

A AMPERE  
 AFF ABOVE FINISHED FLOOR  
 AFG ABOVE FINISHED GRADE  
 AIC AMPERES INTERRUPTING CAPACITY  
 AL ALUMINUM  
 AMPS AMPERES  
 ATS AUTOMATIC TRANSFER SWITCH  
 C CONDUIT  
 CB CIRCUIT BREAKER  
 CKT CIRCUIT  
 CONT. CONTINUATION  
 CPT CONTROL POWER TRANSFORMER  
 CS COMBINATION STARTER  
 CT CURRENT TRANSFORMER  
 C/C CENTER TO CENTER  
 CU COPPER  
 DP DIFFERENTIAL PRESSURE  
 EUC ELECTRIC UTILITY CO.  
 EXIST. EXISTING  
 FO FIBER OPTIC  
 FT FEET  
 FVNR FULL VOLTAGE NON REVERSING  
 GFI GROUND FAULT INTERRUPTER  
 GFS GROUND FAULT SENSING  
 GA GAUGE  
 G GROUND  
 HOA HAND-OFF-AUTO SELECTOR SWITCH  
 HP HORSEPOWER  
 HTR HEATER  
 HZ HERTZ  
 ID INTERNAL DIAMETER  
 IRP INTERPOSING RELAY PANEL  
 JB JUNCTION BOX  
 KVA KILOVOLT-AMPERE  
 KW KILOWATT  
 LED LIGHT EMITTING DIODE  
 LTG. LIGHTING  
 MBFV MOTOR OPERATED BUTTERFLY VALVE  
 MCB MAIN CIRCUIT BREAKER  
 MCC MOTOR CONTROL CENTER  
 MCP MOTOR CIRCUIT PROTECTOR  
 MFR'S MANUFACTURER'S  
 MH MANHOLE  
 MLO MAIN LUGS ONLY  
 MPR MOTOR PROTECTION RELAY  
 NF NON-FUSED  
 O/C ON CENTER  
 OD OUTSIDE DIAMETER  
 OHE OVERHEAD ELECTRIC  
 P POLE  
 PB PULL BOX  
 PC PHOTOCCELL  
 PH OR PH PHASE  
 PL PLATE  
 PLC PROGRAMMABLE LOGIC CONTROLLER  
 PR. PAIR CABLE  
 PVC POLYVINYLCHLORIDE CONDUIT  
 RC REMOTE CONTROL  
 REC. CIRCUIT RECLOSURE  
 REQD. REQUIRED  
 RTD RESISTANCE TEMPERATURE DETECTOR  
 RTU REMOTE TERMINAL UNIT  
 S/N SOLID NEUTRAL  
 SHLD. SHIELD  
 SHT. SHEET  
 SPD SURGE PROTECTION DEVICES  
 S.S. STAINLESS STEEL  
 SSRVS SOLID-STATE REDUCED VOLTAGE STARTER  
 STA. STATION  
 STC SIGNAL TERMINATION CABINET  
 SW. SWITCH  
 TC TRAY CABLE OR TERMINATION CABINET  
 TR. TRIAD  
 (TYP.) TYPICAL  
 UPS UNINTERRUPTIBLE POWER SUPPLY  
 UTP UNSHIELDED TWISTED PAIR CABLE  
 VAR. VARIABLE  
 V VOLT  
 VFD VARIABLE FREQUENCY DRIVE  
 W WITH, WIRE OR WATT  
 WP WEATHERPROOF  
 WR WEATHER RESISTANT  
 XFMR TRANSFORMER  
 XMTR TRANSMITTER

27 UNDER VOLTAGE RELAY  
 47/27 UNDER VOLTAGE AND PHASE SEQUENCE RELAY  
 49 THERMAL RELAY  
 50 INSTANTANEOUS OVERCURRENT RELAY  
 50 GS INSTANTANEOUS GROUND OVERCURRENT RELAY  
 51 TIME OVERCURRENT RELAY  
 51 GS TIME OVERCURRENT GROUND FAULT RELAY  
 59 OVER VOLTAGE RELAY  
 63 PRESSURE SWITCH  
 86 LOCK OUT RELAY  
 87 MOTOR CURRENT DIFFERENTIAL RELAY  
 M MAIN CONTACTOR  
 BC BYPASS CONTACTOR  
 ETM ELAPSED TIME METER  
 CR A.C. INDUSTRIAL CONTROL RELAY  
 V VOLTMETER  
 VS VOLTMETER SWITCH  
 A AMMETER  
 AS AMMETER SWITCH  
 W WATTMETER  
 KWH KILOWATT-HOUR METER  
 ST SHUNT TRIP  
 TRP CAP CAPACITOR TRIP  
 PFR PHASE FAILURE, PHASE REVERSAL RELAY  
 UNDERVOLTAGE, OVERVOLTAGE RELAY  
 TR TIMING RELAY AS SPECIFIED  
 (TOE TIMED ON ENERGIZATION  
 TOD TIMED ON DEENERGIZATION)  
 IR INTERPOSING RELAY  
 5 SQUIRREL CAGE INDUCTION MOTOR  
 NUMBER DESIGNATES HORSEPOWER  
 PC PHOTOCCELL  
 PW PREWIRED  
 PB PULL BOX  
 MH MANHOLE  
 M UTILITY METER  
 LM MOTORIZED LOUVER  
 ▲ LOCATED AT SCADA RTU  
 ■ LOCATED REMOTE  
 ■ LOCATED AT MOTOR

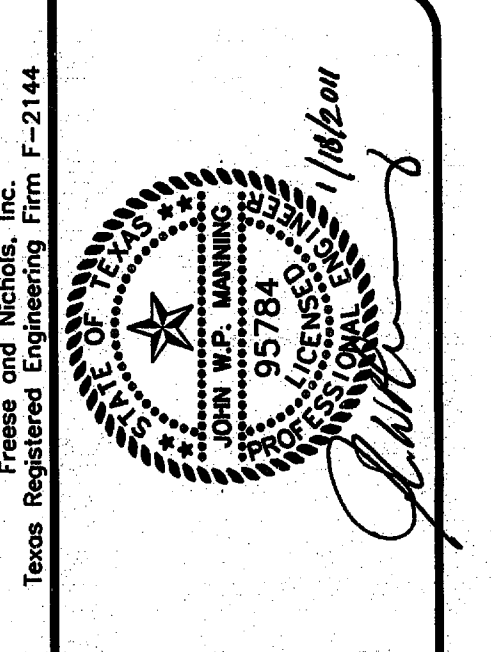
NORMALLY OPEN CONTACT  
 NORMALLY CLOSED CONTACT  
 OVERLOAD CONTACT  
 LIMIT SWITCH, N.O.  
 LIMIT SWITCH, N.O. (HELD CLOSED)  
 LIMIT SWITCH, N.C.  
 LIMIT SWITCH, N.C. (HELD OPEN)  
 PRESSURE/VACUUM SWITCH, N.O.  
 PRESSURE/VACUUM SWITCH, N.C.  
 LIQUID LEVEL SWITCH, N.O.  
 LIQUID LEVEL SWITCH, N.C.  
 TEMP, ACTUATED SWITCH, N.O.  
 TEMP, ACTUATED SWITCH, N.C.  
 FLOW SWITCH, (AIR/WATER) N.O.  
 FLOW SWITCH, (AIR/WATER) N.C.  
 TIMED CONTACTS, N.O.T.C.  
 (TIMED ON ENERGIZATION)  
 TIMED CONTACTS, N.C.T.O.  
 (TIMED ON ENERGIZATION)  
 TIMED CONTACTS, N.O.T.C.  
 (TIMED ON DE-ENERGIZATION)  
 TIMED CONTACTS, N.C.T.O.  
 (TIMED ON DE-ENERGIZATION)  
 PUSHBUTTON, N.O.  
 PUSHBUTTON, N.C.  
 CIRCUIT BREAKER  
 A=AMP TRIP, P=POLES  
 MCP MOTOR CIRCUIT PROTECTOR  
 SURGE CAPACITOR  
 SURGE ARRESTOR  
 EMERGENCY STOP  
 (LOCAL/REMOTE)  
 FUSED SWITCH  
 SWITCH  
 MOTOR OVERLOAD  
 VACUUM CONTACTOR  
 SPEED POTENTIOMETER  
 SELECTOR SWITCH  
 (X / Y / Z)

POTENTIAL TRANSFORMER  
 CURRENT TRANSFORMER  
 GROUND CURRENT SENSOR TRANSFORMER  
 CONTROL TRANSFORMER  
 TRANSFORMER  
 CONTROL POWER TRANSFORMER  
 REACTOR  
 PANEL  
 STAB  
 FUSED CONTACTOR DRAWOUT TYPE  
 DRAWOUT CIRCUIT BREAKER  
 KIRK KEY INTERLOCK  
 MECHANICAL INTERLOCK  
 FUSE  
 TERMINAL  
 NODE  
 GROUND  
 INDICATING LAMP, COLOR INDICATED  
 R=RED, G=GREEN, W=WHITE, A=AMBER, B=BLUE  
 PTT=PUSH TO TEST  
 DEVICE LOCATED IN FIELD  
 INSTRUMENT W/TAG  
 CABLE TAG  
 FOUR #14 CONTROL OR POWER CONDUCTORS,  
 ONE #14 GROUND CONDUCTOR. ALL CONDUCTORS  
 IN A 3/4" CONDUIT. TWO OF THE FOUR #14  
 CONTROL OR POWER CONDUCTORS ARE SPARE.  
 FLEXIBLE CONDUIT  
 HEAT TRACE  
 WIRING IN CONDUIT EXPOSED  
 UNDERGROUND WIRING OR  
 WIRING IN CONDUIT CONCEALED  
 OVERHEAD ELECTRIC LINE  
 UNDERGROUND ELECTRIC LINE  
 OVERHEAD PRIMARY LINE  
 UNDERGROUND PRIMARY LINE  
 OVERHEAD SECONDARY LINE  
 UNDERGROUND SECONDARY LINE  
 OVERHEAD COMMUNICATION LINE  
 UNDERGROUND COMMUNICATION LINE  
 OVERHEAD FIBER OPTIC LINE  
 UNDERGROUND FIBER OPTIC LINE  
 CONDUIT TURNED UP  
 CONDUIT TURNED DOWN  
 NUMBER  
 IDENTIFIER  
 REFERENCE: X/X-XX  
 SHEET NUMBER

NON-FUSED DISCONNECT SWITCH  
 FUSED DISCONNECT SWITCH  
 COMBINATION MOTOR STARTER SWITCH  
 SINGLE POLE SWITCH  
 MANUAL MOTOR STARTER  
 THREE WAY SWITCH  
 FOUR WAY SWITCH  
 DIMMING SWITCH  
 DUPLEX RECEPTACLE, GROUNDED TYPE  
 WP=WEATHERPROOF/GFI=GROUND FAULT INTERRUPTER  
 QUADPLEX RECEPTACLE, GROUNDED TYPE  
 QUADPLEX RECEPTACLE, ABOVE COUNTER  
 DUPLEX RECEPTACLE, ABOVE COUNTER  
 SIMPLEX RECEPTACLE, GROUNDED TYPE  
 FLOOR MOUNTED RECEPTACLE  
 THERMOSTAT  
 EXIT LIGHT (DARKENED AREA  
 REPRESENTS FACE ORIENTATION)  
 CEILING MOUNTED STROBE  
 WALL MOUNTED STROBE  
 SMOKE DETECTOR  
 HEAT DETECTOR  
 HORN  
 COMBINATION STROBE/HORN  
 JUNCTION BOX  
 JUNCTION  
 DATA  
 TELEPHONE  
 TELEPHONE/DATA  
 FLOOR MOUNTED DATA OUTLET  
 FLOOR MOUNTED TELEPHONE OUTLET  
 POKE-THRU DEVICE  
 COMBINATION POWER/DATA/VOICE OUTLET  
 FLOOR COMBINATION POWER/DATA/VOICE OUTLET  
 CATV  
 GROUND ROD  
 GROUND ROD TEST WELL  
 HOMERUN, PANELBOARD CIRCUIT AS INDICATED  
 POWER POLE  
 EMERGENCY BATTERY PACK LIGHT FIXTURE  
 LIGHTING FIXTURE  
 A=FIXTURE TYPE  
 b=SWITCH NUMBER

NOTE:  
 THIS IS A STANDARD LEGEND. THEREFORE,  
 NOT ALL OF THIS INFORMATION MAY BE  
 USED ON THIS PROJECT.

SHEET NUMBER WHERE TAKEN  
 SHEET NUMBER WHERE DRAWN  
 REFERENCE: X/X-XX  
 SHEET NUMBER



**FREES & NICHOLS**  
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TOWN OF ADDISON, TEXAS  
 SURVEYOR 1.5 MG EST  
 ELECTRICAL  
 LEGEND

NO. ISSUE	DATE	BY	R&N JOB NO.	ADD08459
	01/18/11		DATE DESIGNED	JWM
			DRAWN	JAF
			REVISION	
			CHECKED	JNH
			FILE NAME	EL-ADD-GN-LGND.dwg
Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.				
VERIFY SCALE				
SHEET <b>F-1</b>				
SEQ.				