

LIGHTING

- 2x4 FLUORESCENT FIXTURE ASSOCIATED CONTROL DEVICE FIXTURE LOWER (SEE LIGHT FIXTURE SCHEDULE)
- 1x4 FLUORESCENT FIXTURE
- 2x2 FLUORESCENT FIXTURE
- FIXTURE WIRED TO UNSWITCHED NORMAL CIRCUIT
- FIXTURE WIRED TO UNSWITCHED EMERGENCY CIRCUIT
- FIXTURE WIRED TO SWITCHED EMERGENCY CIRCUIT
- DOWN LIGHT
- FLUORESCENT STRIP
- WALL MOUNTED FIXTURES
- TRACK LIGHTING
- POLE MOUNTED SITE LIGHTING FIXTURE FIXTURE TYPE (SEE LIGHT FIXTURE SCHEDULE)
- FLOOD LIGHT
- WALL WASH LIGHT FIXTURE
- EXIT SIGN, CEILING MOUNTED ARROW INDICATES EGRESS DIRECTION SHADING INDICATES SIGN FACE
- EXIT SIGN, WALL MOUNTED SHADING INDICATES SIGN FACE
- DUAL HEAD EMERGENCY LIGHT BATTERY PACK TD - TIME DELAY RESET
- REMOTE EMERGENCY LIGHTING HEAD
- WALL PACK
- 3-WAY TOGGLE SWITCH
- SINGLE POLE TOGGLE SWITCH INDICATES CONTROLLED FIXTURE
- 4-WAY TOGGLE SWITCH
- DUAL LEVEL SWITCHING
- DIMMER SWITCH, INCANDESCENT OR FLUORESCENT AS REQUIRED.
- TOGGLE SWITCH WITH PILOT LIGHT
- TIMER SWITCH, SPRING WOUND
- SINGLE POLE DOUBLE THROW TOGGLE SWITCH, CENTER POSITION OFF
- WEATHER PROOF
- EXPLOSION PROOF
- UNSWITCHED CONTINUATION OF BRANCH CIRCUIT
- HOME RUN
- OCCUPANCY SENSOR g. INDICATES CONTROLLED FIXTURE INDICATES AIMING DIRECTION
- OCCUPANCY SENSOR RELAY
- DAYLIGHT SENSOR LIGHTS CONTROLLED BY SENSOR

COMMUNICATION & DATA SYSTEMS

- TELEPHONE SYSTEM WALL JACK W-INDICATES WALL MOUNTED AT 60" AFF P-INDICATES PAYPHONE (2)-INDICATES 2 OUTLETS, SINGLE BOX
- DATA SYSTEM OUTLET
- COMBINATION VOICE/DATA SYSTEM OUTLET
- UNDERFLOOR TELEPHONE SYSTEM OUTLET
- UNDERFLOOR DATA SYSTEM OUTLET
- UNDERFLOOR VOICE & DATA OUTLET
- CABLE TELEVISION SYSTEM OUTLET, MOUNT 18" AFF UNLESS OTHERWISE NOTED
- CLOSED CIRCUIT TELEVISION OUTLET, MOUNT 18" AFF UNLESS OTHERWISE NOTED
- PAGING SYSTEM CONTROL PANEL AND PAGING AMPLIFIER
- PAGING SYSTEM SPEAKER, CEILING MOUNTED
- PAGING SYSTEM SPEAKER, WALL MOUNT AT 7'-6" AFF 1. FLUSH, 2. SURFACE, 3. HORN, 4. DUAL HORN
- VOLUME CONTROL
- INTERCOM SYSTEM HAND KEY
- CLOCK SPEAKER
- INTERCOM SYSTEM HAND SET
- WALL MOUNTED CLOCK
- CEILING MOUNTED TELEPHONE SYSTEM OUTLET
- CEILING MOUNTED DATA SYSTEM OUTLET
- CEILING MOUNTED VOICE & DATA OUTLET

POWER

- NON-FUSED SAFETY SWITCH AMPERE RATING NEMA ENCLOSURE RATING
- FUSED SAFETY SWITCH, TOP NUMBER INDICATES SWITCH AMPERE RATING, LOWER NUMBER INDICATES FUSE RATING
- MAGNETIC MOTOR STARTER, FVNR UNLESS INDICATED OTHERWISE NEMA ENCLOSURE RATING NEMA SIZE (TYPICAL)
- COMBINATION CIRCUIT BREAKER/MAGNETIC MOTOR STARTER FIRST NUMBER INDICATES CIRCUIT BREAKER AMPERE RATING SECOND NUMBER INDICATES NEMA STARTER SIZE
- NON-FUSED DISCONNECT/MAGNETIC MOTOR STARTER FIRST NUMBER INDICATES CIRCUIT BREAKER AMPERE RATING SECOND NUMBER INDICATES NEMA STARTER SIZE
- MANUAL MOTOR STARTER, TOGGLE OPERATED, 1, 2 OR 3 POLE AS REQUIRED, OVERLOAD PROTECTION
- MANUAL MOTOR SWITCH, TOGGLE OPERATED, SINGLE PHASE, 1 OR 2 POLE AS REQUIRED (NO OVERLOAD PROTECTION)
- ENCLOSED CIRCUIT BREAKER AMPERE RATING
- ELECTRIC MOTOR, NUMBER INDICATES HORSEPOWER RATING
- EXPLOSION PROOF MOTOR
- VARIABLE AIR VOLUME CONTROL ACTUATORS
- LOCAL SELECTOR SWITCH H/O/A - HAND/OFF/AUTO
- EMERGENCY OFF BREAK GLASS STATION
- PUSHBUTTON STATION
- JUNCTION BOX
- TRANSFORMER
- POWER POLE
- CONDUIT TURNING UP
- CONDUIT TURNING DOWN
- EY CONDUIT SEAL
- DUPLEX RECEPTACLE, NEMA 5-20R, INSTALLED ON EMERGENCY CIRCUIT (TYPICAL) GF1 DUPLEX RECEPTACLE, NEMA 5-20R
- HOSPITAL GRADE DUPLEX RECEPTACLE, NEMA 5-20R
- HOSPITAL GRADE GFCI DUPLEX RECEPTACLE, NEMA 5-20R
- SINGLE RECEPTACLE, NEMA 5-20R
- DOUBLE DUPLEX (QUADRUPLEX) RECEPTACLE, NEMA 5-20R
- HOSPITAL GRADE DOUBLE DUPLEX RECEPTACLE NEMA 5-20R
- SWITCHED RECEPTACLE
- FLOOR OUTLET, DUPLEX RECEPTACLE, NEMA 5-20R
- POWER RECEPTACLE, 480 VOLT NEMA CONFIGURATION AS NOTED.
- POWER RECEPTACLE, 240 VOLT NEMA CONFIGURATION AS NOTED.
- PANELBOARD, NORMAL POWER
- PANELBOARD, EMERGENCY POWER
- MULTI OUTLET ASSEMBLY

GROUNDING

- GROUND ROD
- EXOTHERMIC WELD CONNECTION
- BOLTED CONNECTION
- BARE COPPER CONDUCTOR RUN EXPOSED
- BARE COPPER CONDUCTOR EMBEDDED IN CONCRETE OR BURIED

NURSE CALL SYSTEM

- NURSE CALL CALL LIGHT
- PATIENT CALL BUTTON
- NURSE CALL PULL CORD
- NURSE CALL MASTER STATION

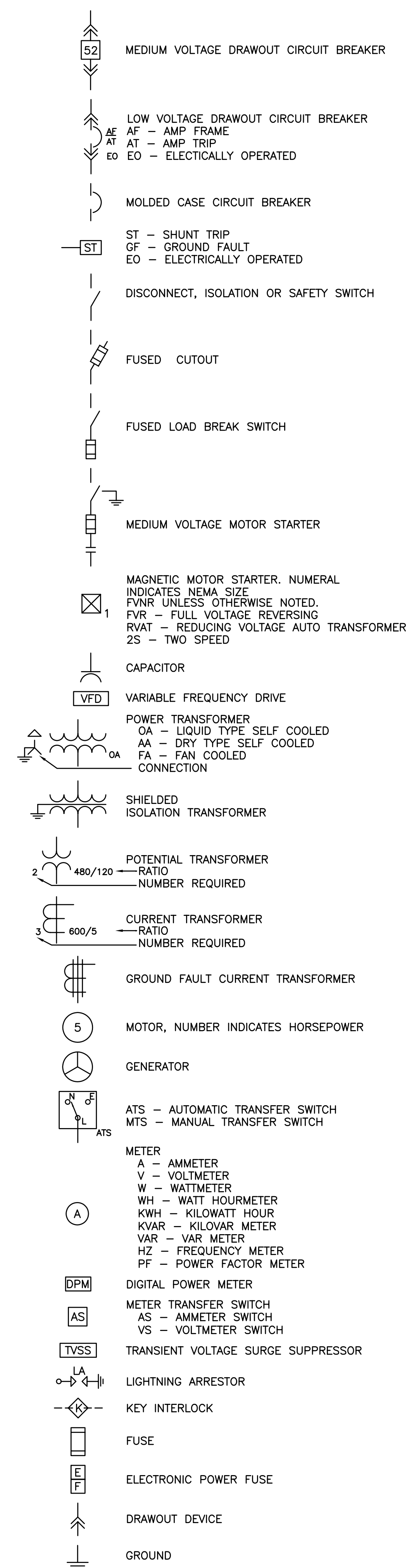
FIRE ALARM

- FIRE ALARM CONTROL PANEL
- FIRE ALARM ANNUNCIATOR
- FIRE ALARM MASTER BOX
- FIRE ALARM MANUAL PULL STATION
- FIRE ALARM SPEAKER/STROBE UNIT
- FIRE ALARM AUDIBLE/VISIBLE NOTIFICATION APPLIANCE (GENERAL EVACUATION)
- FIRE ALARM AUDIBLE/VISIBLE CLEAN ROOM NOTIFICATION (LOCAL)
- FIRE ALARM VISIBLE ONLY NOTIFICATION APPLIANCE CANDELA INTENSITY-15/75 UNLESS OTHERWISE NOTED CEILING MOUNTED
- PHOTOELECTRIC SMOKE DETECTOR, CEILING MOUNTED INDICATES AUXILIARY CONTACT.
- FIXED TEMPERATURE HEAT DETECTOR, CEILING MOUNTED.
- CLEAN ROOM SMOKE DETECTOR
- INDICATES EQUIPMENT INTERLOCKED WITH THE SMOKE DETECTOR
- COMBINATION RATE-OF-RISE/FIXED TEMPERATURE HEAT DETECTOR, CEILING MOUNTED
- DUCT SMOKE DETECTOR, PHOTOELECTRIC WITH AUXILIARY CONTACT.
- SPRINKLER SYSTEM FLOW SWITCH
- SPRINKLER SYSTEM TAMPER SWITCH
- FIRE ALARM SYSTEM MAGNETIC DOOR HOLDER
- INTERLOCK RELAY
- SMOKE DAMPER
- DUCT SMOKE DETECTOR REMOTE TEST INDICATOR
- KNOX BOX

SECURITY SYSTEMS

- 2-WAY CEILING MOUNTED INTERCOM SPEAKER
- CEILING MOUNTED PAGING SPEAKER
- WALL MOUNTED PAGING HORN
- CEILING OR WALL MOUNTED FIXED CAMERA
- CEILING OR WALL MOUNTED PTZ CAMERA
- PAGING CONTROL EQUIPMENT
- INTERCOM MASTER STATION
- DOOR CONTROL EQUIPMENT
- MONITORED DOOR POSITION SWITCH AND CONTROLLED DOOR HARDWARE
- MONITORED DOOR POSITION SWITCH
- STANDARD INTERCOM STATION
- VISITATION TELEPHONE
- WALL MOUNTED DURESS BUTTON
- GRAPHIC CONTROL PANEL
- TOUCH SCREEN WORKSTATION
- CCTV CONTROL OR DISPLAY EQUIPMENT
- PERIMETER CONTROL EQUIPMENT
- DURESS CONTROL EQUIPMENT
- DURESS ALARM RECEIVER
- OFFICER CONTROLLED COLLECT-ONLY PUBLIC TELEPHONE
- OFFICER CONTROLLED FIRE SPRINKLER (DELUGE) HEAD
- DUAL TECHNOLOGY VOLUMETRIC SENSOR
- LOCAL DOOR RELEASE BUTTON
- OFFICER CONTROLLED SHOWER WATER SUPPLY
- OFFICER CONTROLLED LIGHTING AND ELECTRICAL OUTLETS
- DOOR CONTACT
- CARD READER
- KEY PAD
- CLOSED CIRCUIT TELEVISION CAMERA
- ELECTRIC STRIKE

ONE LINE DIAGRAM



ABBREVIATIONS

- | | | | |
|-------|----------------------------------|-------|------------------------------------|
| A-AMP | AMPERE | LA | LIGHTNING ARRESTER |
| AFF | ABOVE FINISHED FLOOR | LTG | LIGHTING |
| AFG | ABOVE FINISHED GRADE | MC | METAL CLAD |
| AHJ | AUTHORITY HAVING JURISDICTION | MCB | MAIN CIRCUIT BREAKER |
| AIC | AMPERE INTERRUPTING CAPACITY | MFR | MANUFACTURER |
| AWG | AMERICAN WIRE GAUGE | MI | MINERAL INSULATED |
| BFG | BELOW FINISHED GRADE | MLO | MAIN LUG ONLY |
| BOS | BOTTOM OF STEEL | MTO | MOUNTED |
| C | CONDUIT, CONDUCTOR | MV | MEDIUM VOLTAGE |
| CATV | CABLE TELEVISION | NC | NORMALLY CLOSED |
| CB | CIRCUIT BREAKER | NEC | NATIONAL ELECTRICAL CODE |
| CE | CLOSED CIRCUIT TELEVISION | NEG | NEGATIVE |
| CCTV | CONTROL POWER TRANSFORMER | NEUT | NEUTRAL |
| CPT | COPPER | NIC | NOT IN CONTRACT |
| CT | CURRENT TRANSFORMER | NO | NORMALLY OPEN |
| CU | COPPER | NTS | NOT TO SCALE |
| DACT | DIGITAL ALARM COMMUNICATOR | PF | POWER FACTOR |
| DB | DISCONNECT | PH | PHASE |
| DISC | DIRECT BURIED | PIV | POLYVINYL CHLORIDE |
| DN | DOWN | RGS | RIGID STEEL CONDUIT |
| EMT | ELECTRICAL METALLIC TUBING | RSC | RIGID STEEL CONDUIT |
| ENC | ELECTRIC WATER COOLER | RST | RESISTANCE TEMPERATURE DETECTOR |
| ENW | ELECTRIC WATER COOLER | SN | SOLID NEUTRAL |
| FAA | FIRE ALARM ANNUNCIATOR | STP | SHIELDED TWISTED PAIR |
| FACP | FIRE ALARM CONTROL PANEL | STT | SHIELDED TWISTED TRIPLET |
| FBO | FURNISHED BY OTHERS | SWBD | SWITCHBOARD |
| FJ | FUSE | SWGR | SWITCHGEAR |
| FWE | FURNISHED WITH EQUIPMENT | TOS | TOP OF STEEL |
| GEN | GENERATOR | TRNSF | TRANSFORMER |
| GFCI | GROUND FAULT CIRCUIT INTERRUPTER | TVSS | TRANSIENT VOLTAGE SURGE SUPPRESSOR |
| GND | GROUND | V | VOLT |
| HP | HORSEPOWER | VA | VOLT-AMPERE |
| HTR | HEATER | VAR | VOLT-AMPERE REACTIVE |
| IG | ISOLATED GROUND | WM | WATT METER |
| IMC | INTERMEDIATE METAL CONDUIT | WP | WEATHER PROOF |
| K | KILO | XFMR | TRANSFORMER |
| KCMIL | THOUSAND CIRCULAR MILS | XP | EXPLOSION PROOF |
| KV | KILOVOLT | | |
| KVA | KILOVOLT-AMPERE | | |
| KVAR | KILOVOLT AMPERE REACTIVE | | |
| KW | KILOWATT | | |
| KWH | KILOWATT-HOUR | | |

GENERAL NOTES:

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH NFPA-70, NATIONAL ELECTRICAL CODE (NEC).
2. ALL MOTOR SAFETY SWITCHES, DISCONNECTS AND MOTOR STARTERS ARE PROVIDED BY DIVISION 16000 UNLESS NOTED AS FURNISHED WITH EQUIPMENT (FWE).
3. UNLESS OTHERWISE NOTED CONVENIENCE RECEPTACLES SHALL BE MOUNTED 18-INCHES AFF. LIGHTING TOGGLE SWITCHES 48-INCHES AFF, DATA SYSTEM OUTLETS 18-INCHES AFF, FIRE ALARM NOTIFICATION DEVICES 80-INCHES AFF OR 6-INCHES BELOW CEILING, WHICHEVER IS LOWER, AND FIRE ALARM MANUAL PULL STATIONS 48-INCHES AFF TO TOP OF DEVICE.
4. ALL PENETRATIONS THROUGH FLOORS, RATED WALLS AND PARTITIONS SHALL BE SEALED WITH UL APPROVED FIRE SEALANT MATERIAL TO MAINTAIN THE RATING OF THE SEPARATION.
5. ALL ENCLOSURES, CONDUIT BODIES AND THEIR COVERS CONTAINING FIRE ALARM SYSTEM CONDUCTORS SHALL BE PAINTED RED.
6. AN EQUIPMENT GROUNDING CONDUCTOR SHALL BE INSTALLED WITH EVERY FEEDER AND BRANCH CIRCUIT.
7. UNLESS OTHERWISE NOTED WIRING SHALL BE 2 #12 AWG CONDUCTORS & #12 GND. HOME RUNS FED FROM 20A-1P CIRCUITS IN EXCESS OF 100 FEET SHALL BE #10 AWG.
8. FLEXIBLE CONNECTIONS TO MOTORS SHALL BE LIQUID TIGHT FLEXIBLE METAL CONDUIT, UNLESS OTHERWISE NOTED.
9. LIGHTING TOGGLE SWITCHES SHALL BE COMMERCIAL SPECIFICATION GRADE 120/277 VOLT, SIDE WIRED AND PROVIDED WITH GROUNDING SCREW, LEVITON, PASS AND SEYMOUR OR APPROVED EQUAL. COORDINATE COLOR WITH ARCHITECT.
10. CONVENIENCE RECEPTACLES SHALL BE COMMERCIAL SPECIFICATIONS GRADE GROUNDING TYPE NEMA 5-20R, SIDE WIRED, LEVITON, PASS AND SEYMOUR OR APPROVED EQUAL. COORDINATE COLOR WITH ARCHITECT.
11. PROVIDE WALL PLATES FOR ALL WIRING DEVICES, NYLON SMOOTH TYPE IN FINISHED AREAS AND GALVANIZED IN UNFINISHED AREAS.
12. ALL WIRING SHALL BE 600V, COPPER WITH THHN/THWN INSULATION.
13. PROVIDE UPDATED TYPED PANEL SCHEDULES FOR ALL PANELBOARDS BEING MODIFIED.

LIGHT FIXTURE SCHEDULE					
TYPE	DESCRIPTION	MFR.	LAMPS	MOUNTING	NOTES
A	4" DIRECT/INDIRECT FIXTURE W/ 3" PROFILE - FIXTURES TO HAVE ROUNDED ENDCAP. 277V	FINELITE SERIES 5	1-F54T5 HO 3500K	AIR CRAFT CABLE	MOUNT 7"-9" AFF.
B	2x4 PARABOLIC TROFFER W/ SEMI-SPECULAR REFLECTOR, 24 CELL, 3" DEEP LOUVER. 277V	COLUMBIA P424 SERIES	3-F32T8 3500K	RECESSED	PROVIDE FOR DUAL LEVEL SWITCHING.
C	NOT USED				
D	6" ROUND APERTURE DOWNLIGHT W/ CLEAR ALZAK REFLECTOR. 277V	PRESCOLITE CFR8 SERIES	2-26W QUAD TUBE	RECESSED	
E	EXIT SIGN WITH BRUSHED ALUMINUM FACE & GREEN LETTERING.	DUALITE SEMPRA SERIES	LED	CEILING OR WALL	

GENERAL NOTE

1. ALL GENERAL NOTES, SYMBOL LISTS, AND DETAILS ARE TO BE CONSIDERED AS APPLICABLE TO ALL ELECTRICAL DRAWINGS FOR THIS PROJECT. SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET ARE FOR REFERENCE ONLY AND DO NOT INDICATE THEIR INCORPORATION IN THE DESIGN.

F18 KEY PLAN

NOT TO SCALE		
0	ISSUED FOR CONSTRUCTION	1-28-04
REV.	DESCRIPTION	DATE

ISSUED FOR CONSTRUCTION 1-28-04

CURRENT ISSUE STATUS:	

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LEGEND, GENERAL NOTES & LIGHTING FIXTURE SCHEDULE

SHEET TITLE:	NOT TO SCALE	DATE:	1-28-04
PROJECT MANAGER:	JLH	GRAPHIC SCALE:	0" 1"
JOB CAP/DRAWN:	CEB/BGG		
A/E OF RECORD:	DJT	SHEET No.	
SMRT CAD FILE:	E-001-03100-0		
PROJECT No.	03100-01		

E-001