2-LAMP ENCLOSED FLUORESCENT
B1E	61	1	LITHONIA #DMW232MOLTGEB10BRS-A268	SURFACE	2	F032XP/841/ECO 41K	SAME AS TYPE "B" EXCEPT WITH EMERGENCY BATTERY PACK W/ 90 MIN. OF BACK-UP.
C	60	4	TO BE SELECTED BY ARCHITECT AND PROVIDED AND INSTALLED BY CONTRACTOR	WALL	1	INCANDESCENT MAX.	DECORATIVE WALL SCONCE.
D1	50	7	FOCAL POINT - I.D. ACCENT PINHOLE TRIM: #D1-RO-PIN-W-CL HOUSING: #FD4-MR-E1-RO-T-WR50	RECESSED	1	50W MR16 WIDE 40° BEAM	LOW VOLTAGE RECESSED PINHOLE LIGHT WITH WIDE BEAM SPREAD LAMP. (ROUND)
D2	50	3	FOCAL POINT - I.D. WALL WASH TRIM: #D1-RO-PIN-W-CL HOUSING: #FD4-MR-E1-RO-T-WR50	RECESSED	1	50W MR16 WIDE 50° BEAM	LOW VOLTAGE RECESSED WALL WASHER LIGHT WITH WIDE BEAM SPREAD LAMP. (ROUND)
D3	50	111	FOCAL POINT - I.D. ACCENT PINHOLE TRIM: #D1-RO-PIN-W-CL HOUSING: #FD4-MR-E2-RO-T-WR35	RECESSED	1	35W MR16 SPL10° BEAM	LOW VOLTAGE RECESSED PINHOLE LIGHT WITH NARROW BEAM SPREAD LAMP. (ROUND)
F	-	5	TO BE SELECTED BY ARCHITECT AND PROVIDED AND INSTALLED BY CONTRACTOR	PENDANT	-	-	CEILING FAN WITHOUT LIGHT KIT.
G1	300	2	TO BE SELECTED BY ARCHITECT AND PROVIDED AND INSTALLED BY CONTRACTOR	PENDANT	-	300W INCANDESCENT MAX.	DECORATIVE CHANDELIER.
H	20	5	TO BE SELECTED BY ARCHITECT AND PROVIDED AND INSTALLED BY CONTRACTOR	PENDANT	-	20W INCANDESCENT MAX.	DECORATIVE PENDANT.
EM	-	9	LITHONIA #ELM627-B-N-SD-A268	WALL	2	9W KRYPTON	BLACK THERMOPLASTIC EMERGENCY LIGHTING UNIT WITH 90 MIN. OF BATTERY BACK-UP. MOUNT UNIT 6" BELOW CLG. UNLESS OTHERWISE NOTED.
L1	100	1	GE "TETRA" LED	COVE	-	LED	PROVIDE DRIVER "GE" LED #74601 COORDINATE QUANTITY OF DRIVERS REQUIRED W/ EACH LENGTH REQUIRED.
X1	3.5	-	LITHONIA #LRP1G120/277-ELN-A268	UNIVERSAL	-	LED	SINGLE FACE EDGE LIT LED EXIT SIGN W/ GREEN LETTERING AND 90 MIN. OF BATTERY BACK-UP.
X2	3.5	-	LITHONIA #LQMS1G120/277-ELN-A268	UNIVERSAL	-	LED	WHITE THERMOPLASTIC LED EXIT SIGN WITH 90 MIN. OF BATTERY BACK-UP.

- NOTES:
1. ALL LIGHT FIXTURES TO BE PROVIDED AS SPECIFIED NO SUBSTITUTIONS.
2. REFER TO ARCHITECT/OWNER FOR EXACT FINISH OF ALL LIGHT FIXTURES.

SYMBOL LEGEND	
SYMBOL	DESCRIPTION (DISREGARD ITEMS NOT SHOWN ON PLANS)
LIGHTING (LETTER DENOTES TYPE - SEE LIGHT FIXTURE SCHEDULE)	
	FLUORESCENT FIXTURE
	FLUORESCENT FIXTURE ON EMERGENCY CIRCUIT
	DOWNLIGHT FIXTURE
	LIGHT FIXTURE - WALL MOUNTED
	DOWNLIGHT FIXTURE ON EMERGENCY CIRCUIT
	LIGHT FIXTURE - WALL MOUNTED ON EMERGENCY CIRCUIT
	EXIT LIGHT-CEILING MTD WITH DIRECTIONAL ARROWS AS REQUIRED
	EXIT LIGHT-WALL MTD WITH DIRECTIONAL ARROWS AS REQUIRED
	EMERGENCY LIGHTING UNIT EQUIPMENT
SWITCHES	
	SINGLE POLE SWITCH
	2-POLE SWITCH
	3-WAY SWITCH
RECEPTACLES AND OUTLETS	
	DUPLEX RECEPTACLE
	DOUBLE DUPLEX IN 2-GANG BOX WITH SINGLE COVER PLATE
	DOUBLE DUPLEX ISOLATED GROUND IN 2-GANG BOX WITH SINGLE COVER PLATE
	ISOLATED GROUND DUPLEX RECEPTACLE
	JUNCTION BOX
	DUPLEX GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE
	DOUBLE DUPLEX GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE IN 2-GANG BOX WITH SINGLE COVER PLATE
	FLUSH FLOOR JUNCTION BOX
	FLUSH FLOOR DUPLEX RECEPTACLE OUTLET WITH DATA
	TELEPHONE OUTLET, 1-GANG BOX WITH 3/4" CONDUIT TO ABOVE CEILING
	TELEPHONE/DATA OUTLET, 1-GANG BOX WITH 3/4" CONDUIT TO ABOVE CEILING WITH RJ11 OUTLET FOR TELEPHONE AND RJ45 OUTLET FOR DATA.
	CATV OUTLET
MOTOR CONTROLLERS AND EQUIPMENT	
	MOTOR, MAKE FINAL MOTOR CONNECTION
	DISCONNECT SWITCH AS REQUIRED
	MANUAL MOTOR SWITCH AS REQUIRED
ELECTRICAL EQUIPMENT	
	277/480 VOLT DISTRIBUTION OR PANELBOARD
	120/208 VOLT PANELBOARD
	TELEPHONE CABINET
	PLYWOOD TELEPHONE BACKBOARD
	DRY TYPE TRANSFORMER
CIRCUITING	
	CONDUIT
	CONDUIT IN/OR BELOW FLOOR, SLAB, OR GRADE
	3/4" C. UNLESS OTHERWISE NOTED; LONG HATCH, NEUTRAL; SHORT HATCH, PHASE; "Z" HATCH, INSULATED GROUND. NO HATCHES INDICATES 2 CONDUCTORS. ARROW INDICATES HOMERUN.
	PARTIAL ELECTRICAL HOME RUN
SUBSCRIPTS AND ABBREVIATIONS	
	NEXT TO ANY SYMBOL INDICATES FINAL ROUGH-IN FIELD COORDINATION BY CONTRACTOR WITH ARCHITECTURAL, MILLWORK DRAWINGS AND OTHER TRADES
GENERAL NOTE: ALL EXTERIOR BUILDING ELECTRICAL EQUIPMENT TO BE WEATHERPROOF NEMA-3R MINIMUM UNLESS NOTED OTHERWISE.	

SPECIFICATIONS	
GENERAL	
* VERIFY ALL DIMENSIONS AT THE JOB SITE AND FROM THE ARCHITECTURAL PLANS.	
* UNLESS OTHERWISE NOTED, CONTRACTOR AND SUBCONTRACTOR SHALL PAY FOR ALL PERMITS AND CHARGES REQUIRED AND SHALL COMPLY WITH ALL GOVERNING CODES AND ORDINANCES.	
* VISITING THE SITE: EACH BIDDER SHALL VISIT THE SITE OF THE PROPOSED WORK AND SHALL FULLY INFORM HIMSELF REGARDING THE FACILITIES. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR WORK OR MATERIAL OMITTED FROM THE BIDDER'S CONTRACT PROPOSAL DUE TO HIS FAILURE TO SO INFORM HIMSELF BY SUCH INVESTIGATION.	
* ALL CHANNELING AND PATCHING OF ROOF, FLOOR, CEILING AND WALLS SHALL BE GENERAL CONTRACTOR.	
* CONTRACTOR TO PROVIDE RECORD DRAWINGS TO OWNER.	
FURNISH AND INSTALL A COMPLETE ELECTRICAL SYSTEM AS INDICATED ON PLANS. ELECTRICAL CONTRACTOR TO MAKE ALL FINAL CONNECTIONS TO ALL EQUIPMENT. MATERIAL SHALL BE AS FOLLOWS:	
CONDUIT:	
* ALL ELECTRICAL CONDUCTORS SHALL BE INSTALLED IN CONDUIT COMPLYING WITH THE NATIONAL ELECTRICAL CODE, WHERE INSTALLED SUBJECT TO STRESS FROM COLLISION OR IMPACT, CONDUIT SHALL BE GALVANIZED RIGID STEEL. WHERE RIGID STEEL CONDUIT IS NOT REQUIRED, CONDUCTORS SHALL BE INSTALLED IN ELECTRICAL METALLIC TUBING WITH ELECTRO-GALVANIZING OUT SIDE AND ENAMEL INSIDE. TUBING SHALL BE BY "TRANGLE" OR AN APPROVED SUBSTITUTION. LIQUID-TIGHT FLEXIBLE METAL CONDUIT SHALL BE USED AT ALL MOTOR CONNECTIONS, OR WHERE MOVEMENT/VIBRATION IS A CONCERN. UNLESS NOTED OTHERWISE FLEXIBLE METAL CONDUIT MAY BE USED ONLY FOR CONNECTION TO LIGHTING FIXTURES. IN LENGTHS NOT TO EXCEED 6 (SIX) FEET MINIMUM CONDUIT SIZE SHALL BE 1/2 INCH. MINIMUM SIZE FOR FLEXIBLE METAL CONDUIT SHALL BE 1/2 INCH. CONDUIT/ CONDUCTOR FILL SHALL CONFIRM TO NATIONAL ELECTRICAL CODE, LATEST EDITION.	
* CARLON PVC TYPE SCH. 40 HEAVY WALL CONDUIT WITH GROUND WIRE MAY BE USED BELOW FLOOR SLAB OR UNDERGROUND IN LIEU OF RIGID, THREADED, GALVANIZED CONDUIT. PVC SCH. 40 CONDUIT SHALL NOT BE RUN IN OR ABOVE FLOOR SLAB, OR IN TILT WALL PANELS. PVC CONDUIT SHALL TERMINATE BELOW FLOOR SLAB WITH RIGID, THREADED METAL CONDUIT ADAPTER. CONDUIT ABOVE SLAB SHALL BE METAL.	
* A GROUND CONDUCTOR SHALL BE SUPPLIED IN NONMETALLIC CONDUIT OR E.M.T. UTILIZING SET SCREW TYPE CONNECTORS. THE GROUND CONDUCTOR SHALL BE BARE, STRANDED, ANNEALED COPPER.	
* CONDUIT TO BE SUPPORTED FROM JOIST. PROVIDED HANGERS, SUPPORTS AND FASTENINGS AS REQUIRED BY NATIONAL ELECTRICAL CODE DO NOT SUPPORT FROM ROOF DECK.	
CONDUIT FITTINGS:	
* ALL CONDUIT FITTINGS SHALL BE STEEL, SET SCREW OR COMPRESSION TYPE, INSULATED, LISTED, FITTINGS SHALL BE AS MANUFACTURED BY APPLETON ELECTRIC, OZ GEDNEY CO., ARROW CONDUIT AND FITTINGS CORP., OR EQUAL.	
CONDUCTORS:	
* ALL CONDUCTORS SHALL BE COPPER. EACH CONDUCTOR SHALL BE CONTINUOUS, WITHOUT WELD, SPLICE, OR JOINT THROUGHOUT ITS LENGTH, AND UNIFORM IN CROSS-SECTION. WIRE #6 AWG AND LARGER SHALL HAVE TYPE "THWN" INSULATION. WIRE #8 AWG AND SMALLER SHALL HAVE DUAL-RATED TYPE "THHN/THWN" INSULATION. MINIMUM WIRE SIZE, EXCEPT FOR CONTROL WIRING, SHALL BE #12 AWG. ALL WIRING INSIDE LIGHTING FIXTURES SHALL BE TEMPERATURE RATED PER THE N.E.C. - 90 DEGREES C MINIMUM. BRANCH CIRCUIT WIRING WITHIN 3 INCHES OF FLUORESCENT BALLASTS SHALL BE TEMPERATURE RATED FOR 90 DEGREES C.	
DATA/TELEPHONE/CATV CABLING:	
* ALL WIRING ABOVE CEILING SHALL BE PLENUM RATED OR INSTALLED IN CONDUIT. CONTRACTOR TO PROVIDE WIRING FROM EACH DEVICE TO PLYWOOD BACKBOARD LOCATED IN OFFICE.	
DATA CABLE SHALL BE CAT5. TELEPHONE CABLE SHALL BE CAT3 OR BETTER. CATV CABLE SHALL BE CO-AX.	
WIRING DEVICES:	
* 1. ALL WIRING DEVICES TO BE 'LEVITON' DECORA SERIES. THIS INCLUDES SWITCHES, DIMMERS, RECEPTACLES, AND TELEPHONE/DATA OUTLETS.	
* 2. ALL ISOLATED GROUND RECEPTACLES SHALL BE ORANGE 'IG 5-20R', ALL OTHERS TO BE GREY '5-20R'.	
* 3. ALL COVERPLATES TO BE 'LEVITON' DECORA SERIES WITH STAINLESS-STEEL FINISH. (VERIFY EVERY DEVICE AND COVERPLATE FINISH ON THIS PROJECT WITH OWNER.)	
LIGHTING PANELBOARDS:	
* 1. 120/208V, 3-PHASE 4-WIRE, 120/240V, 1-PHASE, 3-WIRE OR 277/480V, 3-PHASE, 4-WIRE: FURNISH AND INSTALL AS SHOWN ON PLANS, LIGHTING PANELBOARDS BY SQUARE 'D' TYPE 'NOOD', STYLE 'D', OR EQUAL WITH BOLT ON CIRCUIT BREAKERS OR AN APPROVED SUBSTITUTION. ADDITIONAL BREAKERS FOR EXISTING PANELBOARDS SHALL BE OF TYPE MATCHING THE EXISTING BREAKERS.	
* 2. PROVIDE TYPED DIRECTORY CARDS UNDER PLASTIC ON ALL DOORS OF PANELS.	
SAFETY SWITCHES:	
* SAFETY SWITCHES SHALL BE FURNISHED AND INSTALLED AT ALL LOCATIONS INDICATED ON PLANS OR REQUIRED BY THE NATIONAL ELECTRICAL CODE. ALL SWITCHES SHALL BE HEAVY DUTY TYPE AND SHALL HAVE CLIPS FOR REJECTION TYPE FUSES AND SHALL BE BY SQUARE 'D', G.E., OR EQUAL, FOR THE VOLTAGE AND LOAD INVOLVED. PROVIDE A COMPLETE SET OF FUSES IN ALL FUSED SWITCHES. FUSES SHALL BE CLASS AK-1 (BUSSMAN "LOW PEAK") FOR CIRCUITS UP TO 600 AMPS AND CLASS L (BUSSMAN "H-CAP" KRP-C) FOR CIRCUITS ABOVE 600 AMPS.	
TRANSFORMERS:	
* FURNISH AND INSTALL G.E. TYPE "QL" OR EQUAL DRY TYPE TRANSFORMER WITH 2 1/2% CAPACITY TAPS ON THE PRIMARY WINDING (TWO ABOVE AND FOUR BELOW NORMAL VOLTAGE). TRANSFORMER SHALL BE RATED FOR 150° C. RISE ABOVE 40° C. AMBIENT DURING USE AND HAVE AN INSULATION SYSTEM RATED TO WITHSTAND 220° C.	

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PROJECT NUMBER
-

SHEET NAME
ELECTRICAL SPECIFICATIONS

SHEET NUMBER
E6.00

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