SYMBOL & ABBREVIATION SCHEDULE

(NOTE: STANDARD SCHEDULE, NOT ALL SYMBOLS/ABBREVIATIONS MAY APPEAR ON THE DRAWINGS.)

LIGHTING/POWER

- LIGHT FIXTURE – SEE LIGHT FIXTURE SCHEDULE
- EMERGENCY FIXTURE
- LIGHT FIXTURE WITH NIGHT LIGHT
- PANEL BOARD – SURFACE MOUNTED
- PANEL BOARD – FLUSH MOUNTED
- IV SITE LIGHT – WITH DISTRIBUTION TYPE
- SWITCHED CIRCUIT – LIGHTING
- UNSWITCHED CIRCUIT – LIGHTING
- BRANCH CIRCUIT
- HOME RUN TO PANEL BOARD
- A–1 (#10) WIRESIZE (IF OTHER THAN #12)
- BRANCH CIRCUIT NUMBER PANEL BOARD DESIGNATION
- EXIT SIGN – FACE(S) AND ARROWS AS INDICATED LITHONIA LQM SERIES, RED LETTERS/WHITE BACKGROUND AC ONLY, LED.
- $ SINGLE POLE SWITCH
- $3 THREE–WAY SWITCH
- $4 FOUR–WAY SWITCH
- $a SWITCH WIRED TO LAMP 'a'
- $D SWITCH DIMMING
- $K KEY OPERATED SWITCH
- $T THERMAL SWITCH
- $TM TIMER SWITCH THE WATTSTOPPER TS–400 SENSOR SWITCH TS–1
- $M OCCUPANCY SENSOR SWITCH THE WATTSTOPPER DW–100 SENSOR SWITCH WSD–PDT DUAL TECHNOLOGY
- $M2 OCCUPANCY SENSOR SWITCH THE WATTSTOPPER WA–300 SENSOR SWITCH WSD–PDT–2P DUAL TECHNOLOGY
- $MF OCCUPANCY SENSOR SWITCH LIGHT/EXHAUST FAN APPLICATION SENSOR SWITCH WSD–PDT–2P–FAN DUAL TECHNOLOGY
- S LOW VOLTAGE SWITCH LCP–2,4 (2 SWITCHES CONTROLLING CIRCUITS LCP–2 AND LCP–4 RESPECTIVELY)
- SINGLE RECEPTACLE & DUAL USB PORTS
- DUPLEX RECEPTACLE
- S DUPLEX RECEPTACLE WITH SECURITY PLATE
- TV COMBINATION DUPLEX RECEPTACLE AND COAX BARREL CONNECTION
- CR CEILING MOUNTED
- C MOUNT XX INCHES A.F.F.
- XX"
- MW MICROWAVE OVEN RECEPTACLE/CONNECTION COORDINATE MOUNTING LOCATION WITH CASEWORK ELEVATIONS
- QUAD RECEPTACLE
- SPECIAL PURPOSE OUTLET
- M MOTOR CONNECTION (INCLUDES STARTER/DISCONNECT INSTALLATION)
- MOTOR STARTER
- SAFETY TYPE DISCONNECT SWITCH
- COMBINATION MOTOR STARTER
- JUNCTION BOX WITH FINAL CONNECTION TO EQUIPMENT
- E ELEVATOR MOTOR DISCONNECT SWITCH PROVIDE AUXILIARY CONTACTS FOR ELEV. MANUF. USE PROVIDE FIRE ALARM RELAY PER NFPA 72
- EC ELEVATOR CAR DISCONNECT SWITCH
- AC JUNCTION BOX WITH FINAL CONNECTION TO EQUIPMENT ABOVE CEILING
- C JUNCTION BOX WITH FINAL CONNECTION TO EQUIPMENT CEILING MOUNTED
- P JUNCTION BOX WITH FINAL CONNECTION TO PLUMBING CONTROLS COORDINATE LOCATION WITH OTHER TRADES
- T TIMER
- C CONTACTOR
- RAP GENERATOR REMOTE ANNUNCIATOR PANEL
- P PUSHBUTTON – WIRED TO CONTACTOR
- PHOTO CELL
- MULTI–OUTLET ASSEMBLY NONMETALLIC – PANDUIT TWIN–RAIL OR EQUAL MOUNT ABOVE COMPUTER STATION
- 360 DEGREE OCCUPANCY SENSOR DUAL TECHNOLOGY THE WATTSTOPPER CAT# DT–300 SENSOR SWITCH CAT# CM–PDT
- DIRECTIONAL OCCUPANCY SENSOR SENSOR SWITCH CAT# WV–PDT–16 OR EQUAL BY THE WATTSTOPPER DUAL TECHNOLOGY
- H HALLWAY OCCUPANCY SENSOR THE WATTSTOPPER WT SERIES LONG RANGE OR CAT# HW–13 BY SENSOR SWITCH
- GTD 20AMP GENERATOR TRANSFER DEVICE BODINE BLCD–20B OR EQUAL

COMMUNICATIONS

- 2#1 TELECOMMUNICATIONS OUTLET 2 VOICE, 1 DATA 1 VOICE, 1 DATA DEFAULT
- 3 TELECOMMUNICATIONS OUTLET 3 DATA, 1 DATA DEFAULT
- 2 TELECOMMUNICATIONS OUTLET 2 VOICE, 1 VOICE DEFAULT
- W TELEPHONE WALL OUTLET AT ADA HEIGHT 1 VOICE
- P PAY TELEPHONE – COORDINATE MOUNTING HEIGHT WITH TELEPHONE EQUIPMENT SUPPLIER 1 VOICE
- P,ADA PAY TELEPHONE, ADA HEIGHT – COORDINATE MOUNTING HEIGHT WITH TELEPHONE EQUIPMENT SUPPLIER 1 VOICE
- COAX TV OUTLET
- TC STRUCTURED CABLING SYSTEM INTERMEDIATE CROSS–CONNECT RACK
- MC STRUCTURED CABLING SYSTEM MAIN CROSS–CONNECT RACK
- SPG GYM PA SPEAKER
- GYM PA CLASS CHANGE HORN
- MICROPHONE
- GYM PA REMOTE RACK JACK
- SP SPEAKER RECESSED
- SP S SPEAKER SURFACE MOUNTED
- INTERCOMMUNICATIONS SPEAKER SURFACE MOUNTED – WALL
- INTERCOMMUNICATIONS HORN SPEAKER
- VC VOLUME CONTROL
- DOUBLE FACE CLOCK – ANALOG
- SINGLE FACE CLOCK – ANALOG
- DIGITAL CLOCK
- ARM AREA OF RESCUE MASTER STATION
- ARS AREA OF RESCUE STATION
- ARC AREA OF RESCUE CONTROL/RELAY PANELS

FIRE ALARM

- F FIRE ALARM PULL STATION
- F FIRE ALARM HORN AND STROBE LIGHT
- FIRE ALARM STROBE LIGHT – CEILING MOUNTED
- FIRE ALARM HORN AND STROBE LIGHT – CEILING MOUNTED
- F FIRE ALARM STROBE LIGHT – WALL MOUNT
- SD FIRE ALARM SMOKE DUCT DETECTOR W/REMOTE LED INDICATOR
- S FIRE ALARM SMOKE DETECTOR
- H FIRE ALARM HEAT DETECTOR
- B FIRE ALARM OPEN AREA SMOKE DETECTOR
- SE FIRE ALARM SMOKE DETECTOR INITIATING ELEVATOR RECALL
- HST FIRE ALARM HEAT DETECTOR INITIATING ELEVATOR SHUNT TRIP
- HE FIRE ALARM HEAT DETECTOR INITIATING ELEVATOR RECALL
- FS FLOW SWITCH
- TS TAMPER SWITCH
- PS PRESSURE SWITCH
- SEMI–FLUSH WALL MOUNTED DOOR HOLD/RELEASE
- CM FIRE ALARM CONTROL MODULE
- FACP FIRE ALARM CONTROL PANEL
- ANN FIRE ALARM SEMI–FLUSH ANNUNCIATOR PANEL
- FATC FIRE ALARM TERMINATION CABINET

ONE–LINE DIAGRAM

- UTILITY TRANSFORMER
- DELTA–WYE TRANSFORMER
- M METERING
- CIRCUIT BREAKER
- DRAW OUT CIRCUIT BREAKER
- FUSED SWITCH
- NON–FUSED SWITCH
- 3 FEEDER NUMBER
- TVSS TRANSIENT VOLTAGE SURGE SUPPRESSION
- GENERATOR
- N E NE AUTOMATIC TRANSFER SWITCH
- ENCLOSED CIRCUIT BREAKER
- ENCLOSED FUSED SWITCH

DRAWING SYMBOLS

- 1 KEY NOTE
- ACCU 2 EQUIPMENT LABEL
- 1 / E0.01 TITLE SCALE: SCALE DRAWING TAG

ABBREVIATIONS

A	AMPERES
AC	ABOVE COUNTER
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
APMP	AREA PROTECTION MONITORING PANEL
ATC	AUTOMATIC TEMPERATURE CONTROL
ATS	AUTOMATIC TRANSFER SWITCH
C	CONDUIT
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CP	CIRCULATING PUMP
CU	CONDENSING UNIT
CUH	CABINET UNIT HEATER
DP	DIMMING PANEL
E	EMERGENCY
EC	ELECTRICAL CONTRACTOR
ECUH	ELECTRIC CABINET UNIT HEATER
EF	EXHAUST FAN
EHUH	ELECTRIC HORIZONTAL UNIT HEATER
ETR	EXISTING TO REMAIN
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WALL HEATER
F OR FM	FLOOR MOUNTED
FCU	FAN COIL UNIT
FEC	FIRE EXTINGUISHER CABINET
FU	FUSE(S)
G OR GND	GROUND
GC	GENERAL CONTRACTOR
GFI	GROUND FAULT CIRCUIT INTERRUPTER
HC	HEATING CONTRACTOR
HP	HORSEPOWER OR HEATING PANEL
HUH	HORIZONTAL UNIT HEATER
IG	ISOLATED GROUND
KV	KITCHEN VENTILATOR
L	LAMP
LP	LIGHTING PANEL
LCP	LIGHTING CONTROL PANEL
MCB	MAIN CIRCUIT BREAKER
MDP	MAIN DISTRIBUTION PANEL
MF	MODULAR FURNITURE
MLO	MAIN LUG ONLY
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRIC CODE
NF	NON FUSED
NO	NORMALLY OPEN
P	PUMP OR POLE
PC	PLUMBING CONTRACTOR
PNL	PANEL
PP	POWER PANEL
RAF	RETURN AIR FAN
REL	RELOCATE
RP	RELAY PANEL
RTU	ROOF TOP UNIT
SEF	SMOKE EXHAUST FAN
SLP	SITE LIGHTING PANEL
SM	SURFACE MOUNT
ST	SHUNT TRIP
SW	SWITCH
TC	TIME CLOCK
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSION
V	VOLTS
VFD	VARIABLE FREQUENCY DRIVE
VS	VANDAL SHIELD
W	WATTS OR WIRE
W/	WITH
WAP	WIRELESS ACCESS POINT
WG	WIRE GUARD
WH	WATER HEATER
WP	WEATHERPROOF

GENERAL NOTES

1. CONTRACTOR IS RESPONSIBLE FOR ENTIRE BID DOCUMENT SET, I.E. IF WORK IS SHOWN ON OTHER TRADE DRAWINGS AS BY ELECTRICAL CONTRACTOR, ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR THAT WORK.
2. COORDINATE LOCATION OF LIGHTING FIXTURES, CONDUIT, CABLE TRAY AND EQUIPMENT/DEVICES WITH OTHER TRADES INCLUDING ARCHITECTURAL DETAILS.
3. PROVIDE #12 AWG MINIMUM FOR POWER AND LIGHTING BRANCH CIRCUIT WIRING.
4. E.C. TO PROVIDE FIRE STOPPING, FOR ANY NEW ELECTRICAL WORK THAT PENETRATES A FIRE SEPARATION.
5. MOUNT ELECTRICAL OUTLETS AT 18" A.F.F. TO CENTERLINE AND 42" A.F.F. AT COUNTERS TO CENTERLINE UNLESS NOTED OTHERWISE.
6. MOUNT LIGHT SWITCHES AT 42" A.F.F. TO CENTERLINE UNLESS NOTED OTHERWISE.
7. WHERE POWER RECEPTACLES ARE DESIGNATED AS ABOVE THE COUNTER, ADJACENT TELEPHONE/DATA OUTLETS SHALL ALSO BE ABOVE THE COUNTER.
8. WHERE POWER RECEPTACLES ARE DESIGNATED AS FLOOR MOUNTED, ADJACENT TELEPHONE/DATA OUTLETS SHALL ALSO BE FLOOR MOUNTED.
9. COORDINATE LIGHTING FIXTURES WITH ARCHITECTURAL CEILING PLANS AND DETAILS. POINT OUT ANY DISCREPANCIES BETWEEN CEILING TYPES AND SPECIFIC FIXTURE MOUNTING REQUIREMENTS TO ENGINEER PRIOR TO FIXTURE SUBMITTALS.
10. CONDUIT SHALL NOT BE EXPOSED IN FINISHED AREAS. EXPOSED CONDUIT IS ACCEPTABLE ONLY IN CHASES, JANITOR CLOSETS AND MECHANICAL/ELECTRICAL ROOMS.
11. REFER TO THE MECHANICAL EQUIPMENT CIRCUIT SCHEDULES FOR CIRCUITS,CABLE, CONDUIT, DISCONNECT AND MOTOR STARTERS FOR SPECIFIC HVAC AND PLUMBING EQUIPMENT.
12. EACH SINGLE PHASE 120–VOLT OR 277–VOLT CIRCUIT SHALL CONSIST OF 1–PHASE, 1–NEUTRAL, AND 1–GROUND, SHARED NEUTRALS ARE NOT ACCEPTABLE.
13. PROVIDE GFI PROTECTION ON ALL RECEPTACLES REQUIRED PER THE NEC AND AS NOTED IN THE SPECIFICATIONS.
14. USE EXISTING ROUGH–IN LOCATIONS IN THE EXISTING BUILDING WHERE POSSIBLE.
15. PROVIDE PULL BOXES AT EVERY 100' OF CONDUIT RUN.
16. USE OF SURFACE RACEWAY IS ACCEPTABLE WHERE NO EXISTING ROUGH IN LOCATION IS AVAILABLE ON EXISTING WALLS.
17. CONTRACTOR HAS THE OPTION TO RUN LARGER CONDUITS AND COMBINE MULTIPLE HOME RUNS IN COMPLIANCE WITH DERATING AND CONDUIT FILL REQUIREMENTS OF THE NEC.
18. COORDINATE ALL POWER AND DATA OUTLETS WITH ARCHITECTURAL CASEWORK DETAILS.
19. MOUNT ALARM DEVICES (HORN STROBES, STROBES, NURSE CALL LIGHTS) SUCH THAT THEY ARE OUT OF RANGE OF ANY DOOR SWINGS AND CANNOT BE HIDDEN BY THE DOOR.
20. INCLUDE A LISTING AND LABELING STATEMENT FOR ALL SUBMITTALS. ALL ELECTRICAL MATERIALS, DEVICES, APPLIANCES AND EQUIPMENT SHALL BE LABELED AND LISTED BY A CERTIFIED LABORATORY OR AGENCY.
21. VERIFY ALL COLORS/FINISHES FOR LIGHTING AND WIRING DEVICES WITH THE ARCHITECT/OWNER.
22. VERIFY ELEVATOR POWER REQUIREMENTS WITH SUPPLIER BEFORE PURCHASE OF DISTRIBUTION EQUIPMENT.
23. DUCT SMOKE DETECTORS SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR, INSTALLED BY THE HVAC CONTRACTOR AND WIRED BY THE ELECTRICAL CONTRACTOR.

GENERAL DEMOLITION NOTES

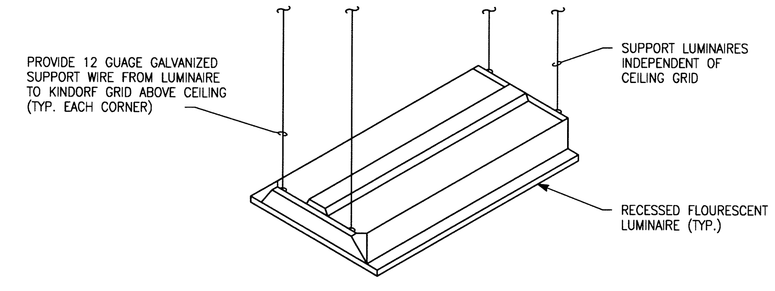
1. REMOVAL OF ALL EQUIPMENT/DEVICES SHALL INCLUDE SUPPORTING EQUIPMENT.
2. EXISTING EQUIPMENT SHOWN ON THE DEMOLITION DRAWINGS GENERALLY INDICATE THE LOCATIONS OF EQUIPMENT/DEVICES FOR REMOVAL. CONTRACTOR SHALL FIELD VERIFY ACTUAL CONDITIONS.
3. ANY ADDITIONAL ELECTRICAL EQUIPMENT/DEVICES/CABLE/CONDUIT NEEDED TO BE REMOVED FOR THE WORK AND NOT SHOWN ON THE ELECTRICAL DEMOLITION DRAWINGS SHALL BE REMOVED BY THE CONTRACTOR AT THEIR EXPENSE.
4. COORDINATE WITH OTHER TRADES ON CUTTING AND PATCHING OF EXISTING BUILDING.

WIRE SIZE FOR 20A CIRCUIT

CONDUCTOR SIZE	120 VOLT LENGTH OF RUN	277 VOLT LENGTH OF RUN
AWG NO. 12	50 FEET OR LESS	150 FEET OR LESS
AWG NO. 10	51 TO 200 FEET	151 TO 350 FEET
AWG NO. 8	201 TO 300 FEET	351 TO 500 FEET

DEVICE/EQUIPMENT MOUNTING HEIGHTS

NOTE: ALL MOUNTING HEIGHTS ARE TO CENTER OF DEVICE (UNLESS NOTED OTHERWISE) AND MUST CONFORM TO ADA REQUIREMENTS UNLESS OTHERWISE NOTED.	
FIRE ALARM HORN, STROBE AND SIGNALING DEVICES MOUNT SUCH THAT ENTIRE LENS IS NOT LESS THAN 80" A.F.F. AND ENTIRE LENS IS NOT GREATER THAN 96" A.F.F.	6"–8" MAX. OR 6" BELOW CEILING (WHICHEVER IS LOWER)
TOP OF PANELBOARDS	6'–0"
TOP OF TELEPHONE CABINET	6'–0"
TOP OF BACK MOUNTED EXIT FIXTURE (NOT MOUNTED ABOVE DOORS)	12" BELOW FINISHED CEILING TO CENTERLINE
TOP OF SAFTEY SWITCH, CONTACTORS, STARTERS.	6'–0" MAXIMUM
PAY TELEPHONE TELEPHONE WALL OUTLET LIGHT SWITCHES MANUAL CONTROL DEVICES FIRE ALARM PULL STATION FIRE PHONE JACKS	3'–6"
RECEPTACLES, TELECOMMUNICATION OUTLETS (DESK) TELEVISION OUTLETS	1'–6"
FINISHED FLOOR ELEVATION	0'–0"
CONTRACTOR SHALL VERIFY FINAL LOCATION OF ALL DEVICES WITH ARCHITECT AND/OR INTERIOR DESIGNER	



6 DETAIL – LUMINAIRE SUPPORT
N.T.S.

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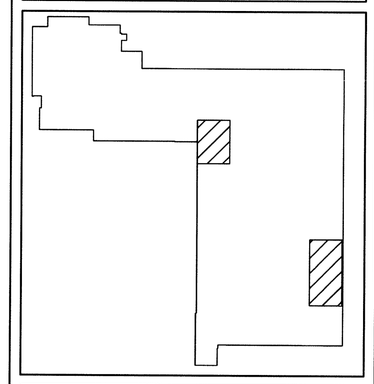

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ELECTRICAL LEGEND, ABBREVIATIONS & GENERAL NOTES

PLOT SCALE: AS SHOWN

FILENAME:

DATE: 4/30/2014

PROJECT 2776

E0.1