

ELECTRICAL SYSTEMS SYMBOLS

ULTRA LOW VOLTAGE SYSTEMS SYMBOLS

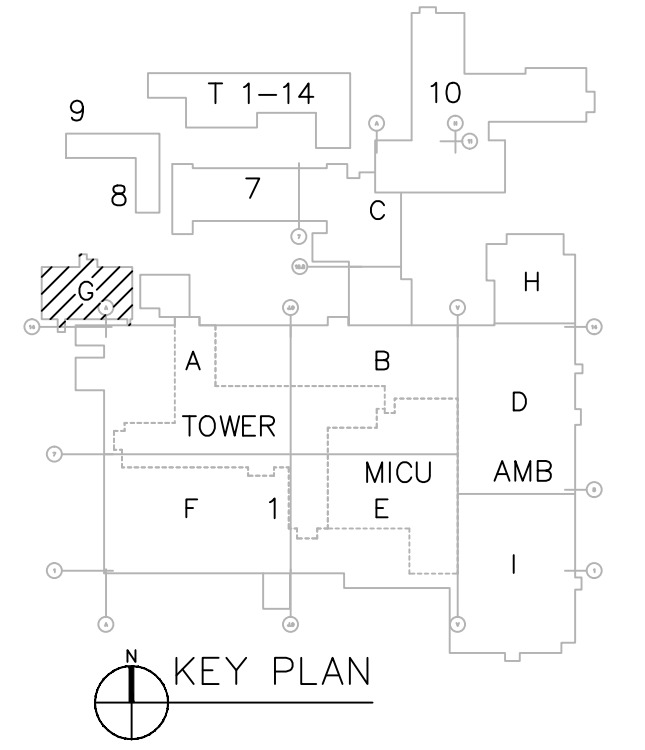
ABBREVIATIONS

Diagram symbols for electrical systems including circuit breaker panels, automatic transfer switches, generators, switches, fuses, circuit breakers, meters, transformers, ground connections, motor starters, wall mounted switches, junction boxes, lighting fixtures, emergency battery packs, and lighting fixtures with emergency battery packs.

Diagram symbols for ultra low voltage systems including ceiling/wall exit signs, duplex receptacles, special receptacles, duplex receptacles, enclosed circuit breakers, panelboards, control pushbuttons, lighting or motor control contactors, variable frequency drives, and automatic transfer switches.

Diagram symbols for fire alarm systems including manual pull stations, fire alarm modules/relays, fire alarm panels/cabinets, fire alarm audio only horn signaling devices, fire alarm visual signaling devices, magnetic door holders, heat detectors, smoke detectors, duct smoke detectors, suppression abort stations, suppression agent release stations, fire alarm flow switches, fire alarm tamper switches, power supplies, remote indicators, remote trouble indicators, and remote test switches.

A, AMP	AMPERE	LED	LIQUID EMITTING DIODE
A/C	AIR CONDITIONER	MAX	MAXIMUM
AC	ABOVE COUNTER	MC	MECHANICAL CONTRACTOR
AF	AMP FUSE	MCB	MAIN CIRCUIT BREAKER
AFF	ABOVE FINISHED FLOOR	MFR	MANUFACTURER
AFG	ABOVE FINISHED GRADE	MH	MANHOLE OR METAL HAULIDE
AIC	AMPERES INTERRUPTING CAPACITY	MIN	MINIMUM
ALT	ALTERNATE	MLO	MAIN LUGS ONLY
ATS	AUTOMATIC TRANSFER SWITCH	MOV	MOTOR OPERATED VALVE
AUTO	AUTOMATIC	MS	MOTOR STARTER
AWG	AMERICAN WIRE GAUGE	MSB	MAIN SWITCHBOARD
BD	BOARD	MT	MOUNT
BDR	BUILDING DISTRIBUTOR ROOM	MTD	MOUNTED
BFC	BELOW FINISHED CEILING	MTG	MOUNTING
BFG	BELOW FINISHED GRADE	N/A	NOT APPLICABLE
BKR	BREAKER	NC	NORMALLY CLOSED
BOC	BOTTOM OF CONDUIT	NEC	NATIONAL ELECTRICAL CODE
BOT	BOTTOM OF TRAY	NEMA	NATIONAL ELECTRIC MANUFACTURERS ASSOCIATION
C	CONDUIT	NEUT, N	NEUTRAL
CAB	CABINET	NF	NON FUSED
CAT	CATEGORY	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
CB	CIRCUIT BREAKER	NIC	NOT IN CONTRACT
CCR	CAMPUS COMMUNICATIONS ROOM	NL	NIGHT LIGHT
CCTV	CONDUIT FOR CLOSED CIRCUIT TELEVISION	NO.	NUMBER
CDR	CAMPUS DISTRIBUTOR ROOM	NO	NORMALLY OPEN
CKT	CIRCUIT	NTS	NOT TO SCALE
CLF	CURRENT LIMITING FUSE	OC	ON CENTER
CLG	CEILING	OF/CI	OWNER FURNISHED/ CONTRACTOR INSTALLED
CO	CONDUIT ONLY	OF/OI	OWNER FURNISHED/OWNER INSTALLED
COMB	COMBINATION		
COND	CONDUCTOR		
CONT	CONTINUOUS	PB	PULLBOX
CONTR	CONTRACTOR	PBX	PRIVATE BRANCH EXCHANGE
CT	CURRENT TRANSFORMER	PEN	PENDANT
CTR	CENTER	PHØ	PHASE
CU	COPPER	PNL	PANEL
CU/S	COPPER CABLE - SURFACE	PAR	PAR
CU/UG	COPPER CABLE - UNDERGROUND	PR	PRIMARY
		PS	POWER SUPPLY OR PULSE START
		PT	POTENTIAL TRANSFORMER
		PVC	POLYVINYL CHLORIDE
		PWR	POWER
		REC	RECEPTACLE
		REL	RELOCATED
		REQ	REQUIRED
		RGS	RIGID GALVANIZED STEEL
		RM	ROOM
		RPM	REVOLUTIONS PER MINUTE
		SES	SERVICE ENTRANCE SECTION
		SHT	SHEET
		SPEC	SPECIFICATION
		SPKR	SPEAKER
		SQ	SQUARE
		ST	SHUNT TRIP
		SURF	SURFACE
		SW	SWITCH
		SWBD	SWITCHBOARD
		TBD	TO BE DETERMINED
		TC	TIME CLOCK
		TEL	TELEPHONE
		TEMP	TEMPERATURE
		TYP	TYPICAL
		UC	UNDER COUNTER
		UG	UNDERGROUND
		UGD	UNDERGROUND DATA
		UGP	UNDERGROUND PRIMARY
		UG PWR	UNDERGROUND POWER
		UGS	UNDERGROUND SECONDARY
		UH	UNIT HEATER
		UL	UNDER WRITERS LABORATORY
		UON	UNLESS OTHERWISE NOTED
		UPS	UNINTERRUPTIBLE POWER SUPPLY
		UTP	UNSHIELDED TWISTED PAIR
		V	VOLT OR VOLTS
		V/A	VOLT AMPS
		VFD	VARIABLE FREQUENCY DRIVE
		W	WATT OR WIRE
		W/O	WITH
		W/O	WITH OUT
		WAN	WIDE AREA NETWORK
		WAP	WIRELESS ACCESS POINT
		WP	WEATHERPROOF
		WPL	WEATHER PROOF LOCKABLE ENCLOSURE
		WT	WEATHER TIGHT
		Z	ZONE
J-BOX, JB	JUNCTION BOX		
KVA, KVA	KILOVOLT AMPERES		
KW, KW	KILOWATTS		
KWH, KWH	KILOWATT HOURS		
LCD	LIQUID CRYSTAL DISPLAY		



DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION

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