SLCC LARRY H. MILLER CAMPUS
BUILDINGS 5-9 EMERGENCY GENERATOR IMPROVEMENTS
DFCM PROJECT NO. 08073660

State of Utah-Department of Administrative Services

DIVISION OF FACILITIES CONSTRUCTION AND MANAGEMENT

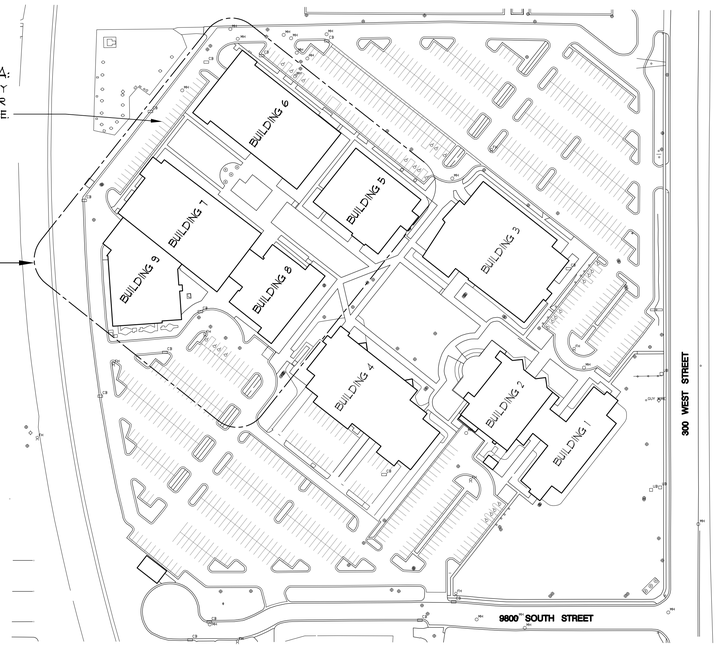
4110 State Office Building / Salt Lake City, Utah 84114 / 538-3018

Salt Lake Community College

LARRY H. MILLER CAMPUS
9750 SOUTH 300 WEST
SANDY, UTAH

PROPOSED STAGING AREA:
MAXIMUM OF 4 PARKING STALLS MAY BE DESIGNATED BY THE OWNER FOR STAGING AND NON-SECURE STORAGE.

PROJECT LOCATION
BUILDINGS 5, 6, 7, 8, & 9



A2 SLCC LARRY H. MILLER CAMPUS PLAN
SCALE: 1" = 100'-0"
0 50' 100' 200'

NORTH

CODE ANALYSIS

APPLICABLE CODES

	Year		Year
International Building Code	2006	National Electrical Code	2008
International Mechanical Code	2006	Uniform Code for	
International Plumbing Code	2006	Building Conservation	N.A.
International Fire Code	2006	ADA Accessibility	
International Energy Conservation Code	2006	Guildelines	N.A.

A. Occupancy and Group: Buildings 5, 7 & 9 - Group B; Building 6 - Mixed A-2, B; Building 8 - Group R-2
Change in Use: Yes ____ No X Mixed Occupancy: Yes X No ____
Special Use and Occupancy (e.g. High Rise, Covered Mall): N.A.

B. Seismic Design Category: N.A. Design Wind Speed: N.A. mph

C. Type of Construction (circle one): Existing
I A | I B | II A | (II B) | III A | III B | IV HT | V A | V B

D. Fire Resistance Rating Requirements for the Exterior Walls based on the fire separation distance (in hours):
North: N.A. South: N.A. East: N.A. West: N.A.

E. Mixed Occupancies: N.A. Nonseparated Uses: N.A.

F: Sprinklers:
Required: ____ Provided: ____ Type of Sprinkler System: Existing

G: Number of Stories: N.A. Building Height: N.A.

H: Actual Area per Floor (square feet): Existing

I: Tabular Area: ____

J: Area Modifications:

a) $A_a = A_t + \left[\frac{A_t I_f}{100}\right] + \left[\frac{A_t I_s}{100}\right]$ $\qquad I_f = 100\left[\frac{F}{P} - 0.25\right]\frac{W}{30}$

b) Sum of the Ratio Calculations for Mixed Occupancies:
$\frac{\text{Actual Area}}{\text{Allowable Area}} \leq 1$

c) Total Allowable Area for:
1) One Story: ____
2) Two Story: $A_a(2)$ ____
3) Three Story: $A_a(3)$ ____

d) Unlimited Area Building: Yes ____ No ____ Code Section: ____

K. Fire Resistance Rating Requirements for Building Elements (hours).

Element	Hours	Assembly Listing	Element	Hours	Assembly Listing
Exterior Bearing Walls	N.A.		Floors - Ceiling Floors	N.A.	
Interior Bearing Walls	N.A.		Roofs - Ceiling Roofs	N.A.	
Exterior Non-Bearing Walls	N.A.		Exterior Doors and Windows	N.A.	
Structural Frame	N.A.		Shaft Enclosures	N.A.	
Partitions - Permanent	N.A.		Fire Walls	N.A.	
Fire Barriers	N.A.		Fire Partitions	N.A.	
			Smoke Partitions		

L. Design Occupant Load: Existing
Exit Width Required: ____ Exit Width Provided: Existing

M. Minimum Number of Required Plumbing Facilities:
a) Water Closets - Required (m) 0 (f) 0 Provided (m) 0 (f) 0
b) Lavatories - Required (m) 0 (f) 0 Provided (m) 0 (f) 0
c) Bath Tubs or Showers: 0
d) Drinking Fountains: 0 Service Sinks: 0

FOOTNOTES:
1) In case of conflict with the U.S. Department of Justice Federal Registers Parts I- V - ADA Guidelines and specific reference to the International Building Code Accessibility Chapters, the more restrictive requirement shall govern.
2) Additional Code Information shall be provided at the discretion of the Building Official for Complex Buildings. Including, but not limited to:
a) High Rise Requirements.
b) Atriums.
c) Performance Based Criteria.
d) Means or Egress Analysis.
e) Fire Assembly Locator Sheet.
f) Exterior and Interior Accessibility Route.
g) Fire Stopping, Including Tested Design Number.

NOTES:
BUILDING #5 CONSTRUCTED UNDER THE 1997 UBC.
BUILDINGS #6, #7, #8 & #9 CONSTRUCTED UNDER THE 2003 IBC.

DRAWING INDEX

SHEET	NUMBER	SHEET TITLE
1	G-001	LOCATION PLAN, CODE CRITERIA, AND DRAWING INDEX
2	E0101	ELECTRICAL SITE PLAN
3	E-101	BUILDING 5 - LEVEL 1 ELECTRICAL PLAN
4	E-102	BUILDING 5 - LEVEL 2 ELECTRICAL PLAN
5	E-103	BUILDING 5 - LEVEL 3 ELECTRICAL PLAN
6	E-104	BUILDING 6 - ELECTRICAL PLAN
7	E-105	BUILDING 6 - ENLARGED ELECTRICAL PLAN
8	E-106	BUILDING 7 - LEVEL 1 ELECTRICAL PLAN
9	E-107	BUILDING 7 - LEVEL 2 ELECTRICAL PLAN
10	E-108	BUILDING 7 - LEVEL 3 ELECTRICAL PLAN
11	E-109	BUILDING 7 - PENTHOUSE ELECTRICAL PLAN
12	E-110	BUILDING 8 - LEVEL 1 ELECTRICAL PLAN
13	E-111	BUILDING 8 - LEVEL 2 ELECTRICAL PLAN
14	E-112	BUILDING 8 - LEVEL 3 ELECTRICAL PLAN AND SYMBOL LIST
15	E-113	BUILDING 9 - ELECTRICAL PLAN
16	E-601	BUILDINGS 5 & 6 SINGLE LINE DIAGRAMS AND SCHEDULES
17	E-602	BUILDINGS 7, 8, & 9 SINGLE LINE DIAGRAMS AND SCHEDULES

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BUILDINGS 5-9 EMERGENCY GENERATOR IMPROVEMENTS

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MARK	DATE	DESCRIPTION

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SHEET TITLE:
LOCATION PLAN, CODE CRITERIA, AND DRAWING INDEX

SHEET NUMBER:
G-001

AREA OF NEW GENERATOR, SEE BUILDING 6 ENLARGED ELECTRICAL PLAN, SHEET E-105.

1 EXISTING (1) 3", (1) 2", AND (2) 1" CONDUIT

BUILDING #6
CULINARY ARTS
SEE SHEETS E-104 & E-105

EXISTING MANHOLE

EXISTING (2) 1" & (2) 2" SPARE CONDUIT

1 EXISTING (1) 3", AND (1) 1" CONDUIT

1 EXISTING (1) 2", AND (1) 1" CONDUIT

BUILDING 7 ELECTRICAL ROOM

BUILDING #7
PUBLIC SAFETY EDUCATION TRAINING
SEE SHEETS E-106, E-107, E-108, & E-109

BUILDING #5
MILLER CORPORATE PARTNERSHIP CENTER
SEE SHEETS E-101, E-102 & E-103

BUILDING 7 ELECTRICAL ROOM

BUILDING #9
FIRING RANGE
SEE SHEET E-113

BUILDING #8
DPS DORMITORY
SEE SHEETS E-110, E-111, & E-112

FH

GENERAL ELECTRICAL NOTES:

1. LOCATIONS OF ALL EXISTING UNDERGROUND CONDUIT, UTILITIES, ETC., ARE BASED ON EXISTING BUILDING ELECTRICAL DRAWINGS AND FIELD OBSERVATION OF EXISTING SURFACE CONDITIONS. FIELD VERIFY EXISTING LOCATIONS AND IMMEDIATELY NOTIFY THE PROJECT ENGINEER OF ANY DISCREPANCIES WHICH MAY ADVERSELY AFFECT COMPLETION OF THE WORK.
2. BURY ALL UNDERGROUND CONDUITS MINIMUM 24" BELOW FINISH GRADE WITH RED MAGNETIC WARNING TAPE STATING "CAUTION - BURIED ELECTRICAL" 12 INCHES ABOVE THE CONDUIT.
3. USE GALVANIZED RIGID STEEL CONDUIT (GRC) FOR ALL CONDUIT THROUGH GRADE AND ELBOWS IN PVC CONDUIT RUNS. CORROSION PROTECT GRC CONDUIT IN ACCORDANCE WITH SPECIFICATION SECTION 16070.
4. TAKE ALL PRECAUTIONS NECESSARY TO PROTECT EXISTING UNDERGROUND UTILITIES. IMMEDIATELY REPAIR ANY DAMAGE TO EXISTING UNDERGROUND IRRIGATION SPRINKLER SYSTEM, SPRINKLER CONTROL WIRING, WATER LINES, AND OTHER UNDERGROUND UTILITIES.
5. REPLACE GRASS SOD DISTURBED BY EXCAVATION WITH NEW GRASS SOD IN ACCORDANCE WITH SPECIFICATION SECTION 02170.

KEYED NOTES:

(1) EXISTING UNDERGROUND CONDUIT INSTALLED FROM EXISTING BUILDINGS TO AREA OF NEW GENERATOR. EXTEND 1" CONDUIT TO NEW GENERATOR AS REQUIRED FOR GENERATOR CONTROL FROM NEW TRANSFER SWITCHES. EXTEND 2" AND 3" CONDUIT TO NEW PANEL 'EM' AT BUILDING 6 FOR NEW FEEDER CONDUCTORS. SEE SINGLE LINE DIAGRAMS SHEETS E-601 AND E-602 FOR REQUIRED CONDUCTOR SIZES.

A1 ELECTRICAL SITE PLAN
SCALE: 1" = 20'-0"

NORTH

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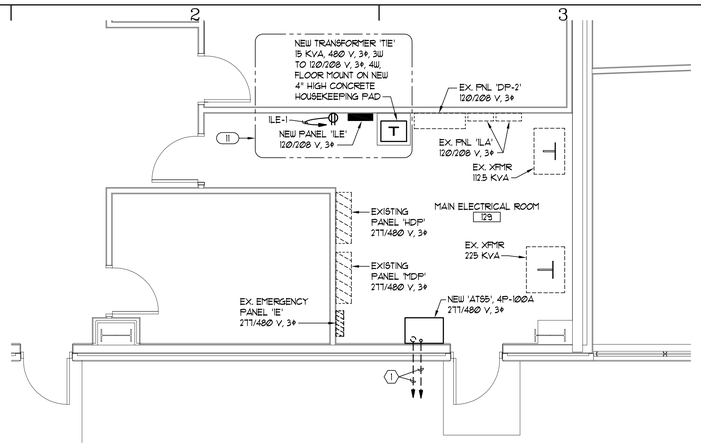
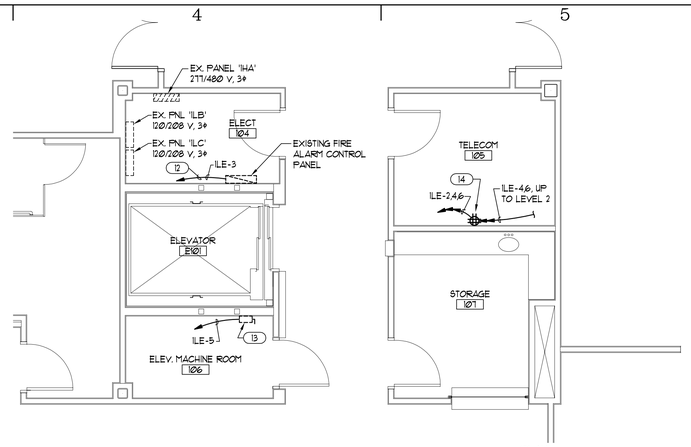
SHEET TITLE:
ELECTRICAL SITE PLAN

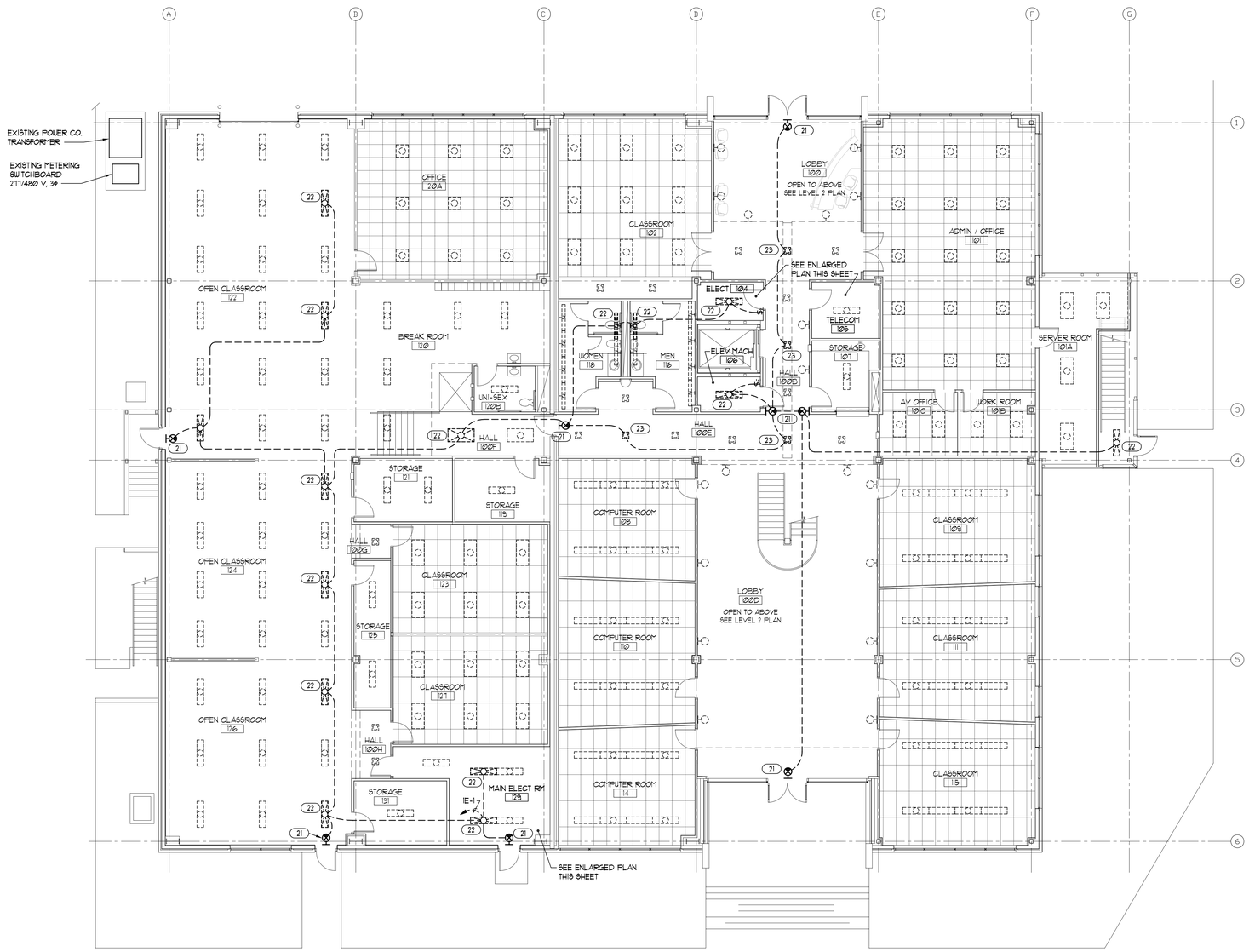
SHEET NUMBER:
ES101



E2 ENLARGED MAIN ELECTRICAL ROOM PLAN
SCALE: 1/4" = 1'-0"



E4 ENLARGED ELECTRICAL ROOM PLAN
SCALE: 1/4" = 1'-0"



A2 BUILDING 5 - LEVEL 1 ELECTRICAL PLAN
SCALE: 1/8" = 1'-0"

GENERAL ELECTRICAL NOTES:

1. LOCATIONS OF ALL EXISTING ELECTRICAL EQUIPMENT, LIGHTING, SWITCHES, OUTLETS, BRANCH CIRCUIT WIRING, ETC., ARE BASED ON EXISTING BUILDING ELECTRICAL DRAWINGS AND FIELD OBSERVATION OF EXISTING SURFACE CONDITIONS. FIELD VERIFY EXISTING LOCATIONS AND CIRCUITING AND IMMEDIATELY NOTIFY THE PROJECT ENGINEER OF ANY DISCREPANCIES WHICH MAY ADVERSELY AFFECT COMPLETION OF THE WORK.
2. ALL EXISTING LIGHT FIXTURES ARE TO REMAIN UNLESS SPECIFICALLY NOTED OTHERWISE AND ARE SHOWN FOR REFERENCE ONLY.
3. TAKE ALL PRECAUTIONS NECESSARY TO AVOID DAMAGE TO THE EXISTING BUILDINGS AND FACILITIES. REPAIR ALL DAMAGE INCURRED BY DEMOLITION AND NEW CONSTRUCTION TO EXACTLY MATCH SURROUNDING SURFACES AND/OR CONDITIONS WITHOUT ADDITIONAL COST TO THE OWNER.
4. DO NOT INSTALL NEW EMERGENCY CIRCUITS IN THE SAME RACEWAY, BOX, ETC., WITH NORMAL POWER WIRING EXCEPT AS ALLOWED BY NEC 700.9.
5. DO NOT REMOVE ANY EXISTING EMERGENCY LIGHTING BATTERY UNITS UNTIL NEW EMERGENCY POWER SYSTEM HAS BEEN INSTALLED AND ACCEPTANCE TESTED, AND EMERGENCY LIGHTING IS AVAILABLE FROM THE NEW EMERGENCY POWER SYSTEM.

KEYED NOTES - BASE BID:

(1) EXISTING 3" AND 1" CONDUIT TO EXISTING UNDERGROUND PULLBOX. SEE SHEET E5101 FOR CONTINUATION. EXTEND CONDUIT TO NEW AUTOMATIC TRANSFER SWITCH AND INSTALL NEW WIRING AS SHOWN ON SINGLE LINE DIAGRAM.

KEYED NOTES - ADDITIVE ALTERNATE NO. 1:

(11) PROVIDE NEW PANEL 'ILE', TRANSFORMER 'TIE', RECEPTACLE, AND ASSOCIATED CONDUIT, WIRING, SUPPORTS, ETC.

(12) RECONNECT EXISTING FIRE ALARM CONTROL PANEL TO NEW PANEL 'ILE'. REMOVE EXISTING NORMAL POWER BRANCH CIRCUIT 'ILA-43'. CIRCUIT RECONNECTION SHALL BE DONE UNDER THE SUPERVISION OF A FACTORY AUTHORIZED TECHNICIAN OF THE EXISTING FIRE ALARM SYSTEM.

(13) RECONNECT EXISTING SAFETY SWITCH FOR ELEVATOR CAR LIGHTING & VENTILATION TO NEW PANEL 'ILE'. REMOVE EXISTING NORMAL POWER BRANCH CIRCUIT 'ILA-41'.

(14) PROVIDE NEW DOUBLE DUPLEX RECEPTACLE IN EXISTING TELECOM ROOM. LOCATE RECEPTACLE WITH 3 FEET OF EXISTING UPS FOR TELEPHONE SYSTEM.

KEYED NOTES - ADDITIVE ALTERNATE NO. 2:

(21) REPLACE EXISTING BATTERY BACKUP EXIT LIGHT WITH NEW AC ONLY EXIT LIGHT. RECONNECT EXISTING EMERGENCY CIRCUIT.

(22) REMOVE BATTERY PACK FROM EXISTING FLUORESCENT FIXTURE INCLUDING TEST SWITCH AND INDICATOR LIGHT. PROVIDE CLOSING PLUGS IN HOLES FOR SWITCH AND INDICATOR LIGHT. RECONNECT EXISTING EMERGENCY CIRCUIT AS REQUIRED.

(23) REMOVE BATTERY PACK FROM EXISTING RECESSED COMPACT FLUORESCENT FIXTURE INCLUDING TEST SWITCH AND INDICATOR LIGHT. PROVIDE CLOSING PLUGS IN HOLES FOR SWITCH AND INDICATOR LIGHT. RECONNECT EXISTING EMERGENCY CIRCUIT AS REQUIRED.

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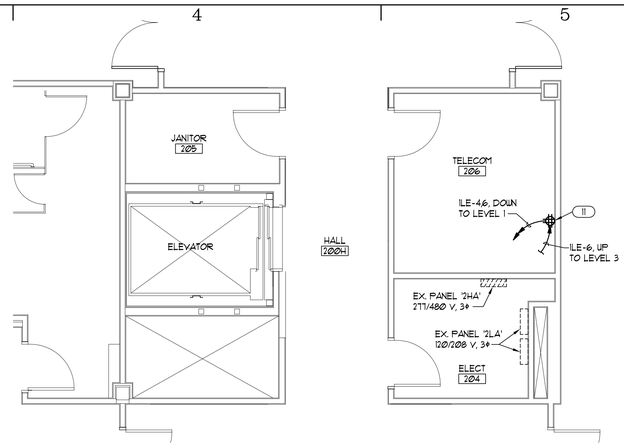
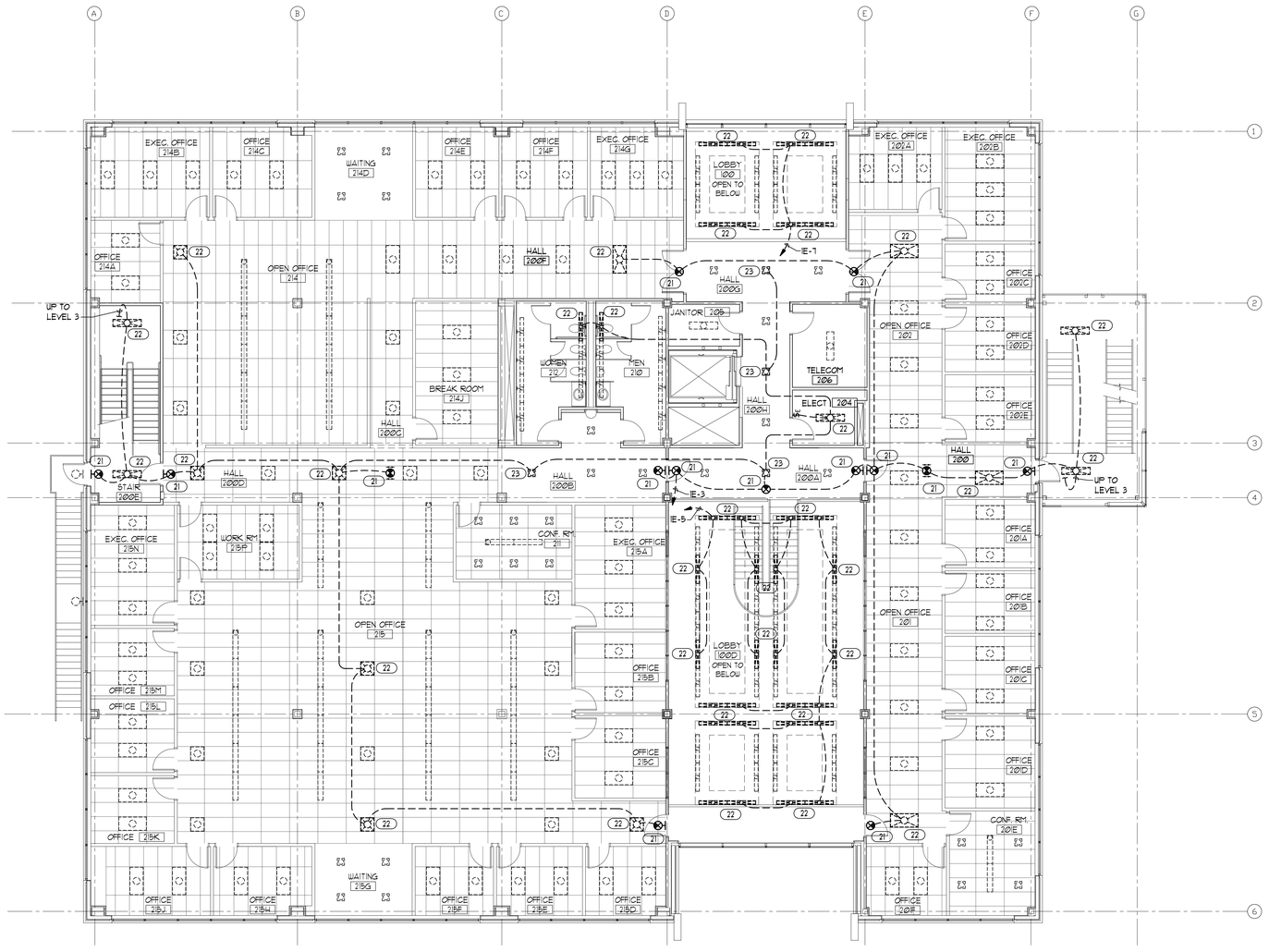
SHEET TITLE:
BUILDING 5
LEVEL 1
ELECTRICAL PLAN

SHEET NUMBER:
E-101

SHEET 3 OF 17



E4 ENLARGED ELECTRICAL ROOM PLAN
SCALE: 1/4" = 1'-0"



A2 BUILDING 5 - LEVEL 2 ELECTRICAL PLAN
SCALE: 1/8" = 1'-0"

PLAN NORTH NORTH

GENERAL ELECTRICAL NOTES:

1. LOCATIONS OF ALL EXISTING ELECTRICAL EQUIPMENT, LIGHTING, SWITCHES, OUTLETS, BRANCH CIRCUIT WIRING, ETC. ARE BASED ON EXISTING BUILDING ELECTRICAL DRAWINGS AND FIELD OBSERVATION OF EXISTING SURFACE CONDITIONS. FIELD VERIFY EXISTING LOCATIONS AND CIRCUITING AND IMMEDIATELY NOTIFY THE PROJECT ENGINEER OF ANY DISCREPANCIES WHICH MAY ADVERSELY AFFECT COMPLETION OF THE WORK.
2. ALL EXISTING LIGHT FIXTURES ARE TO REMAIN UNLESS SPECIFICALLY NOTED OTHERWISE AND ARE SHOWN FOR REFERENCE ONLY.
3. TAKE ALL PRECAUTIONS NECESSARY TO AVOID DAMAGE TO THE EXISTING BUILDINGS AND FACILITIES. REPAIR ALL DAMAGE INCURRED BY DEMOLITION AND NEW CONSTRUCTION TO EXACTLY MATCH SURROUNDING SURFACES AND/OR CONDITIONS WITHOUT ADDITIONAL COST TO THE OWNER.
4. DO NOT INSTALL NEW EMERGENCY CIRCUITS IN THE SAME RACEWAY, BOX, ETC. WITH NORMAL POWER WIRING EXCEPT AS ALLOWED BY NEC 700.9.
5. DO NOT REMOVE ANY EXISTING EMERGENCY LIGHTING BATTERY UNITS UNTIL NEW EMERGENCY POWER SYSTEM HAS BEEN INSTALLED AND ACCEPTANCE TESTED, AND EMERGENCY LIGHTING IS AVAILABLE FROM THE NEW EMERGENCY POWER SYSTEM.

KEYED NOTES - BASE BID:

NO BASE BID WORK REQUIRED BUILDING 5, LEVEL 2.

KEYED NOTES - ADDITIVE ALTERNATE NO. 1:

(11) PROVIDE NEW DOUBLE DUPLEX RECEPTACLE IN EXISTING TELECOM ROOM. LOCATE RECEPTACLE WITH 4 FEET OF EXISTING UPS FOR TELEPHONE SYSTEM.

KEYED NOTES - ADDITIVE ALTERNATE NO. 2:

(21) REPLACE EXISTING BATTERY BACKUP EXIT LIGHT WITH NEW AC ONLY EXIT LIGHT. RECONNECT EXISTING EMERGENCY CIRCUIT.

(22) REMOVE BATTERY PACK FROM EXISTING FLUORESCENT FIXTURE INCLUDING TEST SWITCH AND INDICATOR LIGHT. PROVIDE CLOSING PLUGS IN HOLES FOR SWITCH AND INDICATOR LIGHT. RECONNECT EXISTING EMERGENCY CIRCUIT AS REQUIRED.

(23) REMOVE BATTERY PACK FROM EXISTING RECESSED COMPACT FLUORESCENT FIXTURE INCLUDING TEST SWITCH AND INDICATOR LIGHT. PROVIDE CLOSING PLUGS IN HOLES FOR SWITCH AND INDICATOR LIGHT. RECONNECT EXISTING EMERGENCY CIRCUIT AS REQUIRED.

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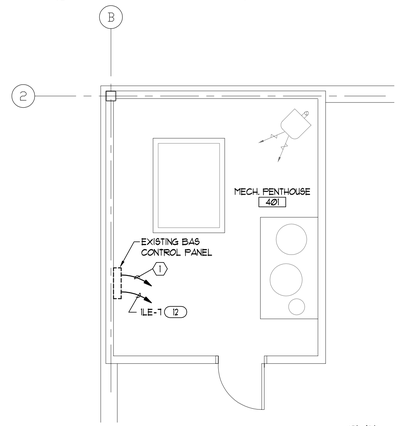
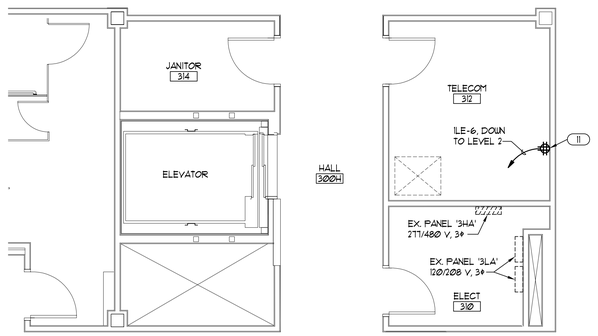
BUILDING 5
LEVEL 2
ELECTRICAL PLAN

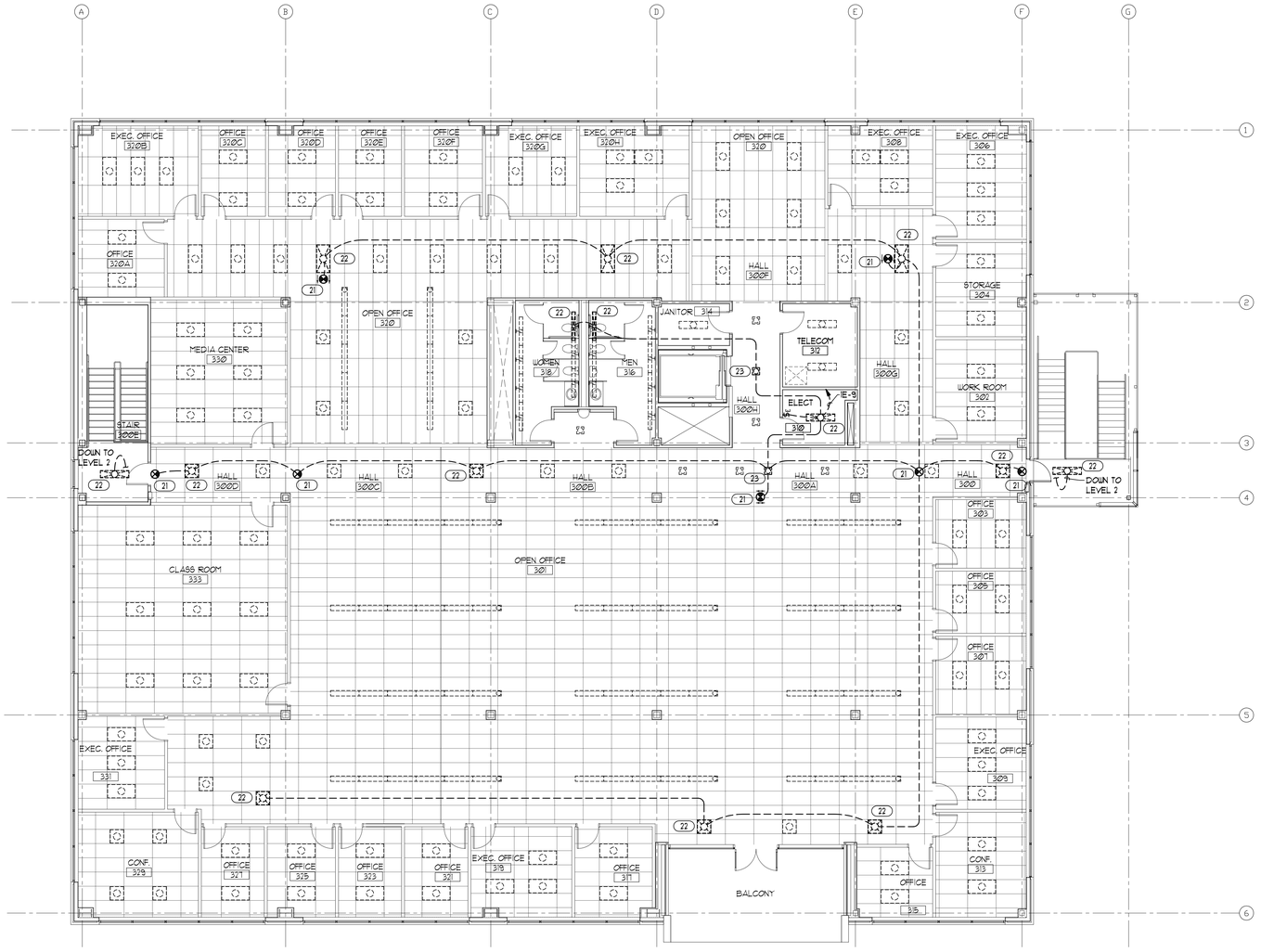
SHEET NUMBER:
E-102



E2 ROOF PENTHOUSE PLAN
SCALE: 1/4" = 1'-0"
0 2' 4' 8'
PLAN NORTH
NORTH



E4 ENLARGED ELECTRICAL ROOM PLAN
SCALE: 1/4" = 1'-0"
0 2' 4' 8'
PLAN NORTH
NORTH



A2 BUILDING 5 - LEVEL 3 ELECTRICAL PLAN
SCALE: 1/8" = 1'-0"
0 4' 8' 16'
PLAN NORTH
NORTH

GENERAL ELECTRICAL NOTES:

1. LOCATIONS OF ALL EXISTING ELECTRICAL EQUIPMENT, LIGHTING, SWITCHES, OUTLETS, BRANCH CIRCUIT WIRING, ETC. ARE BASED ON EXISTING BUILDING ELECTRICAL DRAWINGS AND FIELD OBSERVATION OF EXISTING SURFACE CONDITIONS. FIELD VERIFY EXISTING LOCATIONS AND CIRCUITING AND IMMEDIATELY NOTIFY THE PROJECT ENGINEER OF ANY DISCREPANCIES WHICH MAY ADVERSELY AFFECT COMPLETION OF THE WORK.
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4. DO NOT INSTALL NEW EMERGENCY CIRCUITS IN THE SAME RACEWAY, BOX, ETC., WITH NORMAL POWER WIRING EXCEPT AS ALLOWED BY NEC 700.9.
5. DO NOT REMOVE ANY EXISTING EMERGENCY LIGHTING BATTERY UNITS UNTIL NEW EMERGENCY POWER SYSTEM HAS BEEN INSTALLED AND ACCEPTANCE TESTED, AND EMERGENCY LIGHTING IS AVAILABLE FROM THE NEW EMERGENCY POWER SYSTEM.

KEYED NOTES - BASE BID:

(1) PROVIDE 3/4" CONDUIT WITH PULL STRING FROM EXISTING BAS CONTROL PANEL TO NEW AUTOMATIC TRANSFER SWITCH 'ATS5' FOR MONITORING OF ATS STATUS BY THE BUILDING AUTOMATION SYSTEM. WIRING TO BE PROVIDED AS REQUIRED BY BUILDING AUTOMATION SYSTEM CONTRACTOR.

KEYED NOTES - ADDITIVE ALTERNATE NO. 1:

(11) PROVIDE NEW DOUBLE DUPLEX RECEPTACLE IN EXISTING TELECOM ROOM. LOCATE RECEPTACLE WITHIN 3 FEET OF EXISTING UPS FOR TELEPHONE SYSTEM.

(12) RECONNECT EXISTING BUILDING AUTOMATION SYSTEM CONTROL PANEL TO NEW PANEL 'ILE'. REMOVE EXISTING NORMAL POWER CIRCUIT. VERIFY LOCATION AND CIRCUIT.

KEYED NOTES - ADDITIVE ALTERNATE NO. 2:

(21) REPLACE EXISTING BATTERY BACKUP EXIT LIGHT WITH NEW AC ONLY EXIT LIGHT. RECONNECT EXISTING EMERGENCY CIRCUIT.

(22) REMOVE BATTERY PACK FROM EXISTING FLUORESCENT FIXTURE INCLUDING TEST SWITCH AND INDICATOR LIGHT. PROVIDE CLOSING PLUGS IN HOLES FOR SWITCH AND INDICATOR LIGHT. RECONNECT EXISTING EMERGENCY CIRCUIT AS REQUIRED.

(23) REMOVE BATTERY PACK FROM EXISTING RECESSED COMPACT FLUORESCENT FIXTURE INCLUDING TEST SWITCH AND INDICATOR LIGHT. PROVIDE CLOSING PLUGS IN HOLES FOR SWITCH AND INDICATOR LIGHT. RECONNECT EXISTING EMERGENCY CIRCUIT AS REQUIRED.

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9750 SOUTH 300 WEST
SANDY, UTAH

BUILDINGS 5-9 EMERGENCY GENERATOR IMPROVEMENTS

REVISIONS:

MARK	DATE	DESCRIPTION

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SHEET TITLE:
BUILDING 5 LEVEL 3 ELECTRICAL PLAN
SHEET NUMBER:
E-103
SHEET 5 OF 17

GENERAL ELECTRICAL NOTES:

1. LOCATIONS OF ALL EXISTING ELECTRICAL EQUIPMENT, BRANCH CIRCUIT WIRING, ETC., ARE BASED ON EXISTING BUILDING ELECTRICAL DRAWINGS AND FIELD OBSERVATION OF EXISTING SURFACE CONDITIONS. FIELD VERIFY EXISTING LOCATIONS AND CIRCUITING AND IMMEDIATELY NOTIFY THE PROJECT ENGINEER OF ANY DISCREPANCIES WHICH MAY ADVERSELY AFFECT COMPLETION OF THE WORK.
2. DEMOLITION IS SHOWN FOR CONTRACTORS REFERENCE ONLY. FIELD VERIFY QUANTITIES AND LOCATIONS OF ALL EXISTING MATERIAL AND EQUIPMENT TO BE REMOVED. REMOVE ALL ABANDONED CONDUIT WIRING, BOXES, OUTLETS, ETC. ASSOCIATED WITH EXISTING EQUIPMENT INDICATED TO BE REMOVED OR REPLACED.
3. ALL MATERIALS AND EQUIPMENT REMOVED SHALL BE DISPOSED OF BY THE CONTRACTOR EXCEPT FOR ITEMS SPECIFICALLY NOTED TO BE SALVAGED FOR OWNER.
4. TAKE ALL PRECAUTIONS NECESSARY TO AVOID DAMAGE TO THE EXISTING BUILDING. REPAIR ALL DAMAGE INCURRED BY DEMOLITION AND NEW CONSTRUCTION TO EXACTLY MATCH SURROUNDING SURFACES AND/OR CONDITIONS WITHOUT ADDITIONAL COST TO THE OWNER.

KEYED NOTES - BASE BID:

(1) REMOVE EXISTING EMERGENCY LIGHTING BATTERY UNIT FOR EXTERIOR EMERGENCY LIGHT FIXTURES AND CLEAN WALL BEHIND FIXTURE. PROVIDE BLANK COVERPLATE ON EXISTING OUTLET BOX. RETAIN EXISTING 277 VOLT EMERGENCY LIGHTING BRANCH CIRCUIT FOR CONNECTION TO NEW EXTERIOR EMERGENCY LIGHT FIXTURES.

(2) REPLACE EXISTING EXTERIOR REMOTE EMERGENCY LIGHT FIXTURE WITH NEW FIXTURE AS INDICATED. REPLACE EXISTING WIRING WITH NEW WIRING PROPERLY COLOR CODED FOR 277 VOLT CIRCUIT.

(3) REMOVE EXISTING EMERGENY LIGHTING BATTERY UNIT FOR EXTERIOR EMERGENCY LIGHT FIXTURES. RECONNECT EXISTING CIRCUIT AS REQUIRED.

(4) REMOVE EXISTING EXTERIOR REMOTE EMERGENCY LIGHT FIXTURE COMPLETE INCLUDING ALL ABANDONED WIRING, CONDUIT, BOXES, ETC.

(5) REPLACE EXISTING EXTERIOR FIXTURES WITH NEW FIXTURES TO INCLUDE QUARTZ RESTRIKE AND PHOTOCELL.

(6) REMOVE EXISTING NORMAL POWER BRANCH CIRCUIT TO EXTERIOR FIXTURES AND CONNECT TO EMERGENCY LIGHTING BRANCH CIRCUIT AS INDICATED.

(7) REMOVE EXISTING EMERGENCY LIGHTING "BUGEYE" BATTERY UNIT AND CLEAN WALL BEHIND FIXTURE. PROVIDE BLANK COVERPLATE ON EXISTING OUTLET BOX. RECONNECT EXISTING CIRCUIT AS REQUIRED.

(8) PROVIDE NEW RECESSED FIXTURE IN EXISTING CEILING. REPAIR CEILING AS REQUIRED.

(9) PROVIDE NEW EMERGENCY SHUNT RELAY WITH 120 VOLT COIL IN ACCESSIBLE CEILING SPACE. SEE TYPICAL WIRING DIAGRAM THIS SHEET.

(10) CONNECT UNSWITCHED CONDUCTOR OF EXISTING NORMAL ROOM LIGHTING CIRCUIT TO COIL OF NEW EMERGENCY SHUNT RELAY.

(11) CONNECT TO EXISTING EMERGENCY LIGHTING CIRCUIT AND EXTEND TO NEW FIXTURES AS INDICATED THROUGH NEW EMERGENCY SHUNT RELAY.

KEYED NOTES - ADDITIVE ALTERNATE NO. 1:

SEE BUILDING 6 - ENLARGED ELECTRICAL PLAN, SHEET E-105, FOR WORK TO BE INCLUDED IN ALTERNATE NO. 1.

KEYED NOTES - ADDITIVE ALTERNATE NO. 2:

(21) REPLACE EXISTING BATTERY BACKUP EXIT LIGHT WITH NEW AC ONLY EXIT LIGHT. RECONNECT EXISTING EMERGENCY CIRCUIT.

(22) REMOVE BATTERY PACK FROM EXISTING FLUORESCENT FIXTURE INCLUDING TEST SWITCH AND INDICATOR LIGHT. PROVIDE CLOSING PLUGS IN HOLES FOR SWITCH AND INDICATOR LIGHT. RECONNECT EXISTING EMERGENCY CIRCUIT AS REQUIRED.

(23) REMOVE BATTERY PACK FROM EXISTING RECESSED COMPACT FLUORESCENT FIXTURE INCLUDING TEST SWITCH AND INDICATOR LIGHT. PROVIDE CLOSING PLUGS IN HOLES FOR SWITCH AND INDICATOR LIGHT. RECONNECT EXISTING EMERGENCY CIRCUIT AS REQUIRED.

(A2) BUILDING 6 - ELECTRICAL PLAN

SCALE: 1/8" = 1'-0"

PLAN NORTH

NORTH

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CONSULTANTS:

PROJECT:
Salt Lake Community College
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SANDY, UTAH

BUILDINGS 5-9 EMERGENCY GENERATOR IMPROVEMENTS

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SHEET TITLE:
BUILDING 6 ELECTRICAL PLAN

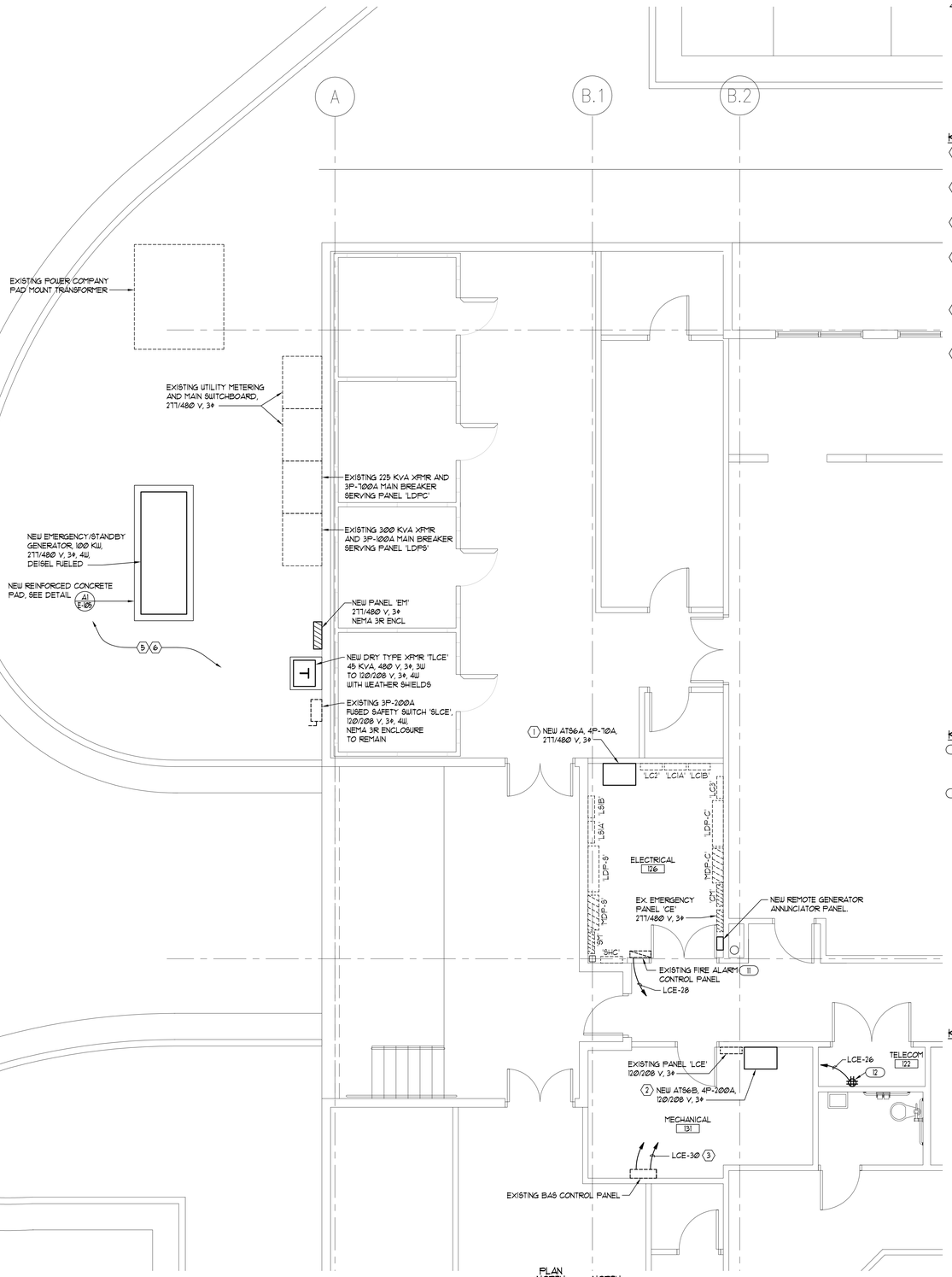
SHEET NUMBER:
E-104

GENERAL ELECTRICAL NOTES:

1. LOCATIONS OF ALL EXISTING ELECTRICAL EQUIPMENT, BRANCH CIRCUIT WIRING, ETC., ARE BASED ON EXISTING BUILDING ELECTRICAL DRAWINGS AND FIELD OBSERVATION OF EXISTING SURFACE CONDITIONS. FIELD VERIFY EXISTING LOCATIONS AND CIRCUITING AND IMMEDIATELY NOTIFY THE PROJECT ENGINEER OF ANY DISCREPANCIES WHICH MAY ADVERSELY AFFECT COMPLETION OF THE WORK.
2. DEMOLITION IS SHOWN FOR CONTRACTORS REFERENCE ONLY. FIELD VERIFY QUANTITIES AND LOCATIONS OF ALL EXISTING MATERIAL AND EQUIPMENT TO BE REMOVED. REMOVE ALL ABANDONED CONDUIT WIRING, BOXES, OUTLETS, ETC. ASSOCIATED WITH EXISTING EQUIPMENT INDICATED TO BE REMOVED OR REPLACED.
3. ALL MATERIALS AND EQUIPMENT REMOVED SHALL BE DISPOSED OF BY THE CONTRACTOR EXCEPT FOR ITEMS SPECIFICALLY NOTED TO BE SALVAGED FOR OWNER.
4. TAKE ALL PRECAUTIONS NECESSARY TO AVOID DAMAGE TO THE EXISTING BUILDING. REPAIR ALL DAMAGE INCURRED BY DEMOLITION AND NEW CONSTRUCTION TO EXACTLY MATCH SURROUNDING SURFACES AND/OR CONDITIONS WITHOUT ADDITIONAL COST TO THE OWNER.

KEYED NOTES - BASE BID:

1. INSTALL NEW 'ATS6A' ABOVE EXISTING CONDUIT STUB-UPS. EXTEND CONDUITS TO NEW 'ATS6A' AND INSTALL NEW FEEDER CONDUCTORS AS SHOWN ON SINGLE LINE DIAGRAM, SHEET E-601.
2. INSTALL NEW 'ATS6B' TO REPLACE EXISTING 4P-200A DOUBLE THROW SAFETY SWITCH. PROVIDE NEW FEEDER CONDUCTORS AS SHOWN ON SINGLE LINE DIAGRAM, SHEET E-601.
3. RECONNECT EXISTING BUILDING AUTOMATION SYSTEM CONTROL PANEL TO EXISTING PANEL 'LCE'. REMOVE EXISTING NORMAL POWER CIRCUIT. VERIFY LOCATION AND CIRCUIT.
4. PROVIDE 3/4" CONDUIT WITH PULL STRING FROM EXISTING BAS CONTROL PANEL TO NEW AUTOMATIC TRANSFER SWITCHES AND GENERATOR FOR MONITORING OF THE EMERGNECY/STANDBY POWER SYSTEM STATUS BY THE BUILDING AUTOMATION SYSTEM. WIRING TO BE PROVIDED AS REQUIRED BY BUILDING AUTOMATION SYSTEM CONTRACTOR.
5. RELOCATE EXISTING IRRIGATION SPRINKLER HEADS AND UNDERGROUND PIPES IN AREA OF NEW GENERATOR AS REQUIRED TO MINIMIZE AMOUNT OF WATER SPRAY ON NEW GENERATOR AND PROVIDE SUITABLE IRRIGATION. FIELD COORDINATE REQUIREMENTS WITH ENGINEER AND OWNER.
6. RESTORE EXISTING GRASS SOD IN AREA OF NEW GENERATOR TO ORIGINAL CONDITION. PROVIDE NEW GRASS SOD AND/OR IMPORTED TOP SOIL AS REQUIRED.



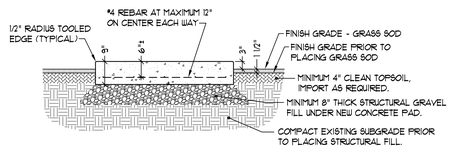
KEYED NOTES - ADDITIVE ALTERNATE NO. 1:

11 RECONNECT EXISTING FIRE ALARM CONTROL PANEL TO NEW PANEL 'ILE'. REMOVE EXISTING NORMAL POWER BRANCH CIRCUIT 'ILA-43'. CIRCUIT RECONNECTION SHALL BE DONE UNDER THE SUPERVISION OF A FACTORY AUTHORIZED TECHNICIAN OF THE EXISTING FIRE ALARM SYSTEM.

12 PROVIDE NEW DOUBLE DUPLEX RECEPTACLE IN EXISTING TELECOM ROOM. LOCATE RECEPTACLE WITH 4 FEET OF EXISTING UPS FOR TELEPHONE SYSTEM.

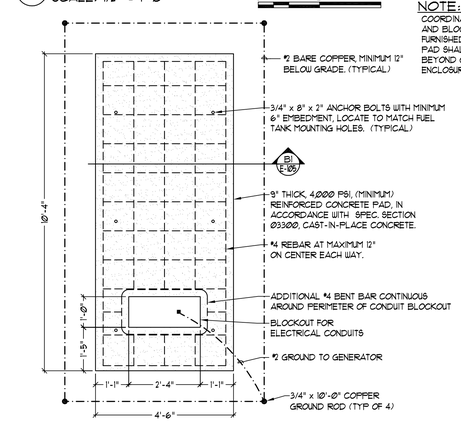
KEYED NOTES - ADDITIVE ALTERNATE NO. 2:

SEE BUILDING 6 - ELECTRICAL PLAN, SHEET E-104, FOR WORK TO BE INCLUDED IN ALTERNATE NO. 2.



B1 GENERATOR PAD SECTION
SCALE: 1/2" = 1'-0"

NOTE:
COORDINATE PAD DIMENSIONS AND BLOCKOUT LOCATION WITH FURNISHED GENERATOR SET. PAD SHALL EXTEND MINIMUM 6" BEYOND GENERATOR ENCLOSURE.



A1 GENERATOR PAD DETAIL
SCALE: 1/2" = 1'-0"

A3 BUILDING 6 - ENLARGED ELECTRICAL PLAN
SCALE: 1/8" = 1'-0"

PLAN NORTH

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BUILDINGS 5-9 EMERGENCY GENERATOR IMPROVEMENTS

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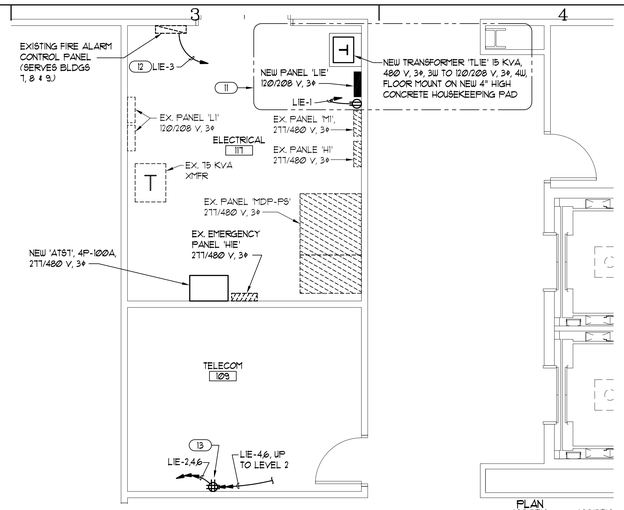
BUILDING 6 - ENLARGED ELECTRICAL PLAN

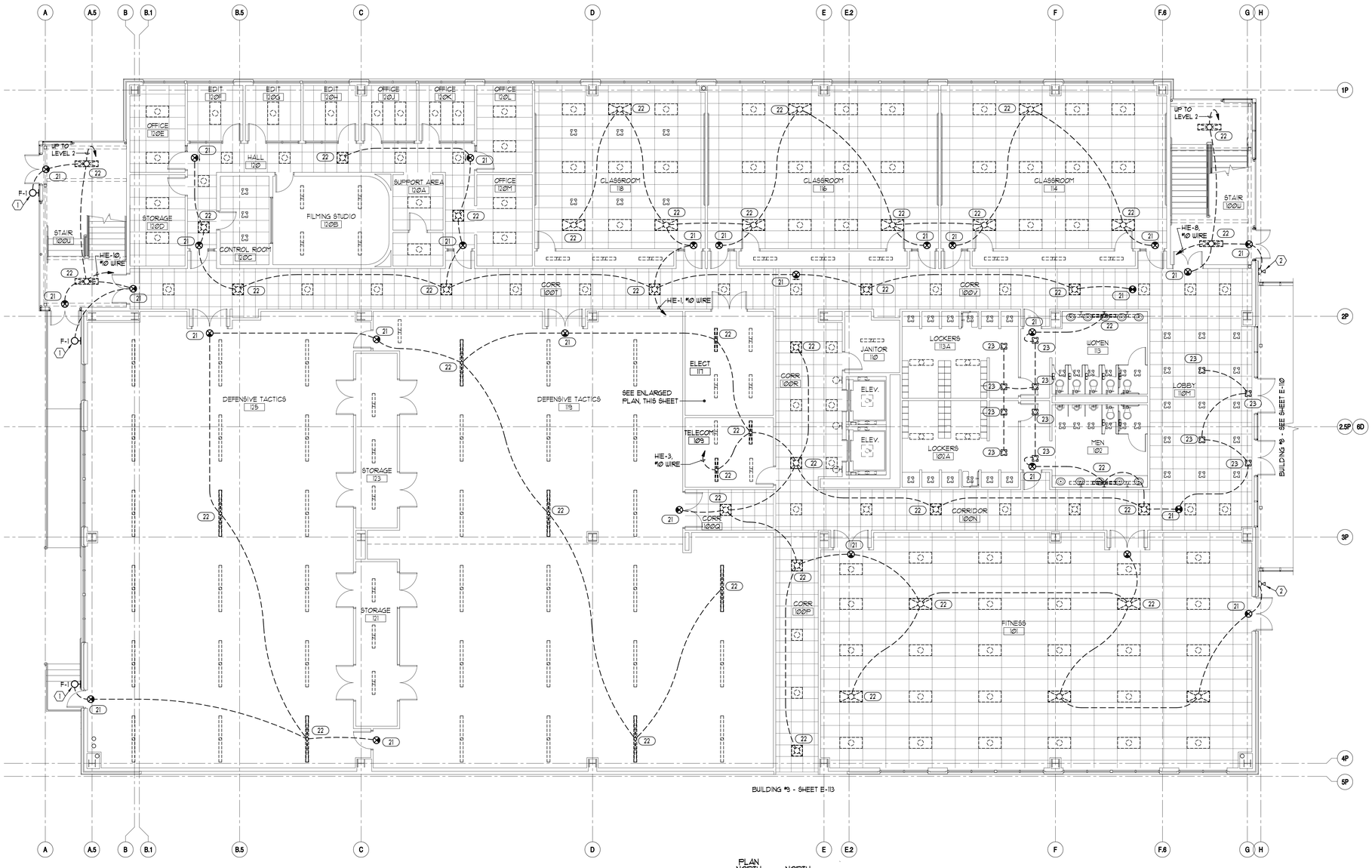
SHEET NUMBER:
E-105

SHEET 7 OF 17



E3 ENLARGED ELECTRICAL ROOM PLAN

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



A1 BUILDING 7 - LEVEL 1 ELECTRICAL PLAN

SCALE: 1/8" = 1'-0"

PLAN NORTH

NORTH

GENERAL ELECTRICAL NOTES:

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KEYED NOTES - BASE BID:

(1) REPLACE EXISTING EXTERIOR REMOTE EMERGENCY LIGHT FIXTURE WITH NEW FIXTURE AS INDICATED. REMOVE WIRING FROM EXIT LIGHT BATTERY TO FIXTURE. PROVIDE NEW WIRING PROPERLY COLOR CODED FOR 277 VOLT CIRCUIT AND CONNECT TO EXISTING EMERGENCY CIRCUIT.

(2) REMOVE EXISTING EXTERIOR REMOTE EMERGENCY LIGHT FIXTURE INCLUDED ABANDONED WIRING, CONDUIT, ETC. PROVIDE BLANK COVERPLATE ON EXISTING FLUSH MOUNTED OUTLET BOX. EXTERIOR EMERGENCY LIGHTING TO BE PROVIDED BY NEW FIXTURES ON BUILDING #8, SEE SHEET E-110.

KEYED NOTES - ADDITIVE ALTERNATE NO. 1:

(11) PROVIDE NEW PANEL 'LIE', TRANSFORMER 'TLIE', RECEPTACLE, AND ASSOCIATED CONDUIT, WIRING, SUPPORTS, ETC.

(12) RECONNECT EXISTING FIRE ALARM CONTROL PANEL TO NEW PANEL 'LIE'. REMOVE EXISTING NORMAL POWER BRANCH CIRCUIT. VERIFY LOCATION AND CIRCUIT. CIRCUIT RECONNECTION SHALL BE DONE UNDER THE SUPERVISION OF A FACTORY AUTHORIZED TECHNICIAN OF THE EXISTING FIRE ALARM SYSTEM.

(13) PROVIDE NEW DOUBLE DUPLEX RECEPTACLE IN EXISTING TELECOM ROOM. LOCATE RECEPTACLE WITH 3 FEET OF EXISTING UPS FOR TELEPHONE SYSTEM.

KEYED NOTES - ADDITIVE ALTERNATE NO. 2:

(21) REPLACE EXISTING BATTERY BACKUP EXIT LIGHT WITH NEW AC ONLY EXIT LIGHT. RECONNECT EXISTING EMERGENCY CIRCUIT.

(22) REMOVE BATTERY PACK FROM EXISTING FLUORESCENT FIXTURE INCLUDING TEST SWITCH AND INDICATOR LIGHT. PROVIDE CLOSING PLUGS IN HOLES FOR SWITCH AND INDICATOR LIGHT. RECONNECT EXISTING EMERGENCY CIRCUIT AS REQUIRED.

(23) REMOVE BATTERY PACK FROM EXISTING RECESSED COMPACT FLUORESCENT FIXTURE INCLUDING TEST SWITCH AND INDICATOR LIGHT. PROVIDE CLOSING PLUGS IN HOLES FOR SWITCH AND INDICATOR LIGHT. RECONNECT EXISTING EMERGENCY CIRCUIT AS REQUIRED.

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BUILDINGS 5-9 EMERGENCY GENERATOR IMPROVEMENTS

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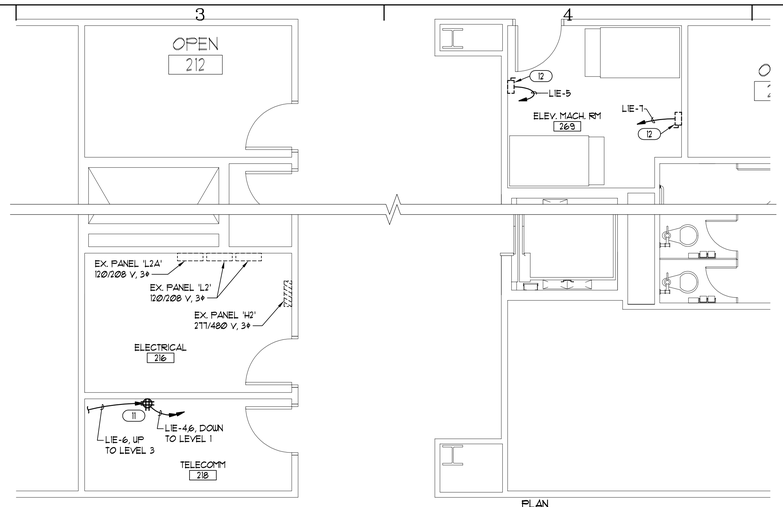
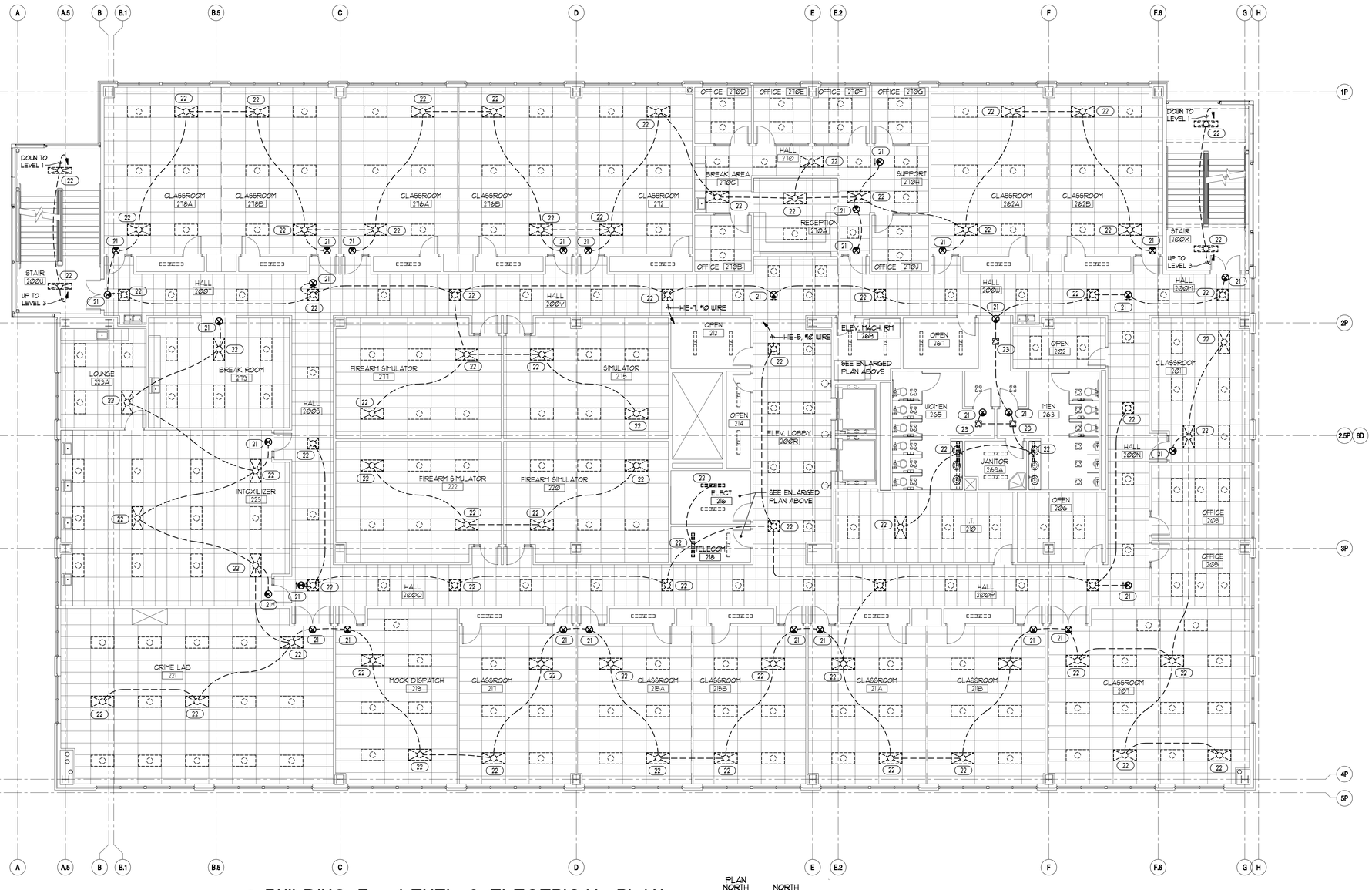
SHEET TITLE:
BUILDING 7
LEVEL 1
ELECTRICAL PLAN

SHEET NUMBER:
E-106



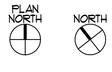
E3 ENLARGED ELECTRICAL ROOM PLAN

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



A1 BUILDING 7 - LEVEL 2 ELECTRICAL PLAN

SCALE: 1/8" = 1'-0"



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KEYED NOTES - BASE BID:

NO BASE BID WORK REQUIRED BUILDING 7, LEVEL 2.

KEYED NOTES - ADDITIVE ALTERNATE NO. 1:

(11) PROVIDE NEW DOUBLE DUPLEX RECEPTACLE IN EXISTING TELECOM ROOM. LOCATE RECEPTACLE WITH 4 FEET OF EXISTING UPS FOR TELEPHONE SYSTEM.

(12) RECONNECT EXISTING SAFETY SWITCHES FOR ELEVATOR CAR LIGHTING & VENTILATION TO NEW PANEL 'LIE' AS INDICATED. REMOVE EXISTING NORMAL POWER BRANCH CIRCUITS 'L2'-41,42'.

KEYED NOTES - ADDITIVE ALTERNATE NO. 2:

(21) REPLACE EXISTING BATTERY BACKUP EXIT LIGHT WITH NEW AC ONLY EXIT LIGHT. RECONNECT EXISTING EMERGENCY CIRCUIT.

(22) REMOVE BATTERY PACK FROM EXISTING FLUORESCENT FIXTURE INCLUDING TEST SWITCH AND INDICATOR LIGHT. PROVIDE CLOSING PLUGS IN HOLES FOR SWITCH AND INDICATOR LIGHT. RECONNECT EXISTING EMERGENCY CIRCUIT AS REQUIRED.

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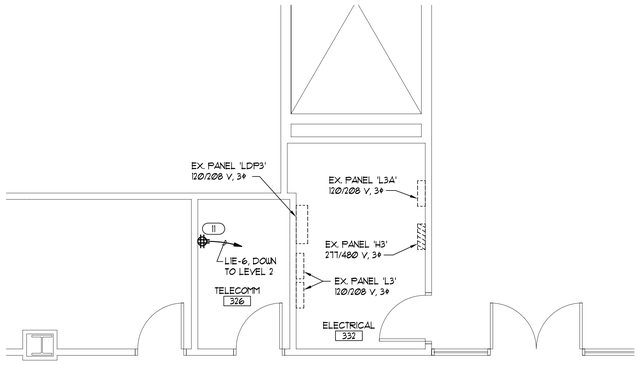
BUILDING 7
LEVEL 2
ELECTRICAL PLAN

SHEET NUMBER:
E-107

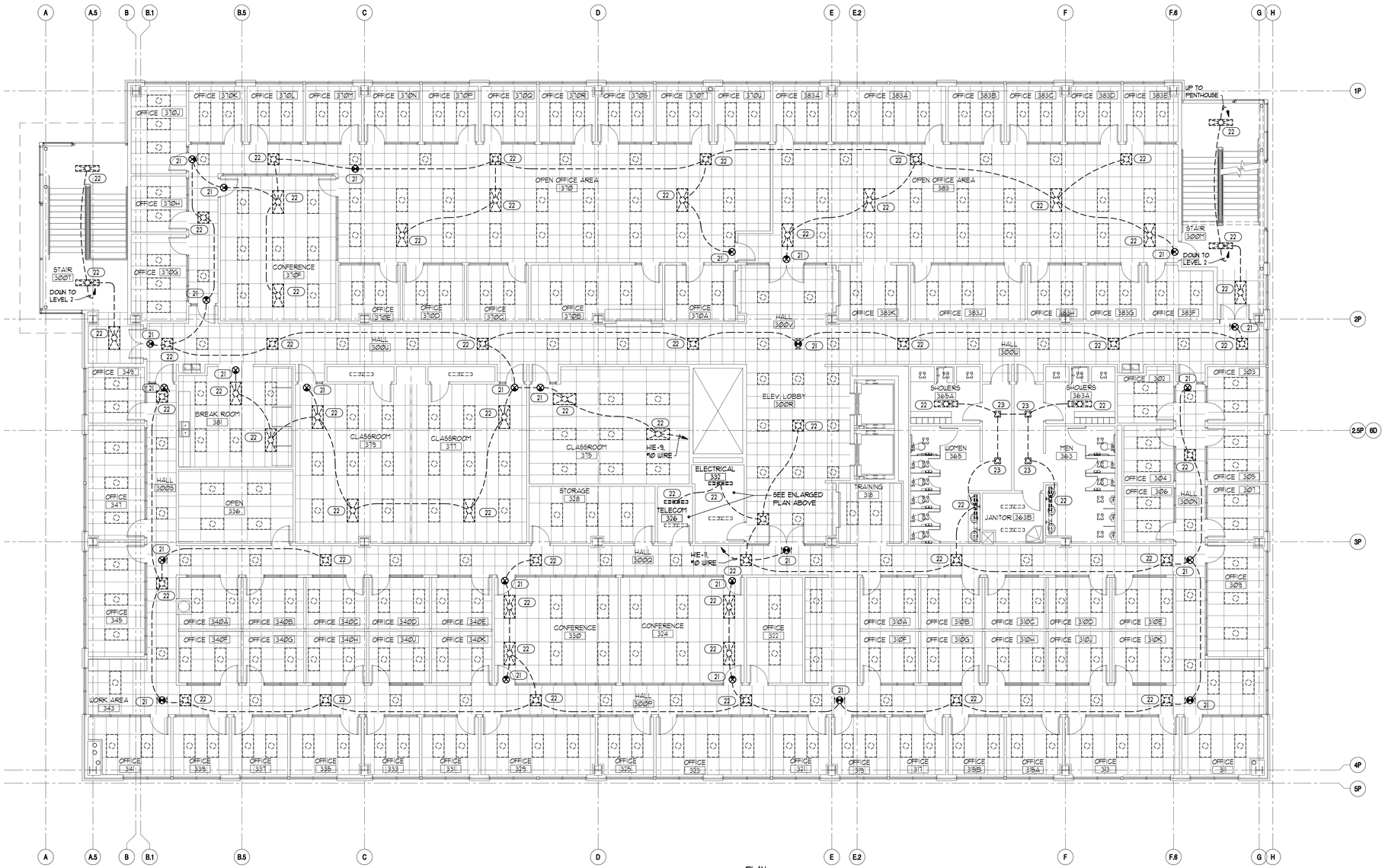


E3 ENLARGED ELECTRICAL ROOM PLAN

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

PLAN NORTH

NORTH



A1 BUILDING 3 - LEVEL 2 ELECTRICAL PLAN

SCALE: 1/8" = 1'-0"

PLAN NORTH

NORTH

GENERAL ELECTRICAL NOTES:

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KEYED NOTES - BASE BID:

NO BASE BID WORK REQUIRED BUILDING 7, LEVEL 3.

KEYED NOTES - ADDITIVE ALTERNATE NO. 1:

(11) PROVIDE NEW DOUBLE DUPLEX RECEPTACLE IN EXISTING TELECOM ROOM. LOCATE RECEPTACLE WITH 3 FEET OF EXISTING UPS FOR TELEPHONE SYSTEM.

(12) RECONNECT EXISTING SAFETY SWITCHES FOR ELEVATOR CAR LIGHTING & VENTILATION TO NEW PANEL 'LIE' AS INDICATED. REMOVE EXISTING NORMAL POWER BRANCH CIRCUITS 'L2-41,42'.

KEYED NOTES - ADDITIVE ALTERNATE NO. 2:

(21) REPLACE EXISTING BATTERY BACKUP EXIT LIGHT WITH NEW AC ONLY EXIT LIGHT. RECONNECT EXISTING EMERGENCY CIRCUIT.

(22) REMOVE BATTERY PACK FROM EXISTING FLUORESCENT FIXTURE INCLUDING TEST SWITCH AND INDICATOR LIGHT. PROVIDE CLOSING PLUGS IN HOLES FOR SWITCH AND INDICATOR LIGHT. RECONNECT EXISTING EMERGENCY CIRCUIT AS REQUIRED.

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9750 SOUTH 300 WEST
SANDY, UTAH

BUILDINGS 5-9 EMERGENCY GENERATOR IMPROVEMENTS

REVISIONS:

MARK	DATE	DESCRIPTION

ISSUE TYPE: CONSTRUCTION DOCUMENTS

ISSUE DATE: JAN. 15, 2009

DFCM PROJECT NO.: 08073660

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SHEET TITLE:

BUILDING 7
LEVEL 3
ELECTRICAL PLAN

SHEET NUMBER:

E-108

GENERAL ELECTRICAL NOTES:

1. LOCATIONS OF ALL EXISTING ELECTRICAL EQUIPMENT, BRANCH CIRCUIT WIRING, ETC., ARE BASED ON EXISTING BUILDING ELECTRICAL DRAWINGS AND FIELD OBSERVATION OF EXISTING SURFACE CONDITIONS. FIELD VERIFY EXISTING LOCATIONS AND CIRCUITING AND IMMEDIATELY NOTIFY THE PROJECT ENGINEER OF ANY DISCREPANCIES WHICH MAY ADVERSELY AFFECT COMPLETION OF THE WORK.
2. DEMOLITION IS SHOWN FOR CONTRACTORS REFERENCE ONLY. FIELD VERIFY QUANTITIES AND LOCATIONS OF ALL EXISTING MATERIAL AND EQUIPMENT TO BE REMOVED. REMOVE ALL ABANDONED CONDUIT WIRING, BOXES, OUTLETS, ETC. ASSOCIATED WITH EXISTING EQUIPMENT INDICATED TO BE REMOVED OR REPLACED.
3. ALL MATERIALS AND EQUIPMENT REMOVED SHALL BE DISPOSED OF BY THE CONTRACTOR EXCEPT FOR ITEMS SPECIFICALLY NOTED TO BE SALVAGED FOR OWNER.
4. TAKE ALL PRECAUTIONS NECESSARY TO AVOID DAMAGE TO THE EXISTING BUILDING. REPAIR ALL DAMAGE INCURRED BY DEMOLITION AND NEW CONSTRUCTION TO EXACTLY MATCH SURROUNDING SURFACES AND/OR CONDITIONS WITHOUT ADDITIONAL COST TO THE OWNER.

KEYED NOTES - BASE BID:

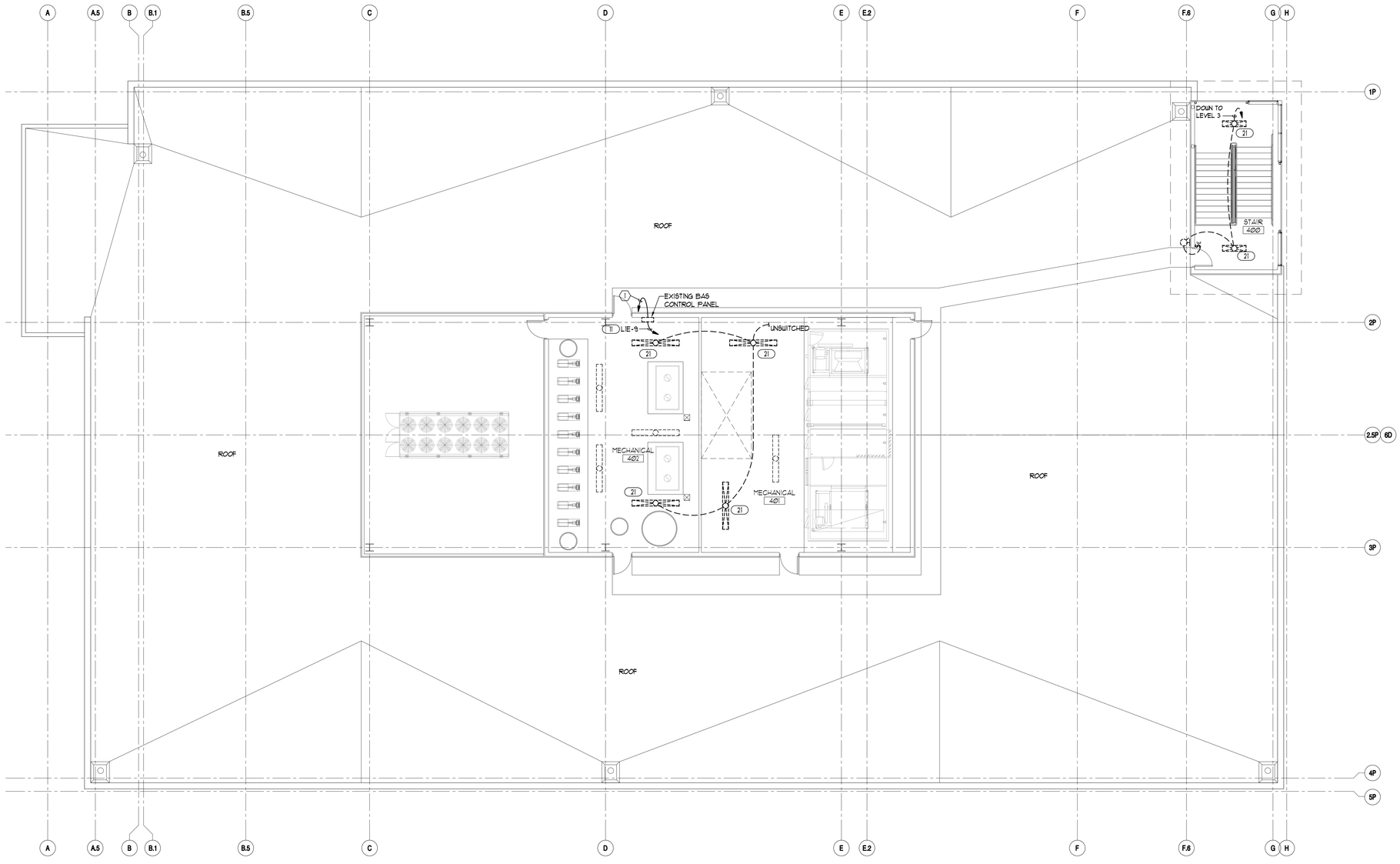
(1) PROVIDE 3/4" CONDUIT WITH PULL STRING FROM EXISTING BAS CONTROL PANEL TO NEW AUTOMATIC TRANSFER SWITCH 'ATS1' FOR MONITORING OF ATS STATUS BY THE BUILDING AUTOMATION SYSTEM. WIRING TO BE PROVIDED AS REQUIRED BY BUILDING AUTOMATION SYSTEM CONTRACTOR.

KEYED NOTES - ADDITIVE ALTERNATE NO. 1:

(11) RECONNECT EXISTING BUILDING AUTOMATION SYSTEM CONTROL PANEL TO NEW PANEL 'LIE'. REMOVE EXISTING NORMAL POWER CIRCUIT. VERIFY LOCATION AND EXISTING CIRCUIT.

KEYED NOTES - ADDITIVE ALTERNATE NO. 2:

(21) REMOVE BATTERY PACK FROM EXISTING FLUORESCENT FIXTURE INCLUDING TEST SWITCH AND INDICATOR LIGHT. PROVIDE CLOSING PLUGS IN HOLES FOR SWITCH AND INDICATOR LIGHT. RECONNECT EXISTING EMERGENCY CIRCUIT AS REQUIRED.



A1 BUILDING 7 - PENTHOUSE ELECTRICAL PLAN
SCALE: 1/8" = 1'-0"
0 4' 8' 16'
PLAN NORTH
NORTH

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CONSULTANTS:

PROJECT:
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LARRY H. MILLER CAMPUS
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SHEET TITLE:
BUILDING 7 PENTHOUSE ELECTRICAL PLAN

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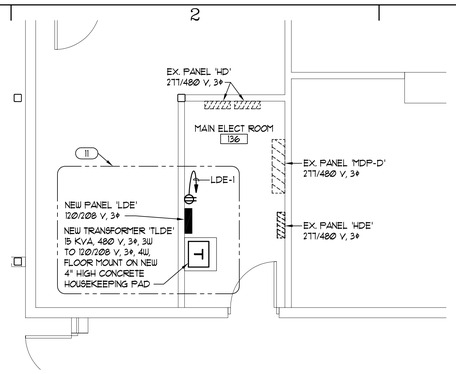
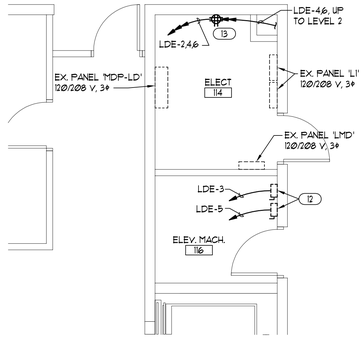
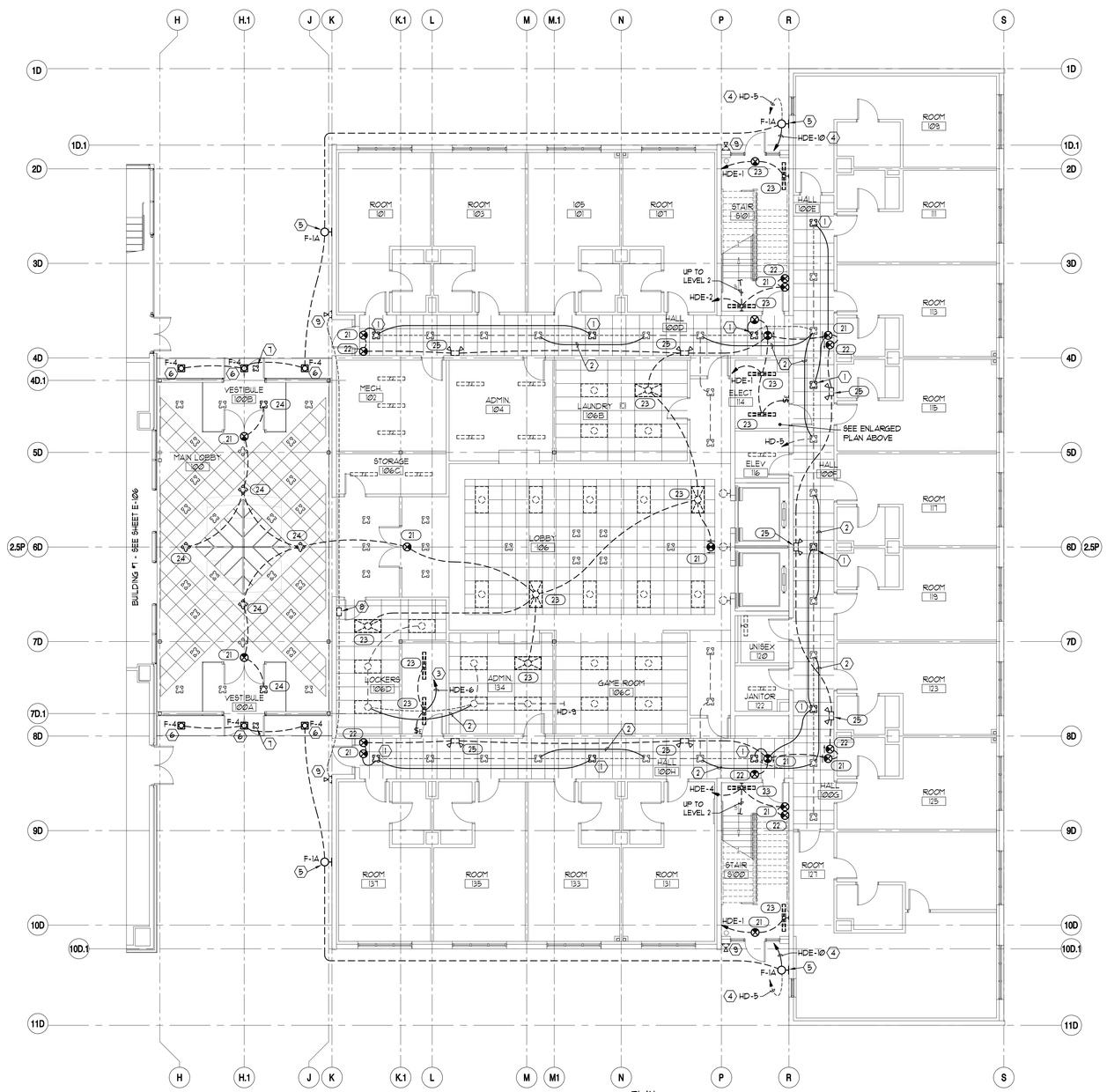


E2 ENLARGED MAIN ELECTRICAL ROOM PLAN
SCALE: 1/4" = 1'-0"



E4 ENLARGED ELECTRICAL ROOM PLAN
SCALE: 1/4" = 1'-0"



A2 BUILDING 8 - LEVEL 1 ELECTRICAL PLAN
SCALE: 1/8" = 1'-0"

GENERAL ELECTRICAL NOTES:

1. LOCATIONS OF ALL EXISTING ELECTRICAL EQUIPMENT, BRANCH CIRCUIT WIRING, ETC., ARE BASED ON EXISTING BUILDING ELECTRICAL DRAWINGS AND FIELD OBSERVATION OF EXISTING SURFACE CONDITIONS. FIELD VERIFY EXISTING LOCATIONS AND CIRCUITING AND IMMEDIATELY NOTIFY THE PROJECT ENGINEER OF ANY DISCREPANCIES WHICH MAY ADVERSELY AFFECT COMPLETION OF THE WORK.
2. DEMOLITION IS SHOWN FOR CONTRACTORS REFERENCE ONLY. FIELD VERIFY QUANTITIES AND LOCATIONS OF ALL EXISTING MATERIAL AND EQUIPMENT TO BE REMOVED. REMOVE ALL ABANDONED CONDUIT WIRING, BOXES, OUTLETS, ETC. ASSOCIATED WITH EXISTING EQUIPMENT INDICATED TO BE REMOVED OR REPLACED.
3. ALL MATERIALS AND EQUIPMENT REMOVED SHALL BE DISPOSED OF BY THE CONTRACTOR EXCEPT FOR ITEMS SPECIFICALLY NOTED TO BE SALVAGED FOR OWNER.
4. TAKE ALL PRECAUTIONS NECESSARY TO AVOID DAMAGE TO THE EXISTING BUILDING. REPAIR ALL DAMAGE INCURRED BY DEMOLITION AND NEW CONSTRUCTION TO EXACTLY MATCH SURROUNDING SURFACES AND/OR CONDITIONS WITHOUT ADDITIONAL COST TO THE OWNER.

KEYED NOTES - BASE BID:

1. EXISTING RECESSED COMPACT FLUORESCENT FIXTURE TO REMAIN. REMOVE EXISTING NORMAL POWER BRANCH CIRCUIT AND CONNECT TO EXISTING EMERGENCY BRANCH CIRCUIT AS INDICATED.
2. RECONNECT NORMAL POWER BRANCH CIRCUIT INTERRUPTED BY RECONNECTION OF ADJACENT FIXTURE TO EMERGENCY CIRCUIT.
3. RECONNECT EXISTING MAIN ELECTRICAL ROOM FIXTURES TO NEW EMERGENCY CIRCUIT AS INDICATED. REMOVE EXISTING NORMAL POWER BRANCH CIRCUITS.
4. REMOVE EXISTING NORMAL POWER BRANCH CIRCUIT TO EXTERIOR FIXTURES AND CONNECT TO EMERGENCY LIGHTING BRANCH CIRCUIT AS INDICATED. CONNECTION THROUGH EXISTING PHOTOCELL IS TO REMAIN.
5. REPLACE EXISTING EXTERIOR WALL MOUNTED FIXTURES WITH NEW FIXTURES TO INCLUDE QUARTZ RESTRIKE.
6. REPLACE EXSITING EXTERIOR RECESSED FIXTURES WITH NEW FIXTURES TO INCLUDE QUARTZ RESTRIKE. REPAIR OR REPLACE EXISTING METAL SOFFIT AS REQUIRED TO MATCH EXISTING CONDITIONS.
7. REMOVE EXISTING RECESSED EXTERIOR EMERGENCY LIGHT FIXTURE INCLUDING ALL ABANDONED WIRING, CONDUIT, BOXES, ETC. EXISTING HOUSING MAY BE LEFT IN PLACE WITH BLANK COVER TO MATCH EXISTING METAL SOFFIT - FIELD COORDINATE REQUIREMENTS WITH OWNER AND PROJECT ENGINEER.
8. REMOVE EXISTING EMERGENCY LIGHTING BATTERY UNIT FOR EXTERIOR EMERGENCY LIGHT FIXTURES AND CLEAN WALL BEHIND FIXTURE. PROVIDE BLANK COVERPLATE ON EXISTING OUTLET BOX. REMOVE ALL ABANDONED WIRING, CONDUIT, BOXES, ETC.
9. REMOVE EXISTING EXTERIOR REMOTE EMERGENCY LIGHT FIXTURE INCLUDING ALL ABANDONED WIRING, CONDUIT, BOXES, ETC. PROVIDE BLANK COVERPLATE ON EXISTING OUTLET BOX AS REQUIRED.

KEYED NOTES - ADDITIVE ALTERNATE NO. 1:

11. PROVIDE NEW PANEL 'LDE', TRANSFORMER 'TLDE', RECEPTACLE, AND ASSOCIATED CONDUIT, WIRING, SUPPORTS, ETC..
12. RECONNECT EXISTING SAFETY SWITCH FOR ELEVATOR CAR LIGHTING & VENTILATION TO NEW PANEL 'LE'. REMOVE EXISTING NORMAL POWER BRANCH CIRCUIT 'LA-41'.
13. PROVIDE NEW DOUBLE DUPLEX RECEPTACLE IN EXISTING TELECOM ROOM. LOCATE RECEPTACLE WITH 3 FEET OF EXISTING UPS FOR TELEPHONE SYSTEM.

KEYED NOTES - ADDITIVE ALTERNATE NO. 2:

21. REPLACE EXISTING BATTERY BACKUP EXIT LIGHT WITH NEW AC ONLY EXIT LIGHT. RECONNECT EXISTING EMERGENCY CIRCUIT.
22. REPLACE EXISTING LOW LEVEL BATTERY BACKUP EXIT LIGHT WITH NEW AC ONLY EXIT LIGHT. RECONNECT EXISTING EMERGENCY CIRCUIT.
23. REMOVE BATTERY PACK FROM EXISTING FLUORESCENT FIXTURE INCLUDING TEST SWITCH AND INDICATOR LIGHT. PROVIDE CLOSING PLUGS IN HOLES FOR SWITCH AND INDICATOR LIGHT. RECONNECT EXISTING EMERGENCY CIRCUIT AS REQUIRED.
24. REMOVE BATTERY PACK FROM EXISTING RECESSED COMPACT FLUORESCENT FIXTURE INCLUDING TEST SWITCH AND INDICATOR LIGHT. PROVIDE CLOSING PLUGS IN HOLES FOR SWITCH AND INDICATOR LIGHT. RECONNECT EXISTING EMERGENCY CIRCUIT AS REQUIRED.
25. REMOVE EXISTING EMERGENCY LIGHTING 'BUGEYE' BATTERY UNIT AND CLEAN WALL BEHIND FIXTURE. PROVIDE BLANK COVERPLATE ON EXISTING OUTLET BOX. RECONNECT EXISTING EMERGENCY CIRCUIT AS REQUIRED.

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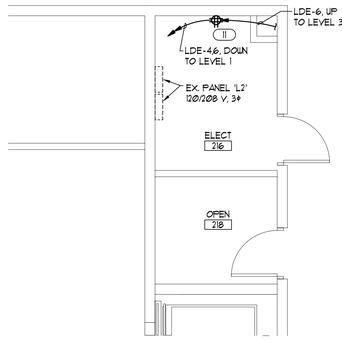
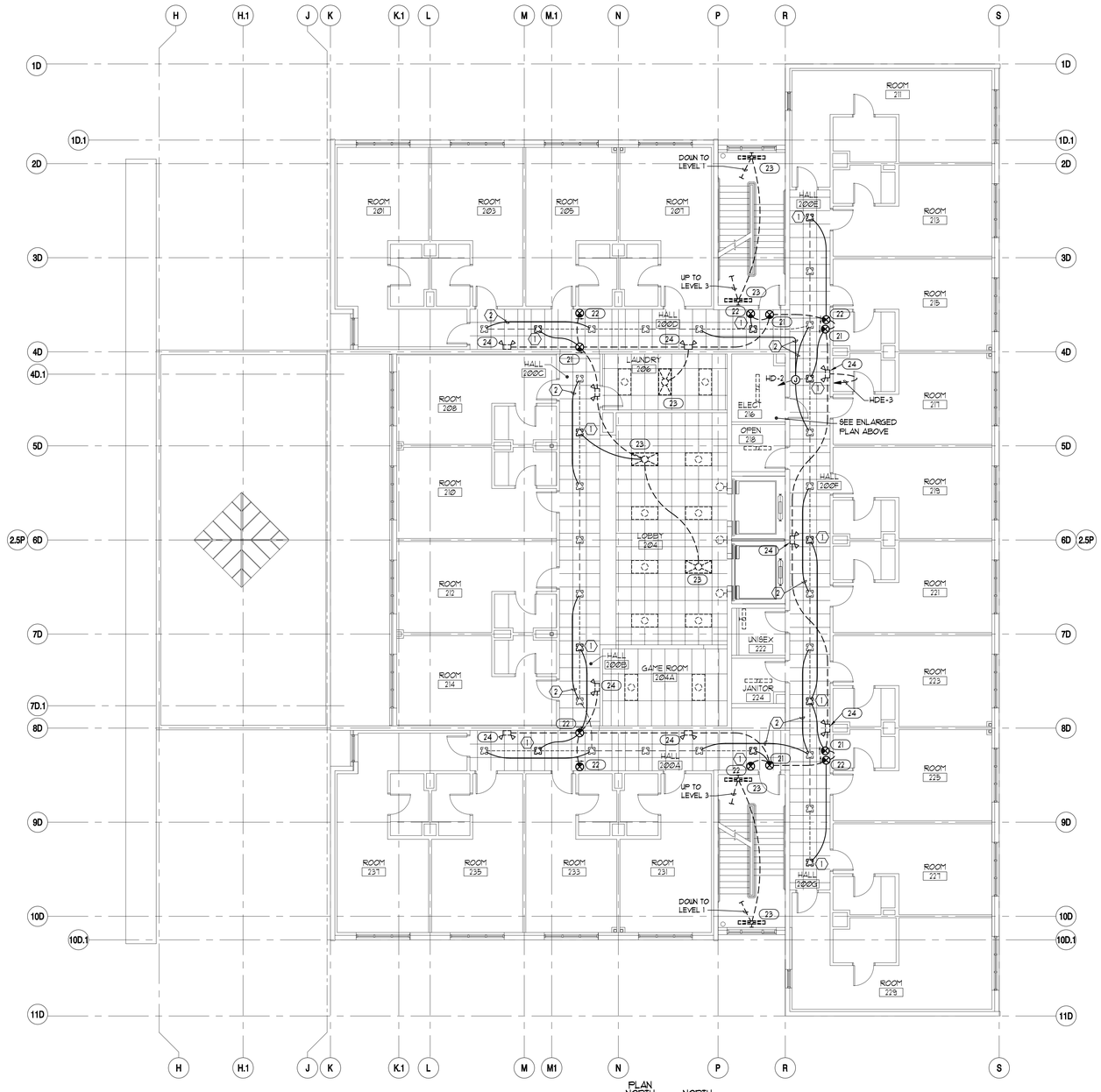
SHEET TITLE:
BUILDING 8
LEVEL 1
ELECTRICAL PLAN

SHEET NUMBER:
E-110

SHEET 12 OF 17



E4 ENLARGED ELECTRICAL ROOM PLAN
SCALE: 1/4" = 1'-0"



A2 BUILDING 8 - LEVEL 2 ELECTRICAL PLAN
SCALE: 1/8" = 1'-0"

GENERAL ELECTRICAL NOTES:

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4. TAKE ALL PRECAUTIONS NECESSARY TO AVOID DAMAGE TO THE EXISTING BUILDING. REPAIR ALL DAMAGE INCURRED BY DEMOLITION AND NEW CONSTRUCTION TO EXACTLY MATCH SURROUNDING SURFACES AND/OR CONDITIONS WITHOUT ADDITIONAL COST TO THE OWNER.

KEYED NOTES - BASE BID:

1. EXISTING RECESSED COMPACT FLUORESCENT FIXTURE TO REMAIN. REMOVE EXISTING NORMAL POWER BRANCH CIRCUIT AND CONNECT TO EXISTING EMERGENCY BRANCH CIRCUIT AS INDICATED.
2. RECONNECT NORMAL POWER BRANCH CIRCUIT INTERRUPTED BY RECONNECTION OF ADJACENT FIXTURE TO EMERGENCY CIRCUIT.

KEYED NOTES - ADDITIVE ALTERNATE NO. 1:

11. PROVIDE NEW DOUBLE DUPLEX RECEPTACLE IN EXISTING TELECOM ROOM. LOCATE RECEPTACLE WITH 3 FEET OF EXISTING UPS FOR TELEPHONE SYSTEM.

KEYED NOTES - ADDITIVE ALTERNATE NO. 2:

21. REPLACE EXISTING BATTERY BACKUP EXIT LIGHT WITH NEW AC ONLY EXIT LIGHT. RECONNECT EXISTING EMERGENCY CIRCUIT.
22. REPLACE EXISTING LOW LEVEL BATTERY BACKUP EXIT LIGHT WITH NEW AC ONLY EXIT LIGHT. RECONNECT EXISTING EMERGENCY CIRCUIT.
23. REMOVE BATTERY PACK FROM EXISTING FLUORESCENT FIXTURE INCLUDING TEST SWITCH AND INDICATOR LIGHT. PROVIDE CLOSING PLUGS IN HOLES FOR SWITCH AND INDICATOR LIGHT. RECONNECT EXISTING EMERGENCY CIRCUIT AS REQUIRED.
24. REMOVE EXISTING EMERGENCY LIGHTING 'BUGEYE' BATTERY UNIT AND CLEAN WALL BEHIND FIXTURE. PROVIDE BLANK COVERPLATE ON EXISTING OUTLET BOX. RECONNECT EXISTING EMERGENCY CIRCUIT AS REQUIRED.

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BUILDINGS 5-9 EMERGENCY GENERATOR IMPROVEMENTS

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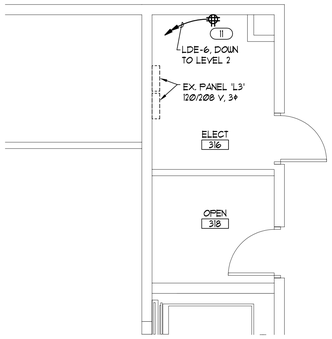
SHEET TITLE:
BUILDING 8 LEVEL 2 ELECTRICAL PLAN

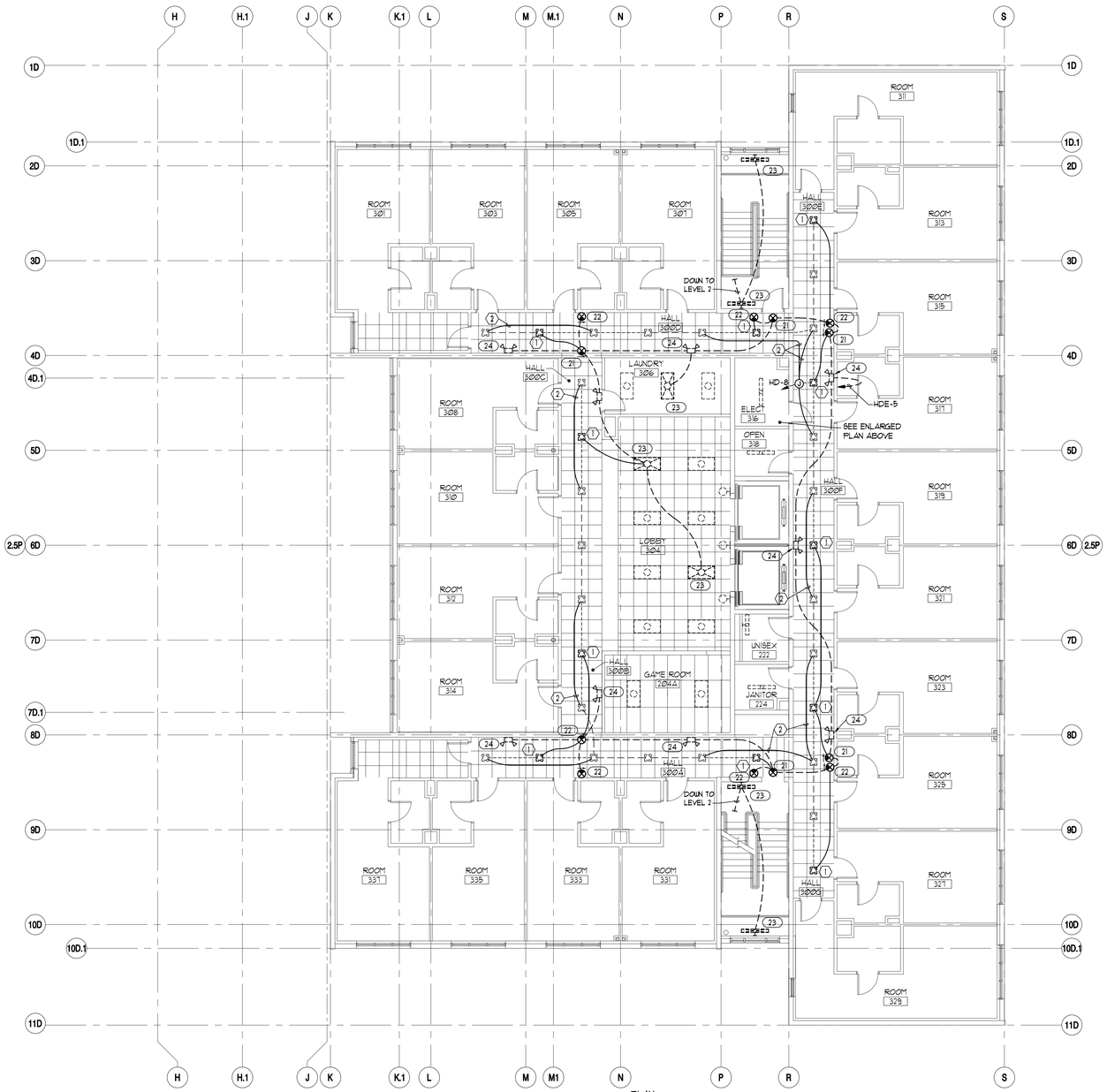
SHEET NUMBER:
E-111

SYMBOL LIST

SYMBOL	DESCRIPTION
○	NEW CEILING MOUNTED FIXTURE
⊢○	NEW WALL MOUNTED FIXTURE
◘	NEW RECESSED FIXTURE
▭	NEW FLUORESCENT FIXTURE
⊗	NEW EXIT LIGHT WITH ARROW INDICATING DIRECTION OF EXIT
◌	EXISTING CEILING MOUNTED FIXTURE
⊢◌	EXISTING WALL MOUNTED FIXTURE
◘	EXISTING RECESSED FIXTURE
▭	EXISTING FLUORESCENT FIXTURE
⊗	EXISTING EXIT LIGHT
▭	EXISTING FIXTURE CONNECTED TO EMERGENCY BRANCH CIRCUIT
	EXISTING EMERGENCY LIGHTING BATTERY UNIT INDICATING LAMP HEADS
$E	EXISTING SINGLE POLE SWITCH
$3E	EXISTING THREE WAY SWITCH
J	NEW JUNCTION BOX
J	EXISTING JUNCTION BOX
⊜	NEW DUPLEX CONVENIENCE OUTLET
⊜	NEW DOUBLE DUPLEX CONVENIENCE OUTLET
⊜	EXISTING DUPLEX CONVENIENCE OUTLET
⊜GFI	OUTLET WITH GROUND FAULT CIRCUIT INTERRUPTER
▬	NEW POWER PANELBOARD, 120/208 VOLT, 3 PHASE
▬	NEW POWER PANELBOARD, 277/480 VOLT, 3 PHASE
▬	EXISTING POWER PANELBOARD, 120/208 VOLT, 3 PHASE
▬	EXISTING POWER PANELBOARD, 277/480 VOLT, 3 PHASE
A-13 3/4	NEW 3 PHASE, 4 WIRE HOMERUN INDICATING PANEL AND CIRCUIT NUMBERS
	NEW BRANCH CIRCUIT CONCEALED IN WALL OR CEILING
	NEW BRANCH CIRCUIT CONCEALED IN FLOOR OR WALL
	NEW BRANCH CIRCUIT EXPOSED ON WALL OR CEILING
	EXISTING BRANCH CIRCUIT
F-2	FIXTURE SCHEDULE SYMBOL
1	KEYED NOTE SYMBOL - BASE BID
10	KEYED NOTE SYMBOL - ADDITIVE ALTERNATE
102	ROOM NUMBER
A5 / E-601	DETAIL NUMBER OR SECTION LETTER
	SHEET ON WHICH DETAIL OR SECTION IS SHOWN
WP	INDICATES ITEM IN WEATHERPROOF (NEMA 3R MINIMUM) ENCLOSURE



E4 ENLARGED ELECTRICAL ROOM PLAN
SCALE: 1/4" = 1'-0"



A2 BUILDING 8 - LEVEL 3 ELECTRICAL PLAN
SCALE: 1/8" = 1'-0"

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KEYED NOTES - ADDITIVE ALTERNATE NO. 1:

11. PROVIDE NEW DOUBLE DUPLEX RECEPTACLE IN EXISTING TELECOM ROOM. LOCATE RECEPTACLE WITH 3 FEET OF EXISTING UPS FOR TELEPHONE SYSTEM.

KEYED NOTES - ADDITIVE ALTERNATE NO. 2:

21. REPLACE EXISTING BATTERY BACKUP EXIT LIGHT WITH NEW AC ONLY EXIT LIGHT. RECONNECT EXISTING EMERGENCY CIRCUIT.
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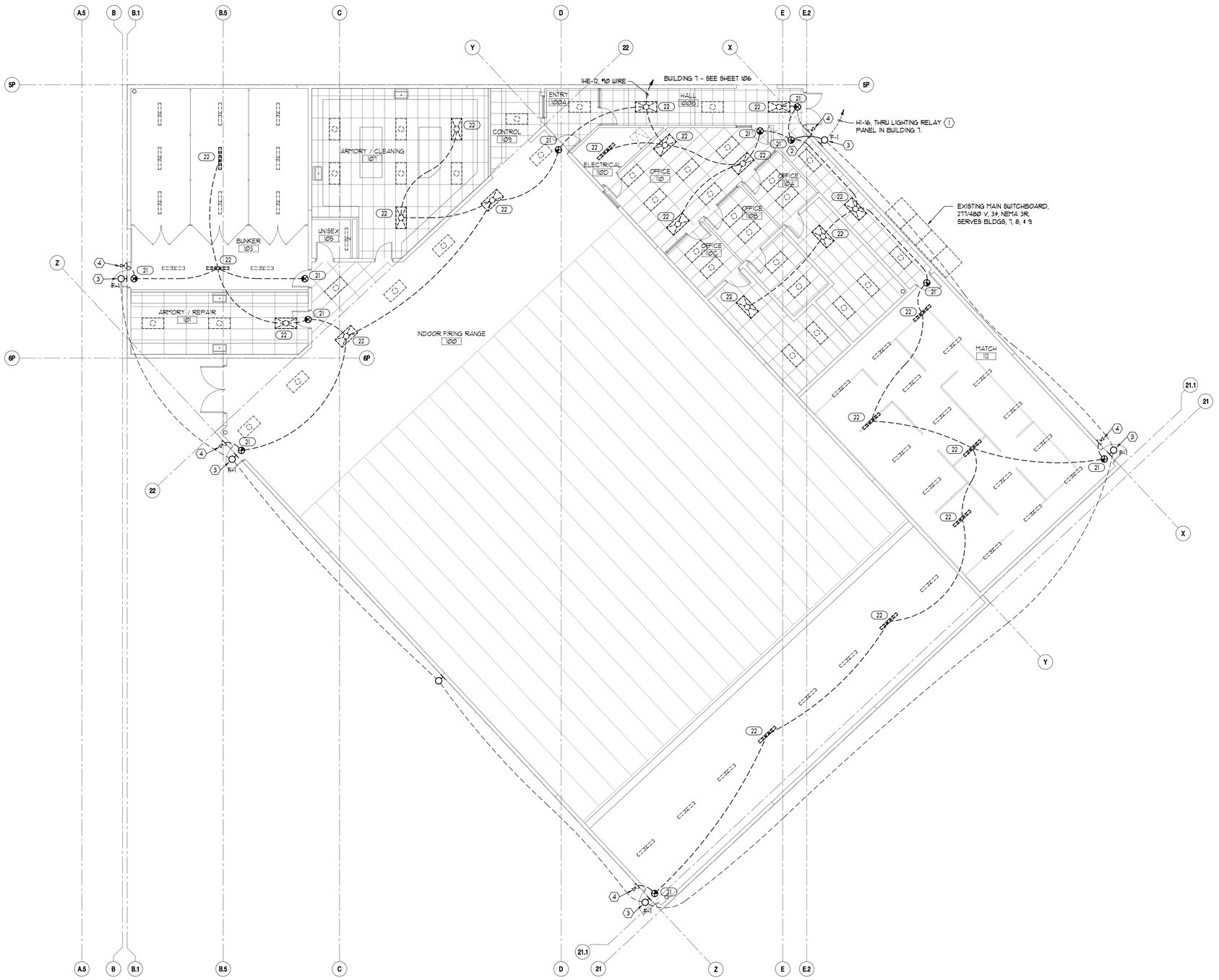
BUILDING 8 LEVEL 3 ELECTRICAL PLAN AND SYMBOL LIST

SHEET NUMBER:
E-112

SHEET 14 OF 17



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KEYED NOTES - BASE BID:

(1) REMOVE EXISTING NORMAL POWER BRANCH CIRCUIT TO EXTERIOR FIXTURES INCLUDING CONNECTION THRU LIGHTING RELAY PANEL IN BUILDING #7.

(2) RECONNECT BUILDING 9 EXTERIOR LIGHTING TO EXISTING EMERGENCY LIGHTING BRANCH CIRCUIT FOR BUILDING 9 AS INDICATED.

(3) REPLACE EXISTING EXTERIOR WALL MOUNTED FIXTURES WITH NEW FIXTURES TO INCLUDE PHOTOCELL AND QUARTZ RESTRIKE.

(4) REMOVE EXISTING EXTERIOR REMOTE EMERGENCY LIGHT FIXTURE INCLUDING ALL ABANDONED WIRING, CONDUIT, BOXES, ETC. PROVIDE BLANK COVERPLATE ON EXISTING OUTLET BOX AS REQUIRED.

KEYED NOTES - ADDITIVE ALTERNATE NO. 1:

NO ALTERNATE NO. 1 WORK IS REQUIRED FOR BUILDING 9.

KEYED NOTES - ADDITIVE ALTERNATE NO. 2:

(21) REPLACE EXISTING BATTERY BACKUP EXIT LIGHT WITH NEW AC ONLY EXIT LIGHT. RECONNECT EXISTING EMERGENCY CIRCUIT.

(22) REMOVE BATTERY PACK FROM EXISTING FLUORESCENT FIXTURE INCLUDING TEST SWITCH AND INDICATOR LIGHT. PROVIDE CLOSING PLUGS IN HOLES FOR SWITCH AND INDICATOR LIGHT. RECONNECT EXISTING EMERGENCY CIRCUIT AS REQUIRED.

(A2) BUILDING 9 - ELECTRICAL PLAN

SCALE: 1/8" = 1'-0"

0 4' 8' 16'

PLAN NORTH

NORTH

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CONSULTANTS:

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BUILDINGS 5-9 EMERGENCY GENERATOR IMPROVEMENTS

REVISIONS:

MARK	DATE	DESCRIPTION

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BUILDING 9 ELECTRICAL PLAN
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E-113
SHEET 15 OF 17

NEW GENERATOR BREAKERS LOAD SUMMARY — BUILDING 6 - OUTSIDE — 14,000 A.I.C. FULLY RATED, 277/480 VOLT, 3 PHASE, 4 WIRE, SURFACE MOUNTED

CIR NO.	BRKR P	BRKR AMPS	DESCRIPTION	NO. LTS	NO. REC	CIRCUIT LOAD	PHASE LOAD - VA PHASE A	PHASE B	PHASE C
1	3	70*	45 KVA XFMR			12,985	12,985		
	-	-	PANEL 'LCE' - BLDG 6			11,290		11,290	
	-	-	-			11,435			11,435
2	3	175*	DIST. PANEL 'EM'			15,765	15,765		
	-	-	-			17,460		17,460	
	-	-	-			15,190			15,190
							28,750	28,750	26,625
			TOTAL CONNECTED LOAD:				84,125 VA		101 AMPS
			CALCULATED FEEDER DEMAND, NEC 220:				101,924 VA		123 AMPS

* PROVIDE CIRCUIT BREAKER WITH ADJUSTABLE INSTANTANEOUS TRIP FOR PROTECTIVE COORDINATION WITH DOWNSTREAM CIRCUIT BREAKERS.

EXISTING PANEL 'CE' — BUILDING 6 — 18,000 A.I.C. FULLY RATED, 277/480 VOLT, 3 PHASE, 4 WIRE, SURFACE MOUNTED
SQUARE D TYPE 'NF', BOLT-ON BREAKERS
3 POLE 225 AMP MAIN LUGS

CIR NO.	BRKR P	BRKR AMPS	DESCRIPTION	NO. LTS	NO. REC	CIRCUIT LOAD	PHASE LOAD - VA PHASE A	PHASE B	PHASE C	CIRCUIT LOAD	NO. REC	NO. LTS	DESCRIPTION	BRKR P	BRKR AMPS	CIR NO.
1	1	20	EM LTS, NORTH & EAST BLDG	52		2,835	2,835						SPARE	1	20	2
3	1	20	EM LTS, SOUTH BLDG	35		2,650		2,650					SPARE	1	20	4
5	1	20							0				SPARE	1	20	6
7	1	20					0						SPARE	1	20	8
9	1		SPACE					0					SPACE	1		10
11									0							12
13							0									14
15								0								16
17									0							18
19							0									20
21								0								22
23									0							24
25							0									26
27								0								28
29	1		SPACE						0				SPACE	1		30
							2,835	2,650	0							
			TOTAL CONNECTED LOAD:				5,485 VA		7 AMPS							
			CALCULATED FEEDER DEMAND, NEC 220:				6,856 VA		8 AMPS							

FEEDER: 4 #4, 1 #6 GND, 2" C

+ PROVIDE NEW BRANCH CIRCUIT BREAKER OF RATING INDICATED.

EXISTING PANEL '1E' — BUILDING 5 — 18,000 A.I.C. FULLY RATED, 277/480 VOLT, 3 PHASE, 4 WIRE, SURFACE MOUNTED
TYPE '???', BOLT-ON BREAKERS
3 POLE 100 AMP MAIN LUGS

CIR NO.	BRKR P	BRKR AMPS	DESCRIPTION	NO. LTS	NO. REC	CIRCUIT LOAD	PHASE LOAD - VA PHASE A	PHASE B	PHASE C	CIRCUIT LOAD	NO. REC	NO. LTS	DESCRIPTION	BRKR P	BRKR AMPS	CIR NO.
1	1	20	EM LTS, LEVEL 1	27		1,285	1,285						SPARE	1	20	2
3			EM LTS, LVL 2	37		1,695		1,695					SPARE	1	20	4
5			EM LTS, LVL 2 SOUTH LOBBY	24		1,560			1,560				SPARE	1	20	6
7			EM LTS, LVL 2 NORTH LOBBY	8		520	1,560			1,040			PANEL '1LE'	3	25+	8
9			EM LTS, LEVEL 3	21		1,040		1,900		860			(ALTERNATE NO. 1)	-	-	10
11			SPARE						1,360	1,360			-	-	-	12
13			SPARE				0						SPACE	1		14
15			SPARE					0								16
17	1	20	SPARE						0							18
19	1		SPACE				0									20
21								0								22
23									0							24
25							0									26
27								0								28
29	1		SPACE						0				SPACE	1		30
							2,845	3,595	2,920							
			TOTAL CONNECTED LOAD:				9,360 VA		11 AMPS							
			CALCULATED FEEDER DEMAND, NEC 220:				11,385 VA		14 AMPS							

FEEDER: 4 #4, 1 #8 GND, 1-1/2" C

+ PROVIDE NEW BRANCH CIRCUIT BREAKER OF RATING INDICATED - MATCH EXISTING CIRCUIT BREAKERS.

NEW PANEL 'EM' — BUILDING 6 - OUTSIDE — 14,000 A.I.C. FULLY RATED, 277/480 VOLT, 3 PHASE, 4 WIRE, SURFACE MOUNTED
TYPE 'I-LINE' — NEMA 3R ENCLOSURE — COPPER BUSSING
3 POLE 225 AMP MAIN LUGS

CIR NO.	BRKR P	BRKR AMPS	DESCRIPTION	NO. LTS	NO. REC	CIRCUIT LOAD	PHASE LOAD - VA PHASE A	PHASE B	PHASE C	CIRCUIT LOAD	NO. REC	NO. LTS	DESCRIPTION	BRKR P	BRKR AMPS	CIR NO.
1	3	70*	PANEL 'CE' - BLDG 6			2,835	5,680			2,845			PANEL '1E' - BLDG 5	3	70*	2
	-	-	-			2,650		6,245		3,595			-	-	-	
	-	-	-			0			2,920	2,920			-	-	-	
3	3	100*	PANEL 'HIE' - BLDG 7			10,085	10,085						SPACE			4
	-	-	-			11,215		11,215					-	-	-	
	-	-	-			12,270			12,270				-	-	-	
5	3		SPACE				0						SPACE			6
	-	-	-					0					-	-	-	
	-	-	-						0				-	-	-	
							15,765	17,460	15,190							
			TOTAL CONNECTED LOAD:				48,415 VA		58 AMPS							
			CALCULATED FEEDER DEMAND, NEC 220:				59,574 VA		72 AMPS							

FEEDER: 4 #2/0, 1 #4 GND, 2" C

* PROVIDE CIRCUIT BREAKER WITH ADJUSTABLE INSTANTANEOUS TRIP FOR PROTECTIVE COORDINATION WITH GENERATOR CIRCUIT BREAKER.

EXISTING PANEL 'LCE' — BUILDING 6 — 10,000 A.I.C. FULLY RATED, 120/208 VOLT, 3 PHASE, 4 WIRE, SURFACE MOUNTED
SQUARE D TYPE 'NQOD', BOLT-ON
3 POLE 225 AMP MAIN LUGS

CIR NO.	BRKR P	BRKR AMPS	DESCRIPTION	NO. LTS	NO. REC	CIRCUIT LOAD	PHASE LOAD - VA PHASE A	PHASE B	PHASE C	CIRCUIT LOAD	NO. REC	NO. LTS	DESCRIPTION	BRKR P	BRKR AMPS	CIR NO.
1	1	20	BLOWER COIL, HTR, LTS			1,380	6,780			5,400			REF. COMP. ON ROOF	3	90	2
3	1	20	BLOWER COIL, HTR, LTS			1,380		6,780		5,400			-	-	-	4
5	2	20	FREEZER COIL, DEFROST			1,525			6,925	5,400			-	-	-	6
7	-	-	-			1,525	2,485			960			FREEZER LTS, HEATER	1	20	8
9	2	20	FREEZER COIL, DEFROST			1,525		3,050		1,525			FREEZER COIL, DEFROST	2	20	10
11	-	-	-			1,525			3,050	1,525			-	-	-	12
13	1	20	FREEZER LTS, HEATER			960	2,340			1,380			BLOWER COIL, HTR, LTS	1	20	14
15	1	20	FREEZER LTS, HEATER			960		960					SPARE	1	20	16
17	1	20	FREEZER LTS, HEATER			960			960							18
19	1	20	BLOWER COIL, HTR, LTS			1,380	1,380									20
21								0								22
23									0							24
25							0									26
27								500		500			FIRE ALARM CONTROL PNL*	1	20+	28
29									500	500			ATC PANEL, BOILER RM	1	20+	30
31							0									32
33								0								34
35									0							36
37							0									38
39								0								40
41									0							42
							12,985	11,290	11,435							
			TOTAL CONNECTED LOAD:				35,710 VA		99 AMPS							
			CALCULATED FEEDER DEMAND, NEC 220:				42,350 VA		118 AMPS							

FEEDER: 4 #2/0, 1 #6 GND, 2" C

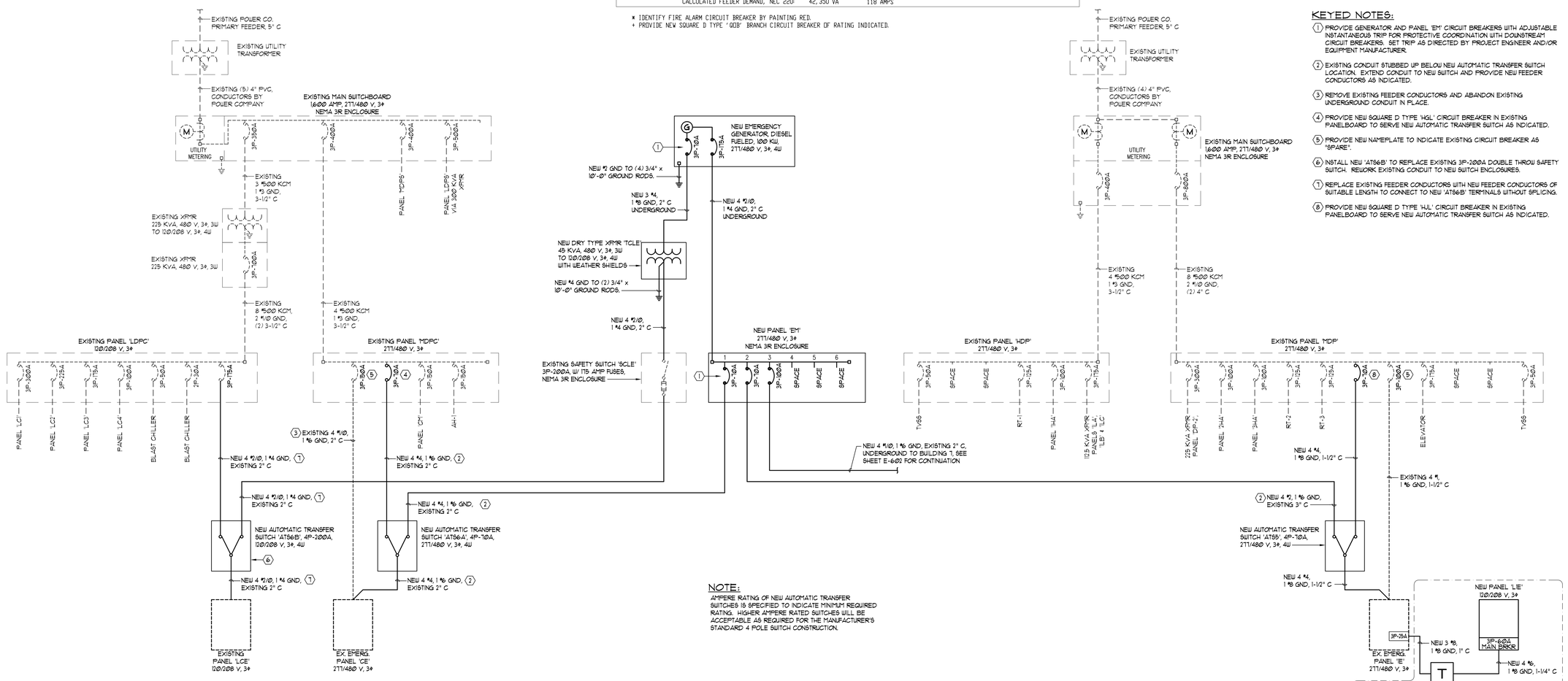
* IDENTIFY FIRE ALARM CIRCUIT BREAKER BY PAINTING RED.
+ PROVIDE NEW SQUARE D TYPE 'QOB' BRANCH CIRCUIT BREAKER OF RATING INDICATED.

NEW PANEL '1LE' — BUILDING 5 — ADDITIVE ALTERNATE NO. 1 — 10,000 A.I.C. FULLY RATED, 120/208 VOLT, 3 PHASE, 4 WIRE, SURFACE MOUNTED
TYPE 'NQOD', BOLT-ON
3 POLE 60 AMP MAIN BREAKER

CIR NO.	BRKR P	BRKR AMPS	DESCRIPTION	NO. LTS	NO. REC	CIRCUIT LOAD	PHASE LOAD - VA PHASE A	PHASE B	PHASE C	CIRCUIT LOAD	NO. REC	NO. LTS	DESCRIPTION	BRKR P	BRKR AMPS	CIR NO.
1	1	20	REC, BELOW PANEL		1	180	540			360	2		REC, LEVEL 1 TELECOM	1	20	2
3			FIRE ALARM CONTROL PNL*			500		860		360	2		REC, LEVEL 1 TELECOM			4
5			ELEV. CAR LTS & VENT			1,000			1,360	360	2		REC, LEVEL 1 TELECOM			6
7			ATC CONTROL PANEL			500	500						SPARE			8
9			SPARE					0					SPARE			10
11	1	20	SPARE						0				SPARE	1	20	12
13	1		SPACE				0						SPACE	1		14
15								0								16
17									0							18
19							0									20
21								0								22
23									0							24
25							0									26
27								0								28
29	1		SPACE						0				SPACE	1		30
							1,040	860	1,360							
			TOTAL CONNECTED LOAD:				3,260 VA		9 AMPS							
			CALCULATED FEEDER DEMAND, NEC 220:				3,760 VA		10 AMPS							

FEEDER: 4 #6, 1 #8 GND, 1-1/4" C

* IDENTIFY FIRE ALARM CIRCUIT BREAKER BY PAINTING RED.



NOTE:
AMPERE RATING OF NEW AUTOMATIC TRANSFER SWITCHES IS SPECIFIED TO INDICATE MINIMUM REQUIRED RATING. HIGHER AMPERE RATED SWITCHES WILL BE ACCEPTABLE AS REQUIRED FOR THE MANUFACTURER'S STANDARD 4 POLE SWITCH CONSTRUCTION.

KEYED NOTES:

1. PROVIDE GENERATOR AND PANEL 'EM' CIRCUIT BREAKERS WITH ADJUSTABLE INSTANTANEOUS TRIP FOR PROTECTIVE COORDINATION WITH DOWNSTREAM CIRCUIT BREAKERS. SET TRIP AS DIRECTED BY PROJECT ENGINEER AND/OR EQUIPMENT MANUFACTURER.
2. EXISTING CONDUIT STUBBED UP BELOW NEW AUTOMATIC TRANSFER SWITCH LOCATION. EXTEND CONDUIT TO NEW SWITCH AND PROVIDE NEW FEEDER CONDUCTORS AS INDICATED.
3. REMOVE EXISTING FEEDER CONDUCTORS AND ABANDON EXISTING UNDERGROUND CONDUIT IN PLACE.
4. PROVIDE NEW SQUARE D TYPE 'HGL' CIRCUIT BREAKER IN EXISTING PANELBOARD TO SERVE NEW AUTOMATIC TRANSFER SWITCH AS INDICATED.
5. PROVIDE NEW NAMEPLATE TO INDICATE EXISTING CIRCUIT BREAKER AS "SPARE".
6. INSTALL NEW 'AT56B' TO REPLACE EXISTING 3P-200A DOUBLE THROW SAFETY SWITCH. REWORK EXISTING CONDUIT TO NEW SWITCH ENCLOSURES.
7. REPLACE EXISTING FEEDER CONDUCTORS WITH NEW FEEDER CONDUCTORS OF SUITABLE LENGTH TO CONNECT TO NEW 'AT56B' TERMINALS WITHOUT SPLICING.
8. PROVIDE NEW SQUARE D TYPE 'HJL' CIRCUIT BREAKER IN EXISTING PANELBOARD TO SERVE NEW AUTOMATIC TRANSFER SWITCH AS INDICATED.

SINGLE LINE DIAGRAM - BUILDINGS 5 & 6
SCHEMATIC

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BUILDINGS 5-9 EMERGENCY GENERATOR IMPROVEMENTS

REVISIONS:

MARK	DATE	DESCRIPTION

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BUILDINGS 5 & 6 SINGLE LINE DIAGRAM AND SCHEDULES

SHEET NUMBER:
E-601

SHEET 16 OF 17

EXISTING PANEL 'H1E' — BUILDING 7 — 65,000 A.I.C. SERIES RATED TO 'HJ' MAIN IN PANEL 'MDP-PS'
SQUARE D TYPE 'NF', BOLT-ON BREAKERS — 277/480 VOLT, 3 PHASE, 4 WIRE
3 POLE 125 AMP MAIN LUGS — SURFACE MOUNTED

CIR NO.	BRKR P	BRKR AMPS	DESCRIPTION	NO. LTS	NO. REC	CIRCUIT LOAD	PHASE LOAD - VA PHASE A	PHASE B	PHASE C	CIRCUIT LOAD	NO. REC	NO. LTS	DESCRIPTION	BRKR P	BRKR AMPS	CIR NO.
1	1	20	EM LTS, LEVEL 1 NORTH	28		1,485	3,950			2,465			PANEL 'HDE' BLDG 8	3	60	2
3			EM LTS, LEVEL 1 SOUTH	47		2,980		7,000		4,020			(EXIST. DORMITORY)	–	–	4
5			EM LTS, LEVEL 2 SOUTH	55		3,705			6,110	2,405			–	–	–	6
7			EM LTS, LEVEL 2 NORTH	53		3,100	4,595			1,495		16	EM LTS, EAST STAIRWAY	1	20	8
9			EM LTS, LEVEL 3 NORTH	44		2,600		3,355		755		12	EM LTS, WEST STAIRWAY	1	20	10
11			EM LTS, LEVEL 3 SOUTH	42		2,130			4,800	2,670		38	EM LTS, FIRING RANGE	1	20	12
13			SPARE				0						SPARE	1	20	14
15			SPARE					0					SPACE	1		16
17	1	20	SPARE						0				SPACE	1		18
19	1		SPACE				1,540			1,540			PANEL 'L1E'	3	25+	20
21								860		860			(ALTERNATE NO. 1)	–	–	22
23									1,360	1,360			–	–	–	24
25							0						SPACE	1		26
27								0					SPACE	1		28
29	1		SPACE						0				SPACE	1		30
							10,085	11,215	12,270							

TOTAL CONNECTED LOAD: 33,570 VA — 40 AMPS — FEEDER: 4 #2, 1 #6 GND, 2" C
CALCULATED FEEDER DEMAND, NEC 220: 41,333 VA — 50 AMPS

+ PROVIDE NEW SQUARE D TYPE 'EGB' BRANCH CIRCUIT BREAKER OF RATING INDICATED.

EXISTING PANEL 'H2E' — BUILDING 8 — 14,000 A.I.C. FULLY RATED
SQUARE D TYPE 'NF', BOLT-ON BREAKERS — 277/480 VOLT, 3 PHASE, 4 WIRE
3 POLE 125 AMP MAIN LUGS — SURFACE MOUNTED

CIR NO.	BRKR P	BRKR AMPS	DESCRIPTION	NO. LTS	NO. REC	CIRCUIT LOAD	PHASE LOAD - VA PHASE A	PHASE B	PHASE C	CIRCUIT LOAD	NO. REC	NO. LTS	DESCRIPTION	BRKR P	BRKR AMPS	CIR NO.
1	1	20	EM LTS, LEVEL 1	41		1,480	1,925			445	9		EM LTS, NORTH STAIR	1	20	2
3	1	20	EM LTS, LEVEL 2	33		915		1,360		445	9		EM LTS, SOUTH STAIR	1	20	4
5	1	20	EM LTS, LEVEL 3	33		915			1,045	130	2		EM LTS, MAIN ELECT. RM	1	20	6
7	1		SPACE				0							1	20+	8
9								1,300		1,300		10	EXTERIOR EM LTS	1	20+	10
11									0					1	20+	12
13							0						SPACE	1		14
15								0					SPACE	1		16
17									0				SPACE	1		18
19							540			540			PANEL 'LDE'	3	25+	20
21								1,360		1,360			(ALTERNATE NO. 1)	–	–	22
23									1,360	1,360			–	–	–	24
25							0						SPACE	1		26
27								0					SPACE	1		28
29	1		SPACE						0				SPACE	1		30
							2,465	4,020	2,405							

TOTAL CONNECTED LOAD: 8,890 VA — 11 AMPS — FEEDER: 4 #4, 1 #8 GND, 1-1/4" C
CALCULATED FEEDER DEMAND, NEC 220: 10,798 VA — 13 AMPS

+ PROVIDE NEW SQUARE D TYPE 'EDB' BRANCH CIRCUIT BREAKER OF RATING INDICATED.

NEW PANEL 'L1E' — BUILDING 7 — 10,000 A.I.C. FULLY RATED
TYPE 'NQOD', BOLT-ON — ADDITIVE ALTERNATE NO. 1 — 120/208 VOLT, 3 PHASE, 4 WIRE
3 POLE 60 AMP MAIN BREAKER — SURFACE MOUNTED

CIR NO.	BRKR P	BRKR AMPS	DESCRIPTION	NO. LTS	NO. REC	CIRCUIT LOAD	PHASE LOAD - VA PHASE A	PHASE B	PHASE C	CIRCUIT LOAD	NO. REC	NO. LTS	DESCRIPTION	BRKR P	BRKR AMPS	CIR NO.
1	1	20	REC, BELOW PANEL		1	180	540			360	2		REC, LEVEL 1 TELECOM	1	20	2
3			FIRE ALARM CONTROL PNL*			500		860		360	2		REC, LEVEL 1 TELECOM			4
5			ELEV. #1 CAR LTS & VENT			1,000			1,360	360	2		REC, LEVEL 1 TELECOM			6
7			ELEV. #2 CAR LTS & VENT			1,000	1,000						SPARE			8
9			ATC CONTROL PANEL					0					SPARE			10
11	1	20	SPARE						0				SPARE	1	20	12
13	1		SPACE				0						SPACE	1		14
15								0								16
17									0							18
19							0									20
21								0								22
23									0							24
25							0									26
27								0								28
29	1		SPACE						0				SPACE	1		30
							1,540	860	1,360							

TOTAL CONNECTED LOAD: 3,760 VA — 10 AMPS — FEEDER: 4 #6, 1 #8 GND, 1-1/4" C
CALCULATED FEEDER DEMAND, NEC 220: 4,385 VA — 12 AMPS

* IDENTIFY FIRE ALARM CIRCUIT BREAKER BY PAINTING RED.

NEW PANEL 'L2E' — BUILDING 8 — 10,000 A.I.C. FULLY RATED
TYPE 'NQOD', BOLT-ON — ADDITIVE ALTERNATE NO. 1 — 120/208 VOLT, 3 PHASE, 4 WIRE
3 POLE 60 AMP MAIN BREAKER — SURFACE MOUNTED

CIR NO.	BRKR P	BRKR AMPS	DESCRIPTION	NO. LTS	NO. REC	CIRCUIT LOAD	PHASE LOAD - VA PHASE A	PHASE B	PHASE C	CIRCUIT LOAD	NO. REC	NO. LTS	DESCRIPTION	BRKR P	BRKR AMPS	CIR NO.
1	1	20	REC, BELOW PANEL		1	180	540			360	2		REC, LEVEL 1 TELECOM	1	20	2
3			ELEV. #1 CAR LTS & VENT			1,000		1,360		360	2		REC, LEVEL 1 TELECOM			4
5			ELEV. #2 CAR LTS & VENT			1,000			1,360	360	2		REC, LEVEL 1 TELECOM			6
7			SPARE				0						SPARE			8
9			SPARE					0					SPARE			10
11	1	20	SPARE						0				SPARE	1	20	12
13	1		SPACE				0						SPACE	1		14
15								0								16
17									0							18
19							0									20
21								0								22
23									0							24
25							0									26
27								0								28
29	1		SPACE						0				SPACE	1		30
							540	1,360	1,360							

TOTAL CONNECTED LOAD: 3,260 VA — 9 AMPS — FEEDER: 4 #6, 1 #8 GND, 1-1/4" C
CALCULATED FEEDER DEMAND, NEC 220: 3,760 VA — 10 AMPS

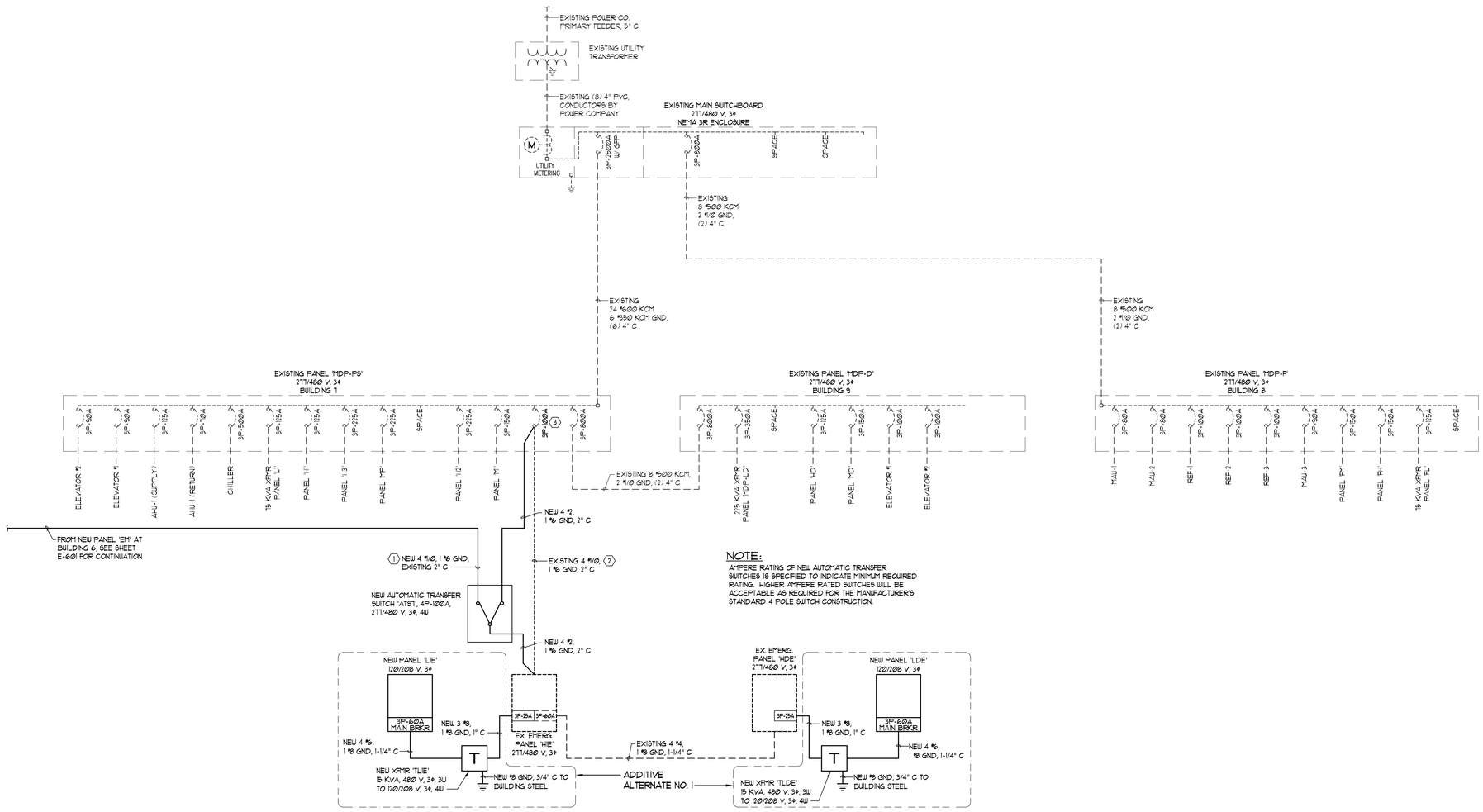
* IDENTIFY FIRE ALARM CIRCUIT BREAKER BY PAINTING RED.

FIXTURE SCHEDULE - BASE BID

SYMBOL	MANUFACTURER	CATALOG NO.	DESCRIPTION	LAMP
F-1	GARDCO	104-WT-100MH-277-NP-PCB-QS	WALL MOUNTED METAL HALIDE FIXTURE WITH CAST ALUMINUM HOUSING, NATURAL ALUMINUM POWDER COAT PAINT FINISH, CLEAR TEMPERED GLASS LENS, WIDE THROW DISTRIBUTION, 277 VOLT HIGH POWER FACTOR BALLAST, AND PHOTOCELL WIRED FOR 277 VOLT.	100 MH ED-17 100 Q T4
F-1A	GARDCO	104-WT-100MH-277-NP-QS	SAME F-1 EXCEPT WITHOUT PHOTOCELL	100 MH ED-17 100 Q T4
F-2	DAY-BRITE	CLI-100M-DT-Q-PE277	SURFACE MOUNTED METAL HALIDE FIXTURE WITH CAST ALUMINUM HOUSING, DARK BRONZE FINISH, DROPPED ACRYLIC LENS, MULTI-TAP HIGH POWER FACTOR BALLAST, HOT RESTRIKE QUARTZ LAMP, AND PHOTOCELL WIRED FOR 277 VOLT OPERATION.	100 MH ED-17 100 Q T4
F-3	CAPRI DMF LIGHTING	CM6-F126/32/42-U-H66 DHFH6-TRT-126/32/42-D6061-SW	RECESSED COMPACT FLOURESCENT DOWNLIGHT, WITH NOMINAL 6" DIAMETER APERTURE, WHITE REFLECTOR, AND <10% THD ELECTRONIC BALLAST.	1CFM32W/35K
F-4	PRESCOLITE	RHD602100EB-STH602L-QR-B24	RECESSED METAL HALIDE FIXTURE WITH CLEAR SPECULAR ALZAK REFLECTOR, TEMPERED GLASS LENS, 277 VOLT ELECTRONIC BALLAST, AND QUARTZ RESTRIKE. NOTE: FIXTURE F-4 IS TO REPLACE EXISTING PRESCOLITE CAT. NO. RHD602-100MHFE-STL602L-B2 FIXTURE (FIELD VERIFY). CONTRACTOR MAY REPLACE BALLAST AND REFLECTOR TO PROVIDE HOT RESTRIKE QUARTZ LAMP FOR THE EXISTING FIXTURE AS RECOMMENDED BY THE MANUFACTURER.	100 MH ED-17 100 Q T4

FIXTURE SCHEDULE - ALTERNATE NO. 2

SYMBOL	MANUFACTURER	CATALOG NO.	DESCRIPTION	LAMP
⊗	MCPHILBEN	55L-1-12/27-W-G	UNIVERSAL MOUNTED, SINGLE FACE, LIGHT EMITTING DIODE (LED) EXIT LIGHT WITH DIE CAST ALUMINUM HOUSING, WHITE FINISH, GREEN LETTERS ON STENCIL FACE, UNIVERSAL KNOCKOUT CHEVRON ARROWS AND 120/277 DUAL VOLTAGE INPUT.	FURNISHED W/FIXTURE
⊗	MCPHILBEN	55L-2-12/27-W-G	UNIVERSAL MOUNTED, DOUBLE FACE, LIGHT EMITTING DIODE (LED) EXIT LIGHT WITH DIE CAST ALUMINUM HOUSING, WHITE FINISH, GREEN LETTERS ON STENCIL FACE, UNIVERSAL KNOCKOUT CHEVRON ARROWS AND 120/277 DUAL VOLTAGE INPUT.	FURNISHED W/FIXTURE
⊗ ⊗	MCPHILBEN	55L-2-12/27-W-G-MSC	MASTER/SATELLITE COMBINATION LIGHT EMITTING DIODE (LED) EXIT LIGHTS WITH CAST ALUMINUM HOUSING, WHITE FINISH, AND GREEN LETTERS ON STENCIL FACE. MASTER EXIT MAY BE SINGLE OR DOUBLE FACED, REFER TO BUILDING B ELECTRICAL PLANS, SHEETS E-110, E-111, & E-112.	FURNISHED W/FIXTURE



KEYED NOTES:

1. EXISTING CONDUIT STUBBED UP BELOW NEW AUTOMATIC TRANSFER SWITCH LOCATION. EXTEND CONDUIT TO NEW SWITCH AND PROVIDE NEW FEEDER CONDUCTORS AS INDICATED.
2. REMOVE EXISTING FEEDER CONDUCTORS AND ABANDON EXISTING UNDERGROUND CONDUIT IN PLACE. CONDUIT MAY BE REWORKED TO NEW 'ATS1' FOR INSTALLATION OF NEW FEEDER CONDUCTORS AS INDICATED AT CONTRACTOR'S OPTION.
3. EXISTING SQUARE D TYPE 'HJ' CIRCUIT BREAKER TO REMAIN. REPLACE EXISTING 150 AMP TRIP UNIT WITH NEW 100 AMP TRIP UNIT.

SINGLE LINE DIAGRAM - BUILDINGS 7, 8 & 9

SCHEMATIC

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BUILDINGS 5-9 EMERGENCY GENERATOR IMPROVEMENTS

REVISIONS:

MARK	DATE	DESCRIPTION

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BUILDINGS 7, 8 & 9 SINGLE LINE DIAGRAM AND SCHEDULES
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E-602
SHEET 17 OF 17