LEGEND

LIGHTING FIXTURES POWER/GROUNDING RECEPTACLES AND OUTLETS 2x4 FLUORESCENT PARABOLIC LENS RECESSED TROFFER NEMA 5-20R DUPLEX RECEPTACLE, NUMBER INDICATES CIRCUIT NUMBER, 2x2 FLUORESCENT PARABOLIC LENS RECESSED TROFFER NEMA 5-20R DOUBLE DUPLEX RECEPTACLE, NUMBER INDICATES CIRCUIT NUMBER, LETTER INDICATES PREFIX (SEE LISTING BELOW), 2x4 FLUORESCENT ACRYLIC LENS RECESSED TROFFER NEMA 5-20R DUPLEX RECEPTACLE GROUND FAULT INTERRUPTING, NUMBER INDICATES CIRCUIT NUMBER 2x4 FLUORESCENT ACRYLIC LENS SURFACE MOUNT TROFFER NEMA 5-20R SINGLE RECEPTACLE, NUMBER INDICATES CIRCUIT NUMBER, LETTER INDICATES PREFIX (SEE LISTING BELOW). SPECIAL PURPOSE RECEPTACLE, LETTER INDICATES NEMA TYPE, VERIFY NEMA CONFIGURATION WITH EQUIPMENT AS REQUIRED. 1x4 FLUORESCENT WRAPAROUND SURFACE MOUNT LIGHTING FIXTURE FOR GENERAL USE, OFFICES, OTHER, MEETING ROOMS, COMMON AREAS 1x4 FLUORESCENT PENDANT LIGHTING FIXTURE SPECIFICATION GRADE DEVICES WITH PLASTIC FINISH PLATE, EQUAL TO LEVITON CR SERIES 20A 125V. FLUSH MOUNTED (DEVICE COLOR: IVORY) 2. FOR MECHANICAL, NON FINISH SPACES USE SPECIFICATION GRADE DEVICES FLUORESCENT ACRYLIC LENS WALL MOUNT FIXTURE WITH GALVANIZED STEEL PLATE, EQUAL TO LEVITON CR SERIES 20A 125V. SURFACE MOUNTED (DEVICE COLOR: IVORY) FLUORESCENT STRIP FIXTURE SURFACE MOUNT FIXTURE RECEPTACLE PREFIX LISTING INCANDESCENT/FLOURESCENT/HID RECESSED DOWN LIGHT FIXTURE HG HOSPITAL GRADE COUNTER TOP MOUNTED INCANDESCENT/FLOURESCENT/HID PENDANT DOWN LIGHT FIXTURE CD CORD DROP HV HOOD VENT CL CLOCK CM CEILING MOUNTED ISOLATED GROUND MICROWAVE INCANDESCENT/HID/FLUORESCENT SURFACE MOUNT LIGHTING FIXTURE DEDICATED DISHWASHER PEDESTAL DR DRYER EWC ELECTRIC WATER COOLER INCANDESCENT/FLOURESCENT/HID WALL MOUNT LIGHTING FIXTURE POKE THRU SURGE SUPPRESSER GARBAGE DISPOSAL INCANDESCENT/FLOURESCENT/HID WALL SCONCE LIGHTING FIXTURE TV TELEVISION GFI GROUND FAULT INTERRUPTER WP WEATHERPROOF INCANDESCENT/FLOURESCENT/HID FLOOD LIGHTING FIXTURE EXIT SIGN, ARROWS INDICATE DIRECTION, FILL INDICATES NUMBER OF FACES MISCELLANEOUS POWER AND EQUIPMENT EXIT SIGN, DUAL HEADS, ARROWS INDICATE DIRECTION, FILL INDICATES LIGHTING CONTACTOR (# INDICATES POLES) EMERGENCY BATTERY/LIGHTING UNIT DUAL HEAD RB EMERGENCY REMOTE BATTERY PHOTOELECTRIC CELL EMERGENCY LIGHTING REMOTE HEAD UNIT SEE LIGHTING FIXTURE SCHEDULE FOR FIXTURE TYPES, CATALOG NUMBERS, MOUNTING, AND LAMP REQUIREMENTS. GROUNDING BAR (#6 TO GROUNDING ELECTRODE) LIGHTING FIXTURE DESIGNATION KEY JUNCTION BOX, SIZE AS REQUIRED MOTOR, NUMERAL INDICATES HORSEPOWER INDICATES FIXTURE IS TO BE CONNECTED TO NIGHT LIGH AND/OR EMERGENCY CIRCUIT. FIRE STAT CONTROL MODULE FLOOR BOX POWER ONLY -CIRCUIT NUMBER\SWITCHING FLOOR BOX TELE-COMM ONLY COMBINATION FLOOR BOX POWER/TELE-COMM SINGLE POLE SWITCH (SEE PREFIX LISTING FOR MODIFICATION) ELEMERGENCY LIGHTING RELAY TELECOMMUNICATION DEVICES LINE VOLTAGE /LOW VOLTAGE POWER PACK TELEPHONE OUTLET- PROVIDE SINGLE GANG PLASTER RING OCCUPANCY SENSOR (SEE PREFIX LIST FOR MODIFICATION) AND PULL STRING TO ABOVE ACCESSIBLE CEILING. "W" INDICATES OUTLET FOR WALL MOUNT DEVICE "P" INDICATES PAY PHONE DEVICE SET AT 54" A.F.F. FOR GENERAL USE, OFFICES, OTHER, MEETING ROOMS, COMMON AREAS USE SPECIFICATION GRADE DEVICES WITH PLASTIC FINISH TELE/DATA OUTLET- PROVIDE SINGLE GANG PLASTER RING PLATE, EQUAL TO LEVITON CS SERIES 20A 120/277V FLUSH AND PULL STRING TO ABOVE ACCESSIBLE CEILING. MOUNTED (DEVICE COLOR: IVORY) DATA OUTLET- PROVIDE SINGLE GANG PLASTER RING AND 2. FOR MECHANICAL, NON FINISH SPACES USE SPECIFICATION GRADE DEVICES WITH GALVANIZED STEEL PLATE, EQUAL TO LEVITON CS PULL STRING TO ABOVE ACCESSIBLE CEILING. SERIES 20A 120/277V SURFACE MOUNTED (DEVICE COLOR: IVORY) NOTE: E.C. TO PROVIDE PLASTER RING, AND PULL STRING FOR USE Y OTHERS. DEVICES, EQUIPMENT, CABLING, TERMINATIONS AND TESTING FURNISHED AND INSTALLED COMPLETE BY SWITCHING PREFIX LISTING FIRE ALARM DEVICES DOUBLE POLE LV LOW VOLTAGE MOTOR RATED TOGGLE THREE WAY FOUR WAY OCCUPANCY SENSOR OB OIL BURNER SHUT OFF DIMMER DUAL TECHNOLOGY PILOT LIGHT PHOTO CELL SERVICE DISCONNECT FLUORESCENT DIMMER SV THERMOSTAT

ABBREVIATIONS

LF LINEAR FEET

MECH MECHANICAL

N.T.S. NOT TO SCALE

MC METAL CLAD CABLE

M.C. MECHANICAL CONTRACTOR

P.C. PLUMBING CONTRACTOR

PVC POLY VINYL CHLORIDE

LTG LIGHTING

GF FLEXIBLE METALLIC CONDUIT

IMC INTERMEDIATE METAL CONDUIT

GRS GALVANIZED RIGID STEEL CONDUIT

HVAC HEATING/VENTILATING AIR CONDITIONING

NFPA NATIONAL FIRE PREVENTION AGENCY

OEM ORIGINAL EQUIPMENT MANUFACTURE

PWR POWER

RSC RIGID STEEL CONDUIT

S.P.C. SPRINKLER CONTRACTOR

TBB TELEPHONE BACKBOARD

TMH TELEPHONE MANHOLE

TSP TWISTED SHIELDED PAIR

UGFA UNDER GROUND FIRE ALARM

UON UNLESS OTHERWISE NOTED

UGPE UNDER GROUND PRIMARY ELECTRIC

UGSE UNDER GROUND SECONDARY ELECTRIC

UGT UNDER GROUND TELECOMMUNICATIONS

TP TWISTED PAIR

UG UNDER GROUND

US UNDER SLAB

WP WEATHER PROOF

ST PVC COATED FLEXIBLE CONDUIT

US ULTRASONIC

CIRCUIT NUMBER\SWITCHING

AFF ABOVE FINISHED FLOOR AFG ABOVE FINISHED GRADE

E.C. ELECTRICAL CONTRACTOR

EWC ELECTRIC WATER COOLER

FBO FURNISHED BY OTHERS

G.C. GENERAL CONTRACTOR

G GROUNDING CONDUCTOR

EMT ELECTRICAL METALLIC TUBING NL NIGHT LIGHT

ENT ELECTRICAL NONMETALLIC TUBING NEC NATIONAL ELECTRIC CODE

BLDG BUILDING

CKT CIRCUIT

C/L CENTER LINE

CM CEILING MOUNTED

EF EXHAUST FAN

ELEC ELECTRICAL

EQUIP EQUIPMENT

LIGHTING SWITCH DESIGNATION KEY

MECHANICAL EQUIPMENT

- SAFETY SWITCH (SEE SAFETY SWITCH KEY)
- MAGNETIC MOTOR STARTER FURNISHED BY M.C. (SEE MAGNETIC
- AUTOMATIC TEMPERATURE CONTROL PANEL FURNISHED AND INSTALLED BY M.C. (LOW VOLTAGE CONTROL WIRING FURNISHED AND INSTALLED BY M.C.)

SAFETY SWITCH DESIGNATION KEY PROTECTION AMPACITY

- 1. VOLTAGE, CURRENT, AND QUANTITY OF TERMINATION POLES SHALL MEET OR EXCEED THE SOURCE CAPACITY AND WIRING REQUIREMENTS OF THE BRANCH CIRCUIT.
- 2. ALL MOTOR STARTERS FOR MECHANICAL EQUIPMENT ARE FURNISHED AND INSTALLED BY M.C., WIRED BY E.C..COORDINATE WITH HVAC DRAWINGS.
- 3. ALL DISTRIBUTION EQUIPMENT SHALL HAVE ADHESIVE BACKED IDENTIFICATION LABELS.
- 4. COORDINATE FUSE SIZE AND TYPE PER EQUIPMENT NAME PLATE.

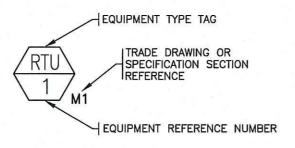
SAFETY SWITCH PREFIX LISTING

WP WEATHER PROOF T THERMAL OVERLOAD CB CIRCUIT BREAKER F MP HACR BREAKER NF NON-FUSED

MAGNETIC STARTER DESIGNATION KEY



EQUIPMENT DESIGNATION KEY



ISOLATED EQUIPMENT PANEL BOARD DESIGNATION GROUND NOTES: 2,3 WHERE CIRCUITS ORIGINATE A) 30/3/4 FOUIPMENT GROUND NOTES: 2,3,4 CIRCUIT BREAKER SIZE 30AMPS/3POLE/4WIRE WHEN CIRCUIT BREAKER SIZE IS NOT SHOWN, REFER TO | NEUTRAL CONDUCTOR NOTES: 2,3,4 PANEL SCHEDULE PHASE CONDUCTORS NOTES: 1,3,4 CIRCUIT MONITORED BY AREA PROTECTION RELAY

P - POWER RANCH

LIGHTING BRANCH

M – MECHANICAL BRANCH CB - CRITICAL BRANCH

LS - LIFE SAFETY BRANCH

SB - STAND-BY BRANCH

HOME RUN SYMBOL KEY

PANEL BOARD SYMBOL KEY

208/120V BOARD

2ND FLOOR

(OPTIONAL)

B,C,D,ECT.

NEXT PANEL IN

SUCCESSION-A,

CIRCUIT NO.

ESB - EMERGENCY STAND-BY BRANCH

208/120V PANEL

480/277V PANEL

PREFIX (SEE BELOW)

480/277V BOARD

2ND FLOOR

(OPTIONAL)

B.C.D.ECT.

CIRCUIT NO. |

NEXT PANEL IN

SUCCESSION-A,

WIRE SIZE IS BASED ON THE NATIONAL ELECTRICAL CODE, NFPA 70-2011,

TABLE 310-16, COLUMN 75°C (167°F) FOR COPPER CONDUCTORS.

- 2. WIRE SIZE IS BASED ON THE NATIONAL ELECTRICAL CODE, NFPA 70-2008, TABLE
- 250-122 (A) THROUGH (F), FOR COPPER CONDUCTORS. WHEN NO SLASHES OR WIRE SIZES ARE SHOWN, WIRES SHALL CONSIST OF ONE PHASE, ONE NEUTRAL, AND ONE EQUIPMENT GROUND, WIRE SIZE AWG 12 MINIMUM, REFER TO PANEL SCHEDULES FOR CIRCUIT AMPACITY.
- 4. SLASHES MAY BE REPLACED BY NUMERICAL IDENTIFICATION
- (EXAMPLE: 2#8,1#8G-3/4"C) 5. METALLIC CONDUIT MAY BE USED AS EQUIPMENT GROUND IN ACCORDANCE WITH NEC

LIGHTING FIXTURE SCHEDULE

TYPE	MANUFACTURER	CATALOG NO.	LAMPS	VOLTS	WATTS	MOUNTING	DESCRIPTION
Α	METALUX	WN-232A-UNV-EB81	(2) F32T8	120	65	SURFACE/CEILING	4' FLUORESCENT ACRYLIC WRAPAROUND
В	METALUX	SSF-232-UNV-HB81N-WG/SSF4FT	(2) F28T8	120	65	SUSPENDED/CEILING	4' FLUORESCENT STRIP W/WIRE GUARD
С	METALUX	HBI-654HT5-L5	(6) F54T5H0	120	351	SUSPENDED/CEILING	HIGH OUTPUT FLUORESCENT HI-BAY
D	BRUCK	360075MC (3 HEAD SET)	(3) 20W MR16	120/12	60	SURFACE/CEILING	2' LV TRACK KIT W/3 SPOT TRACK HEADS
E	BRUCK	340096MC (5 HEAD SET)	(3) 50W MR16	120/12	250	SURFACE/CEILING	8' LV TRACK KIT W/5 SPOT TRACK HEADS
F	TERON	VENS-F226Q-120E-PSL-AL-35K	(2) F226Q	120	45	SURFACE/WALL	COMPACT FLUORESCENT DECORATIVE WALL SCONCE
F1	TERON	VENS-F226Q-120E-PSL-AL-DIM-35K	(2) F226Q	120	45	SURFACE/WALL	COMPACT FLUORESCENT DECORATIVE WALL SCONCE (DIMMABLE)
G	TERON	AR24-217E-120E-SM	(2) F17T8	120	36	SURFACE/WALL	2' FLUORESCENT DECORATIVE WALL BRACKET
W1	McGRAW EDISON	IST-B02-LED-E1-BL3-BZ	(2) 21W LED	120	42	SURFACE/WALL	EXTERIOR LED WALL PACK TYPE III DISTRIBUTION
W2	McGRAW EDISON	IST-B02-LED-E1-BL4-BZ	(2) 21W LED	120	42	SURFACE/WALL	EXTERIOR LED WALL PACK TYPE IV DISTRIBUTION
EX	SURE-LITES	LPXH-7-DH	(2) 5.4W INC.	120	7.8	UNIVERSAL	SELF CONTAINED EXIT SIGN W/DUAL HEADS & REMOTE CAPACITY
ER	SURE-LITES	6X54DWWH	(2) 5.4W INC.	6	10.8	SURFACE/WALL	EMERGENCY WEATHER PROOF REMOTE HEAD
EBU1	SURE-LITES	CC2	(2) 5.4W INC.	120	14.4	SURFACE/WALL	EMERGENCY BATTERY UNIT
			1				

LIGHTING FIXTURE NOTES

- 1.) MANUFACTURERS AND CATALOG NUMBERS INDICATE QUALITY AND INTENT OF LIGHTING FIXTURES TO BE FURNISHED AND ARE NOT INTENDED TO LIMIT ALTERNATE MANUFACTURERS.
- 2.) BALLAST FOR FLUORESCENT FIXTURES SPECIFIED WILL BE HIGH POWER FACTOR TYPE ELECTRONIC WITH T-8 LAMPS AND BEAR CBM-ETL LABEL.
- 3.) REVIEW ARCHITECTURAL DRAWING TO COORDINATE FIXTURE MOUNTING AND FINISH CEILING MATERIAL PRIOR TO ORDERING FIXTURES.
- 4.) LIGHTING SUPPLIER SHALL COORDINATE COMPACT FLUORESCENT LAMP BASE TYPE WITH FIXTURE LAMP SOCKET AND BALLAST TYPE PER MANUFACTURE'S REQUIREMENTS
- 5.) LIGHTING SUPPLIER SHALL COORDINATE HID LAMP BASE TYPE AND BURNING POSITION WITH FIXTURE LAMP SOCKET TYPE AND POSITION PER MANUFACTURE'S REQUIREMENTS

GENERAL NOTES

- CONDUITS AND CIRCUITRY INDICATED ON THE DRAWINGS ARE DIAGRAMMATIC ONLY AND DO NOT INDICATE SPECIFIC ROUTES, SPECIFIC CONDITIONS OR HOMERUNS. FINAL ROUTING SHALL BE COORDINATED IN THE FIELD TO AVOID CONFLICTS WITH OTHER TRADES. PULLING FITTINGS AND BOXES IN ADDITION TO THOSE DETAILED SHALL BE ADDED TO MAINTAIN NO MORE THAN 360° BETWEEN PULLING POSITIONS. CLEAR ACCESS TO PULLING POSITIONS SHALL BE MAINTAINED.
- EXPOSED EQUIPMENT AND RACEWAYS SHALL BE INSTALLED LEVEL AND PLUMB.
- 3. EXPOSED RACEWAYS SHALL RUN PARALLEL OR PERPENDICULAR TO BUILDING WALLS AND OR STRUCTURAL MEMBERS.
- 4. EXACT LOCATION OF DOORS, TRANSOMS, WINDOWS, CASEWORK, PLUMBING FIXTURES ECT, IN FINISHED AREAS SHALL BE COORDINATED IN THE FIELD WITH OTHER TRADES.
- 5. EXACT LOCATION OF EQUIPMENT WITHIN MECHANICAL SPACES, CEILINGS AND FLOOR VOIDS
- ABOUT MECHANICAL EQUIPMENT SHALL BE COORDINATED IN THE FIELD WITH OTHER TRADES. 6. ALL ELECTRICAL WORK TO BE IN INSTALLED BY LICENSED ELECTRICIANS IN ACCORDANCE WITH NFPA 70 2011 NATIONAL ELECTRICAL CODE (NEC), NFPA 101 2009 LIFE SAFETY CODE AND ALL
- APPLICABLE STATE AND LOCAL CODES AND REGULATIONS. 7. LIGHTING AND POWER SYSTEM TO BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE STATES ENERGY EFFICIENCY CODE AND LOCAL REGULATIONS.
- 8. ALL EQUIPMENT AND WIRING SHALL BE SUSPENDED FROM AND/OR TO THE BUILDING STRUCTURE.
- 9. SEE MOUNTING HEIGHT DETAIL FOR WALL MOUNTED EQUIPMENT AND DEVICE MOUNTING HEIGHTS.
- 10. SEE LIGHTING FIXTURE SCHEDULE AND DESIGNATION DETAIL FOR FIXTURE TYPE, BRANCH CIRCUIT,
- SWITCH CONTROL AND PHASING.

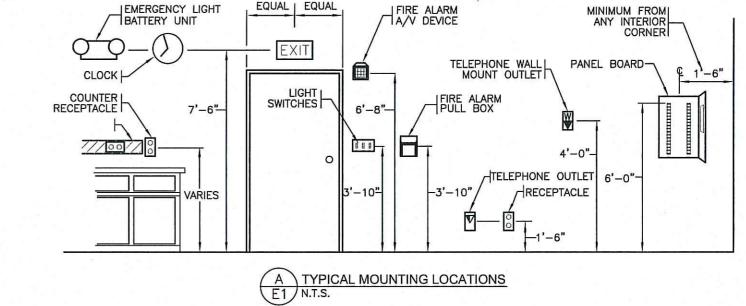
1.	PROVIDE ADHESIVE	BACKED	IDENTIFICATION	LABELS	ON A	ALL	ELECTRICAL	DISTRIBUTION	EQUIPMENT
	INCLUDING PANEL E	BOARDS A	ND DISCONNEC	TS					

WIRING METHODS SCHEDULE							
LOCATION	RACEWAY	FITTINGS	SUPPORTS (NOTE 2)	REMARKS			
UNDERGROUND	PVC-SHC 40	GLUED	N/A	234			
EXPOSED EXTERIOR	PVC-SCH 40	GLUED	SEE TABLE 347-8	1			
EXPOSED INTERIOR	EMT MC CABLE	SET SCREW CLAMP	3'/10' 1'/6'	. 2			
CONCEALED INTERIOR FEEDERS	EMT MC CABLE	SET SCREW CLAMP	3'/10' 1'/6'				
CONCEALED INTERIOR BRANCH	MC CABLE	CLAMP	1'/6'				

WIRING METHODS NOTES

- 1. WIRING METHODS AND MATERIALS TO BE PROVIDED IN ACCORDANCE WITH APPLICABLE SECTIONS OF NEC ARTICLE 300
- 2. FLEXIBLE METALLIC CONDUIT (LIQUID TIGHT WHERE SUBJECT TO MOISTURE) SHALL BE UTILIZED BETWEEN NON-FLEXIBLE AND VIBRATING COMPONENTS, IN ACCORDANCE WITH NFPA-70-2011 PER ARTICLES 348 & 350.
- 3. MAXIMUM DISTANCE FROM CONNECTOR OR COUPLING/MAXIMUM DISTANCE BETWEEN SUPPORTS PER NFPA 70.
- 4. EXPANSION FITTINGS AS SUGGESTED BY THE MANUFACTURER AND/OR AS REQUIRED BY PROJECT.
- 5. BENDS SHALL NOT EXCEED FOUR QUARTER BENDS (360' DEGREES TOTAL) BETWEEN PULL POINTS, CONDUIT BODIES OR BOXES CLEAR PULLING POSITIONS SHALL BE MAINTAINED.
- CONDUIT PENETRATIONS AND ELECTRICAL INSTALLATIONS SHALL BE MADE AS REQUIRED TO LIMIT THE SPREAD OF FIRE AND PRODUCTS OF COMBUSTION IN ACCORDANCE WITH SECTION 300.21.
- 7. CONDUIT PENETRATIONS THROUGH FIRE RATED ASSEMBLES SHALL BE SEALED WITH A U.L. LISTED FIRE STOPPING SYSTEM INSTALLED PER MANUFACTURES RECOMMENDATIONS.

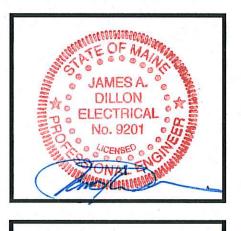
- (1) USE PVC SCHD 80, IMC, OR, GRC AS REQUIRED OR WHERE SUBJECT TO DAMAGE.
- SEE TRENCH DETAIL FOR PLACEMENT, ELEVATION AND WARNINGS. COORDINATE UTILITY REQUIREMENTS WHERE APPLICABLE.
- (4) UNDER GROUND CONDUITS TO BE 3/4" DIAMETER MINIMUM.



MOUNTING LOCATION NOTES:

- 1. MOUNTING HEIGHTS ARE TO CENTER OF DEVICE AND TYPICAL UNLESS OTHERWISE NOTED. 2. MOUNTING HEIGHTS FOR CONTROL DEVICES/OPERATING MECHANISMS SHALL CONFORM TO APPLICABLE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDE LINES
- SECTION 4.27 3. MOUNTING HEIGHTS FOR ALARM SIGNALING APPLIANCES SHALL CONFORM TO APPLICABLE
- REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDE LINES SECTION
- 4. MOUNTING HEIGHTS FOR OUTLETS SERVING ACCESSIBLE TELEPHONES SHALL CONFORM TO
- APPLICABLE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDE LINES SECTION 4.31 5. COORDINATE AND VERIFY COUNTER TOP AND BACK SPLASH HEIGHTS IN FIELD WITH MILL WORK
- 6. MOUNTING HEIGHTS SHOWN ARE BASED ON CEILING HEIGHTS GREATER THAT 8'-0" COORDINATE DEVICE LOCATION IN AREAS WITH LOWER CEILINGS.

JUNE 5, 2014 **DRAWING** INTERSTATE ELECTRICAL





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12-6-13 DRAWN BY **B.HARLOW** DESIGNED BY: M.WHITE CHECKED BY: M. WHITE AS SHOWN PROJECT NUMBER: 631940

DRAWING TITLE: **LEGEND SCHEDULES**

NOTES AND KEYS

DRAWING NUMBER

SHEET 1 OF 4