ABBREVIATIONS

-#-	
3/C	THREE-CONDUCTOR
-A-	
AC	ALTERNATING CURRENT
ADA	AMERICANS WITH DISABILITIES ACT
AFC	ABOVE FINISHED COUNTER
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AH	AMPERE HOUR
AHJ	AUTHORITY HAVING JURISDICTION
AHU	AIR HANDLING UNIT
AIC	AMPERE INTERRUPTING CAPACITY
ANN	ANNUNCIATOR
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ATS	AUTOMATIC TRANSFER SWITCH
AUX	AUXILIARY
AV	AUDIO VISUAL
AWG	AMERICAN AIRE GAUGE
-B-	
BAS	BUILDING AUTOMATION SYSTEM
-C-	
C	CONDUIT
CAB	CABINET
CAP	CAPACITOR
CATV	COMMUNITY ANTENNA TELEVISION
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
CD	CONSTRUCTION DOCUMENTS
CH	CHILLER
CHWP	CHILLED WATER PUMP
CKT	CIRCUIT
CL	CENTERLINE
CLG	CEILING
CO	CONDUIT ONLY
COMM	COMMUNICATION
COR	CONTRACTING OFFICER REPRESENTATIVE
CP	CONTROL PANEL
CPT	CONTROL POWER TANSFORMER
CSI	CONSTRUCTION SPECIFICATION INSTITUTE
CT	CURRENT TRANSFORMER
CTV	CABLE TELEVISION
CU	COPPER
-D-	
DB	DECIBEL
DC	DIRECT CURRENT
DDC	DIRECT DIGITAL CONTROL
DEMO	DEMOLITION
DIV	DIVISION
DPST	DOUBLE POLE, SINGLE THROW
DWG	DRAWING
-E-	
EA	EACH
EMER	EMERGENCY
EMI	ELECTROMAGNETIC INTERFERENCE
EMS	ENERGY MANAGEMENT SYSTEM
EMT	ELECTRICAL METALLIC TUBING
ENGR	ENGINEER
EPO	EMERGENCY POWER OFF SWITCH
EXIST, E	EXISTING TO REMAIN
-F-	
F	FAHRENHEIT
FA	FIRE ALARM
FAAP	FIRE ALARM ANNUNCIATOR
FACP	FIRE ALARM CONTROL PANEL
FC	FOOTCANDLE
FLA	FULL LOAD AMPS
FLEX	FLEXIBLE
-G-	
G	GROUND
GC	GENERAL CONTRACTOR
GEN	GENERATOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFR	GROUND FAULT RELAY
-H-	
HP	HORSEPOWER
HZ	HERTZ
-J-	
JB	JUNCTION BOX
-L-	
LA	LIGHTNING ARRESTER
LBS	POUND(S)
LED	LIGHT EMITTING DIODE
LRA	LOCKED ROTOR AMPS
LT	LIGHT
-M-	
MCA	MINIMUM CIRCUIT AMPACITY
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MIN	MINIMUM
MOP	MAXIMUM OVERCURRENT PROTECTION
MV	MEDIUM VOLTAGE
-N-	
N	NEW
NC	NORMALLY CLOSED
NER	NEW LOCATION OF EXIST RELOCATED
NEUT, N	NEUTRAL
NL	NIGHT LIGHT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
-O-	
OCP	OVERCURRENT PROTECTION
-P-	
P	POLE
PB	PULL BOX
PF	POWER FACTOR
PH	PHASE
PNL	PANEL
PWR	POWER
-R-	
R	REMOVE
RE	REMOVE EXIST
RL	RELOCATE EXIST
-S-	
SCHED	SCHEDULE
SD	SMOKE DETECTOR
SPDT	SINGLE POLE, DOUBLE THROW
SPEC	SPECIFICATION
SPKR	SPEAKER
SPST	SINGLE POLE, SINGLE THROW
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
-T-	
TC	TIME CLOCK
TCP	TELEPHONE CONTROL PANEL
TEL	TELEPHONE
TELECOM	TELECOMMUNICATIONS
TP	TWISTED PAIR
TPS	TWISTED PAIR SHIELDED
TTB	TELEPHONE TERMINAL BOARD
TV	TELEVISION
TYP	TYPICAL
-U-	
UL	UNDERWRITERS LABORATORIES
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
UTIL	UTILITY
-V-	
V	VOLT
VA	VOLT AMPERE
VAR	VOLT AMPERE REACTIVE
VCB	VACUUM CIRCUIT BREAKER
VD	VOLTAGE DROP
VFD	VARIABLE FREQUENCY DRIVE
VR	VOLTAGE REGULATOR
-W-	
W	WATT
WHM	WATTHOUR METER
WP	WEATHERPROOF
-X-	
XFMR	TRANSFORMER
XP	EXPLOSION PROOF
-Z-	
ZSRG	ZERO SEQUENCE REFERENCE GROUND

SYMBOLS (AS APPLICABLE)

POWER OUTLETS

FLOOR WALL CEILING

- DUPLEX
- QUADRUPLEX
- DUPLEX-VOICE-DATA
- GFCI DUPLEX
- SIMPLEX
- EMERGENCY DUPLEX
- EMERGENCY QUADRUPLEX
- EMERGENCY SIMPLEX
- DUPLEX-VOICE
- DUPLEX-DATA
- QUAD-VOICE
- QUAD-VOICE-DATA
- QUAD-DATA
- JUNCTION BOX
- POKE THRU
- DUPLEX CONVENIENCE RECEPTACLE MTD ABOVE COUNTERTOP FOR RFERENCE ONLY . MOUNTING HEIGHT MAY BE ADJUSTED IN THE FIELD BASED ON ACTUAL COUNTER OR CABINET HEIGHT
- ISOLATED GROUND DUPLEX
- ISOLATED GROUND SIMPLEX
- EXPLOSION PROOF DUPLEX
- EXPLOSION PROOF SIMPLEX
- SPLIT WIRE
- SPECIAL OUTLET
- MULTI OUTLET SURFACE RACEWAY MOUNTED 2' ON CENTER

TELECOM

FLOOR WALL CEILING

- VOICE OUTLET
- DATA OUTLET
- VOICE-DATA
- CARD READER
- EMERGENCY BREAK GLASS
- PUSH BUTTON
- SPEAKER - AV
- TELCOM GROUNDING BUS BAR
- TELEPHONE BACKBOARD

WIRING

- 3/4" CONDUIT WITH 2#12 WIRES, UON. GROUND WIRE NOT SHOWN.
- 3/4" CONDUIT WITH 3#12 WIRES, UON. GROUND WIRE NOT SHOWN.
- 3/4" CONDUIT WITH 4#12 WIRES, UON. GROUND WIRE NOT SHOWN.
- 1LA-1,3,5 — CONDUIT HOMERUN TO PANEL BOARD 1LA WITH CIRCUIT 1,3,5
- CAPPED CONDUIT
- CONDUIT RUN UNDERGROUND OR UNDER THE FLOOR SLAB
- CONDUIT TURNING DOWN
- CONDUIT TURNING UP
- CONDUIT BREAK

LIGHTING

FLOOR WALL CEILING

- RECESSED DOWNLIGHT
- 1X4 SURFACE MOUNTED LIGHT
- 2X4 SURFACE MOUNTED LIGHT
- 4FT WALL MOUNTED LIGHT
- 1X4 EMERGENCY LIGHT
- 2X4 EMERGENCY LIGHT
- 2X4 RECESSED LIGHT
- EXIT SIGN 1 FACE
- EXIT SIGN 1 FACE LEFT ARROW

SWITCHES/CONTROLS

FLOOR WALL CEILING

- LIGHT SWITCH - TIME OPERATED
- LIGHT SWITCH - SINGLE POLE
- LIGHT SWITCH - THREE WAY
- LIGHT SWITCH - KEY OPERATED
- LIGHT SWITCH - WITH PILOT LIGHT
- SWITCH - WITH THERMAL OVERLOAD
- DIMMER
- OCCUPANCY SENSOR
- PHOTOCELL
- OCCUPANCY SENSOR POWER PACK
- OVERRIDE SWITCH
- ELECTRICAL PUSH BUTTON

POWER

- DISTRIBUTION BOARD
- 480/277V OR 208/120V RECESSED PANEL
- 480/277V OR 208/120V SURFACE MOUNTED PANEL
- TRANSFORMER
- DISCONNECT SWITCH, 30A 3P, UON
- SWITCH - MOTOR RATED
- FUSED DISCONNECT SWITCH, 30A 3P, UON
- MAGNETIC MOTOR STARTER - NEMA SIZE 1 INDICATED
- STARTER-DISCONNECT SWITCH, 30A 3P, UON
- MOTOR
- RELAY
- VARIABLE FREQUENCY DRIVE
- PULL BOX
- MANHOLE
- CABLE TRAY

SCHEMATIC DIAGRAM

- TERMINAL BLOCK
- NORMALLY CLOSED CONTACT
- NORMALLY OPEN CONTACT
- THROW CONTACT - SINGLE
- THROW CONTACT - DOUBLE
- SWITCH - CIRCUIT CLOSED
- SWITCH - CIRCUIT OPEN

FIRE ALARM

- F — MANUAL PULL STATION
- WF — WATER FLOW SWITCH
- TS — TAMPER SWITCH
- SD — SMOKE DETECTOR
- HEAT DETECTOR
- SI — HORN-STROBE
- ST — STROBE LIGHT UNIT
- AD — AUTOMATIC DOOR
- DH — DOOR HOLDER
- FACP — FIRE ALARM CONTROL PANEL
- FATC — FIRE ALARM TERMINAL CABINET
- RAN — REMOTE ANNUNCIATOR PANEL
- FIRE BELL

ANNOTATION

- DIAMETER
- SQUARE FEET
- POINT OF CONNECTION
- POINT OF DISCONNECTION

SINGLE LINE DIAGRAM

- CIRCUIT BREAKER SWITCH
- FUSE - INLINE
- FUSE SWITCH
- FUSED-SWITCH BUS PLUG
- CB — CIRCUIT BREAKER - ENCLOSED
- K — KIRK KEY INTERLOCK
- BUSDUCT
- SWITCHGEAR BUSWAY
- GFR — GROUND FAULT RELAY
- A — AMMETER
- EM — DIGITAL METER U.O.N.
- TRANSFORMER - DELTA WYE-GROUNDED
- E N L BP — ATS - 4-POLE U.O.N. BP - WITH BYPASS ISOLATION
- BATTERY
- G — GENERATOR
- XXXXX XXXXX XXXXX XXXXX — PANEL

GROUNDING SYSTEM

- GROUND TEST WELL
- GROUND CABLE CONNECTION
- GROUND ROD - MIN. 3/4"□ x 10' LONG
- GROUND PLATE - WALL MOUNT
- GROUND PLATE - FLOOR MOUNT
- AIR TERMINAL - LIGHTNING ARRESTOR
- EQUIPMENT CONNECTION

ANNOTATION

- 1 / E-201 — SYMBOLS SCALE: NOT TO SCALE
- TITLE MARK DETAIL OR PLAN NUMBER - 1 FOUND IN E-201
- 1 / E-501 — SECTION MARK A2T SECTION NUMBER - 1 SECTION FOUND IN E-501
- 2 / E-201 — DETAIL BOUNDARY B DETAIL NUMBER - 2
- DETAIL OR PLAN REFERENCE LOCATION
- 1 — SHEET KEYNOTE
- 1 — REVISION CLOUD (DELTA 1)
- 1 / E-501 — DETAIL REFERENCE DETAIL NUMBER - 1 DETAIL FOUND IN E-501
- FEEDER TAG

GENERAL NOTES

1. ALL WORK SHALL BE PERFORMED SAFELY AND IN SUCH A MANNER SO AS NOT TO DISTURB THE WORK IN THE REMAINDER OF THE AREA AND THE BUILDING. PROVIDE ALL PROTECTIVE MEANS, SIGNS ETC., SUBJECT TO APPROVAL OF THE COR.
2. EXACT LOCATION OF ALL CONDUIT RUNS SHALL BE DETERMINED IN THE FIELD. LOCATE ALL CONDUIT RUNS TO CLEAR PIPING, DUCTWORK, ACCESS DOORS, AND OTHER OBSTRUCTIONS. COORDINATE CONDUIT RUNS WITH WORK OF OTHER TRADES AND ALTER WHERE NECESSARY TO AVOID INTERFERENCE. SUBMIT FOR APPROVAL, PRIOR TO ACTUAL INSTALLATION, INSTALLATION DRAWINGS SHOWING THE LOCATION OF ALL NEW EQUIPMENT/ DEVICES TO BE INSTALLED AND INDICATING EXACT CIRCUITRY. DRAWINGS SHALL INCLUDE ALL WIRING, PULL BOXES, FITTINGS, WIRING DEVICES, COORDINATE WITH OTHER TRADES PRIOR TO SUBMITTAL.
3. PROVIDE IDENTIFICATION TAGS FOR ALL WIRING, INSTALL TAGS AT EACH END OF RUN AND IN ALL INTERMEDIATE PULL/JUNCTION BOXES, CABINETS, HOUSINGS, ETC.
4. VERIFY THE EXACT DIMENSIONS AND LOCATION OF ALL EQUIPMENT, SHOP DRAWINGS SHALL BE SUBMITTED AND APPROVED PRIOR TO PERFORMING ANY WORK.
5. ALL CONDUIT RUNS SHALL BE INSTALLED AS CLOSE TO CEILING SLAB AS POSSIBLE. PROVIDE ALL ELBOWS, FITTINGS, OFFSETS, PULL BOXES AND APPURTENANCES.
6. ALL CONDUCTORS IN PARALLEL SHALL BE SAME LENGTH, TYPE AND SHARE EQUAL DISTRIBUTION OF LOAD AND SHALL BE INSTALLED IN ACCORDANCE WITH NEC.
7. THE PLANS GENERALLY DO NOT INDICATE THE BRANCH CIRCUIT WIRING AND CONDUIT FOR FIXTURES AND OUTLETS, PROVIDE THE CORRECT WIRING, CONDUITS AND JUNCTION BOXES, AS REQUIRED BY THE INDICATED CIRCUITRY AND APPLICABLE REQUIREMENTS OF THE N.E.C.
8. ALL EQUIPMENT, DEVICES, WIRING, ETC. SHOWN ON DRAWINGS ARE NEW UNLESS OTHERWISE NOTED.
9. WORK SHALL BE COORDINATED WITH ALL TRADES.
10. POWER AND CONTROL WIRING FOR MECHANICAL AND ELECTRICAL EQUIPMENT SHALL BE COORDINATED WITH APPROVED MANUFACTURER'S SHOP DRAWINGS.
11. LABEL ALL CIRCUIT BREAKERS IN ALL ELECTRICAL POWER DISTRIBUTION PANELS AND SWITCHBOARDS. TYPE WRITTEN PANEL DIRECTORY SHALL BE SECURELY FASTENED TO THE INSIDE OF EACH PANEL DOOR.
12. PROVIDE LABEL FOR ALL NEW OUTLETS, RACKS, PLUGMOLDS, SWITCHES, AND MOTOR STARTERS. PROVIDE ENGRAVED PHENOLIC LABELS FOR ALL OTHER NEWLY INSTALLED DISTRIBUTION EQUIPMENT INDICATING VOLTAGE, PHASE, AMPERAGE, NAME OF EQUIPMENT AND WHERE EQUIPMENT IS FED FROM.
13. PROVIDE WIRING DIAGRAMS ON THE INSIDE OF EACH CABINET/ENCLOSURE DOOR INDICATING EQUIPMENT AND CONDUCTORS CONNECTED TO CABINET/ENCLOSURE.
14. MAKE CONNECTIONS TO MOTORS AND EQUIPMENT WITH FLEXIBLE LIQUIDTIGHT METALLIC CONDUIT AND CONNECTORS. MINIMUM SIZE 3/4" FOR CONNECTIONS, PROVIDE SUFFICIENT LENGTH OF FLEXIBLE CONDUIT TO AVOID TRANSMISSION OF VIBRATION.
15. WIRING METHODS SHALL BE SUITABLE FOR USE IN AN ENVIRONMENTAL AIR PLENUM WHERE SUCH EXIST.
16. WHEN DRAWINGS INDICATE EXISTING DISTRIBUTION EQUIPMENT. LOCATIONS OF SUCH EQUIPMENT ARE DIAGRAMMATIC. EXACT LOCATIONS SHALL BE CONFIRMED IN THE FIELD PRIOR TO BIDDING AND THE START OF CONSTRUCTION.
17. PROVIDE STENCILED/PRINTED LABELS ON CONDUIT, 3/8" HIGH FOR UP TO 1 1/4" CONDUIT AND 1" HIGH FOR 1 1/2" CONDUIT OR LARGER. APPLIED AT A PANEL AND PULL BOX LOCATIONS, WITHIN EACH ROOM AND AT 20' ON CENTER WITHIN AN AREA. LABELS SHALL INDICATE THE CONDUIT ORIGIN AND DESTINATION AND SHALL BE OF A COLOR WHICH CONTRAST THE COLOR OF THE CONDUIT.
18. CONTRACTOR SHALL SURVEY AND PLAN ENTIRE PROJECT PRIOR TO CONSTRUCTION. WHERE DRAWINGS AND FIELD CONDITIONS DIFFER CONTRACTOR SHALL NOTIFY ENGINEER AND ARCHITECT AND SUBMIT PROPOSED SOLUTION TO ENGINEER FOR APPROVAL.
19. ALL CONDUITS PENETRATING WALLS SHALL BE SEALED AND FIRE STOPPED.
20. PROVIDE CHANNEL SUPPORT FOR ALL WALL MOUNTED EQUIPMENT. PROVIDE FLOOR AND WALL ANCHORING FOR SUPPORTS. COORDINATE EXACT REQUIREMENTS WITH GENERAL CONTRACTOR AND EQUIPMENT VENDORS.

SHEET INDEX

SHEET NO.	SHEET TITLE	SHEET SCALE
EE-001	COVER SHEET	NONE
ES-101	ELECTRICAL SITE LIGHTING PLAN	3/32" = 1' 0"
ES-102	ELECTRICAL SITE PLAN	3/32" = 1' 0"
EP-101	ELECTRICAL POWER FIRST FLOOR PLAN	1/4" = 1' 0"
EP-102	ELECTRICAL POWER SECOND FLOOR PLAN	1/4" = 1' 0"
EP-103	ELECTRICAL POWER ROOF PLAN	1/4" = 1' 0"
EL-101	ELECTRICAL LIGHTING FIRST FLOOR PLAN	1/4" = 1' 0"
EL-102	ELECTRICAL LIGHTING SECOND FLOOR PLAN	1/4" = 1' 0"
EL-103	ELECTRICAL LIGHTING ROOF PLAN	1/4" = 1' 0"
FA-101	ELECTRICAL FIRE ALARM PLAN FIRST FLOOR	1/4" = 1' 0"
FA-102	ELECTRICAL FIRE ALARM PLAN SECOND FLOOR	1/4" = 1' 0"
EP-401	ELECTRICAL POWER ENLARGED PLANS	NONE
EP-501	ELECTRICAL DETAILS	NONE
EP-502	ELECTRICAL SINGLE LINE DIAGRAMS	NONE
EL-601	ELECTRICAL LIGHTING SCHEDULE	NONE
EP-601	ELECTRICAL PANEL SCHEDULES	NONE
EP-602	ELECTRICAL PANEL SCHEDULES	NONE
EP-603	ELECTRICAL PANEL SCHEDULES	NONE
EP-604	ELECTRICAL SCHEDULES	NONE

FINAL BID DOCUMENTS

FIRE LIFE SAFETY NOTES

1. UNDER DESIGN/BUILD SCOPE OF WORK PROVIDE COMPLETE FIRE/LIFE SAFETY SYSTEM. CONTRACTOR SHALL PROVIDE AS PART OF FIRE ALARM SYSTEM:
   - CONSTRUCTION DOCUMENT AND SHOP DRAWINGS.
   - COORDINATE WITH MECHANICAL AND PLUMBING DRAWINGS FOR ALL REQUIRED FIRE ALARM DEVICES UNDER MECHANICAL/PLUMBING SECTION AND PROVIDE INTERCONNECTING WIRING FOR A COMPLETE WORKING SYSTEM. COORDINATE VENDOR AND EQUIPMENT WITH COR.
2. PROPOSED SYSTEM DOCUMENTS SHALL BE PREPARED AND SUBMITTED BY CONTRACTOR TO AUTHORITIES HAVING JURISDICTION FOR REVIEW AND APPROVAL BEFORE START OF WORK.
3. COMPLETE SYSTEM SHALL BE TESTED, APPROVED AND SIGNED-OFF BY AUTHORITIES HAVING JURISDICTION.
4. THE ENTIRE INSTALLATION OF LIFE SAFETY SYSTEM INCLUDING MATERIALS AND EQUIPMENT SHALL BE COMPATIBLE WITH BASE BUILDING EQUIPMENT AND MEET OR EXCEED THE MINIMUM STANDARD AND REQUIREMENTS OF THE FOLLOWING:
   - a. U.L. LISTING SERVICES
   - b. N.F.P.A. NATIONAL FIRE CODE
   - c. INTERNATION FIRE AND BUILDING CODES
   - d. NATIONAL ELECTRICAL CODE
   - e. AMERICAN DISABLITY ACT (ADA REQUIREMENTS)

FIRE ALARM SYSTEM SHALL BE SUBMITTED UNDER A SEPARATE PERMIT.

PANEL DESIGNATION

GEN - L N 1 A - 1

- CIRCUIT NUMBER
- PANEL NUMBER
- PANEL FLOOR LOCATION
  - 1 - LEVEL 1
  - 2 - LEVEL 2
  - R - ROOF
- POWER SYSTEM
  - N: NORMAL SYSTEM
  - E: EMERGENCY LIFE SYSTEM SYSTEM
  - S: EMERGENCY STAND-BY SYSTEM
  - ST: EMERGENCY STAND-BY SYSTEM FOR TELECOM RM.
- PANEL TYPE AND VOLTAGE
  - L: 208/120V BRANCH CIRCUIT PANELBOARD
  - H: 480/277V BRANCH CIRCUIT PANELBOARD
  - DH: 480Y/277V DISTRIBUTION PANELBOARD
  - DL: 208Y/120V DISTRIBUTION PANELBOARD
- BUILDING DESIGNATION
  - GEN: GENOMICS BUILDING

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Revisions:	Date

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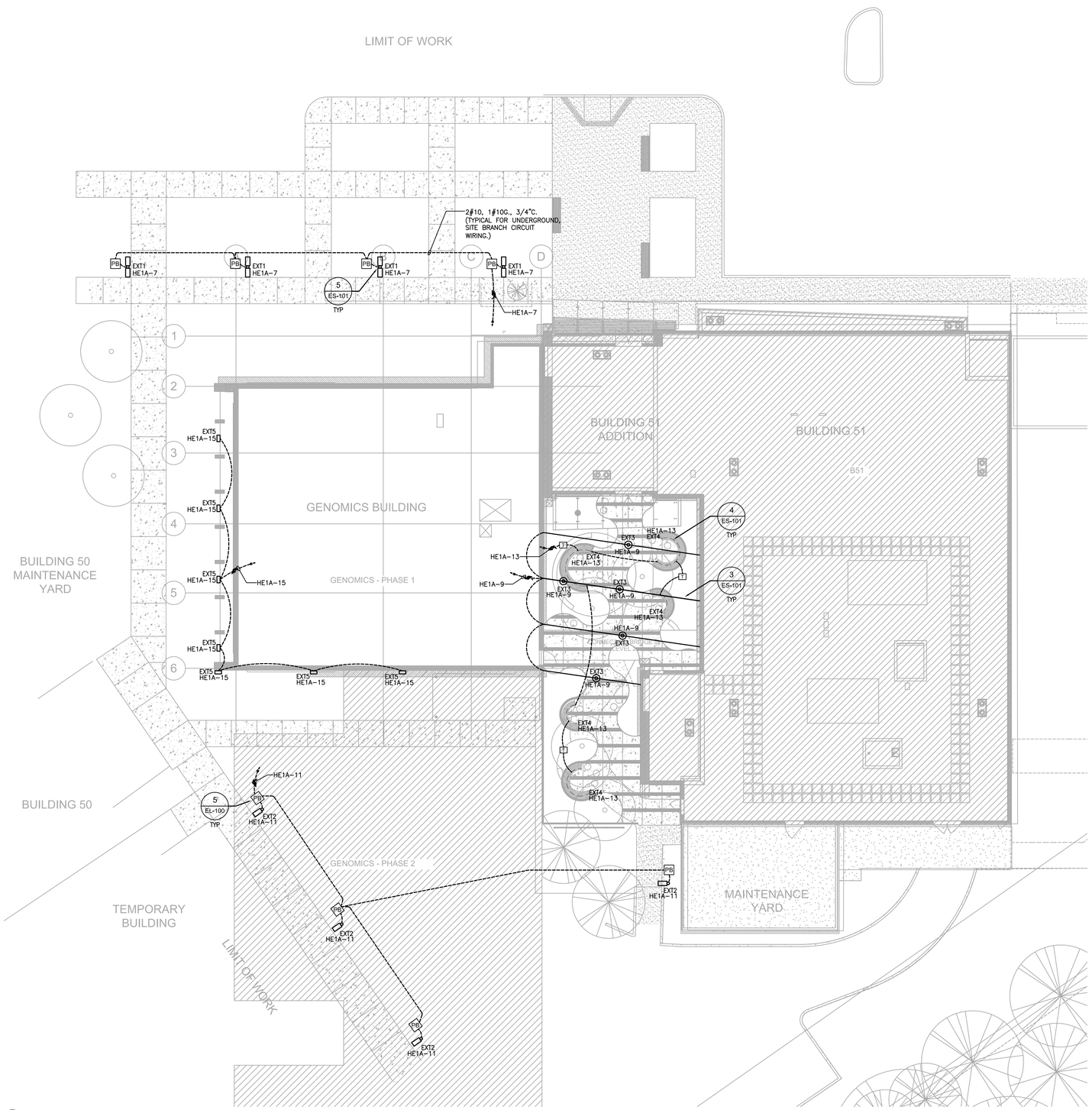
Drawing Title: **COVER SHEET**	Project Title: **GENOMICS CLINICAL RESEARCH CENTER, PALO ALTO**	Project Number: **640-389**	Office of Construction and Facilities Management
Approved: Project Director	Location: **VAPAHCS - PALO ALTO**	Building Number: **51**	
	Date: **06/05/2014** / Checked: **CEL** / Drawn: **LTA**	Drawing Number: **EE-001** Dwg. of	Department of Veterans Affairs

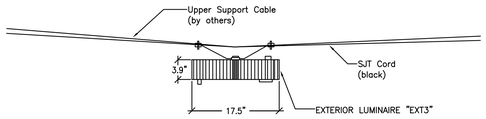
VA FORM 08-6231



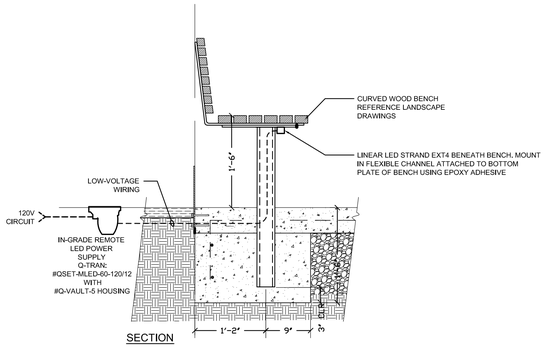
1 LIGHTING SITE PLAN
SCALE: 3/32"=1'-0"

Symbol	Type	Description	Manufacturer / Catalog #	Lamps	Watts/ Volts	Notes
	EXT1	Pole top luminaire. Nominal pole height is 25'. Die cast aluminum housing, lens frame, and mounting arm. Mounts to 4" square steel poles. Specular vacuum-metallized polycarbonate.	RAB Fixture: ALED3T105YRG Pole: PS4-07-25D2 Custom Pole Color: RAL7040	LED 3000K 7,338 lm	105W	Gray pole and fixture color
	EXT2	Pole top luminaire with full-cutoff optics. Standard polyester powder coated matte silver gray metallic finish. Nominal pole height is 16'.	Hess America CC450 3LV-NW-S-UNV-A-16RS-SG-0DEG	LED 4000K 3909 lm	71W	VAPA Masterplan Type E4
	EXT3	Exterior catenary pendant fixture. Oval shaped aluminum body with frameless tempered glass lens.	Hess America NV4500\2LV-2LEVO-NW-SME-UNV-X-GG-N	LED 4000K 3023 lm	46W	
	EXT4	LED strip light to illuminate below benches.	Tube Lighting D5HWL-24V-W31	LED 3100K 80 lm/ft	1.46W/ft 24V	Requires remote LED transformer assembly
	EXT5	Exterior wallpack fixture. Gray polyester powder coating. Die cast aluminum housing, lens frame, and mounting arm.	RAB WPLED2T50YRG	LED 3000K 4,237 lm	50W	Gray fixture color

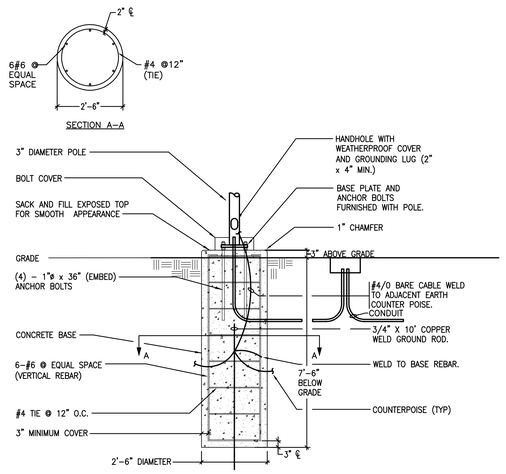
2 LIGHTING FIXTURE SCHEDULE (EXTERIOR)
SCALE: NONE



3 EXT3 INSTALLATION DETAIL
SCALE: NONE



4 EXT4 INSTALLATION DETAIL
SCALE: NONE



5 TYPICAL LIGHTING POLE DETAIL
SCALE: NONE

1. -

1. -

FINAL BID DOCUMENTS

NOT FOR CONSTRUCTION

Revisions: | Date

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Drawing Title: **ELECTRICAL SITE LIGHTING PLAN**

Approved: Project Director

Project Title: **GENOMICS RESEARCH BUILDING**

Location: VAPAHCS - PALO ALTO

Date: **06/05/2014** | Checked: **SHG** | Drawn: **SHG**

Project Number: **640-389**

Building Number:

Drawing Number: **ES-101**

Dwg. **1** of **1**

Office of Construction and Facilities Management

Department of Veterans Affairs

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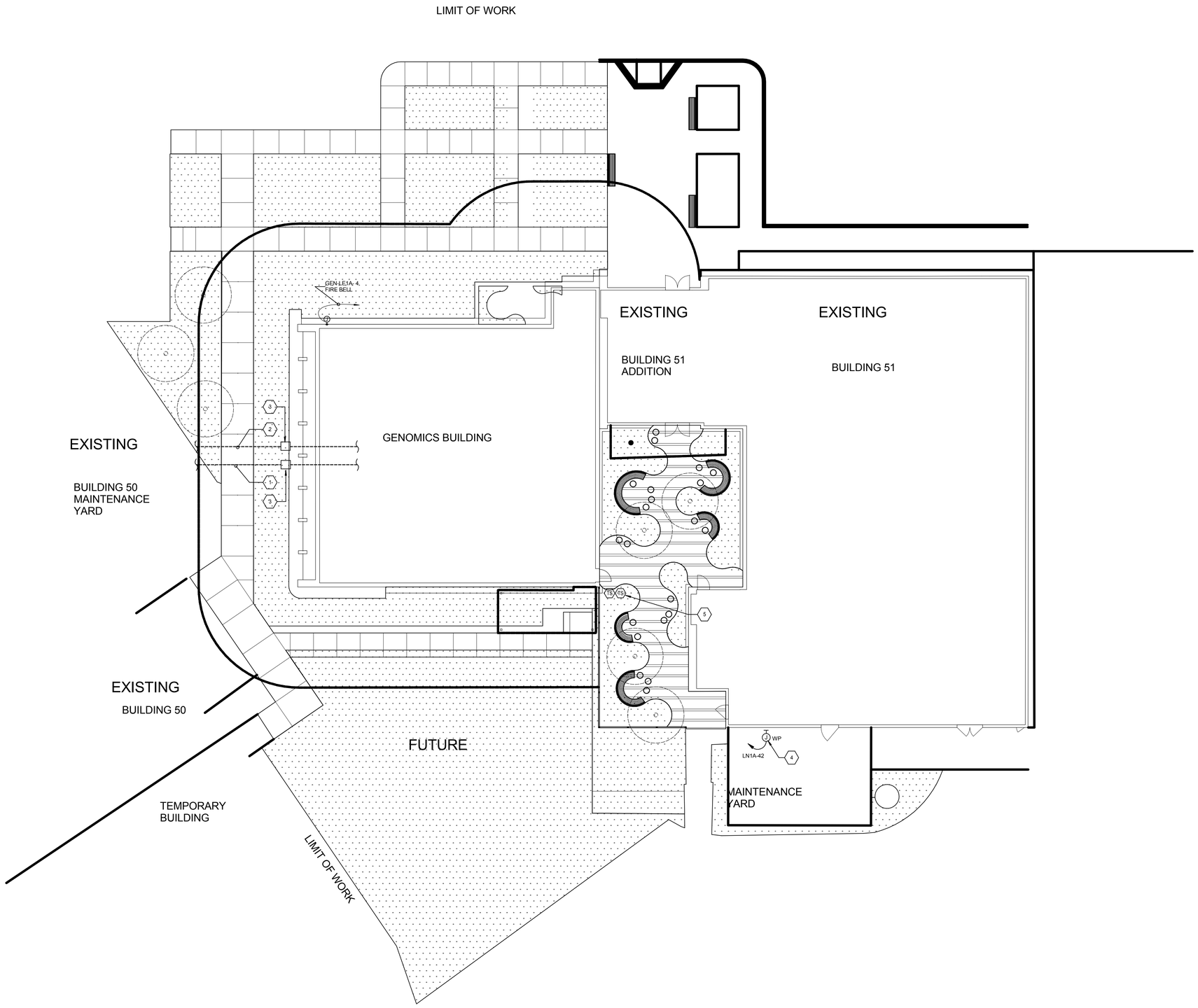

1 SITE PLAN
3/32" = 1'-0"

KEY NOTES

1. EMERGENCY POWER FEEDERS FROM BUILDING 50. REFER TO SINGLE LINE DIAGRAM.
2. NORMAL POWER FEEDER FROM BUILDING 50. REFER TO SINGLE LINE DIAGRAM.
3. WEATHER PROOF PULLBOX. COORDINATE EXACT LOCATION WITH ARCH/LANDSCAPE.
4. JUNCTION BOX FOR CONNECTION TO IRRIGATION CONTROLLER. REFER TO LANDSCAPE DRAWINGS FOR MORE INFORMATION.
5. FIRE SPRINKLER OS & Y VALVE TAMPER SWITCHES.

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Drawing Title: **ELECTRICAL SITE PLAN**

Approved: Project Director

Project Title: **GENOMICS CLINICAL RESEARCH CENTER, PALO ALTO**

Location: **VAPAHCS - PALO ALTO**

Date: **06/05/2014** | Checked: **CEL** | Drawn: **LTA**

Project Number: **640-389**

Building Number: **51**

Drawing Number: **ES-102**

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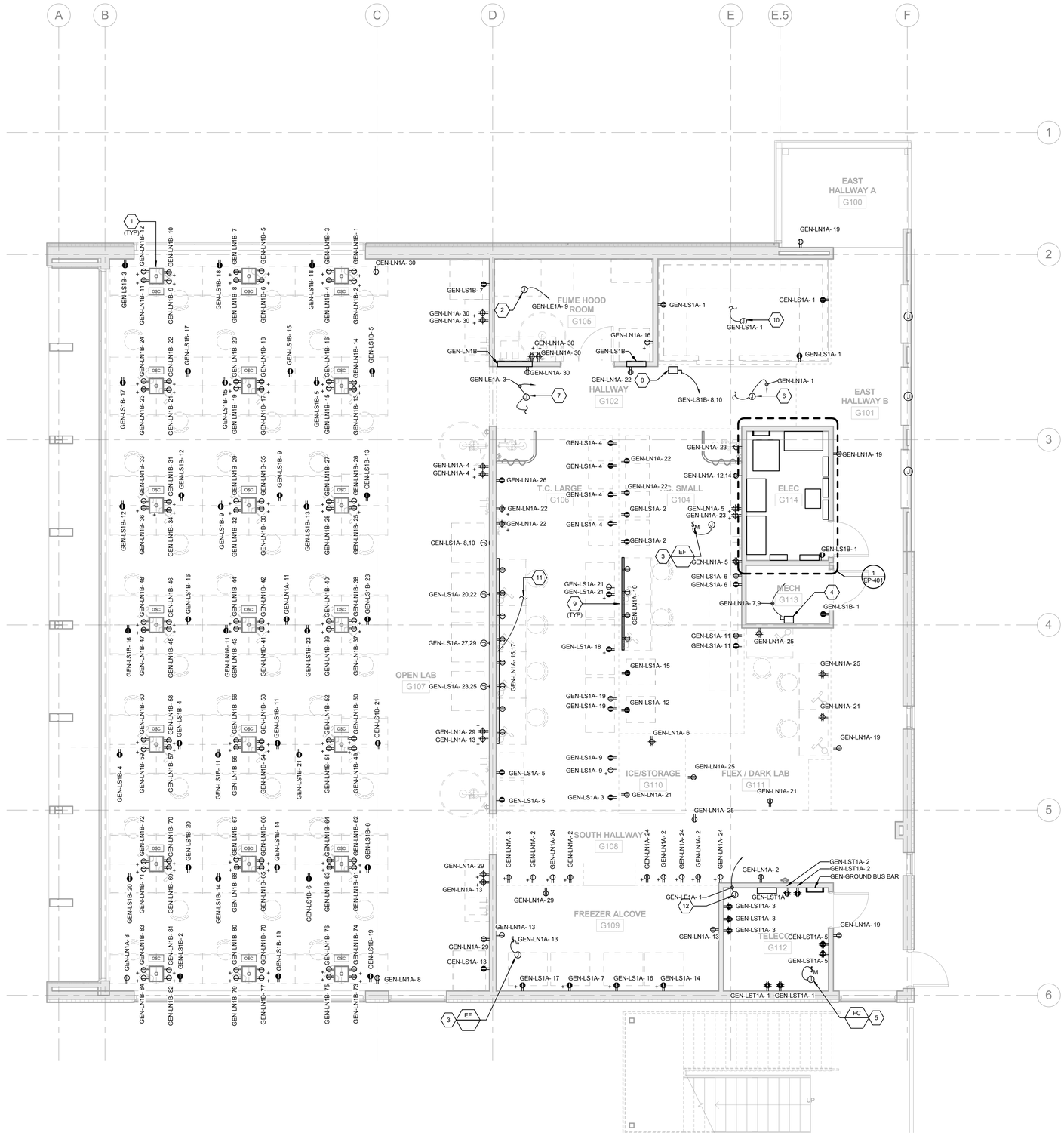

1 LEVEL 1 POWER PLAN
1/4" = 1'-0"

KEY NOTES

1 OVERHEAD SERVICE CARRIER WITH ELECTRICAL DEVICES AS SHOWN COORDINATE INSTALLATION WITH EQUIPMENT SUPPLIER. DEVICES PROVIDED BY OSC SUPPLIER
2 JUNCTION BOX FOR CONNECTION TO FUME HOOD.
3 JUNCTION BOX FOR CONNECTION TO IN-LINE EXHAUST FAN PROVIDE MOTOR RATED SWITCH FOR DISCONNECT.
4 DISCONNECT SWITCH FOR CONNECTION TO RO/DI SKID & PUMPS
5 JUNCTION BOX FOR CONNECTION TO FAN COIL UNIT. PROVIDE MOTOR RATED SWITCH FOR DISCONNECT.
6 JUNCTION BOX FOR EXTENSION TO VAV BOXES. EXTEND CIRCUIT TO EACH BOX & PROVIDE DISCONNECT. REFER TO MECHANICAL DRAWINGS AFOR EXACT QUANTITIES AND LOCATIONS.
7 JUNCTION BOX FOR CONNECTION TO FSD'S. EXTEND CIRCUIT TO EACH FSD & PROVIDE DISCONNECT. REFER TO MECHANICAL DRAWINGS FOR EXACT QUANTITIES & LOCATIONS
8 PROVIDE DISCONNECTING MEANS FOR COLD ROOM INTERFACE WITH CONDENSING UNIT. SIZE PER MANUFACTURER'S RECOMMENATION. COORDINATE LOCATION OF FUSED DISCONNECT SWITCH WITH COLD ROOM INSTALLER.
9 WALL MOUNTED WIREMOLD WITH DEVICES AS SHOWN . REFER TO ARCHITECTURAL ELEVATIONS FOR MOUNTING HEIGHT.
10 JUNCTION BOX FOR CONNECTION TO COLD ROOM EVAPORATING COIL AND LIGHT FIXTURE. VERIFY LOCATION OF TIE-IN POINT BEFORE COMMENCEMENT OF WORK.
11 PROVIDE CONNECTION TO TASK LIGHT, WHERE OCCURS.
12 JUNCTION BOX FOR 120V CONNECTION TO FIRE ALARM CONTROL PANEL.

GENERAL NOTES

1 EACH 1-PHASE CIRCUIT SHALL BE PROVIDED WITH ITS OWN NEUTRAL & GROUND WIRE.
2 REFER TO ARCHITECTURAL DETAILS AND ELEVATION DRAWING FOR EXACT LOCATION OF RECEPTACLES AND MOUNTING REQUIREMENTS.

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Drawing Title: **ELECTRICAL POWER FIRST FLOOR PLAN**

Approved: Project Director

Project Title: **GENOMICS CLINICAL RESEARCH CENTER, PALO ALTO**

Location: **VAPAHCS - PALO ALTO**

Date: **06/05/2014** | Checked: **CEL** | Drawn: **LTA**

Project Number: **640-389**

Building Number: **51**

Drawing Number: **EP-101**

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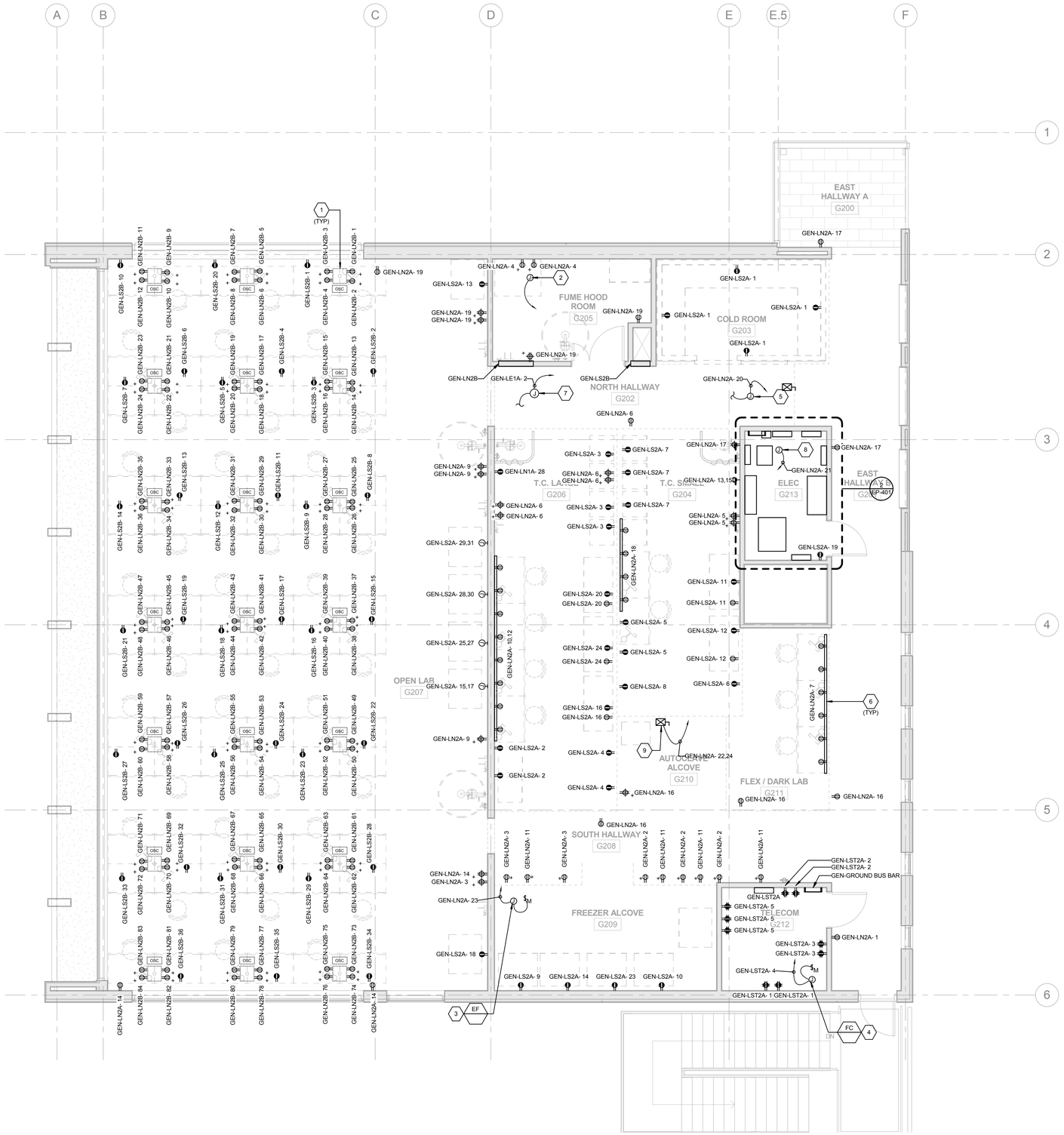

1 LEVEL 2 POWER PLAN
1/4" = 1'-0"

KEY NOTES

1. OVERHEAD SERVICE CARRIER WITH ELECTRICAL DEVICES AS SHOWN COORDINATE INSTALLATION WITH EQUIPMENT SUPPLIER. DEVICES PROVIDED BY OSC SUPPLIER
2. JUNCTION BOX FOR CONNECTION TO FUME HOOD.
3. JUNCTION BOX FOR CONNECTION TO IN-LINE EXHAUST FAN PROVIDE MOTOR RATED SWITCH FOR DISCONNECT.
4. JUNCTION BOX FOR CONNECTION TO FAN COIL UNIT. PROVIDE MOTOR RATED SWITCH FOR DISCONNECT.
5. JUNCTION BOX FOR EXTENSION TO VAV BOXES. EXTEND CIRCUIT TO EACH BOX & PROVIDE DISCONNECT. REFER TO MECHANICAL DRAWINGS AFOR EXACT QUANTITIES AND LOCATIONS.
6. WALL MOUNTED WIREMOLD WITH DEVICES AS SHOWN . REFER TO ARCHITECTURAL ELEVATIONS FOR MOUNTING HEIGHT.
7. JUNCTION BOX FOR CONNECTION TO FSD'S. EXTEND CIRCUIT TO EACH FSD & PROVIDE DISCONNECT. REFER TO MECHANICAL DRAWINGS FOR EXACT QUANTITIES & LOCATIONS
8. JUNCTION BOX FOR CONNECTION TO LIGHTING CONTROL PANEL.
9. DISCONNECT SWITCH FOR CONNECTION TO AUTOCLAVE ACL-1

GENERAL NOTES

1. EACH 1-PHASE CIRCUIT SHALL BE PROVIDED WITH ITS OWN NEUTRAL & GROUND WIRE.
2. REFER TO ARCHITECTURAL DETAILS AND ELEVATION DRAWING FOR EXACT LOCATION OF RECEPTACLES AND MOUNTING REQUIREMENTS.

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Drawing Title: **ELECTRICAL POWER SECOND FLOOR PLAN**

Approved: Project Director

Project Title: **GENOMICS CLINICAL RESEARCH CENTER, PALO ALTO**

Location: **VAPAHCS - PALO ALTO**

Date: **06/05/2014** | Checked: **CEL** | Drawn: **LTA**

Project Number: **640-389**

Building Number: **51**

Drawing Number: **EP-102**

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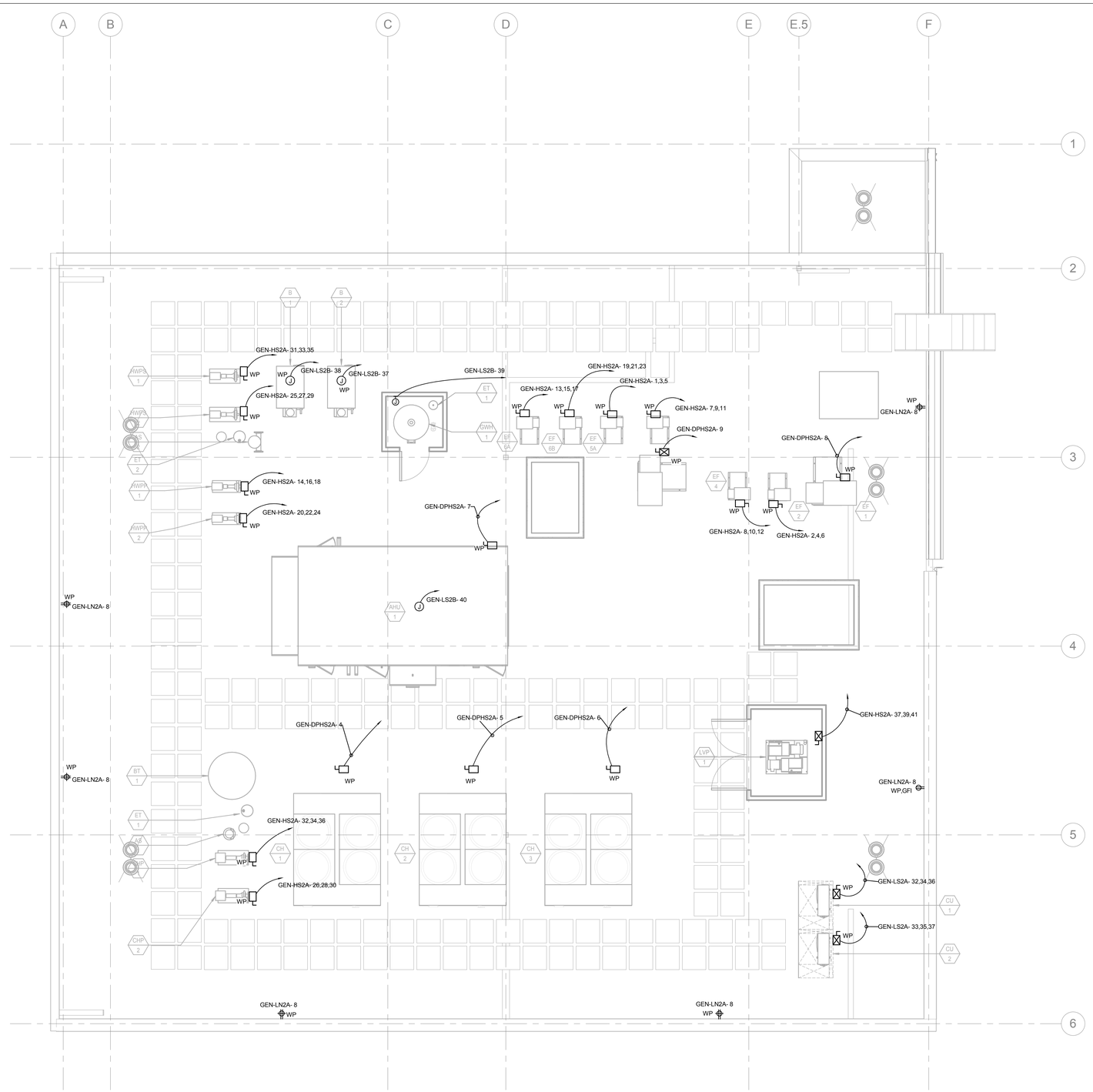

KEY NOTES

GENERAL NOTES

1 EACH 1-PHASE CIRCUIT SHALL BE PROVIDED WITH ITS OWN NEUTRAL & GROUND WIRE.
2 REFER TO ARCHITECTURAL DETAILS AND ELEVATION DRAWING FOR EXACT LOCATION OF RECEPTACLES AND MOUNTING REQUIREMENTS.

1 ROOF POWER PLAN
1/4" = 1'-0"

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Approved: Project Director

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Location: **VAPAHCS - PALO ALTO**

Date: **06/05/2014** | Checked: **CEL** | Drawn: **LTA**

Project Number: **640-389**

Building Number: **51**

Drawing Number: **EP-103**

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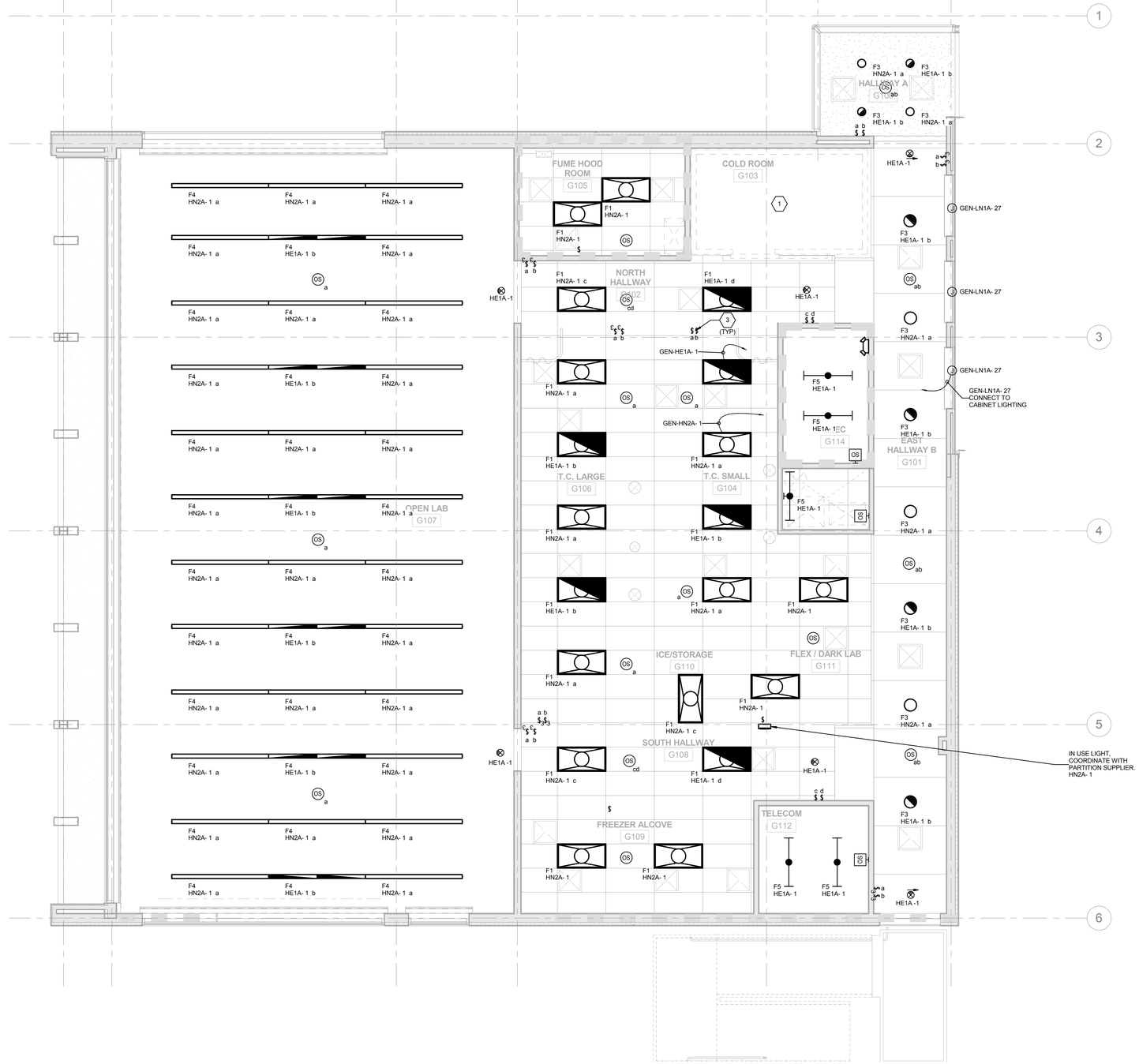
KEY NOTES

1. LIGHTING IN COLD ROOM PROVIDED WITH EQUIPMENT. COORDINATE WITH SUPPLIER.
2. ROUTE CIRCUIT THROUGH LIGHTING CONTROL PANEL . CONTROLLED BY TIME CLOCK.
3. SWITCHES LOCATED DEMOUNTABLE PARTITIONS SHALL BE COORDINATED WITH PARTITION SUPPLIER. MOUNT SWITCHES IN ACCORDANCE WITH SUPPLIER'S REQUIREMENTS



1 LEVEL 1 LIGHTING CEILING PLAN
1/4" = 1'-0"

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Drawing Title: **ELECTRICAL LIGHTING FIRST FLOOR PLAN**

Approved: Project Director

Project Title: **GENOMICS CLINICAL RESEARCH CENTER, PALO ALTO**

Location: **VAPAHCS - PALO ALTO**

Date: **06/05/2014** | Checked: **CEL** | Drawn: **LTA**

Project Number: **640-389**

Building Number: **51**

Drawing Number: **EL-101**

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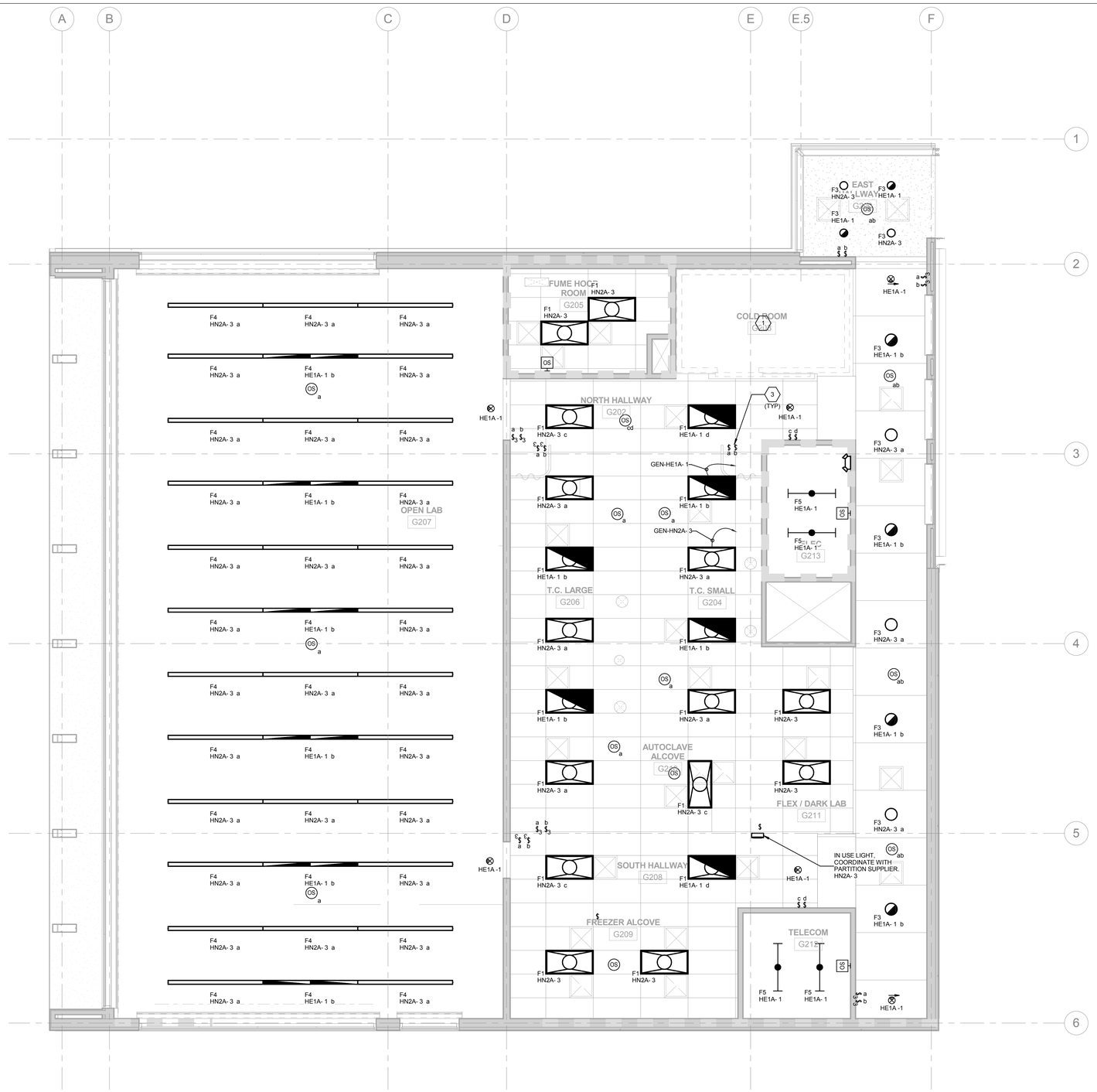
KEY NOTES

1. LIGHTING IN COLD ROOM PROVIDED WITH EQUIPMENT. COORDINATE WITH SUPPLIER.
2. ROUTE CIRCUIT THROUGH LIGHTING CONTROL PANEL . CONTROLLED BY TIME CLOCK.
3. SWITCHES LOCATED DEMOUNTABLE PARTITIONS SHALL BE COORDINATED WITH PARTITION SUPPLIER. MOUNT SWITCHES IN ACCORDANCE WITH SUPPLIER'S REQUIREMENTS



1 LEVEL 2 LIGHTING CEILING PLAN
1/4" = 1'-0"

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Approved: Project Director

Project Title: **GENOMICS CLINICAL RESEARCH CENTER, PALO ALTO**

Location: **VAPAHCS - PALO ALTO**

Date: **06/05/2014** | Checked: **CEL** | Drawn: **LTA**

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Building Number: **51**

Drawing Number: **EL-102**

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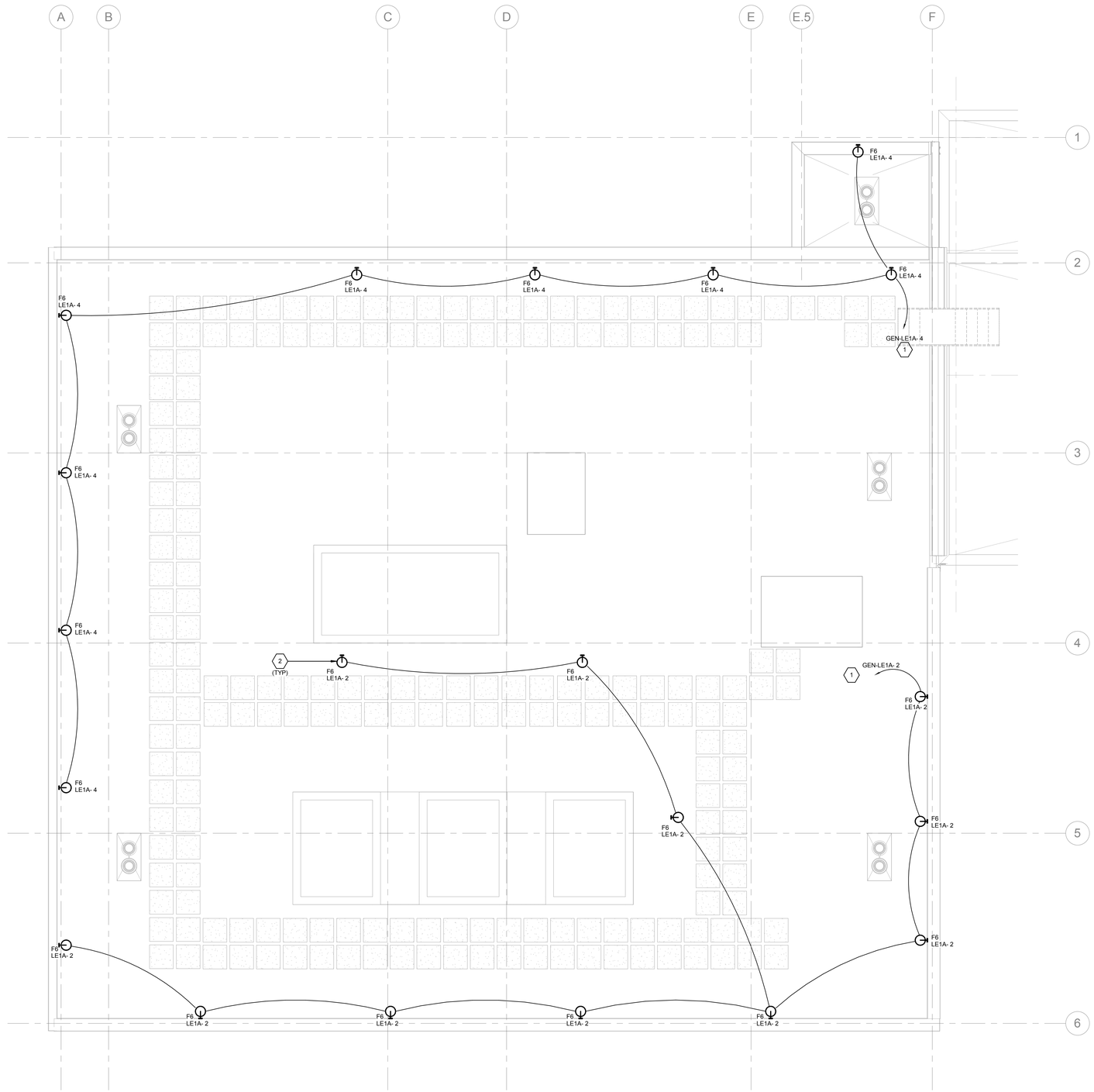

KEY NOTES

1 ROUTE CIRCUIT THROUGH LIGHTING CONTROL PANEL . CONTROLLED BY PHOTOCELL.
2 MOUNT FIXTURE ON UNISTRUT WHERE PARAPET DOES NOT OCCUR.

1 ROOF LIGHTING PLAN
1/4" = 1'-0"

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Drawing Title: **ELECTRICAL LIGHTING ROOF PLAN**	Project Title: **GENOMICS CLINICAL RESEARCH CENTER, PALO ALTO**	Project Number: **640-389**	Office of Construction and Facilities Management
Approved: Project Director	Location: **VAPAHCS - PALO ALTO**	Building Number: **51**	
	Date: **06/05/2014** / Checked: **CEL** / Drawn: **LTA**	Drawing Number: **EL-103** Dwg. of	Department of Veterans Affairs

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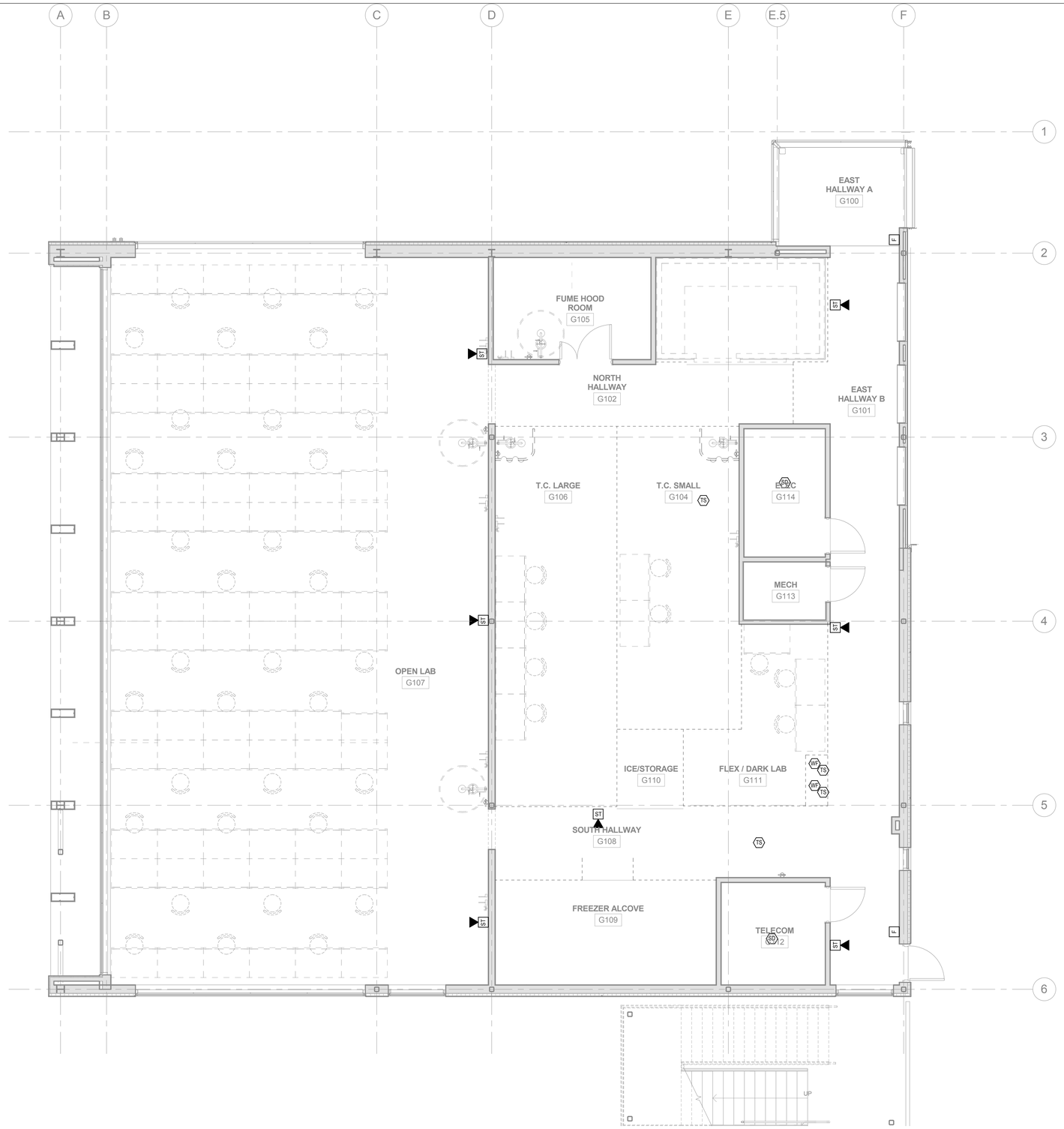

1 LEVEL 1 FIRE ALARM PLAN
1/4" = 1'-0"

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Drawing Title
ELECTRICAL FIRE ALARM PLAN FIRST FLOOR

Approved: Project Director

Project Title
GENOMICS CLINICAL RESEARCH CENTER, PALO ALTO

Location
VAPAHCS - PALO ALTO

Date **06/05/2014** | Checked **Checker** | Drawn **Author**

Project Number **640-389**

Building Number **51**

Drawing Number **FA-101**

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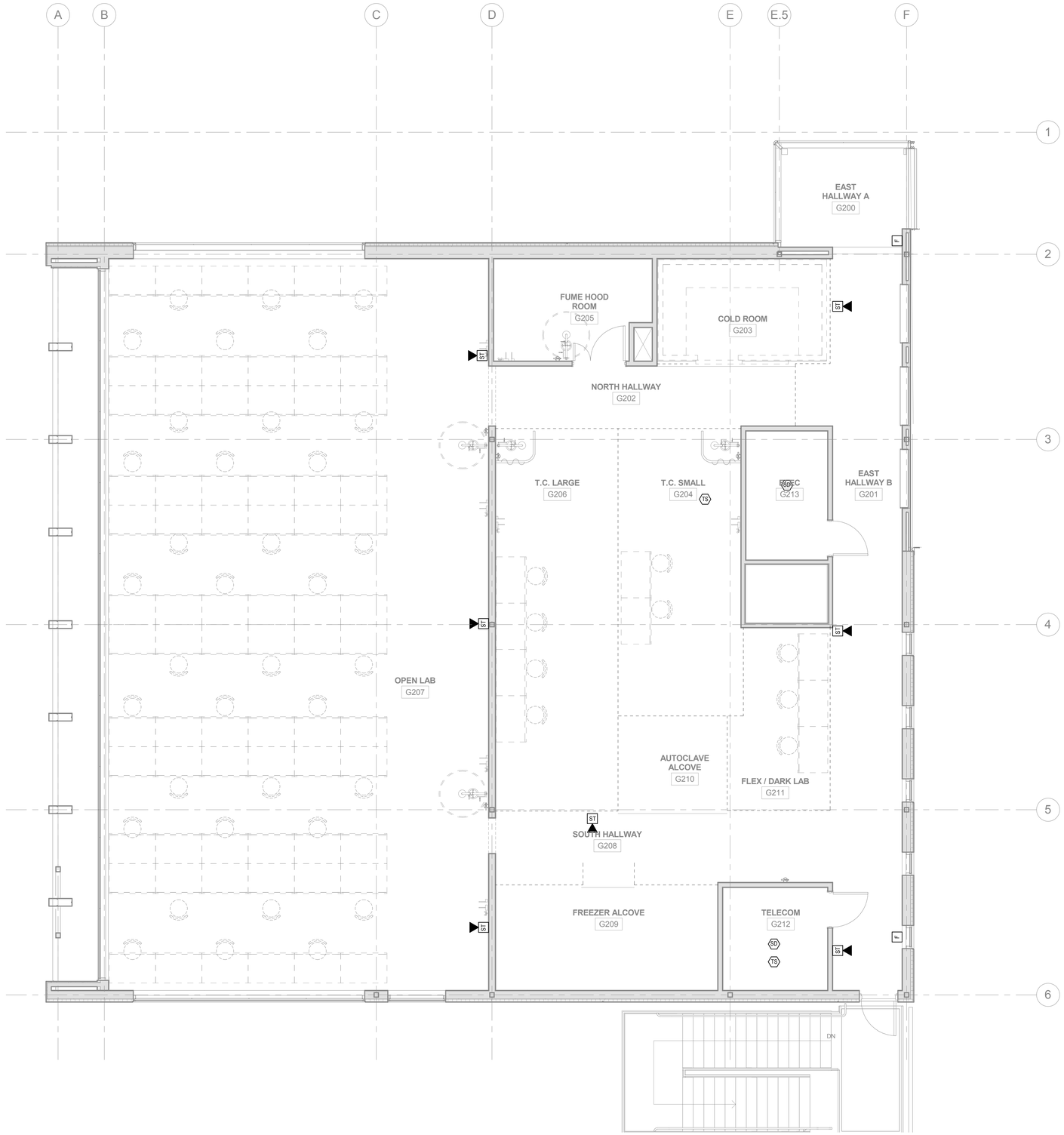

1 LEVEL 2 FIRE ALARM PLAN
1/4" = 1'-0"

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Drawing Title
ELECTRICAL FIRE ALARM PLAN SECOND FLOOR

Approved: Project Director

Project Title
GENOMICS CLINICAL RESEARCH CENTER, PALO ALTO

Location
VAPAHCS - PALO ALTO

Date **06/05/2014** | Checked **Checker** | Drawn **Author**

Project Number **640-389**

Building Number **51**

Drawing Number **FA-102**

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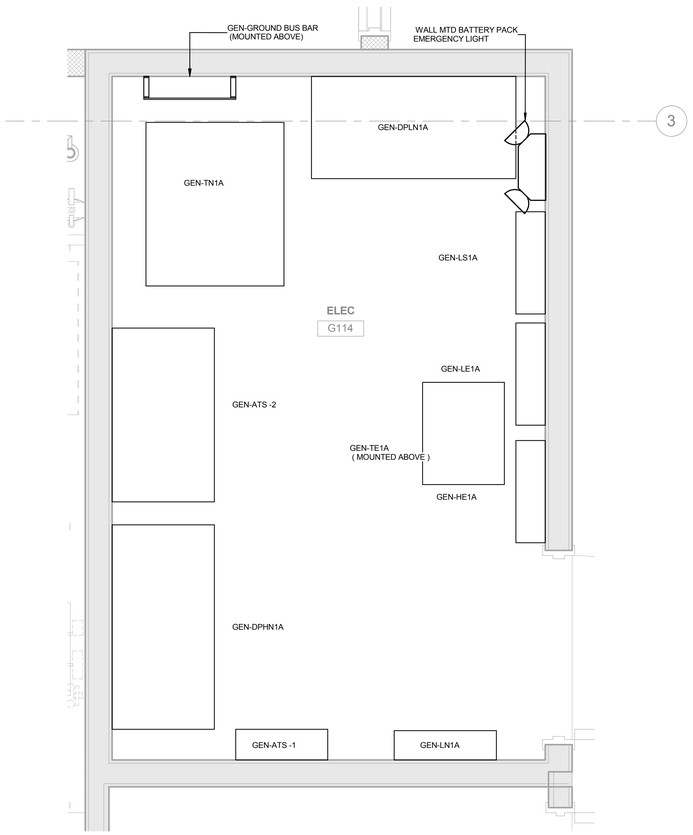
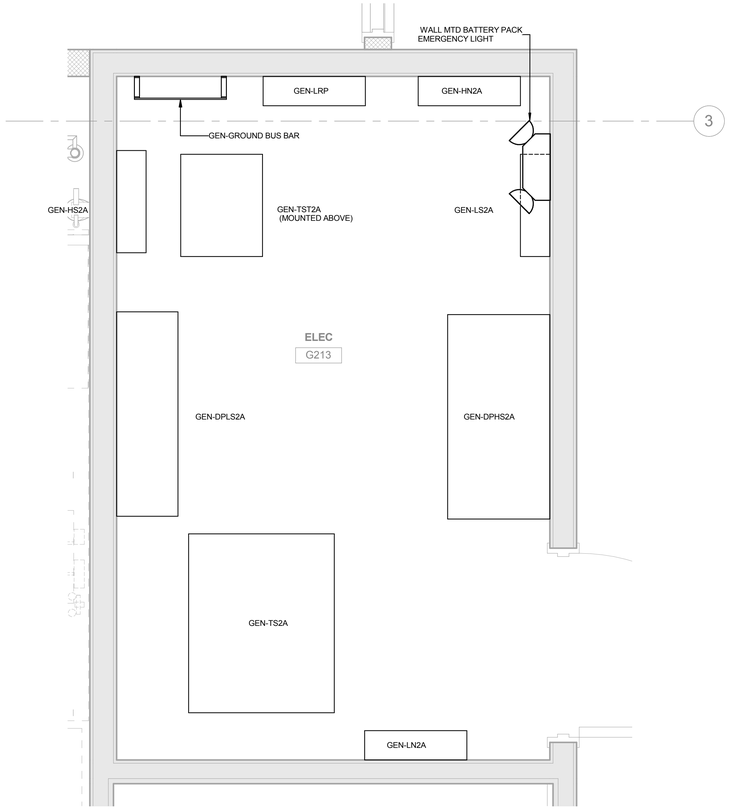


1 MAIN ELEC LEVEL 1 POWER PLAN
1" = 1'-0"



2 MAIN ELEC LEVEL 2 POWER PLAN
1" = 1'-0"

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Drawing Title
ELECTRICAL POWER ENLARGED PLANS

Approved: Project Director

Project Title
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Location
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Date **06/05/2014** | Checked **CEL** | Drawn **LTA**

Project Number **640-389**

Building Number **51**

Drawing Number
EP-401

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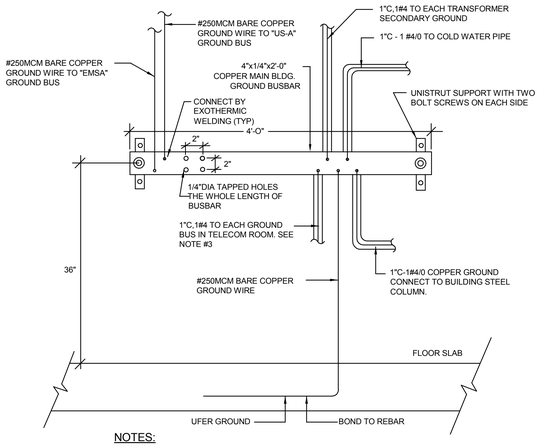


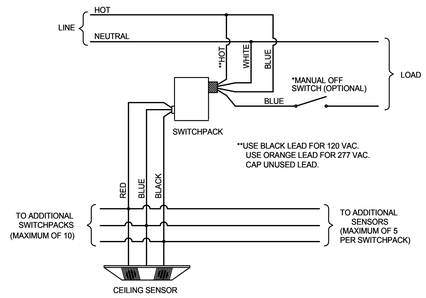
NOTES:

SEE SHEET E-401 DETAIL 1, FOR LOCATION OF MAIN BUILDING GROUND BUSBAR.

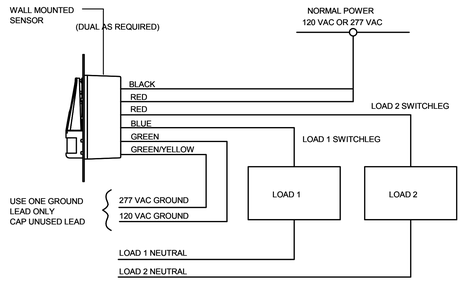
ALL CONNECTIONS TO MAIN BUILDING GROUND BUS VIA BURNDY IRREVERSIBLE MECHANICAL CONNECTOR.

IN COMMON CONDUIT (2"), PROVIDE 12"X12"X8"DEEP PULL BOX IN TELECOM ROOMS WITH GROMETTED OPENNING FOR GROUND WIRE TO TELECOM GROUND BUS.

MAIN BUILDING GROUNDING SYSTEM | 3



CEILING MOUNTED SENSOR

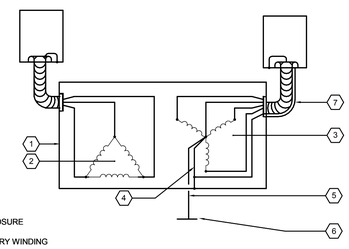


WALL MOUNTED SENSOR

NOTES:

1. WIRING ON THIS PLAN IS DIAGRAMMATIC WITHOUT SHOWING THE REQUIRED POWER PACKS AND CONNECTIONS. PROVIDE POWER PACK AS NEEDED AND INSTALLED IN ACCESSIBLE SPACE TO ACCOMPLISH SWITCHING SCHEME OF OCCUPANCY SENSOR AS INDICATED.
2. CONTRACTOR SHALL LOCATE OCCUPANCY SENSOR PER MANUFACTURER'S RECOMMENDATION FOR COMPLETE MAXIMUM COVERAGE OF LIGHTING FIXTURES CONTROLLED. CONTRACTOR SHALL TAKE RESPONSIBILITY FOR ADDITIONAL OCCUPANCY SENSORS REQUIRED FOR COMPLETE COVERAGE OF AREA LIGHTS BEING CONTROLLED.
3. PROVIDE BUILDING STANDARD OCCUPANCY SENSOR.

OCCUPANCY SENSOR WIRING DIAGRAM | 1



NOTES:

1. ENCLOSURE
2. PRIMARY WINDING
3. SECONDARY WINDING
4. BOND TO ENCLOSURE
5. GROUNDING ELECTRODE CONDUCTOR
6. GROUNDING ELECTRODE
7. FLEXIBLE CONDUIT WITH GROUNDING CONDUCTOR

TRANSFORMER GROUNDING DETAIL | 2

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Drawing Title	**ELECTRICAL DETAILS**
Approved: Project Director	
Project Title	**GENOMICS CLINICAL RESEARCH CENTER, PALO ALTO**
Location	**VAPAHCS - PALO ALTO**
Date	**06/05/2014**
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Project Number	**640-389**
Building Number	**51**
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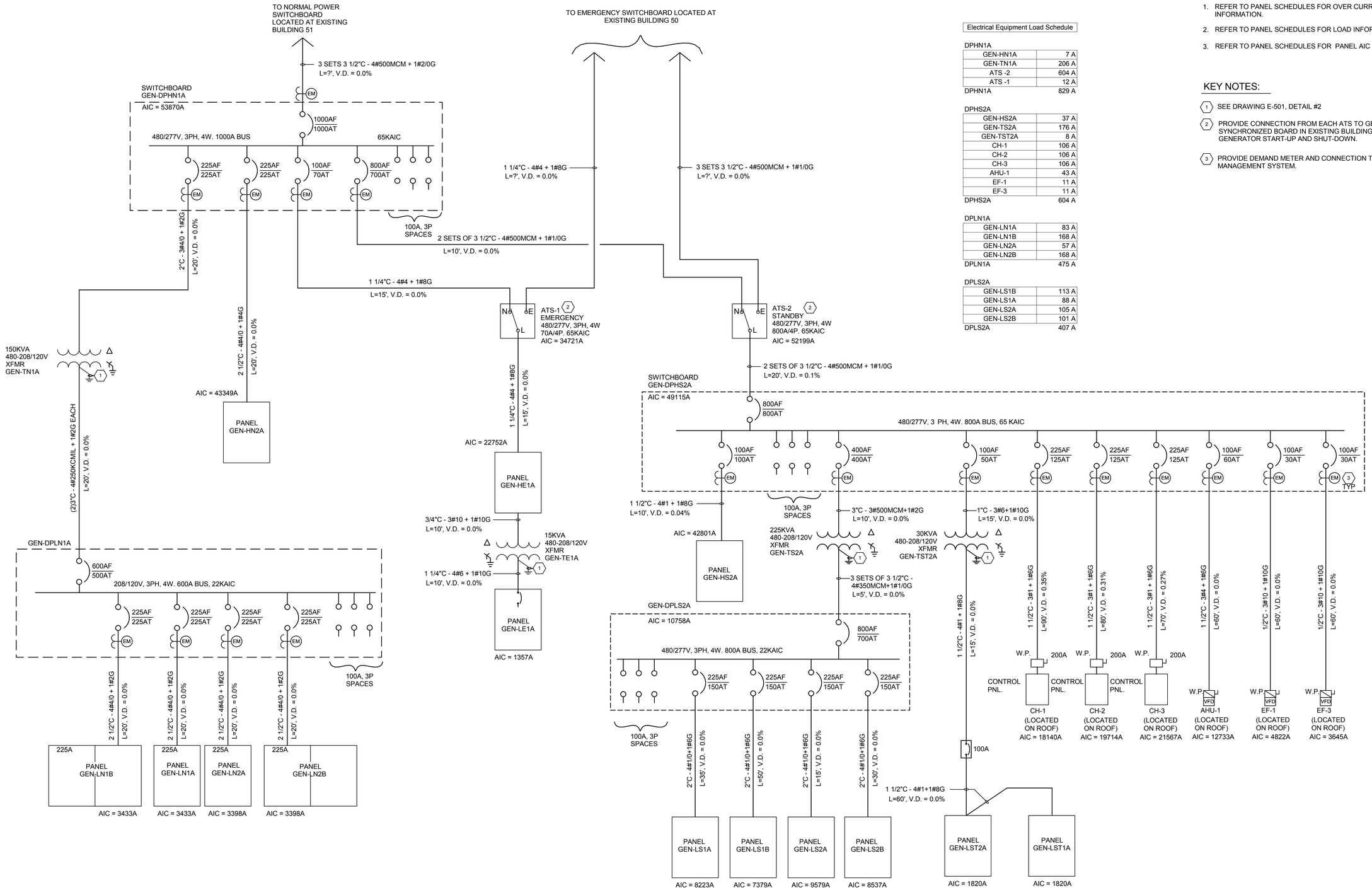

SHEET NOTES:

1. REFER TO PANEL SCHEDULES FOR OVER CURRENT PROTECTION INFORMATION.
2. REFER TO PANEL SCHEDULES FOR LOAD INFORMATION.
3. REFER TO PANEL SCHEDULES FOR PANEL AIC RATING.

KEY NOTES:

1. SEE DRAWING E-501, DETAIL #2
2. PROVIDE CONNECTION FROM EACH ATS TO GENERATOR SYNCHRONIZED BOARD IN EXISTING BUILDING 50 FOR GENERATOR START-UP AND SHUT-DOWN.
3. PROVIDE DEMAND METER AND CONNECTION TO BUILDING MANAGEMENT SYSTEM.

Electrical Equipment Load Schedule

DPHN1A	
GEN-HN1A	7 A
GEN-TN1A	206 A
ATS -2	604 A
ATS -1	12 A
DPHN1A	829 A
DPHS2A	
GEN-HS2A	37 A
GEN-TS2A	176 A
GEN-TST2A	8 A
CH-1	106 A
CH-2	106 A
CH-3	106 A
AHU-1	43 A
EF-1	11 A
EF-3	11 A
DPHS2A	604 A
DPLN1A	
GEN-LN1A	83 A
GEN-LN1B	168 A
GEN-LN2A	57 A
GEN-LN2B	168 A
DPLN1A	475 A
DPLS2A	
GEN-LS1B	113 A
GEN-LS1A	88 A
GEN-LS2A	105 A
GEN-LS2B	101 A
DPLS2A	407 A

GENOMICS BUILDING SINGLE LINE DIAGRAM

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Approved: Project Director

Project Title: **GENOMICS CLINICAL RESEARCH CENTER, PALO ALTO**

Location: **VAPAHCS - PALO ALTO**

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Project Number: **640-389**

Building Number: **51**

Drawing Number: **EP-502**

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LIGHTING FIXTURE SCHEDULE

FIXTURE TYPE	PLAN SYMBOL	DESCRIPTION	MANUFACTURER AND CATALOG NO.	LAMPS TYPE	LAMPS QTY	LAMPS WATTS	TOTAL WATTS	VOLTAGE	REMARKS
F1		RECESSED 2'X4' FLUORESCENT FIXTURE. FIXTURE SHALL HAVE ACRYLIC PRISMATIC LENS. FIXTURE SHALL BE PROVIDED WITH RAPID START ELECTRONIC BALLAST.	LITHONIA 2SP8-G-2-32-FW-A12-277-GEB10RS ALT 1: METALUX 2GC8 SERIES ALT 2: DAY-BRITE DPG SERIES OR APPROVED EQUAL	32T8	2	32	64	277	LAB SUPPORT AREA
F2		RECESSED 2'X2' FLUORESCENT FIXTURE. FIXTURE SHALL HAVE ACRYLIC PRISMATIC LENS. FIXTURE SHALL BE PROVIDED WITH RAPID START ELECTRONIC BALLAST.	LITHONIA 2SP8-G-4-17-FW-A12-277-GEB10RS ALT 1: METALUX 2GC8 SERIES ALT 2: DAY-BRITE DPG SERIES OR APPROVED EQUAL	17T8	4	17	70	277	ICE/STORAGE
F3		RECESSED COMPACT FLUORESCENT DOWNLIGHT. MATCH WITH THE EXISTING DOWN LIGHT FIXTURE AT ADJACENT EXISTING LOBBY AREA ON SECOND FLOOR OF EXISTING BUILDING 51. FIELD VERIFY.	FIELD VERIFY TO MATCH WITH THE EXISTING DOWNLIGHT AT THE ADJACENT LOBBY AREA ON SECOND FLOOR OF EXISTING BUILDING 51.						WAITING AREA
F4		DIRECT/INDIRECT PENDANT FLUORESCENT FIXTURE WITH DIE-FORMED PRE-PAINTED ALUMINUM DIE-CAST ENDCAP REFLECTOR AND DIFFUSE CENTER OPTIC SHIELDING. SUSPENDED WITH AIRCRAFT CABLE AND (2) LAMP ELECTRONIC BALLAST.	FINELITE S12-ID-DCO-8'-2T8-SC ALT 1: FOCAL POINT VERVE IV SERIES ALT 2: CORELITE IRIDIUM PERF SERIES OR APPROVED EQUAL	32T8	3	32	96	277	OPEN LAB.
F5		4' STRIP FLUORESCENT LIGHT WITH WIRE GUARD, 2 LAMP ELECTRONIC BALLAST.	LITHONIA UNS-2-32T8 ALT 1: METALUX SSF SERIES ALT 2: DAY-BRITE T SERIES OR APPROVED EQUAL	32T8	2	32	64	277	ELECTRICAL AND MECH. RM.
F6		SURFACE WALL MOUNTED COMPACT FLUORESCENT "JELLY JAR" FIXTURE. WITH PRISMATIC GLASS OPTICAL CHAMBER WITH NEOPRENE GASKETTING AND PROTECTED GUARD. FIXTURE SHALL HAVE INTEGRAL ELECTRONIC BALLAST. FIXTURE SHALL BE U.L. LISTED FOR USE IN WET LOCATIONS.	LITHONIA VM42LM6 ALT 1: LUMARK IC SERIES ALT 2: HUBBELL KILLARK NV2 SERIES OR APPROVED EQUAL	42W CFL	1	42	42	120	ROOF
X1		EXIT SIGN TO MATCH EXISTING EXIT SIGN OF EXISTING BUILDING 51. FIELD VERIFY.							

SITE LIGHTING FIXTURE SCHEDULE

FIXTURE TYPE	PLAN SYMBOL	DESCRIPTION	MANUFACTURER AND CATALOG NO.	LAMPS TYPE	LAMPS QTY	LAMPS WATTS	TOTAL WATTS	VOLTAGE	REMARKS
EXT2		POLE TOP LUMINAIRE WITH FULL-CUTOFF OPTICS. STANDARD POLYESTER POWDER COATED MATTE SILVER GRAY METALLIC FINISH. NOMINAL POLE HEIGHT 16'-0"	HESS AMERICA CC450 3LY-NW-S-UNV-A-16RS-SG-0DEG PER CAMPUS STANDARD	LED 4000K 3909LM	-	71	71	277	
EXT3		EXTERIOR CATENARY PENDANT FIXTURE. ALUMINUM BODY WITH ACRYLIC LENS.	LUMOS CUSTOM OR APPROVED EQUAL	CFL BIAX 2G11 BASE	1	55	55	277	
EXT4		LED STRIP LIGHT TO ILLUMINATE BELOW BENCHES	TUBE LIGHTING DSHWL-24V-W31 OR APPROVED EQUAL	LED 3100K 80 LM/FT	-	-	1.46 W/FT	24	PROVIDE DRIVER AT EACH FIXTURE LOCATION IN WEATHER PROOF ENCLOSURE

REFER TO ELECTRICAL SPEC SECTION 265100 FOR COMPLETE FIXTURE SPECIFICATION AND INFORMATION.

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Revisions: Date

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Drawing Title: **ELECTRICAL LIGHTING SCHEDULE**

Approved: Project Director

Project Title: **GENOMICS CLINICAL RESEARCH CENTER, PALO ALTO**

Location: **VAPAHCS - PALO ALTO**

Date: **06/05/2014** | Checked: **CEL** | Drawn: **LTA**

Project Number: **640-389**

Building Number: **51**

Drawing Number: **EL-601**

Dwg. of

Office of Construction and Facilities Management

Department of Veterans Affairs

VA FORM 08-6231

Branch Panel: HE1A

Location: ELEC G114
Supply From: ATS -1
Mounting: Surface
Enclosure: Type 1

Volts: 480/277 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 30KAIC
Mains Type:
Mains Rating: 100 A
MCB Rating:

Notes:

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	EM LTG Level 1	20 A	1	2580	1700					1	20 A		2
3	Spare	20 A	1			0	1800			3	70 A	TE1A	4
5	Spare	20 A	1					0	1700				6
7	SITE LIGHITNG EXT1	20 A	1	928	0					1	20 A	Spare	8
9	SITE LIGHITNG CATENARY EXT3	20 A	1			184	0			1	20 A	Spare	10
11	SITE LIGHITNG EXT2	20 A	1					284	0	1	20 A	Spare	12
13	SITE BENCHES LIGHTING EXT4	20 A	1	80	0					1	20 A	Spare	14
15	SITE LIGHTING WALLPACK EXT5	20 A	1			348	0			1	20 A	Spare	16
17	Spare	20 A	1					0	0	1	20 A	Spare	18
19	Spare	20 A	1	0	0					1	20 A	Spare	20
21	Spare	20 A	1			0	0			1	20 A	Spare	22
23	Spare	20 A	1					0	0	1	20 A	Spare	24
25	Spare	20 A	1	0	0					1	20 A	Spare	26
27	Spare	20 A	1			0	0			1	20 A	Spare	28
29	Space	--	--					0	0	--	--	Space	30
31	Space	--	--	0	0					--	--	Space	32
33	Space	--	--			0	0			--	--	Space	34
35	Space	--	--					0	0	--	--	Space	36
37	Space	--	--	0	0					--	--	Space	38
39	Space	--	--			0	0			--	--	Space	40
41	Space	--	--					0	0	--	--	Space	42
		Total Load VA:		5288		2332		1984					
		Total Amps:		19 A		9 A		7 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Lighting	6404 VA	125.00%	8005 VA		
Non-Continuous	3200 VA	100.00%	3200 VA	**Total Conn. Load:**	10 kVA
				Total Est. Demand:	11 kVA
				Total Conn.:	12 A
				Total Est. Demand:	13 A

Notes:

Branch Panel: HN2A

Location: ELEC G213
Supply From: DPHN1A
Mounting: Surface
Enclosure: Type 1

Volts: 480/277 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 50KAIC
Mains Type:
Mains Rating: 100 A
MCB Rating:

Notes:

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	Lighting Room G108	20 A	1	2991	0					1	20 A	Spare	2
3	Lighting Room G208	20 A	1			2991	0			1	20 A	Spare	4
5	Spare	20 A	1					0	0	1	20 A	Spare	6
7	Spare	20 A	1	0	0					1	20 A	Spare	8
9	Spare	20 A	1			0	0			1	20 A	Spare	10
11	Spare	20 A	1					0	0	1	20 A	Spare	12
13	Spare	20 A	1	0	0					1	20 A	Spare	14
15	Spare	20 A	1			0	0			1	20 A	Spare	16
17	Space	--	--					0	0	--	--	Space	18
19	Space	--	--	0	0					--	--	Space	20
21	Space	--	--			0	0			--	--	Space	22
23	Space	--	--					0	0	--	--	Space	24
25	Space	--	--	0	0					--	--	Space	26
27	Space	--	--			0	0			--	--	Space	28
29	Space	--	--					0	0	--	--	Space	30
		Total Load VA:		2991		2991		0					
		Total Amps:		12 A		12 A		0 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Lighting	5982 VA	125.00%	7478 VA		
				Total Conn. Load:	6 kVA
				Total Est. Demand:	7 kVA
				Total Conn.:	7 A
				Total Est. Demand:	9 A

Notes:

Branch Panel: HS2A

Location: ELEC G213
Supply From: DPHS2A
Mounting: Surface
Enclosure: Type 1

Volts: 480/277 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 14KAIC
Mains Type:
Mains Rating: 225 A
MCB Rating:

Notes:

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1				277	277								2
3	EF-5A (1/2HP)	20 A	3			277	277			3	20 A	EF-2 (1/2HP)	4
5								277	277				6
7				277	277								8
9	EF-5B (1/2HP)	20 A	3			277	277			3	20 A	EF-4 (1/2HP)	10
11								277	277				12
13				277	388								14
15	EF-6A (1/2HP)	20 A	3			277	388			3	20 A	HWPP-1	16
17								277	388				18
19				277	388								20
21	EF-6B (1/2HP)	20 A	3			277	388			3	20 A	HWPP-2	22
23								277	388				24
25				942	942								26
27	HWPS-1	20 A	3			942	942			3	20 A	CHP-1	28
29								942	942				30
31				942	942								32
33	HWPS-2	20 A	3			942	942			3	20 A	CHP-2	34
35								942	942				36
37				4157	0					1	20 A	Spare	38
39	LVP-1	20 A	3			4157	0			1	20 A	Spare	40
41								4157	0	1	20 A	Spare	42
		Total Load VA:		10363		10363		10363					
		Total Amps:		37 A		37 A		37 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	18618 VA	100.00%	18618 VA		
Motor	12471 VA	125.00%	15588 VA	**Total Conn. Load:**	31 kVA
				Total Est. Demand:	34 kVA
				Total Conn.:	37 A
				Total Est. Demand:	41 A

Notes:

Branch Panel: LE1A

Location: ELEC G114
Supply From: TE1A
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 22KAIC
Mains Type:
Mains Rating: 100 A
MCB Rating:

Notes:

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	FACP TELECOM G112	20 A	1	100	500					1	20 A	CFSDs NORTH HALLWAY G202	2
3	CSFDs NORTH HALLWAY G102	20 A	1			500	500			1	20 A	FIRE BELL	4
5	FUME HOOD, 2ND FLOOR	20 A	1					800	900	1	20 A	Lighting - Roof	6
7	Lighting - Roof	20 A	1	1100	0					1	20 A	Spare	8
9	FUME HOOD, 1ST FLOOR	20 A	1			800	0			1	20 A	Spare	10
11	Spare	20 A	1					0	0	1	20 A	Spare	12
13	Spare	20 A	1	0	0					1	20 A	Spare	14
15	Spare	20 A	1			0	0			1	20 A	Spare	16
17	Spare	20 A	1					0	0	1	20 A	Spare	18
19	Space	--	--	0	0					--	--	Space	20
21	Space	--	--			0	0			--	--	Space	22
23	Space	--	--					0	0	--	--	Space	24
25	Space	--	--	0	0					--	--	Space	26
27	Space	--	--			0	0			--	--	Space	28
29	Space	--	--					0	0	--	--	Space	30
		Total Load VA:		1700		1800		1700					
		Total Amps:		14 A		15 A		14 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Lighting	2000 VA	125.00%	2500 VA		
Non-Continuous	3200 VA	100.00%	3200 VA	**Total Conn. Load:**	5 kVA
				Total Est. Demand:	6 kVA
				Total Conn.:	14 A
				Total Est. Demand:	16 A

Notes:

Branch Panel: LN1A

Location: ELEC G114
Supply From: DPLN1A
Mounting: Recessed
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 22KAIC
Mains Type:
Mains Rating: 225 A
MCB Rating:

Notes:

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	VAVs NORTH HALLWAY G102	20 A	1	500	840					1	20 A	SOUTH HALL - LIQUID N2	2
3	SOUTH HALL DRY ICE	20 A	1			500	360			1	20 A	Receptacle OPEN LAB G107	4
5	Receptacle T.C. SMALL G104	20 A	1					540	1200	1	20 A	Receptacle ICE/STORAGE G110	6
7	RO/DI SKID MECH G113	40 A	2	3380	360					1	20 A	Receptacle OPEN LAB G107	8
9						3380	720			1	20 A	Receptacle T.C. SMALL G104	10
11	Non-Continuous OPEN LAB G107	20 A	1					1920	825	2	20 A	Non-Continuous T.C. SMALL G104	12
13	Receptacle Room G107, G109	20 A	1	720	825								14
15	Receptacle T.C. LARGE G106	20 A	2			720	600			1	20 A	FUME HOOD ROOM G105	16
17								720	1200	1	20 A	FUME HOOD ROOM G105	18
19	CORRIDOR RECEP	20 A	1	720	1200					1	20 A	FUME HOOD ROOM G105	20
21	Receptacle FLEX / DARK LAB G111	20 A	1			720	1404			1	20 A	Receptacle Room G106, G102	22
23	Receptacle T.C. SMALL G104	20 A	1					360	720	1	20 A	SOUTH HALL - LIQUID N2	24
25	Receptacle FLEX / DARK LAB G111	20 A	1	1080	432					1	20 A	Non-Continuous T.C. LARGE G106	26
27	Non-Continuous	20 A	1			1500	432			1	20 A	Non-Continuous T.C. LARGE G206	28
29	Receptacle OPEN LAB G107	20 A	1					720	1080	1	20 A	Receptacle Room G107, G105, G102	30
31	Spare	20 A	1	0	0					1	20 A	Spare	32
33	Spare	20 A	1			0	0			1	20 A	Spare	34
35	Spare	20 A	1					0	0	1	20 A	Spare	36
37	Spare	20 A	1	0	0					1	20 A	Spare	38
39	Spare	20 A	1			0	0			1	20 A	Spare	40
41	Spare	20 A	1					0	50	1	20 A	IRRIGATION CONTROLLER	42
		Total Load VA:		10057		10336		9335					
		Total Amps:		85 A		87 A		78 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Lighting	1500 VA	125.00%	1875 VA		
Motor	6760 VA	125.00%	8450 VA	**Total Conn. Load:**	30 kVA
Non-Continuous	10668 VA	100.00%	10668 VA	**Total Est. Demand:**	31 kVA
Receptacle	10800 VA	96.30%	10400 VA	**Total Conn.:**	83 A
				Total Est. Demand:	87 A

Notes:

Branch Panel: LN2A

Location: ELEC G213
Supply From: DPLN1A
Mounting: Recessed
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 22KAIC
Mains Type:
Mains Rating: 225 A
MCB Rating:

Notes:

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	Receptacle TELECOM G212	20 A	1	180	740					1	20 A	Non-Continuous SOUTH HALLWAY G208	2
3	Non-Continuous SOUTH HALLWAY G208	20 A	1			1180	1200			1	20 A	FUME HOOD ROOM G205	4
5	Receptacle T.C. SMALL G204	20 A	1					360	900	1	20 A	Receptacle NORTH HALLWAY G202	6
7	Receptacle FLEX / DARK LAB G211	20 A	1	1080	1440					1	20 A	Rooftop Receptacle	8
9	Receptacle OPEN LAB G207	20 A	1			540	720			2	20 A	Receptacle T.C. LARGE G206	10
11	Non-Continuous SOUTH HALLWAY G208	20 A	1					1240	720				12
13	Centrifuge CF-05 T.C. SMALL G204	20 A	2	100	540					1	20 A	Receptacle OPEN LAB G207	14
15						100	720			1	20 A	Receptacle Room G211, G208, G201, G210	16
17	Receptacle T.C. SMALL G204	20 A	1					540	720	1	20 A	Receptacle T.C. SMALL G204	18
19	Receptacle Room G207, G205	20 A	1	900	500					1	20 A	VAVs NORTH HALLWAY G202	20
21	GEN-LRP ELEC G213	20 A	1			200	2880			2	20 A	Non-Continuous AUTOCLAVE ALCOVE G210	22
23	EF FREEZER ALCOVE G209	20 A	1					200	2880				24
25	Spare	20 A	1	0	0					1	20 A	Spare	26
27	Spare	20 A	1			0	0			1	20 A	Spare	28
29	Spare	20 A	1					0	0	1	20 A	Spare	30
31	Spare	20 A	1	0	0					1	20 A	Spare	32
33	Spare	20 A	1			0	0			1	20 A	Spare	34
35	Spare	20 A	1					0	0	1	20 A	Spare	36
37	Spare	20 A	1	0	0					1	20 A	Spare	38
39	Spare	20 A	1			0	0			1	20 A	Spare	40
41	Spare	20 A	1					0	0	1	20 A	Spare	42
		Total Load VA:		5480		7540		7560					
		Total Amps:		46 A		65 A		66 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	5760 VA	125.00%	7200 VA		
Non-Continuous	5280 VA	100.00%	5280 VA	**Total Conn. Load:**	21 kVA
Receptacle	9540 VA	100.00%	9540 VA	**Total Est. Demand:**	22 kVA
				Total Conn.:	57 A
				Total Est. Demand:	61 A

Notes:

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Revisions: Date

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Drawing Title: **ELECTRICAL PANEL SCHEDULES**

Approved: Project Director

Project Title: **GENOMICS CLINICAL RESEARCH CENTER, PALO ALTO**

Location: **VAPAHCS - PALO ALTO**

Date: **06/05/2014** | Checked: **CEL** | Drawn: **LTA**

Project Number: **640-389**
Building Number: **51**
Drawing Number: **EP-601**
Dwg. of

Office of Construction and Facilities Management
Department of Veterans Affairs

VA FORM 08-6231

Branch Panel: LS1A

Location: ELEC G114
Supply From: DPLS2A
Mounting: Surface
Enclosure: Type 1
Volts: 120/208 Wye
Phases: 3
Wires: 4
A.I.C. Rating: 14KAIC
Mains Type:
Mains Rating: 225 A
MCB Rating:

Notes:

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	Power COLD ROOM G103	20 A	1	720	864					1	20 A	Non-Continuous T.C. SMALL G104	2
3	Non-Continuous T.C. LARGE G106	20 A	1			1630	1728			1	20 A	Non-Continuous T.C. LARGE G106	4
5	Non-Continuous T.C. LARGE G106	20 A	1					864	1860	1	20 A	Non-Continuous T.C. SMALL G104	6
7	Non-Continuous FREEZER ALCOVE G109	20 A	1	1800	1800					2	20 A	Non-Continuous OPEN LAB G107	8
9	Non-Continuous T.C. LARGE G106	20 A	1			1810	0						10
11	Non-Continuous T.C. SMALL G104	20 A	1					1860	180	1	20 A	Receptacle T.C. SMALL G104	12
13	Receptacle OPEN LAB G107	20 A	1	180	1800					1	20 A	Non-Continuous FREEZER ALCOVE G109	14
15	Receptacle T.C. SMALL G104	20 A	1			180	1800			1	20 A	Non-Continuous FREEZER ALCOVE G109	16
17	Non-Continuous FREEZER ALCOVE G109	20 A	1					1800	1860	1	20 A	Receptacle T.C. LARGE G106	18
19	Receptacle T.C. LARGE G106	20 A	1	1860	1800					2	20 A	Non-Continuous OPEN LAB G107	20
21	Receptacle T.C. LARGE G106	20 A	1			1860	0						22
23	Non-Continuous OPEN LAB G107	20 A	2					1800	0	1	20 A	Spare	24
25				0	0					1	20 A	Spare	26
27	Non-Continuous OPEN LAB G107	20 A	2			1800	0			1	20 A	Spare	28
29								0	0	1	20 A	Spare	30
31	Spare	20 A	1	0	0					1	20 A	Spare	32
33	Spare	20 A	1			0	0			1	20 A	Spare	34
35	Spare	20 A	1					0	0	1	20 A	Spare	36
37	Spare	20 A	1	0	0					1	20 A	Spare	38
39	Spare	20 A	1			0	0			1	20 A	Spare	40
41	Spare	20 A	1					0	0	1	20 A	Spare	42
		Total Load VA:		10824		10808		10224					
		Total Amps:		91 A		91 A		85 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Non-Continuous	29516 VA	100.00%	29516 VA		
Receptacle	2340 VA	100.00%	2340 VA	**Total Conn. Load:**	32 kVA
				Total Est. Demand:	32 kVA
				Total Conn.:	88 A
				Total Est. Demand:	88 A

Notes:
* BREAKER IS 100% RATED

Branch Panel: LN2B

Location: FUME HOOD ROOM G205
Supply From: DPLN1A
Mounting: Recessed
Enclosure: Type 1
Volts: 120/208 Wye
Phases: 3
Wires: 4
A.I.C. Rating: 22KAIC
Mains Type:
Mains Rating: 225 A
MCB Rating:

Notes:
CKT 1 - 42 IS SECTION 1. CKT 43 - 84 IS SECTION 2

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	Receptacle OPEN LAB G207	20 A	1	720	720					1	20 A	Receptacle OPEN LAB G207	2
3	Receptacle OPEN LAB G207	20 A	1			720	720			1	20 A	Receptacle OPEN LAB G207	4
5	Receptacle OPEN LAB G207	20 A	1					720	720	1	20 A	Receptacle OPEN LAB G207	6
7	Receptacle OPEN LAB G207	20 A	1	720	720					1	20 A	Receptacle OPEN LAB G207	8
9	Receptacle OPEN LAB G207	20 A	1			720	720			1	20 A	Receptacle OPEN LAB G207	10
11	Receptacle OPEN LAB G207	20 A	1					720	720	1	20 A	Receptacle OPEN LAB G207	12
13	Receptacle OPEN LAB G207	20 A	1	720	720					1	20 A	Receptacle OPEN LAB G207	14
15	Receptacle OPEN LAB G207	20 A	1			720	720			1	20 A	Receptacle OPEN LAB G207	16
17	Receptacle OPEN LAB G207	20 A	1					720	720	1	20 A	Receptacle OPEN LAB G207	18
19	Receptacle OPEN LAB G207	20 A	1	720	720					1	20 A	Receptacle OPEN LAB G207	20
21	Receptacle OPEN LAB G207	20 A	1			720	720			1	20 A	Receptacle OPEN LAB G207	22
23	Receptacle OPEN LAB G207	20 A	1					720	720	1	20 A	Receptacle OPEN LAB G207	24
25	Receptacle OPEN LAB G207	20 A	1	720	720					1	20 A	Receptacle OPEN LAB G207	26
27	Receptacle OPEN LAB G207	20 A	1			720	720			1	20 A	Receptacle OPEN LAB G207	28
29	Receptacle OPEN LAB G207	20 A	1					720	720	1	20 A	Receptacle OPEN LAB G207	30
31	Receptacle OPEN LAB G207	20 A	1	720	720					1	20 A	Receptacle OPEN LAB G207	32
33	Receptacle OPEN LAB G207	20 A	1			720	720			1	20 A	Receptacle OPEN LAB G207	34
35	Receptacle OPEN LAB G207	20 A	1					720	720	1	20 A	Receptacle OPEN LAB G207	36
37	Receptacle OPEN LAB G207	20 A	1	720	720					1	20 A	Receptacle OPEN LAB G207	38
39	Receptacle OPEN LAB G207	20 A	1			720	720			1	20 A	Receptacle OPEN LAB G207	40
41	Receptacle OPEN LAB G207	20 A	1					720	720	1	20 A	Receptacle OPEN LAB G207	42
43	Receptacle OPEN LAB G207	20 A	1	720	720					1	20 A	Receptacle OPEN LAB G207	44
45	Receptacle OPEN LAB G207	20 A	1			720	720			1	20 A	Receptacle OPEN LAB G207	46
47	Receptacle OPEN LAB G207	20 A	1					720	720	1	20 A	Receptacle OPEN LAB G207	48
49	Receptacle OPEN LAB G207	20 A	1	720	720					1	20 A	Receptacle OPEN LAB G207	50
51	Receptacle OPEN LAB G207	20 A	1			720	720			1	20 A	Receptacle OPEN LAB G207	52
53	Receptacle OPEN LAB G207	20 A	1					720	720	1	20 A	Receptacle OPEN LAB G207	54
55	Receptacle OPEN LAB G207	20 A	1	720	720					1	20 A	Receptacle OPEN LAB G207	56
57	Receptacle OPEN LAB G207	20 A	1			720	720			1	20 A	Receptacle OPEN LAB G207	58
59	Receptacle OPEN LAB G207	20 A	1					720	720	1	20 A	Receptacle OPEN LAB G207	60
61	Receptacle OPEN LAB G207	20 A	1	720	720					1	20 A	Receptacle OPEN LAB G207	62
63	Receptacle OPEN LAB G207	20 A	1			720	720			1	20 A	Receptacle OPEN LAB G207	64
65	Receptacle OPEN LAB G207	20 A	1					720	720	1	20 A	Receptacle OPEN LAB G207	66
67	Receptacle OPEN LAB G207	20 A	1	720	720					1	20 A	Receptacle OPEN LAB G207	68
69	Receptacle OPEN LAB G207	20 A	1			720	720			1	20 A	Receptacle OPEN LAB G207	70
71	Receptacle OPEN LAB G207	20 A	1					720	720	1	20 A	Receptacle OPEN LAB G207	72
73	Receptacle OPEN LAB G207	20 A	1	720	720					1	20 A	Receptacle OPEN LAB G207	74
75	Receptacle OPEN LAB G207	20 A	1			720	720			1	20 A	Receptacle OPEN LAB G207	76
77	Receptacle OPEN LAB G207	20 A	1					720	720	1	20 A	Receptacle OPEN LAB G207	78
79	Receptacle OPEN LAB G207	20 A	1	720	720					1	20 A	Receptacle OPEN LAB G207	80
81	Receptacle OPEN LAB G207	20 A	1			720	720			1	20 A	Receptacle OPEN LAB G207	82
83	Receptacle OPEN LAB G207	20 A	1					720	720	1	20 A	Receptacle OPEN LAB G207	84
		Total Load VA:		20160		20160		20160					
		Total Amps:		168 A		168 A		168 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Receptacle	60480 VA	58.27%	35240 VA		
				Total Conn. Load:	60 kVA
				Total Est. Demand:	35 kVA
				Total Conn.:	168 A
				Total Est. Demand:	98 A

Notes:

Branch Panel: LN1B

Location: NORTH HALLWAY G102
Supply From: DPLN1A
Mounting: Recessed
Enclosure: Type 1
Volts: 120/208 Wye
Phases: 3
Wires: 4
A.I.C. Rating: 22KAIC
Mains Type:
Mains Rating: 225 A
MCB Rating:

Notes:
CKT 1 - 42 IS SECTION 1. CKT 43 - 84 IS SECTION 2

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	Receptacle OPEN LAB G107	20 A	1	720	720					1	20 A	Receptacle OPEN LAB G107	2
3	Receptacle OPEN LAB G107	20 A	1			720	720			1	20 A	Receptacle OPEN LAB G107	4
5	Receptacle OPEN LAB G107	20 A	1					720	720	1	20 A	Receptacle OPEN LAB G107	6
7	Receptacle OPEN LAB G107	20 A	1	720	720					1	20 A	Receptacle OPEN LAB G107	8
9	Receptacle OPEN LAB G107	20 A	1			720	720			1	20 A	Receptacle OPEN LAB G107	10
11	Receptacle OPEN LAB G107	20 A	1					720	720	1	20 A	Receptacle OPEN LAB G107	12
13	Receptacle OPEN LAB G107	20 A	1	720	720					1	20 A	Receptacle OPEN LAB G107	14
15	Receptacle OPEN LAB G107	20 A	1			720	720			1	20 A	Receptacle OPEN LAB G107	16
17	Receptacle OPEN LAB G107	20 A	1					720	720	1	20 A	Receptacle OPEN LAB G107	18
19	Receptacle OPEN LAB G107	20 A	1	720	720					1	20 A	Receptacle OPEN LAB G107	20
21	Receptacle OPEN LAB G107	20 A	1			720	720			1	20 A	Receptacle OPEN LAB G107	22
23	Receptacle OPEN LAB G107	20 A	1					720	720	1	20 A	Receptacle OPEN LAB G107	24
25	Receptacle OPEN LAB G107	20 A	1	720	720					1	20 A	Receptacle OPEN LAB G107	26
27	Receptacle OPEN LAB G107	20 A	1			720	720			1	20 A	Receptacle OPEN LAB G107	28
29	Receptacle OPEN LAB G107	20 A	1					720	720	1	20 A	Receptacle OPEN LAB G107	30
31	Receptacle OPEN LAB G107	20 A	1	720	720					1	20 A	Receptacle OPEN LAB G107	32
33	Receptacle OPEN LAB G107	20 A	1			720	720			1	20 A	Receptacle OPEN LAB G107	34
35	Receptacle OPEN LAB G107	20 A	1					720	720	1	20 A	Receptacle OPEN LAB G107	36
37	Receptacle OPEN LAB G107	20 A	1	720	720					1	20 A	Receptacle OPEN LAB G107	38
39	Receptacle OPEN LAB G107	20 A	1			720	720			1	20 A	Receptacle OPEN LAB G107	40
41	Receptacle OPEN LAB G107	20 A	1					720	720	1	20 A	Receptacle OPEN LAB G107	42
43	Receptacle OPEN LAB G107	20 A	1	720	720					1	20 A	Receptacle OPEN LAB G107	44
45	Receptacle OPEN LAB G107	20 A	1			720	720			1	20 A	Receptacle OPEN LAB G107	46
47	Receptacle OPEN LAB G107	20 A	1					720	720	1	20 A	Receptacle OPEN LAB G107	48
49	Receptacle OPEN LAB G107	20 A	1	720	720					1	20 A	Receptacle OPEN LAB G107	50
51	Receptacle OPEN LAB G107	20 A	1			720	720			1	20 A	Receptacle OPEN LAB G107	52
53	Receptacle OPEN LAB G107	20 A	1					720	720	1	20 A	Receptacle OPEN LAB G107	54
55	Receptacle OPEN LAB G107	20 A	1	720	720					1	20 A	Receptacle OPEN LAB G107	56
57	Receptacle OPEN LAB G107	20 A	1			720	720			1	20 A	Receptacle OPEN LAB G107	58
59	Receptacle OPEN LAB G107	20 A	1					720	720	1	20 A	Receptacle OPEN LAB G107	60
61	Receptacle OPEN LAB G107	20 A	1	720	720					1	20 A	Receptacle OPEN LAB G107	62
63	Receptacle OPEN LAB G107	20 A	1			720	720			1	20 A	Receptacle OPEN LAB G107	64
65	Receptacle OPEN LAB G107	20 A	1					720	720	1	20 A	Receptacle OPEN LAB G107	66
67	Receptacle OPEN LAB G107	20 A	1	720	720					1	20 A	Receptacle OPEN LAB G107	68
69	Receptacle OPEN LAB G107	20 A	1			720	720			1	20 A	Receptacle OPEN LAB G107	70
71	Receptacle OPEN LAB G107	20 A	1					720	720	1	20 A	Receptacle OPEN LAB G107	72
73	Receptacle OPEN LAB G107	20 A	1	720	720					1	20 A	Receptacle OPEN LAB G107	74
75	Receptacle OPEN LAB G107	20 A	1			720	720			1	20 A	Receptacle OPEN LAB G107	76
77	Receptacle OPEN LAB G107	20 A	1					720	720	1	20 A	Receptacle OPEN LAB G107	78
79	Receptacle OPEN LAB G107	20 A	1	720	720					1	20 A	Receptacle OPEN LAB G107	80
81	Receptacle OPEN LAB G107	20 A	1			720	720			1	20 A	Receptacle OPEN LAB G107	82
83	Receptacle OPEN LAB G107	20 A	1					720	720	1	20 A	Receptacle OPEN LAB G107	84
		Total Load VA:		20160		20160		20160					
		Total Amps:		168 A		168 A		168 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Receptacle	60480 VA	58.27%	35240 VA		
				Total Conn. Load:	60 kVA
				Total Est. Demand:	35 kVA
				Total Conn.:	168 A
				Total Est. Demand:	98 A

Notes:

Branch Panel: LS2B

Location: Space 27
Supply From: DPLS2A
Mounting: Surface
Enclosure: Type 1
Volts: 120/208 Wye
Phases: 3
Wires: 4
A.I.C. Rating: 22KAIC
Mains Type:
Mains Rating: 225 A
MCB Rating:

Notes:

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	Receptacle OPEN LAB G207	20 A	1	960	960					1	20 A	Receptacle OPEN LAB G207	2
3	Receptacle OPEN LAB G207	20 A	1			960	960			1	20 A	Receptacle OPEN LAB G207	4
5	Receptacle OPEN LAB G207	20 A	1					960	960	1	20 A	Receptacle OPEN LAB G207	6
7	Receptacle OPEN LAB G207	20 A	1	960	960					1	20 A	Receptacle OPEN LAB G207	8
9	Receptacle OPEN LAB G207	20 A	1			960	960			1	20 A	Receptacle OPEN LAB G207	10
11	Receptacle OPEN LAB G207	20 A	1					960	960	1	20 A	Receptacle OPEN LAB G207	12
13	Receptacle OPEN LAB G207	20 A	1	960	960					1	20 A	Receptacle OPEN LAB G207	14
15	Receptacle OPEN LAB G207	20 A	1			960	960			1	20 A	Receptacle OPEN LAB G207	16
17	Receptacle OPEN LAB G207	20 A	1					960	960	1	20 A	Receptacle OPEN LAB G207	18
19	Receptacle OPEN LAB G207	20 A	1	960	960					1	20 A	Receptacle OPEN LAB G207	20
21	Receptacle OPEN LAB G207	20 A	1			960	960			1	20 A	Receptacle OPEN LAB G207	22
23	Receptacle OPEN LAB G207	20 A	1					960	960	1	20 A	Receptacle OPEN LAB G207	24
25	Receptacle OPEN LAB G207	20 A	1	960	960					1	20 A	Receptacle OPEN LAB G207	26
27	Receptacle OPEN LAB G207	20 A	1			960	960			1	20 A	Receptacle OPEN LAB G207	28
29	Receptacle OPEN LAB G207	20 A	1					960	960	1	20 A	Receptacle OPEN LAB G207	30
31	Receptacle OPEN LAB G207	20 A	1	960	960					1	20 A	Receptacle OPEN LAB G207	32
33	Receptacle OPEN LAB G207	20 A	1			960	960			1	20 A	Receptacle OPEN LAB G207	34
35	Receptacle OPEN LAB G207	20 A	1					960	960	1	20 A	Receptacle OPEN LAB G207	36
37	B-2 Roof	20 A	1	500	500					1	20 A	Non-Continuous	38
39	GWH-1 Roof	20 A	1			200	500			1	20 A	Lights/Outlets/Etc. AHU-1	40
41	Spare	20 A	1					0	0	1	20 A	Spare	42
		Total Load VA:		12520		12220		11520					
		Total Amps:		105 A		103 A		96 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Non-Continuous	36260 VA	100.00%	36260 VA		
				Total Conn. Load:	36 kVA
				Total Est. Demand:	36 kVA
				Total Conn.:	101 A
				Total Est. Demand:	101 A

Notes:

Branch Panel: LS2A

Location: ELEC G213
Supply From: DPLS2A
Mounting: Surface
Enclosure: Type 1
Volts: 120/208 Wye
Phases: 3
Wires: 4
A.I.C. Rating: 22KAIC
Mains Type:
Mains Rating: 225 A
MCB Rating:

Notes:

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	Receptacle COLD ROOM G203	20 A	1	720	864					1	20 A	Receptacle T.C. LARGE G206	2
3	Receptacle T.C. LARGE G206	20 A	1			1296	3260			1	20 A	Receptacle T.C. LARGE G206	4
5	Non-Continuous T.C. SMALL G204	20 A	1					864	1630	1	20 A	Non-Continuous T.C. SMALL G204	6
7	Non-Continuous T.C. SMALL G204	20 A	1	1296	1630					1	20 A	Non-Continuous T.C. SMALL G204	8
9	Receptacle FREEZER ALCOVE G209	20 A	1			180	180			1	20 A	Receptacle FREEZER ALCOVE G209	10
11	T.C. SMALL G204	20 A	1					1860	1860	1	20 A	T.C. SMALL G204	12
13	Receptacle OPEN LAB G207	20 A	1	1800	180					1	20 A	Receptacle FREEZER ALCOVE G209	14
15	Non-Continuous OPEN LAB G207	20 A	2			1800	2400			1	20 A	T.C. LARGE G206	16
17								0	180	1	20 A	Receptacle OPEN LAB G207	18
19	Receptacle ELEC G213	20 A	1	180	2400					1	20 A	T.C. LARGE G206	20
21	Spare	20 A	1			0	0			1	20 A	Spare	22
23	Receptacle FREEZER ALCOVE G209	20 A	1					180	2400	1	20 A	T.C. LARGE G206	24
25	Non-Continuous OPEN LAB G207	20 A	2	1800	0					1	20 A	Spare	26
27						0	1800			2	20 A	Non-Continuous OPEN LAB G207	28
29	Non-Continuous OPEN LAB G207	20 A	2					1800	0				30
31				0	901								32
33						901	901			3	20 A	CU-1	34
35	CU-2	20 A	3					901	901				36
37				901	0					1	20 A	Spare	38
39	Spare	20 A	1			0	0			1	20 A	Spare	40
41	Spare	20 A	1					0	0	1	20 A	Spare	42
		Total Load VA:		12673		12719		12577					
		Total Amps:		106 A		106 A		105 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	2704 VA	100.00%	2704 VA		
Motor	2704 VA	125.00%	3380 VA	**Total Conn. Load:**	38 kVA
Non-Continuous	28240 VA	100.00%	28240 VA	**Total Est. Demand:**	39 kVA
Receptacle	4320 VA	100.00%	4320 VA	**Total Conn.:**	105 A
				Total Est. Demand:	107 A

Notes:

Branch Panel: LS1B

Location: NORTH HALLWAY G102
Supply From: DPLS2A
Mounting: Surface
Enclosure: Type 1
Volts: 120/208 Wye
Phases: 3
Wires: 4
A.I.C. Rating: 22KAIC
Mains Type:
Mains Rating: 225 A
MCB Rating:

Notes:

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	Receptacle Room G113, G114	20 A	1	360	960					1	20 A	Non-Continuous OPEN LAB G107	2
3	Non-Continuous OPEN LAB G107	20 A	1			960	1920			1	20 A	Non-Continuous OPEN LAB G107	4
5	Non-Continuous OPEN LAB G107	20 A	1					1920	1920	1	20 A	Non-Continuous OPEN LAB G107	6
7	Non-Continuous OPEN LAB G107	20 A	1	1800	2880					2	30 A	208V 2P COLD ROOM*	8
9	Non-Continuous OPEN LAB G107	20 A	1			1920	2880						10
11	Non-Continuous OPEN LAB G107	20 A	1					1920	1920	1	20 A	Non-Continuous OPEN LAB G107	12
13	Non-Continuous OPEN LAB G107	20 A	1	1920	1920					1	20 A	Non-Continuous OPEN LAB G107	14
15	Non-Continuous OPEN LAB G107	20 A	1			1920	1920			1	20 A	Non-Continuous OPEN LAB G107	16
17	Non-Continuous OPEN LAB G107	20 A	1					1920	1920	1	20 A	Non-Continuous OPEN LAB G107	18
19	Non-Continuous OPEN LAB G107	20 A	1	1920	1920					1	20 A	Non-Continuous OPEN LAB G107	20
21	Non-Continuous OPEN LAB G107	20 A	1			1920	0			1	20 A	Spare	22
23	Non-Continuous OPEN LAB G107	20 A	1					1920	0	1	20 A	Spare	24
25	Spare	20 A	1	0	0					1	20 A	Spare	26
27	Spare	20 A	1			0	0			1	20 A	Spare	28
29	Spare	20 A	1					0	0	1	20 A	Spare	30
31	Spare	20 A	1	0	0					1	20 A	Spare	32
33	Spare	20 A	1			0	0			1	20 A	Spare	34
35	Spare	20 A	1					0	0	1	20 A	Spare	36
37	Spare	20 A	1	0	0					1	20 A	Spare	38
39	Spare	20 A	1			0	0			1	20 A	Spare	40
41	Spare	20 A	1					0	0	1	20 A	Spare	42
		Total Load VA:		13680		13440		13440					
		Total Amps:		114 A		112 A		112 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	5760 VA	125.00%	7200 VA		
Non-Continuous	34440 VA	100.00%	34440 VA	**Total Conn. Load:**	41 kVA
Receptacle	360 VA	100.00%	360 VA	**Total Est. Demand:**	42 kVA
				Total Conn.:	113 A
				Total Est. Demand:	117 A

Notes:
* BREAKER IS 100% RATED.

FINAL BID DOCUMENTS

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Drawing Title: **ELECTRICAL PANEL SCHEDULES**

Approved: Project Director

Project Title: **GENOMICS CLINICAL RESEARCH CENTER, PALO ALTO**

Location: **VAPAHCS - PALO ALTO**

Date: **06/05/2014** Checked: **CEL** Drawn: **LTA**

Project Number: **640-389**

Building Number: **51**

Drawing Number: **EP-602**

Dwg. of

Office of Construction and Facilities Management

Department of Veterans Affairs

VA FORM 08-6231

Branch Panel: LST2A

Location: TELECOM G212
Supply From: LST1A
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 22KAIC
Mains Type:
Mains Rating: 100 A
MCB Rating:

Notes:

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	Receptacle TELECOM G212	20 A	1	720	720					1	20 A	Receptacle TELECOM G212	2
3	Receptacle TELECOM G212	20 A	1			720	200			1	20 A	FC Telecom G212	4
5	Receptacle TELECOM G212	20 A	1					1080	0	1	20 A	Spare	6
7	Spare	20 A	1	0	0					1	20 A	Spare	8
9	Spare	20 A	1			0	0			1	20 A	Spare	10
11	Spare	20 A	1					0	0	1	20 A	Spare	12
13	Spare	20 A	1	0	0					1	20 A	Spare	14
15	Spare	20 A	1			0	0			1	20 A	Spare	16
17	Spare	20 A	1					0	0	1	20 A	Spare	18
19	Spare	20 A	1	0	0					1	20 A	Spare	20
21	Spare	20 A	1			0	0			1	20 A	Spare	22
23	Space	--	--					0	0	--	--	Space	24
25	Space	--	--	0	0					--	--	Space	26
27	Space	--	--			0	0			--	--	Space	28
29	Space	--	--					0	0	--	--	Space	30
31	Space	--	--	0	0					--	--	Space	32
33	Space	--	--			0	0			--	--	Space	34
35	Space	--	--					0	0	--	--	Space	36
37	Space	--	--	0	0					--	--	Space	38
39	Space	--	--			0	0			--	--	Space	40
41	Space	--	--					0	0	--	--	Space	42
		Total Load VA:		1440		920		1080					
		Total Amps:		12 A		8 A		9 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Non-Continuous	200 VA	100.00%	200 VA		
Receptacle	3240 VA	100.00%	3240 VA	**Total Conn. Load:**	3 kVA
				Total Est. Demand:	3 kVA
				Total Conn.:	10 A
				Total Est. Demand:	10 A

Notes:

Branch Panel: LST1A

Location: TELECOM G112
Supply From: 208V Size 0
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 22KAIC
Mains Type:
Mains Rating: 100 A
MCB Rating:

Notes:

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	Receptacle TELECOM G112	20 A	1	720	720					1	20 A	Receptacle TELECOM G112	2
3	Receptacle TELECOM G112	20 A	1			1080	0			1	20 A	Spare	4
5	Receptacle TELECOM G112	20 A	1					720	0	1	20 A	Spare	6
7	Spare	20 A	1	0	0					1	20 A	Spare	8
9	Spare	20 A	1			0	0			1	20 A	Spare	10
11	Spare	20 A	1					0	0	1	20 A	Spare	12
13	Spare	20 A	1	0	0					1	20 A	Spare	14
15	Spare	20 A	1			0	0			1	20 A	Spare	16
17	Spare	20 A	1					0	0	1	20 A	Spare	18
19	Spare	20 A	1	0	0					1	20 A	Spare	20
21	Spare	20 A	1			0	0			1	20 A	Spare	22
23	Space	--	--					0	0	--	--	Space	24
25	Space	--	--	0	0					--	--	Space	26
27	Space	--	--			0	0			--	--	Space	28
29	Space	--	--					0	0	--	--	Space	30
31	Space	--	--	0	0					--	--	Space	32
33	Space	--	--			0	0			--	--	Space	34
35	Space	--	--					0	0	--	--	Space	36
37	Space	--	--	0	1440								38
39	Space	--	--			0	920			3	100 A	GEN-LST2A	40
41	Space	--	--					0	1080				42
		Total Load VA:		2880		2000		1800					
		Total Amps:		24 A		17 A		15 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Non-Continuous	200 VA	100.00%	200 VA		
Receptacle	6480 VA	100.00%	6480 VA	**Total Conn. Load:**	7 kVA
				Total Est. Demand:	7 kVA
				Total Conn.:	19 A
				Total Est. Demand:	19 A

Notes:

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Drawing Title: **ELECTRICAL PANEL SCHEDULES**

Approved: Project Director

Project Title: **GENOMICS CLINICAL RESEARCH CENTER, PALO ALTO**

Location: **VAPAHCS - PALO ALTO**

Date: **06/05/2014** | Checked: **Checker** | Drawn: **LTA**

Project Number: **640-389**
Building Number: **51**
Drawing Number: **EP-603**
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Office of Construction and Facilities Management
Department of Veterans Affairs

VA FORM 08-6231

Electrical Equipment Feeder Schedule

Circuit Number	Load Name	Rating	Frame	Load (A)	Load (kVA)	Length	Wire Size H,N,G or H,G	Conduit Size Per Run	Voltage Drop %
ATS -1									
1	GEN-HE1A	70 A	100 A	12 A	9.60 kVA	11'	3-#4, 1-#4, 1-#8	1 1/4"	0.02%
				12 A					
ATS -2									
1	GEN-DPHS2A	800 A	800 A	604 A	502.21 kVA	25'	2 runs of 3-#600, 1-#600, 1-#1/0	5"	0.11%
				604 A					
DPHN1A									
1	GEN-HN1A	225 A	225 A	7 A	5.98 kVA	32'	3-#4/0, 1-#4/0, 1-#4	2 1/2"	0.01%
3	ATS -2	800 A	800 A	604 A	502.21 kVA	7'	2 runs of 3-#600, 1-#600, 1-#1/0	5"	0.03%
4	ATS -1	70 A	100 A	12 A	9.60 kVA	7'	3-#4, 1-#4, 1-#8	1 1/4"	0.01%
				623 A					
DPHS2A									
1	GEN-HS2A	100 A	100 A	37 A	31.09 kVA	13'	3-#3, 1-#3, 1-#8	1 1/4"	0.04%
4	CH-1	125 A	225 A	106 A	88.00 kVA	80'	3-#1, 1-#1, 1-#6	1 1/2"	0.45%
5	CH-2	125 A	225 A	106 A	88.00 kVA	69'	3-#1, 1-#1, 1-#6	1 1/2"	0.39%
6	CH-3	125 A	225 A	106 A	88.00 kVA	57'	3-#1, 1-#1, 1-#6	1 1/2"	0.32%
7	AHU-1	60 A	100 A	43 A	36.00 kVA	49'	3-#6, 1-#6, 1-#10	1"	0.32%
8	EF-1	30 A	100 A	11 A	9.00 kVA	19'	3-#10, 1-#10, 1-#10	3/4"	0.07%
9	EF-3	30 A	100 A	11 A	9.00 kVA	37'	3-#10, 1-#10, 1-#10	3/4"	0.14%
				420 A					
DPLN1A									
1	GEN-LN1A	225 A	225 A	83 A	29.73 kVA	13'	3-#4/0, 1-#4/0, 1-#4	2 1/2"	0.07%
2	GEN-LN1B	225 A	225 A	168 A	60.48 kVA	33'	3-#4/0, 1-#4/0, 1-#4	2 1/2"	0.28%
3	GEN-LN2A	225 A	225 A	57 A	20.58 kVA	28'	3-#4/0, 1-#4/0, 1-#4	2 1/2"	0.12%
4	GEN-LN2B	225 A	225 A	168 A	60.48 kVA	44'	3-#4/0, 1-#4/0, 1-#4	2 1/2"	0.38%
				475 A					
DPLS2A									
1	GEN-LS1B	150 A	225 A	113 A	40.56 kVA	35'	3-#1/0, 1-#1/0, 1-#6	2"	0.46%
2	GEN-LS1A	150 A	225 A	88 A	31.86 kVA	23'	3-#1/0, 1-#1/0, 1-#6	2"	0.21%
3	GEN-LS2A	150 A	225 A	105 A	37.97 kVA	12'	3-#1/0, 1-#1/0, 1-#6	2"	0.12%
4	GEN-LS2B	150 A	225 A	101 A	36.26 kVA	22'	3-#1/0, 1-#1/0, 1-#6	2"	0.23%
				407 A					
EM SWBD AT BLDG 50									
1	ATS -2	800 A	800 A	604 A	502.21 kVA	33'	2 runs of 3-#600, 1-#600, 1-#1/0	5"	0.15%
2	ATS -1	70 A	100 A	12 A	9.60 kVA	37'	3-#4, 1-#4, 1-#8	1 1/4"	0.07%
				616 A					
HS2A									
1,3,5	EF-5A (1/2HP)	20 A	100 A	1 A	0.83 kVA	34'	3-#12, 1-#12	3/4"	0.02%
2,4,6	EF-2 (1/2HP)	20 A	100 A	1 A	0.83 kVA	19'	3-#12, 1-#12	3/4"	0.01%
7,9,11	EF-5B (1/2HP)	20 A	100 A	1 A	0.83 kVA	30'	3-#12, 1-#12	3/4"	0.02%
8,10,12	EF-4 (1/2HP)	20 A	100 A	1 A	0.83 kVA	21'	3-#12, 1-#12	3/4"	0.01%
13,15,17	EF-6A (1/2HP)	20 A	100 A	1 A	0.83 kVA	41'	3-#12, 1-#12	3/4"	0.02%
14,16,18	HWPP-1	20 A	100 A	1 A	1.16 kVA	61'	3-#12, 1-#12	3/4"	0.05%
19,21,23	EF-6B (1/2HP)	20 A	100 A	1 A	0.83 kVA	37'	3-#12, 1-#12	3/4"	0.02%
20,22,24	HWPP-2	20 A	100 A	1 A	1.16 kVA	64'	3-#12, 1-#12	3/4"	0.05%
25,27,29	HWPS-1	20 A	100 A	3 A	2.83 kVA	65'	3-#12, 1-#12	3/4"	0.13%
26,28,30	CHP-1	20 A	100 A	3 A	2.83 kVA	95'	3-#12, 1-#12	3/4"	0.19%
31,33,35	HWPS-2	20 A	100 A	3 A	2.83 kVA	69'	3-#12, 1-#12	3/4"	0.14%
32,34,36	CHP-2	20 A	100 A	3 A	2.83 kVA	92'	3-#12, 1-#12	3/4"	0.18%
37,39,41	LVP-1	20 A	100 A	15 A	12.47 kVA	44'	3-#12, 1-#12	3/4"	0.30%
				37 A					
LS2A									
32,34,36	CU-1	20 A	100 A	8 A	2.70 kVA	52'	3-#12, 1-#12	3/4"	0.54%
33,35,37	CU-2	20 A	400 A	8 A	2.70 kVA	56'	3-#12, 1-#12	3/4"	0.58%
				15 A					
LST1A									
38,40,42	GEN-LST2A	100 A	100 A	10 A	3.44 kVA	18'	3-#3, 1-#3, 1-#8	1 1/4"	0.04%
				10 A					
TE1A									
1	LE1A	100 A	225 A	14 A	5.20 kVA	3'	3-#3, 1-#3, 1-#8	1 1/4"	0.01%
				14 A					
TN1A									
1	GEN-DPLN1A	600 A	600 A	475 A	171.27 kVA	12'	2 runs of 3-#350, 1-#350, 1-#1	3"	0.13%
				475 A					
TS2A									
1	GEN-DPLS2A	700 A	800 A	407 A	146.64 kVA	11'	2 runs of 3-#500, 1-#500, 1-#1/0	4"	0.07%
				407 A					
TST2A									
1	GEN-LST1A VIA 100A CB	100 A	100 A	18 A	6.48 kVA	6'	3-#1, 1-#1, 1-#8	1 1/2"	0.01%
				18 A					
UTILITY									
1	GEN-DPHN1A	1000 A	1000 A	829 A	689.07 kVA	34'	3 runs of 3-#400, 1-#400, 1-#2/0	4"	0.17%
				829 A					

Electrical Equipment Schedule

Name	Mains	Location	Mounting	Short Circuit Rating	Phases	Wires
ATS -1	225 A	ELEC G114	Surface	65KAIC	3	4
ATS -2	225 A	ELEC G114	Surface	65KAIC	3	4
DPHN1A	1000 A	ELEC G114	Surface	65KAIC	3	4
DPLN1A	600 A	ELEC G114	Surface	22KAIC	3	4
HE1A	100 A	ELEC G114	Surface	30KAIC	3	4
LE1A	100 A	ELEC G114	Surface	22KAIC	3	4
LN1A	225 A	ELEC G114	Recessed	22KAIC	3	4
LS1A	225 A	ELEC G114	Surface	14KAIC	3	4
DPHS2A	800 A	ELEC G213	Surface	65KAIC	3	4
DPLS2A	400 A	ELEC G213	Surface	22KAIC	3	4
HN2A	100 A	ELEC G213	Surface	50KAIC	3	4
HS2A	225 A	ELEC G213	Surface	14KAIC	3	4
LN2A	225 A	ELEC G213	Recessed	22KAIC	3	4
LS2A	225 A	ELEC G213	Surface	22KAIC	3	4
LN2B	225 A	FUME HOOD ROOM G205	Recessed	22KAIC	3	4
LN1B	225 A	NORTH HALLWAY G102	Recessed	22KAIC	3	4
LS1B	225 A	NORTH HALLWAY G102	Surface	22KAIC	3	4
LS2B	225 A	Space 27	Surface	22KAIC	3	4
LST1A	100 A	TELECOM G112	Surface	22KAIC	3	4
LST2A	100 A	TELECOM G212	Surface	22KAIC	3	4

Electrical Equipment Transformer Schedule

Name	Size	Location	Mounting	Conduit Size	Wire Size H,G
TE1A	15 kVA	ELEC G114	Unistrut	1 1/4"	3-#10, 1-#8
TN1A	150 kVA	ELEC G114	Floor	2 1/2"	3-#4/0, 1-#4
TST2A	30 kVA	ELEC G213	Unistrut	3"	3-#350, 1-#4
TS2A	225 kVA	ELEC G213	Floor	3"	3-#350, 1-#4

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