

ELECTRICAL SHEET INDEX

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1-LINE SYMBOL LIST

SYMBOL	DESCRIPTION
	CIRCUIT BREAKER
	MOTOR (XX = MOTOR SIZE)
	NON-MOTOR LOAD
	METER
	PANEL
	TRANSFORMER
	MOTORIZED VALVE (MOV) WITH INTERNAL MAGNETIC STARTER

PEN WEIGHT LEGEND

SYMBOL	DESCRIPTION
	ALL DEVICES, LIGHT FIXTURES, ETC., DRAWN IN DARK SOLID LINES ARE NEW TO BE INSTALLED.
	NEW DUPLEX GROUNDED RECEPTACLE
	NEW LIGHT FIXTURE
	ALL DEVICES, LIGHT FIXTURES, ETC., DRAWN IN LIGHT SOLID LINES ARE EXISTING TO REMAIN.
	EXISTING DUPLEX GROUNDED RECEPTACLE TO REMAIN
	EXISTING LIGHT FIXTURE TO REMAIN
	ALL DEVICES, LIGHT FIXTURES, ETC., DRAWN IN DARK DASHED LINES ARE TO BE REMOVED.

ABBREVIATION LIST

ABBREVIATION	DESCRIPTION
A	AMPS
A.I.C.	AMPS INTERRUPTING CAPACITY
A.T.S.	AUTOMATIC TRANSFER SWITCH
AF	AMP FRAME
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AT	AMP TRIP
E	EMERGENCY POWER
ESD	EMERGENCY SHUTDOWN SWITCH
GEN	GENERATOR
HP	HORSE POWER
KW	KILOWATT
N	NORMAL POWER
PH	PHASE
SPD	SURGE PROTECTION DEVICE
UON	UNLESS OTHERWISE NOTED
V	VOLTAGE
VFD	VARIABLE FREQUENCY DRIVE
W	WIRE
WP	WEATHERPROOF
XFMR	TRANSFORMER

GENERAL NOTES

- ALL ELECTRICAL WORK SHALL COMPLY WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (NEC) & THE AMERICANS WITH DISABILITIES ACT (ADA).
- REFER TO RELATED CIVIL AND STRUCTURAL DRAWINGS FOR RELATED INFORMATION.
- REFER TO THE SPECIFICATIONS FOR DATA NOT ON THE DRAWINGS.
- ALL MOUNTING HEIGHTS TO CENTERLINE OF ITEM UNLESS OTHERWISE NOTED. VERIFY ALL OUTLET LOCATIONS ON THE JOB PRIOR TO ROUGH-IN.
- CONDUIT RUN W/CONDUCTORS AS INDICATED & GROUND WIRE SIZED PER N.E.C. 250.122. CONDUIT SIZE AS REQUIRED.
- WHEN INCREASED CONDUCTOR SIZES ARE SHOWN ON THE PLANS, THE LARGER CONDUCTOR SIZE SHALL BE USED THROUGHOUT THE LENGTH OF THE CIRCUIT, INCLUDING NEUTRAL AND GROUND.
- BRANCH CIRCUITS ARE INDICATED AS ONE CIRCUIT HOME RUNS WITH INDIVIDUAL NEUTRALS. A MAXIMUM OF THREE CIRCUITS (MAXIMUM OF THREE PHASE CONDUCTORS) MAY BE GROUPED IN A SINGLE CONDUIT. WHERE MULTIPLE CIRCUITS ARE LOCATED IN THE SAME RACEWAY, JUNCTION BOX OR ENCLOSURE, NEUTRALS SHALL BE MARKED OR LABELED TO INDICATE WHICH CIRCUIT THEY ARE ASSOCIATED WITH. SEE SPECIFICATION SECTION "LOW VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES" FOR ADDITIONAL INFORMATION.

SYMBOL LIST

SYMBOL	DESCRIPTION	MOUNTING
	DUPLEX RECEPTACLE	18" AFF
	SWITCHES (1-POLE, 2-POLE, 3-WAY, 4-WAY)	46" AFF
	JUNCTION BOX	
	BRANCH CIRCUIT PANEL & PANEL DESIGNATION	72" TO TOP
	ELECTRICAL DISTRIBUTION EQUIPMENT	
	FEEDER DESIGNATION	
	CONDUIT HOME RUN, 1 CIRCUIT. 2#10 & 1#10 GRD. GEN. NOTE 5 & 6	CEIL./WALL
	CONDUIT RUN 2#12 & 1#12 GRD. - 1/2"	CEIL./WALL
	CONDUIT RUN 2#12 & 1#12 GRD. - 3/4"	EARTH/FLOOR
	CONDUIT HOME RUN, 1 CIRCUIT. 2#12 & 1#12 GRD. 1/2"	CEIL./WALL
	CONDUIT RUN PARTIAL CIRCUIT. 2#12 & 1#12 GRD. 1/2"	CEIL./WALL
	CONDUIT HOME RUN, 2 CIRCUITS PHASE CONDUCTORS (#12 UON) NEUTRAL CONDUCTOR (#12 UON) SWITCH LEGS (#12 UON) GROUND CONDUCTOR (#12 UON)	CEIL./WALL
	DISCRETE CONTROL CABLE (# OF PAIRS)	CEIL./WALL
	ANALOG CONTROL CABLE (# OF SHIELDED PAIRS)	CEIL./WALL
	EMERGENCY STOP PUSHBUTTON	
	MECHANICAL EQUIPMENT	
	MAN DOWN SWITCH	
	LIGHT FIXTURE & FIXTURE LETTER	WALL
	STRIP LIGHT FIXTURE & FIXTURE LETTER	CEILING
	FIXTURE W/ SHADED LAMP(S) ON EMERG. POWER	CEILING
	CIRCUIT BREAKER	
	ATS	
	MOTOR	
	EMERGENCY SHUTDOWN PUSHBUTTON	WALL

EXISTING CONTROL PANEL CP

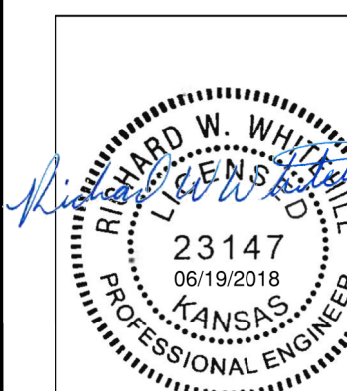
CIRCUIT NO.	EQUIPMENT SERVED/ MARK	CONNECT				DESCRIPTION/FUNCTION	CONDUCTORS IN CABLE	DISCRETE	ANALOG	DIGITAL	INPUT	OUTPUT	REMARKS
		DEVICE	PL	STARTER	VFD								
1	GENERATOR	-	X	-	-	RUN STATUS	2	X	-	-	X	-	
2		-	X	-	-	FAIL	2	X	-	-	X	-	ALARM IN SCADA
3		-	X	-	-	LOW FUEL	2	X	-	-	X	-	NOTIFICATION IN SCADA
4		-	X	-	-	CIRCUIT BREAKER STATUS	2	X	-	-	X	-	
5		-	X	-	-	NORMAL POSITION	2	X	-	-	X	-	
6	ATS	-	X	-	-	EMERGENCY POSITION	2	X	-	-	X	-	
7		-	X	-	-	AUTO/MAN STATUS	2	X	-	-	X	-	NOTIFICATION IN SCADA
8	ESD	X	-	-	-	EMERGENCY SHUTDOWN PB	2	X	-	-	X	-	ALARM IN SCADA

1 ADD I/O TO EXISTING PANEL. MODIFY EXISTING SCADA PROGRAMMING TO INTEGRATE ADDED DEVICES.

LIGHTING FIXTURE SCHEDULE

FIXT. LTR.	MANUFACTURER CATALOG NUMBER	MANUFACTURER CATALOG NUMBER	MANUFACTURER CATALOG NUMBER	MANUFACTURER CATALOG NUMBER	DESCRIPTION SEE NOTES	LAMP TYPE NO. VOLTS	LENS\LOUVER\FINISH REMARKS	W	L	D
D	EXISTING FIXTURE TO BE REMOVED									
E	EXISTING FIXTURE TO REMAIN									
L	WILLIAMS 96-4-162/840-HIAFR					6200LM 4000K 82CRI 1 UNV 73-WATT	HIAFR	.614	4	.343
LE	WILLIAMS 96-4-162/840-HIAFR-EM/10W PROVIDE WITH 10-WATT EMERGENCY BATTERY DRIVER.					6200LM 4000K 82CRI 1 UNV 73-WATT	HIAFR	.614	4	.343

- MANUFACTURERS LISTED IN THIS SCHEDULE OR APPROVED BY WRITTEN ADDENDUM WILL BE THE ONLY APPROVED MANUFACTURERS TO BID THE LIGHTING FIXTURES FOR THIS PROJECT. CONTRACTORS AND SUPPLIERS USING PRICING FROM MANUFACTURERS NOT LISTED ON SCHEDULE OR BY ADDENDUM DO SO AT THEIR OWN RISK.
- LIGHT FIXTURE SELECTIONS ARE BASED ON THE MANUFACTURER IN THE LEFT MOST COLUMN AS LISTED IN THE SCHEDULE. FIXTURES APPROVED AS EQUALS IN THIS SCHEDULE OR BY ADDENDUM SHALL BE EQUAL TO THE UNIT SPECIFIED IN THE LEFT MOST COLUMN, IE: SPRING LOADED LATCHES, POST PAINTED FINISH, AND PHOTOMETRICS.
- ALL LIGHT FIXTURES SHALL BE SECURED TO THE CEILING FRAMING SYSTEM BY MECHANICAL MEANS (SUCH AS BOLTS, SCREWS, OR RIVETS) OR BY CLIPS IDENTIFIED FOR USE WITH THE TYPE OF CEILING FRAMING MEMBER AND LIGHT FIXTURE.



No.	Revision	By	Date

PUMP STATION
37TH ST GENERATOR
ELECTRICAL LEAD SHEET

MIKE JACOBS - SUPERINTENDENT OF PRODUCTION AND PUMPING
CITY OF WICHITA PROJECT NO. 448-90903

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Designed by RWW	Job No. 06030-006	Sht. E0.1
Drawn by JBG	Date June 2018	