

ELECTRICAL LEGEND

LIGHTING		FIRE ALARM	
	FLUORESCENT LIGHTING FIXTURE		FIRE FIGHTER TELEPHONE JACK
	EMERGENCY FLUORESCENT LIGHTING FIXTURE		MANUAL PULL STATION
	SUPERSCRIPT LETTER & NUMBER INDICATES FIXTURE NUMBER (SEE LIGHTING FIXTURE SCHEDULE) SUPERSCRIPT NUMBER INDICATES CIRCUIT NUMBER (SEE PANEL SCHEDULE) SUPERSCRIPT LOWER CASE LETTER INDICATES SWITCH CONTROL		FIRE ALARM HORN
	COVE LIGHTING FIXTURE		COMBINATION FIRE ALARM HORN WITH STROBE LIGHT
	INCANDESCENT, FLUORESCENT OR H.I.D. LIGHTING FIXTURE		FIRE ALARM SPEAKER
	EMERGENCY INCANDESCENT, FLUORESCENT OR H.I.D. LIGHTING FIXTURE		COMBINATION FIRE ALARM SPEAKER & STROBE LIGHT
	WALL MOUNTED LIGHTING FIXTURE		FIRE ALARM STROBE LIGHT
	EMERGENCY WALL MOUNTED LIGHTING FIXTURE		FIRE ALARM CONTROL PANEL
	TRACK LIGHT		FIRE ALARM ANNUNCIATOR
	CEILING OR PENDANT MOUNTED EXIT LIGHTING FIXTURE (ARROW INDICATES DIRECTION ARROW)		DUCT DETECTOR
	WALL (BACK) OR WALL (END) MOUNTED EXIT LIGHTING FIXTURE		HEAT DETECTOR
	ARROW SINGLE EXIT		IONIZATION SMOKE DETECTOR
	ARROW 2-WAY EXIT		PHOTO ELECTRIC SMOKE DETECTOR
	ARROW DOUBLE EXIT		RATE OF RISE HEAT DETECTOR
	EMERGENCY LIGHT		SMOKE DAMPER
	DUAL HEDD EMERGENCY		PREACTION VALVE
	POST MOUNTED FIXTURE		FLOW SWITCH
CONTROLS			TAMPER SWITCH
	SINGLE POLE SWITCH		DOOR HOLDER
	DOUBLE POLE SWITCH		ELECTRIC BELL
	THREE-WAY SWITCH		CHIME LIGHT
	FOUR-WAY SWITCH		AUTO DIALER
	KEY SWITCH		DUCT TEST STATION
	OCCUPANCY SENSOR SWITCH		END OF LINE RESISTOR
	DIMMER SWITCH		INDIVIDUAL ADDRESSABLE MODULER
	FIVE BUTTON PRESET STATION		KNOX BOX
	TEN BUTTON PRESET STATION	COMMUNICATION	
	COMBO FADER/PRESET STATION: #F=NUMBER OF FADERS P#=# NUMBER OF PRESET BUTTONS		CEILING COMM. SPEAKER
	MULTI-LEVEL SWITCHING		SOUND MASKING SPEAKER
	OCCUPANCY SENSOR		TV OUTLET
	LIGHTING DMX RECEPTACLE REFER TO CONTROL SCHEMATIC TO DETERMINE IN OR OUT		AUDIO/VIDEO J-BOX (2 GANG W/COVER)
	LIGHTING REMOTE TOUCH SCREEN RECEPTACLE REFER TO LIGHTING CONTROL SCHEMATIC		VOLUME CONTROL
	PHOTOCELL		WALL COMM. SPEAKER
	PILOT SWITCH		AMPLIFIER
	MOTOR SWITCH		INTERCOM
	COMBINATION MAGNETIC MOTOR STARTER		MICROPHONE
	WEATHERPROOF COMBINATION MAGNETIC MOTOR STARTER		WALL VOICE/DATA-AS SCHEDULED
	FUSED SAFETY SWITCH		FLOOR VOICE/DATA-AS SCHEDULED
	NON-FUSED SAFETY SWITCH		CEILING OR SPECIAL VOICE/DATA AS SCHEDULED
	ELECTRIC PUSHBUTTON		ANALOG WALL CLOCK
	BOILER EMERGENCY SHUTDOWN SWITCH		DIGITAL WALL CLOCK
	VARIABLE FREQUENCY DRIVE		TIMER CONTROLLED WALL CLOCK
POWER DEVICE			WALL CLOCK
	SPECIAL EQUIPMENT CONNECTION (WC=WATER COOLER)		COMM. CABINET
	JUNCTION BOX		GROUNDING BUSBAR
	FLOOR MOUNTED JUNCTION BOX		TEL BACKBOARD
	CEILING MOUNTED JUNCTION BOX		HORN SPEAKER
	SIMPLEX RECEPTACLE		INTERCOM STATION
	DUPLEX RECEPTACLE		REMOTE INTERCOM
	DUPLEX RECEPTACLE ABOVE COUNTER		WIRELESS ACCESS POINT
	FLOOR RECEPTACLE		COMMUNICATION CABLE TRAY
	CEILING DUPLEX RECEPTACLE	SECURITY	
	GROUND FAULT DUPLEX RECEPTACLE		CARD READER
	ISOLATED GROUND DUPLEX RECEPTACLE		KEY PAD
	WEATHERPROOF DUPLEX RECEPTACLE		MOTION DETECTOR
	FLOOR QUADRUPLEX RECEPTACLE		MOTION SENSOR
	QUADRUPLEX RECEPTACLE		ELECTRIC DOOR STRIKE
	MULTI-OUTLET ASSEMBLY		KEEPER SWITCH
	PULL BOX		ELECTRIC LOCK
	MANHOLE		MAGNETIC LOCK
			SOUNDER
			INFRARED DETECTOR
			DOOR POSITION SWITCH
			GLASS BREAKAGE DETECTOR
			SECURITY/DURESS ALARM
			LOCK POSITION SENSOR
			DOOR RELEASE

OTHER POWER		LIGHTNING PROTECTION	
	HAND DRYER		LIGHTNING BIMETAL CONNECTOR
	HEATER		LIGHTNING BONDING POINT
	THERMOSTAT		LIGHTNING AIR TERMINAL
	MOTOR DAMPER		LIGHTNING CABLE THRU ROOF
	ELECTRICAL PANEL	CIRCUITING	
	POWER CABLE TRAY		EXISTING CIRCUIT
NURSE CALL			CIRCUITING IN CEILING, BELOW FLOOR OR IN WALL
	ANNUNCIATOR		J-HOOKS WITH CABLING
	BLUE STATION		LITE CIRCUITING
	CODE BLUE		CIRCUITING FOR EMERGENCY SYSTEM
	NURSE CALL LIGHT		UNDERGROUND
	DUTY STATION		HOMERUN
	MASTER CONTROL STATION	SCHEMATIC	
	OPERATING ROOM STATION		AMP
	NURSE CALL		TV CAMERA
	STAFF EMERGENCY		AMMETER
	STAFF EMERGENCY STATION		METER
	TOILET SHOWER STATION		VOLTMETER
	ZONE LIGHT		POWER METER
			MOTOR
			THREE WIRE CIRCUIT (EMERGENCY FEED SCHEMATIC)
		ONE-LINE	
			UTILITY FEED
			BUS
			HIGH VOLTAGE BREAKER
			CT RELAY
			FUSED DISCONNECT
			CABLE
			FAULTED CIRCUIT INDICATOR
			FUSE
			LOW VOLTAGE BREAKER
			TWO-WINDING TRANSFORMER (DELTA-WYE)
			DISCONNECT SWITCH
			INTERLOCKED NORMALLY OPEN (N.O.) AND NORMALLY CLOSED (N.C.) DISCONNECT SWITCHES.
			TEXTBLOCK IDENTIFYING LOCATION OF MANHOLE #1 RELATIVE TO ONE-LINE
			CONNECTION POINT
			CIRCUIT MONITORING EQUIPMENT
			AUTOMATIC TRANSFER SWITCH PHASE CONDUCTORS
			AUTOMATIC TRANSFER SWITCH NEUTRAL CONDUCTOR
			NEUTRAL BUS BAR FOR GROUNDED CONDUCTOR
			GROUND BUS BAR FOR EQUIPMENT GROUNDED CONDUCTOR
			GROUNDING ELECTRODE
			SPLICE BOX

MECHANICAL LEGEND

MECHANICAL LEGEND			
	FLOAT & THERMOSTATIC TRAP		HIGH PRESSURE STEAM
	BUCKET TRAP		MEDIUM PRESSURE STEAM
	FLOAT TRAP		LOW PRESSURE STEAM
	THERMOSTATIC TRAP		HIGH PRESSURE CONDENSATE
	GAUGE (P = PRESSURE, T = TEMPERATURE)		MEDIUM PRESSURE CONDENSATE
	THERMOSTAT		LOW PRESSURE CONDENSATE
	HUMIDISTAT		PUMPED CONDENSATE/BOILER FEED
	THERMOMETER		MAKEUP WATER
	PRESSURE/TEMPERATURE TEST STATION		HOT WATER HEATING SUPPLY
	THERMAL BULB		HOT WATER HEATING RETURN
	FLOW SENSOR		REFRIGERANT LIQUID
	FLOW CONTROLLER		REFRIGERANT DISCHARGE
	FLOW MEASURING STATION		REFRIGERANT SUCTION
	HUMIDIFIER		BOILER FEED
	FLOW DIRECTION ARROW		CHILLED WATER SUPPLY
	SLEEVE		CHILLED WATER RETURN
	CONCENTRIC REDUCER		CONDENSER WATER SUPPLY
	ECCENTRIC REDUCER		CONDENSER WATER RETURN
	STRAINER		HEAT PUMP PIPING
	UNION		RECLAIM PIPING
	PIPE ANCHOR		DRAIN
	PIPE GUIDE		CONDENSATE DRAIN
	EXPANSION JOINT		DRINKING WATER SUPPLY
	FLEXIBLE PIPE CONNECTION		DRINKING WATER RETURN
	SPRINKLER HEAD		REVERSE OSMOSIS WATER
	SIDEWALL SPRINKLER HEAD		DEIONIZED WATER
	SPRINKLER PIPING		RECIRCULATING DEIONIZED WATER
	CHEMICAL FIRE PROTECTION PIPING		WASTE ABOVE GRADE OR FLOOR
	SENSOR (P=PRESSURE SENSOR, T=TEMPERATURE SENSOR)		WASTE BELOW GRADE OR FLOOR
	INSULATED PLENUM WALL		CLEANOUT
	ACOUSTICAL LINING		STORM ABOVE GRADE OR FLOOR
	AIR FLOW		STORM BELOW GRADE OR FLOOR
	DUCT SECTION - SUPPLY		DOMESTIC COLD WATER (SW=SOFTENED WATER)
	DUCT SECTION - RETURN		DOMESTIC HOT WATER (SW=SOFTENED WATER)
	DUCT SECTION - OUTSIDE AIR		RECIRCULATING DOMESTIC HOT WATER (SW=SOFTENED WATER)
	DUCT SECTION - EXHAUST AIR		TEMPERED WATER (ARROW INDICATES FLOW DIRECTION)
	INCLINED RISE (R) OR DROP (D) - ARROW IN DIRECTION OF RISE OR DROP		PLUMBING VENT
	MANUAL DAMPER		PLUMBING VENT BELOW FLOOR
	BACKDRAFT DAMPER		VENT THRU ROOF - VTR
	MOTOR OPERATED DAMPERS		ACID WASTE
	SMOKE DAMPER		ACID VENT
	FIRE/SMOKE DAMPER		ACID WASTE BELOW GRADE OR FLOOR
	FIRE DAMPER		ACID VENT BELOW FLOOR
	TURNING VANES		FUEL OIL SUPPLY
	FLEXIBLE DUCT		FUEL OIL RETURN
	FLEXIBLE DUCT CONNECTION		FUEL OIL FILL
			FUEL OIL VENT
			FUEL OIL INDICATOR
			LIQUIFIED PETROLEUM GAS
			GAS
			OXYGEN
			VACUUM
			COMPRESSED AIR
			BREATHING AIR
			NITROGEN
			COMPRESSED AIR SYSTEM
			CARBON DIOXIDE
			SHUTOFF VALVE SEE SPECIFICATIONS FOR TYPE FOR SYSTEM
			AUTOMATIC CONTROL VALVE (TWO WAY)
			AUTOMATIC CONTROL VALVE (THREE WAY)
			CHECK VALVE
			PRESSURE REDUCING VALVE
			OUTSIDE STEM & YOKE VALVE - OS&Y
			PLUG COCK
			CURB STOP
			RELIEF OR SAFETY VALVE
			SOLENOID VALVE
			STOP COCK
			THERMAL EXPANSION VALVE
			POST INDICATOR VALVE
			FIRE HYDRANT
			BALL DRIP VALVE
			MANUAL AIR VENT
			AUTOMATIC AIR VENT

THIS IS A MASTER SYMBOLS LIST. ALL SYMBOLS LISTED MAY NOT BE APPLICABLE TO THIS PARTICULAR PROJECT.

Revisions:	Date

CONSULTANTS:

BUILDING IS FULLY SPRINKLED

ARCHITECT/ENGINEERS:
BROOKS BORG SKILES
 ARCHITECTURE ENGINEERING LLP
 317 6th Avenue, Suite 400
 Des Moines, IA 50309-4136
 515 244 7167
 AE PROJECT NO. 10031

Drawing Title
ELECTRICAL AND MECHANICAL SYMBOLS AND LEGENDS
 Scale: NONE
 Approved: Project Director

Project Title
CANTEEN RETAIL STORE
 Project Number
636A6-10-712
 Building Number
 -
 Location
DES MOINES, IOWA
 Date
 11/01/2011
 Checked
 Drawn
G002
 Dwg. 2 of 16

