ELECTRICAL EQUIPMENT SYMBOLS					
PLAN SYMBOL	NAME				
	DISTRIBUTION PANEL				
	INVERTER				
	LOW VOLTAGE PANEL				
	PANELBOARD - SURFACE				
	SWITCHBOARD				
	TRANSFORMER - DRY TYPE				
	UPS CABINET				

ELECTRICAL FIXTURE SYMBOLS				
PLAN SYMBOL	NAME			
₽	RECEPTACLE - DOUBLE DUPLEX - CONV			
#	RECEPTACLE - DOUBLE DUPLEX - DED			
Ø	RECEPTACLE - DUPLEX - CEILING MOUNTED			
P	RECEPTACLE - DUPLEX - CONV			
	RECEPTACLE - DUPLEX - CONV - GFCI			
₽.	RECEPTACLE - DUPLEX - DED			
ф.	RECEPTACLE - DUPLEX - DED - GFCI			
ф.	RECEPTACLE - DUPLEX - EMERGENCY (RED) - DED - GFCI			
SR#	SURFACE RACEWAY - POWER			

ELECTRICAL MISC SYMBOLS LIGHTIN		NG FIXTURE		DATA SYMBOL LEGEND			
PLAN SYMBOL	NAME		(MBOLS	PLAN SYMBOL	NAME	DESCRIPTION	
	BRANCH CIRCUIT CONCEALED IN CEILING OR WALL BRANCH CIRCUIT CONCEALED IN	PLAN SYMBOL	NAME DOWNLIGHT FIXTURE	▼	COMMUNICATIONS OUTLET - WALL	GENERAL: PROVIDE COMMUNICATIONS OUTLET AS DESCRIBED IN THESE GENERAL NOTES AND NOTES BELOW FOR EACH OUTLET TYPE. REFER TO PLANS FOR OUTLET DESIGNATION AND QUANTITIES OF NETWORK VOICE/DATA CABLES TO BE PROVIDED TO OUTLET FROM ASSOCIATED NEAREST COMMUNICATIONS DISTRIBUTION ROOM. PROVIDE ROUGH-IN PER COMMUNICATIONS OUTLET DETAIL. PROVIDE ALL COMPONENTS REQUIRED FOR A COMPLETE SYSTEM PER SPECIFICATION SECTION 271200 INCLUDING, BUT NOT LIMITED TO INSTALLATION, CONFIGURATION, DEVICES, JACKS, INSERTS, FACEPLATES, AND CABLING. SUBMIT SHOP DRAWINGS FOR APPROVAL. COORDINATE EXACT FINAL LOCATION WITH ARCHITECTURAL INTERIOR ELEVATIONS PRIOR TO INSTALLATION. PROVIDE CABLING AS LISTED BELOW. OUTLETS WITH NO CABLING DESIGNATION SHALL BE EMPTY WITH A BLANK WALL PLATE.	
~~~	FLOOR OR BELOW GRADE		EMERGENCY HATCH			CABLING DESIGNATIONS ARE TYPICAL FOR ALL WALL, FLOOR, AND CEILING COMMUNICATIONS DEVICES. REFER TO SPECIFICATIONS FOR CABLING REQUIREMENTS FOR EACH TYPE. -A = ONE (1) ANALOG VOICE CABLE -V = ONE (1) VOICE CABLE	
	CLEARANCE SPACE		EMERGENCY LIGHTING - WALL		TV OUTLET	-D = ONE (1) DATA CABLE PROVIDE ROUGH-IN PER COMMUNICATIONS OUTLET DETAIL. PROVIDE WITH FACEPLATE TO MATCH WIRING DEVICES. PROVIDE ONE (1) FEMALE TYPE F CONNECTOR AND ONE (1) RJ-45 DATA NETWORK JACK IN COMMON FACEPLATE. PROVIDE ONE (1) RG6 COAX CABLE FROM ASSOCIATED ELECTRICAL ROOM CATV DISTRIBUTION POINT PROVIDE ONE (1) NETWORK DATA CABLE FROM ASSOCIATED COMMUNICATIONS DISTRIBUTION ROOM. PROVIDE	
	CONDUIT BREAK					CATV CABLES, NETWORK DATA CABLES, JACKS, INSERTS, AND FACEPLATES PER SPECIFICATION SECTION 271200. CONDUITS SHALL ROUTE CONCEALED INSIDE WALL TO ABOVE FINISHED CEILING FOR INSTALLATION OF CABLING. PROVIDE DUPLEX RECEPTACLE MOUNTED ADJACENT TO TELEVISION OUTLET PER PLANS. RECEPTACLE SHALL BE MOUNTED WITHIN 12". COORDINATE EXACT MOUNTING HEIGHT AND LOCATION WITH ARCHITECT AND INTERIOR ELEVATIONS.	
<u>د                                    </u>	CONDUIT DOWN		EXIT SIGN - CEILING CHEVRONS AS SHOWN	<b>W</b> AP	WIRELESS ACCESS POINT - CEILING	OWNER PROVIDED WIRELESS ACCESS POINT AT APPROXIMATE LOCATION INDICATED. PROVIDE ONE (1) CATEGOR' 6A NETWORK DATA CABLE FROM ASSOCIATED COMMUNICATIONS DISTRIBUTION ROOM TO APPROXIMATE LOCATION INDICATED ON FLOOR PLANS, COILED ABOVE FINISHED CEILING. TERMINATE CABLE WITH RJ45 CONNECTOR. PROVIDE WITH 15' OF CABLE SLACK AT LOCATION INDICATED. PROVIDE ROUGH-IN PER COMMUNICATIONS OUTLET DETAIL AT LOCATIONS INDICATED WITHIN GYP CEILINGS. PROVIDE SURFACE MOUNTED CONDUIT AND BACK BOX IN UNFINISHED AREAS. CABLE SHALL BE ROUTED WITHIN CABLE TRAY WHERE ABOVE	
•—			EXIT SIGN - WALL			ACCESSIBLE CEILINGS AND WITHIN CONDUIT IN UNFINISHED AREAS. LOCATIONS SHOWN ARE PRELIMINARY. CONFIRM FINAL LOCATION WITH OWNER PRIOR TO PULLING CABLE.	
	CONDUIT STUB-OUT			PLAN SYMBOL	NAME	FIRE ALARM SYMBOL LEGEND	
E	CONDUIT UP		INDUSTRIAL STRIP LIGHT		DETECTOR - SYSTEM DUCT SMOKE DETECTOR	PROVIDE SYSTEM DUCT SMOKE DETECTOR IN ACCESSIBLE LOCATION. PROVIDE REMOTE STATUS INDICATOR AND TEST STATION AND COORDINATE ASSOCIATED MOUNTING LOCATION WITH OWNER.	
o—			PENDANT - MEDIUM ROUND		FIRE ALARM CONTROL PANEL - SURFACE MOUNT	<ul> <li>CIRCUIT CONTROL PANEL TO 20A 120V BRANCH CIRCUIT IN ASSOCIATED NORMAL BRANCH PANEL (INSTALL CIRCUIT BREAKER LOCK ON BRANCH BREAKER). REFER TO FLOOR PLANS FOR BRANCH CIRCUIT DESIGNATION.</li> <li>PROVIDE SYSTEM SMOKE DETECTOR AT CEILING WITHIN 5 FEET OF PANEL (UNLESS SHOWN WITH ROOM DETECTION COVERAGE ON PLAN).</li> </ul>	
$\frown$	HOMERUN TO PANEL		TRACK LIGHTING	FACP {	FIRE ALARM REMOTE ANNUNCIATOR	PROVIDE SYSTEM SMOKE DETECTOR AT CEILING WITHIN 5 FEET OF PANEL (UNLESS SHOWN WITH ROOM DETECTION COVERAGE ON PLAN).	
(')	SWITCHED RECEPTACLE		TROFFER - RECESSED	FAA FAA			
					FIRE SPRINKLER VALVE TAMPE SWITCH	R PROVIDE FIRE SPRINKLER VALVE TAMPER SWITCH AT FIRE SPRINKLER SERVICE AND ALL FIRE SPRINKLER ZONE VALVES THROUGHOUT PROJECT.	
			TROFFER - SURFACE MOUNT		FIRE SPRINKLER WATER FLOW SWITCH	PROVIDE FIRE SPRINKLER WATER FLOW SWITCH AT FIRE SPRINKLER SERVICE AND ALL FIRE SPRINKLER ZONE VALVES THROUGHOUT PROJECT.	
			VANITY LIGHT WALL MOUNT - STRIPLIGHT				
				PLAN SYMBOL	NAME FLOOR BOX - POWER	DESCRIPTION GENERAL:	
						PROVIDE FLOOR BOX AS DESCRIBED IN THESE GENERAL NOTES AND NOTES BELOW FOR EACH FLOOR BOX TYPE. REFER TO PLANS FOR FLOOR BOX DESIGNATION. COORDINATE REQUIREMENTS WITH FLOOR BOX MANUFACTURE PROVIDE ALL ACCESSORIES FOR A COMPLETE INSTALLATION, INCLUDING BUT NOT LIMITED TO: BRACKETS, BLANK COVER ASSEMBLIES, MOUNTING FRAMES, ADAPTERS, AND CONCRETE FLOOR ACCESSORIES/OPTIONS.	

# ELECTRICAL ABBREVIATIONS

ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
##"	MOUNTING HEIGHT TO CENTERLINE (ABOVE FINISHED FLOOR)	NC	NORMALLY CLOSED
A	AMPERE	NF	NON-FUSED
AF	AMPERE FRAME	NIC	NOT IN CONTRACT
AFF	ABOVE FINISHED FLOOR	NO	NORMALLY OPEN
AT	AMPERE TRIP	Р	POLES
С	CEILING	MIN	MINIMUM
D	DATA (WHEN APPLIED TO COMMUNICATIONS OUTLET)	MAX	MAXIMUM
D	DEMO (WHEN APPLIED TO EXISTING/DEMO ITEMS)	PART	PARTIAL
E	EXISTING	R	RELOCATE
EO	ELECTRICALLY OPERATED	RT	RAINTIGHT NEMA 3R OR EQUIVALENT
ERMS	ENERGY REDUCING MAINTENANCE SWITCH	SCCR	SHORT CIRCUIT CURRENT RATING
F	FUSE	SPD	SURGE PROTECTIVE DEVICE
G, GFCI	GROUND FAULT CIRCUIT INTERRUPTER	ST	SHUNT TRIP
GFA	GROUND FAULT ALARM	TYP	TYPICAL
GFP	GROUND FAULT PROTECTION	V	VOICE
HP	HORSEPOWER	W	WALL PHONE
KAIC	KILOAMPERE INTERRUPTING CAPACITY	W	WIRE
KVA	KILOVOLT AMPERE	WP	WEATHERPROOF NEMA TYPE 4 OR EQUIVALENT
KW	KILOWATT	WR	WEATHER RESISTANT
МО	MANUALLY OPERATED	ZSI	ZONE SELECTIVE INTERLOCKING
	REFER TO OTHER SCHEDULES AN	D NOTES FOR ADDITIONAL ABB	BREVIATIONS.

FIRE ALARM SYMBOLS				
PLAN SYMBOL	NAME			
	VOICE/TONE SPEAKER AND STROBE COMBINATION - WALL			
FW				

ELECTRICAL FIXTURE SYMBOL LEGEND					
PLAN SYMBOL	NAME	DESCRIPTION			
FB#	FLOOR BOX - POWER	GENERAL: PROVIDE FLOOR BOX AS DESCRIBED IN THESE GENERAL NOTES AND NOTES BELOW FOR EACH FLOOR BOX TYPE. REFER TO PLANS FOR FLOOR BOX DESIGNATION. COORDINATE REQUIREMENTS WITH FLOOR BOX MANUFACTURER PROVIDE ALL ACCESSORIES FOR A COMPLETE INSTALLATION, INCLUDING BUT NOT LIMITED TO: BRACKETS, BLANK COVER ASSEMBLIES, MOUNTING FRAMES, ADAPTERS, AND CONCRETE FLOOR ACCESSORIES/OPTIONS. COORDINATE EXACT FINAL LOCATION WITH ARCHITECT, OWNER, OWNER'S FINAL FURNITURE SELECTIONS AND LOCATIONS, AND FINAL FLOOR FINISH SELECTIONS PRIOR TO INSTALLATION. COORDINATE FLOOR BOX DEPTH WITH FINAL CONCRETE FLOOR DEPTH. SAW CUT FLOOR AS REQUIRED TO ACCOMMODATE FLOOR BOX DEPTH WITH FOR CONCEALMENT OF CONDUITS. CONCEAL ALL CONDUITS WITHIN FLOOR AND IN ADJACENT WALL. SUBMIT SHOP DRAWINGS. COORDINATE INSTALLATION WITH OWNER.			
		TYPE 'FB1': PROVIDE WIREMOLD RESOURCE RFB SERIES MODEL RFB2-OG ON GRADE STEEL POWER FLOOR BOX (OR PRIOR APPROVED EQUIVALENT). PROVIDE COVER AND FLANGE WITH BRUSHED ALUMINUM FINISH. PROVIDE ONE (1) DUPLEX RECEPTACLES, MOUNTED WITHIN FLOOR BOX. PROVIDE ONE (1) 3/4" CONDUIT TO ELECTRICAL SOURCE FOR ONE (1) 20A 120V BRANCH CIRCUIT. REFER TO PLANS FOR BRANCH CIRCUIT DESIGNATION.			
Φ	JUNCTION BOX - WALL	GENERAL: PROVIDE JUNCTION BOX AS DESCRIBED IN THESE GENERAL NOTES AND NOTES BELOW FOR EACH JUNCTION BOX TYPE. REFER TO PLANS FOR JUNCTION BOX DESIGNATION. PROVIDE ONE (1) 4" SQUARE, 2-1/8" DEEP JUNCTION BOX WITH SINGLE GANG TRIM RING AND BLANK WALL PLATE WITH ONE (1) 1" CONDUIT TO ABOVE FINISHED CEILING WHERE NOT INDICATED OTHERWISE. WHERE SHOWN ADJACENT TO RECEPTACLES ON FLOOR PLANS, PROVIDE MAXIMUM 12" BETWEEN BACK BOXES. WHERE SHOWN AS PART OF BRANCH CIRCUIT, PROVIDE CONDUCTORS WITHIN CONDUIT TO SOURCE INDICATED ON FLOOR PLANS.			
USB	RECEPTACLE - DUPLEX - USB - CONV	PROVIDE HUBBELL CATALOG # USB20AC5** COMBINATION COMMERCIAL GRADE TAMPER RESISTANT DUPLEX RECEPTACLE, ONE (1) USB TYPE A, AND ONE (1) USB TYPE C CHARGING DEVICE OR PRIOR APPROVED EQUIVALENT AT THIS LOCATION. DEVICE SHALL MATCH COLOR OF OTHER WIRING DEVICES PER SPECIFICATION. PROVIDE 4" SQUARE BACK BOX WITH SINGLE GANG TRIM RING AND 3/4" CONDUIT TO SOURCE. COORDINATE BACK BOX DEPTH WITH FINAL DEVICE SELECTION. PROVIDE SHOP DRAWINGS. REFER TO MANUFACTURER INSTALLATION INSTRUCTIONS FOR ADDITIONAL DETAILS.			

### REACH A CABLES TO PLETE URATION, RDINATE DE CABLING TE. . REFER TO

# **ELECTRICAL GENERAL NOTES:** (GENERAL NOTES SHALL APPLY TO ALL SHEETS)

A. BRANCH CIRCUIT WITH A TOTAL LENGTH LONGER THAN 75'-0" SHALL UTILIZE #10 AWG CONDUCTORS.

- B. FOR ALL CONDUIT AND OTHER ITEMS PENETRATING A FIRE RATED WALL, PROVIDE UL LISTED THROUGH PENETRATION FIRE STOPPING SYSTEM THAT IS SPECIFIC TO THE WALL CONSTRUCTION ASSEMBLY AND COMPLIANT WITH ASTM E814. INSTALL SYSTEM IN STRICT COMPLIANCE WITH THE FIRE STOPPING MANUFACTURER'S U.L. APPROVED DETAIL. WHERE EXISTING WALLS ARE BEING UPGRADED TO FIRE RATED WALLS OR THE FIRE RATING IS BEING MODIFIED, PROVIDE U.L. LISTED THROUGH PENETRATION FIRE STOPPING SYSTEM FOR ALL NEW AND EXISTING PENETRATIONS. REFER TO THE ARCHITECTURAL LIFE SAFETY PLANS FOR LOCATIONS OF FIRE RATED WALLS.
- C. ANY ITEMS DAMAGED BY THE CONTRACTOR SHALL BE REPLACED BY THE CONTRACTOR, AT NO ADDITIONAL COST TO THE OWNER. D. NEW WIRING DEVICES AND ASSOCIATED COVERPLATES SHALL MATCH EXISTING
- FINISH OF SIMILAR INSTALLED DEVICES. E. THE SELECTED EQUIPMENT AIC RATINGS ARE BASED ON THE IMPEDANCES FOR CONDUCTORS AND TRANSFORMERS USED IN THE CALCULATIONS. IF DIFFERENT EQUIPMENT OR DIFFERENT CONFIGURATIONS ARE SELECTED FOR INSTALLATION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATELY RATED EQUIPMENT THAT MEETS APPLICABLE SELECTIVE COORDINATION GOALS AND PROVIDES SIMILAR INCIDENT ENERGY RISK OF ARC FLASH HAZARDS.

#### **OWNER COORDINATION GENERAL NOTES:** (OWNER COORDINATION GENERAL NOTES SHALL APPLY TO ALL SHEETS)

- A. ALL ELECTRICAL DEVICES AND COVER PLATE COLORS SHALL BE GRAY AND BE APPROVED BY THE OWNER PRIOR TO INSTALL/ORDER OF ELECTRICAL DEVICES. COORDINATE EXACT COLOR SELECTION WITH OWNER.
- B. ELECTRICAL CONTRACTOR SHALL COORDINATE ALL ELECTRICAL REQUIREMENTS ASSOCIATED WITH STEAM ROOM WITH OWNER AND EQUIPMENT PROVIDED. REFER TO STEAM ROOM DIAGRAMS AND DETAILS LOCATED WITHIN ARCHITECTURAL SET OF DRAWINGS FOR ADDITIONAL INFORMATION.
- C. THE DESIGN OF THE FIRE ALARM SYSTEM SHALL BE PROVIDED BY THE FIRE ALARM EQUIPMENT SUPPLIER. REFER TO FIRE ALARM SHOP DRAWINGS FOR LOCATIONS OF ALL ASSOCIATED FIRE ALARM SYSTEM AND DEVICES ASSOCIATED WITH THIS FACILITY. DEVICES SHOWN ON PLAN ARE FOR REFERENCE ONLY. CONTRACTOR TO SUBMIT SHOP DRAWINGS TO FIRE MARSHAL FOR APPROVAL. REFER TO ARCHITECTURAL CODE PLAN FOR BUILDING OCCUPANCY INFORMATION.
- D. ELECTRICAL CONTRACTOR SHALL WALK THRU THE ENTIRE BUILDING WITH GENERAL CONTRACTOR AND OWNER TO VERIFY EXACT LOCATIONS AND QUANTITIES OF TV'S, FLOOR MOUNTED RECEPTACLES, AND NEON SIGNS. COORDINATE WALK-THRU WITH GENERAL CONTRACTOR AND OWNER. E. ALL ELECTRICAL DEVICES LOCATED ON WALLS WITH MIRRORS SHALL BE APPROVED
- BY OWNER PRIOR TO ROUGH-IN. CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING WITH THE OWNER TO DISCUSS ELECTRICAL DEVICE LOCATIONS WITH RESPECT TO MIRROR LOCATIONS. F. ELECTRICAL CONTRACTOR SHALL DO NO ADDITIONAL WORK UNTIL THE EXECUTION
- OF A SIGNED CHANGE ORDER IS SIGNED BY THE OWNER. CONTRACTOR WILL RUN THE RISK OF NOT BEING PAID UNLESS ALL CHANGE ORDERS HAVE BEEN APPROVED AND SIGNED OFF BY THE OWNER. G. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL ALL CAT 6A CABLING
- ASSOCIATED WITH DATA DROPS. COORDINATE NUMBER O F DROPS WITH OWNER PRIOR TO ROUGH-IN. CAT 6A CABLE DROPS SHALL BE RUN FROM DATA DROPS SHOWN ON PLANS TO EXISTING IT LOCATION IN MAIN ELECTRICAL ROOM. CONTRACTOR TO DETERMINE REQUIREMENTS INSIDE I.T. ROOM WITH OWNER PRIOR TO BID. OWNER TO PROVIDE ALL RACKS AND SERVER EQUIPMENT.

	$\frac{1}{3}$	LIGHTING DEVICE SYMBOLS			
m	مرر	PLAN SYMBOL	NAME		
		Sĸ	3-WAY SWITCH - KEY OPERATED		
R BOX TYPE. NUFACTURER.			LIGHT SWITCH		
Kets, Blank 5. Ons and K depth with Tion and IIT shop		S	LIGHT SWITCH		
OR PRIOR DNE (1) _ SOURCE		S 3	SWITCH - 3 WAY		
NCTION BOX UNCTION BOX CEILING PROVIDE ICTORS		HD	SWITCH - DIMMER		
UPLEX EQUIVALENT OVIDE 4" BOX DEPTH N		Sĸ	SWITCH - KEY OPERATED		

ONE LINE SYMBOL				
PLAN SYMBOL	NAME			
, ,	CIRCUIT BREAKER			
$\sim$	CONTINUATION			
• • • • •	GROUND BAR			
	PANEL BOARD			
	SWITCHBOARD			
	SWITCHBOARD/SWITCHGEAR			

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ARCHITE C1



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