

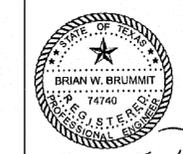


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1-27-14



[Signature]

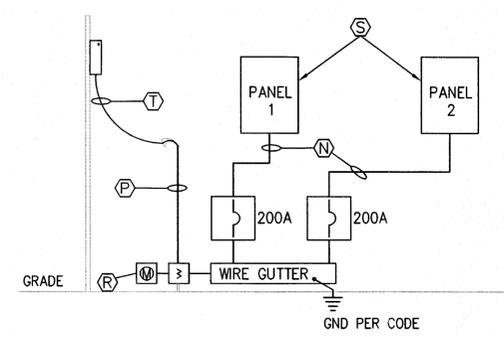
Renovation and additions to
Sunstate Equipment
1747 Earl Rudder Freeway, Bryan, Texas 77803

| Revisions | |
|-----------|------|
| Number | Date |
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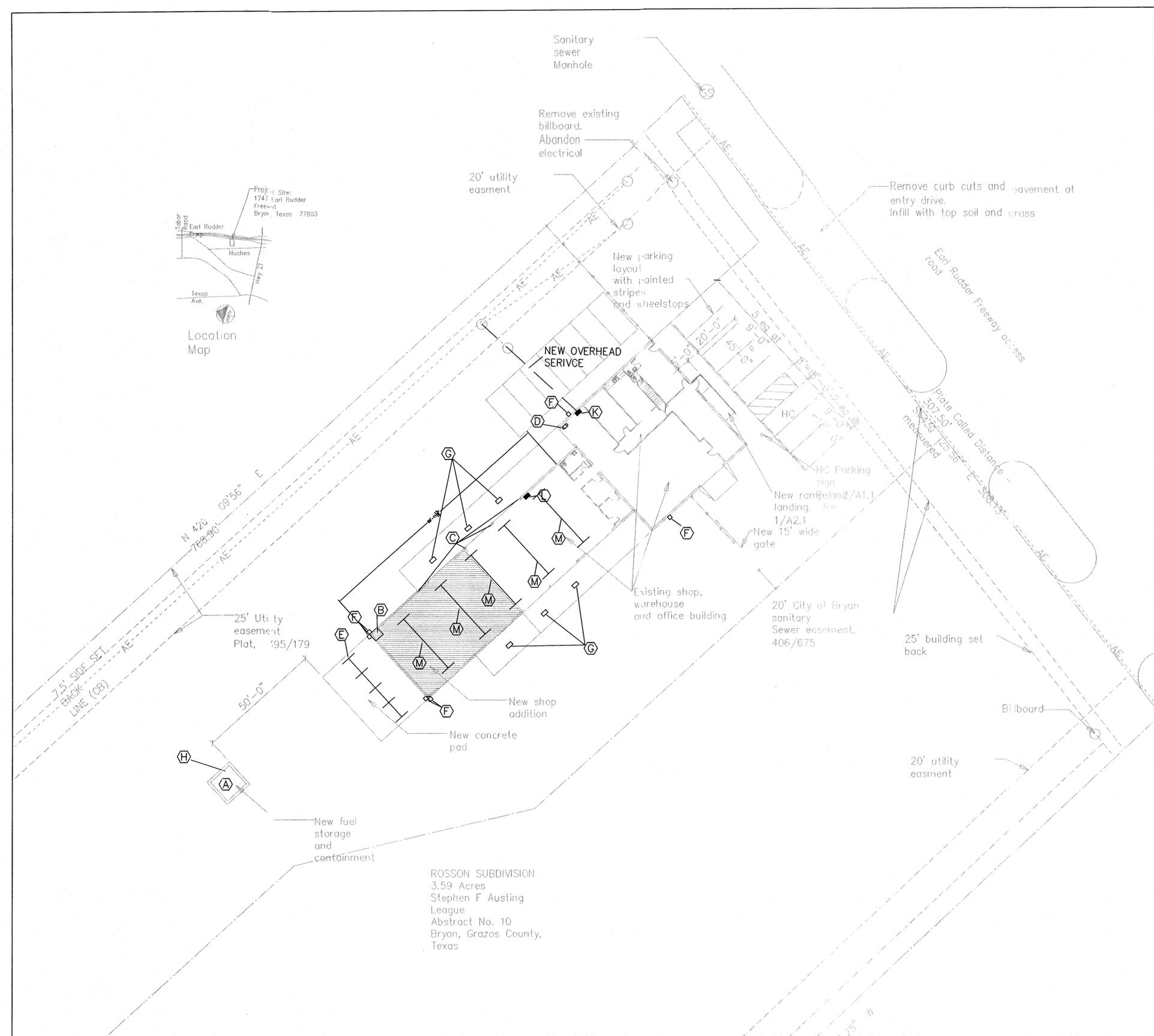
E2.0

NOTES:
1. SEE E1.0 FOR ELECTRICAL LEGEND, ABBREVIATIONS, & SCHEDULES.
2. RE-FEED EXISTING CIRCUITS FROM NEW PANEL. RE-PULL NEW WIRE AS REQUIRED. NO SPLICES ARE ACCEPTABLE INSIDE PANEL BOARDS.

- KEYED NOTES:**
- (A) 1-240V 1 PH 50 AMP. FED FROM PANEL P1. PROVIDE SEAL TIGHT.
 - (B) 1-240V 1PH 50 AMP. FED FROM PANEL P1. PROVIDE SEAL TIGHT.
 - (C) 2-120V 1PH 20 AMP DUPLEX OVERHEAD QUAD ON COLUMN. FED FROM PANEL 2.
 - (D) 1-240V 1PH 50 AMP COMPRESSOR. FED FROM PANEL 1.
 - (E) 5 WP 120V 1PH 20 AMP QUADS AT 6' INTERVALS.
 - (F) 150W PCH METAL HALIDE FED FROM CLOSEST PANEL.
 - (G) 50W METAL HALIDE CANOPY LIGHTS FED FROM PANEL 2.
 - (H) 150W MH POLE MTD FLOODLIGHT W/SEAL TIGHT FED FROM PANEL 2.
 - (K) NEW PANEL P1
 - (L) NEW PANEL P2
 - (M) (3) 8' 2 BULB T8 INDUSTRIAL STRIP FLUORESCENTS.
 - (N) 2" C -3#3/0, 1#2 GND.
 - (P) 3 1/2" C -3#500 KCML 1#1/0 GND.
 - (R) COORDINATE MATERIAL EQUIPMENT WITH BTU.
 - (S) P1 & P2 200A MLO 1Ø 3W 42 SPACE.
 - (T) 120/240 VOLT SERVICE DROP BY BTU.



ELECTRICAL RISER DIAGRAM
SCALE: N.T.S.



SITE PLAN
SCALE: 1"=20'

ROSSON SUBDIVISION
3.59 Acres
Stephen F Austing
League
Abstract No. 10
Bryan, Brazos County,
Texas

\\10.1.1.2\Shared\Current\PROJECTS\Arkitek\Sunstate Equipment\E2.0.dwg, 1/27/2014, 10:50:04 AM

ABBREVIATIONS

| | | | |
|----------|--|---|---------------------------------------|
| A | AMP | HPS HIGH PRESSURE SODIUM HEATING | SWP STARTING KILOWATTS |
| A/C | AIR CONDITIONING | HTC HOT WATER/ GAS UNIT HEATER | SP SUMP PUMP |
| AC | ALTERNATING CURRENT, AIR COMPRESSOR | HTR HEATING, VENTILATING, AND AIR CONDITIONING | SPKFR SPEAKER |
| ACC | AIR COOLED CHILLER | HVAC HEATING, VENTILATING, AND AIR CONDITIONING | SPST SINGLE POLE, SINGLE THROW SWITCH |
| ACCU | AIR COOLED CONDENSING UNIT | HZ HERTZ | SS START-STOP PUSHBUTTON |
| AF | AMPERE FUSE, AMPERE FRAME | | SSSC SOLID STATE SPEED CONTROL |
| AFB | ABOVE FINISHED FLOOR | | STB STEAM BOILER |
| AFG | ABOVE FINISHED GRADE | | STD STANDARD |
| AHU | AIR HANDLING UNIT | | STL STEEL |
| AIC | AMPERES INTERRUPTING CURRENT | | SW SWITCH |
| AL | ALUMINUM | | SWBD SWITCHBOARD |
| AM | AMMETER | | |
| AP | ACCESS PANEL, ALARM PANEL | | |
| ARCH | ARCHITECT, ARCHITECTURAL | | |
| AS | AMMETER SWITCH | | |
| ASC | AMPERES SHORT CIRCUIT | | |
| AT | AMPERE TRIP RATING | | |
| ATS | AUTOMATIC TRANSFER SWITCH | | |
| AUX | AUXILIARY | | |
| AWG | AMERICAN WIRE GAUGE | | |
| | | | |
| B | | | |
| BC | BELOW COUNTER | | |
| BKR | BREAKER | | |
| | | | |
| C | | | |
| C | CONDUIT, CELSIUS | | |
| CAB | CABINET | | |
| CATV | CABLE TELEVISION SYSTEM | | |
| CC | CLOSED CIRCUIT TELEVISION | | |
| CDP | CONDENSER WATER PUMP | | |
| CH | CHILLER | | |
| CHP | CHILLED WATER PUMP | | |
| CIRC | CIRCULATING | | |
| CKT | CIRCUIT | | |
| CL | CENTERLINE | | |
| CLG | CEILING | | |
| COL | COLUMN | | |
| COMB | COMBINATION | | |
| CONN | CONNECTION | | |
| CONT | CONTINUOUS, CONTINUATION | | |
| CONTR | CONTROLLER, CONTRACTOR | | |
| CRAC | COMPUTER ROOM A/C UNIT | | |
| CRT | CATHODE RAY TUBE | | |
| CT | CURRENT TRANSFORMER, COOLING TOWER | | |
| CTR | CENTER | | |
| CU | COPPER, CONDENSING UNIT | | |
| | | | |
| D | | | |
| Db | DECIBEL | | |
| DC | DIRECT CURRENT | | |
| DDC | DIRECT DIGITAL CONTROL | | |
| DESIG | DESIGNATION | | |
| DET | DETAIL | | |
| DIA | DIAMETER | | |
| DIM | DIMENSION | | |
| DISC | DISCONNECT | | |
| DN | DOWN | | |
| DP | DISTRIBUTION PANEL | | |
| DPDT | DOUBLE POLE, DOUBLE THROW | | |
| DPST | DOUBLE POLE, SINGLE THROW | | |
| DW | DISHWASHER | | |
| DWH | DOMESTIC WATER HEATER | | |
| DWP | DOMESTIC WATER PUMP | | |
| DXFC | DX FAN COIL UNIT | | |
| | | | |
| E | | | |
| EA | EACH | | |
| EC | ELECTRICAL CONTRACTOR | | |
| E.C. | EMPTY CONDUIT | | |
| EDF | ELECTRIC DRINKING FOUNTAIN | | |
| EF | EXHAUST FAN | | |
| EFF | EFFICIENCY | | |
| EHC | ELECTRIC HEATING COIL | | |
| EJ | EXPANSION JOINT | | |
| EL | ELEVATION | | |
| ELEC | ELECTRICAL | | |
| ELEV | ELEVATOR | | |
| EMERG | EMERGENCY | | |
| ENCL | ENCLOSURE | | |
| ENGR | ENGINEER | | |
| EPO | EMERGENCY POWER OFF | | |
| EQ | EQUAL | | |
| EQUIP | EQUIPMENT | | |
| ETR | EXISTING TO REMAIN | | |
| EUH | ELECTRIC UNIT HEATER | | |
| EX | EXPLOSION-PROOF | | |
| EXH | EXHAUST | | |
| EXTG | EXISTING | | |
| | | | |
| F | | | |
| FA | FIRE ALARM | | |
| FACP | FIRE ALARM CONTROL PANEL | | |
| FCU | FAN COIL UNIT | | |
| FLA | FULL LOAD AMPS | | |
| FLR | FLOOR | | |
| FP | FIRE PUMP, FAN POWERED | | |
| FS | FUSED SWITCH, FLOW SWITCH | | |
| FT | FOOT, FEET | | |
| FIL | FEED-THRU LUGS | | |
| FUT | FUTURE | | |
| FVNR | FULL VOLTAGE, NON REVERSING | | |
| | | | |
| G | | | |
| GA | GAGE | | |
| GALV | GALVANIZED | | |
| GC | GENERAL CONTRACTOR | | |
| GFI | GROUND FAULT INTERRUPTER | | |
| GFCI | GROUND FAULT CIRCUIT INTERRUPTER | | |
| GND | GROUND | | |
| | | | |
| H | | | |
| H | HUMIDIFIER, HEIGHT | | |
| HOA | HAND-OFF-AUTOMATIC | | |
| HP | HORSEPOWER | | |
| | | | |
| I | | | |
| IN | INCH | | |
| INT | INTERNAL, INTERIOR | | |
| | | | |
| J | | | |
| JB | JUNCTION BOX | | |
| JP | JOCKEY PUMP | | |
| | | | |
| K | | | |
| KEC | KITCHEN EQUIPMENT CONTRACTOR | | |
| KO | KNOCKOUT | | |
| KVA | KILOVOLT-AMPS | | |
| KWH | KILOWATT-HOUR | | |
| | | | |
| L | | | |
| L | LENGTH, LAVATORY | | |
| LF | LINEAR FEET | | |
| LRA | LOCKED ROTOR AMPS | | |
| LTG | LIGHTING | | |
| LV | LOW VOLTAGE | | |
| | | | |
| M | | | |
| M | METER | | |
| MAP | MASTER ALARM PANEL | | |
| MATV | MASTER ANTENNA TELEVISION SYSTEM | | |
| MC | MECHANICAL CONTRACTOR | | |
| MCA | MINIMUM CIRCUIT AMPACITY | | |
| MCB | MAIN CIRCUIT BREAKER | | |
| MCC | MOTOR CONTROL CENTER | | |
| MDP | MAIN DISTRIBUTION PANEL | | |
| MH | MANHOLE, METAL HAULDE | | |
| MIC | MICROPHONE | | |
| MLO | MAXIMUM OVERCURRENT PROTECTION | | |
| MOPC | MAXIMUM OVERCURRENT PROTECTION | | |
| MSB | MAIN SWITCHBOARD | | |
| MTD | MOUNTED | | |
| MV | MERCURY VAPOR | | |
| | | | |
| N | | | |
| NAC | NOTIFICATION APPLIANCE CIRCUIT | | |
| N.C. | NORMALLY CLOSED | | |
| NEC | NATIONAL ELECTRICAL CODE | | |
| NEMA | NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION | | |
| NFPA | NATIONAL FIRE PROTECTION FIRE ASSOCIATION | | |
| NF | NON-FUSED | | |
| NFS | NON-FUSED SWITCH | | |
| NIC | NOT IN CONTRACT | | |
| NL | NIGHT LIGHT | | |
| N.O. | NORMALLY OPEN | | |
| | | | |
| O | | | |
| OAF | OUTSIDE AIR FAN | | |
| OC | ON CENTER | | |
| OD | OUTSIDE DIAMETER | | |
| OPG | OPENING | | |
| | | | |
| P | | | |
| P | POLE, PUMP | | |
| PB | PUSHBUTTON | | |
| PC | PLUMBING CONTRACTOR | | |
| PH | PISTON | | |
| PL | PILOT LIGHT | | |
| PNL | PANEL | | |
| PR | PAIR | | |
| PRI | PRIMARY | | |
| PVC | POLYVINYL CHLORIDE | | |
| PWR | POWER | | |
| | | | |
| Q | | | |
| QTY | QUANTITY | | |
| | | | |
| R | | | |
| R | RISER | | |
| RA | RETURN AIR | | |
| RAD | REFRIGERATED AIR DRYER | | |
| RAF | RETURN AIR FAN | | |
| RAG | RETURN AIR GRILL | | |
| RCP | REFLECTED CEILING PLAN | | |
| RCT | RECEPTACLE | | |
| RE | REFERENCE, REFER | | |
| RECIRC | RECIRCULATE, REFER | | |
| REFR | REFRIGERATOR | | |
| REINFC | REINFORCING | | |
| REQD | REQUIRED | | |
| REV | REVISION, REVISE | | |
| RKVA | RUNNING KILOWOLT-AMPS | | |
| RKW | RUNNING KILOWATTS | | |
| RLA | RUNNING LOAD AMPS | | |
| RLM | ROOM, REFRIGERATION MACHINE | | |
| RPM | REVOLUTIONS PER MINUTE | | |
| RTAH | ROOFTOP AIR HANDLING UNIT | | |
| RTU | ROOFTOP UNIT | | |
| RWR | REDUCED-VOLTAGE, NON-REVERSING | | |
| | | | |
| S | | | |
| S | SUPPLY AIR | | |
| SAF | SUPPLY AIR FAN | | |
| SCR | SILICON CONTROLLED RECTIFIER | | |
| SEC | SECONDARY | | |
| SF | SQUARE FEET | | |
| SKVA | STARTING KILOWOLT-AMPS | | |
| | | | |
| T | | | |
| TEL | TELEPHONE | | |
| TL | TWIST-LOCK | | |
| TB | TELEPHONE TERMINAL BOARD | | |
| TTC | TELEPHONE TERMINAL CABINET | | |
| TU | TERMINAL UNIT | | |
| TV | TELEVISION | | |
| | | | |
| U | | | |
| UG | UNDERGROUND | | |
| UH | UNIT HEATER | | |
| UNO | UNLESS NOTED OTHERWISE | | |
| UPS | UNINTERRUPTIBLE POWER SYSTEM | | |
| | | | |
| V | | | |
| V | VOLT | | |
| VA | VOLT-AMPERE | | |
| VM | VOLT METER | | |
| VS | VOLT METER SWITCH | | |
| | | | |
| W | | | |
| W | WATT, WIDTH, WIRE | | |
| W/ | WITH | | |
| W/O | WITHOUT | | |
| WHDM | WATT-HOUR DEMAND METER | | |
| WHM | WATT-HOUR METER | | |
| WIP | WEATHERPROOF | | |
| WT | WATERTIGHT, WEIGHT | | |
| | | | |
| X | | | |
| XFMR | TRANSFORMER | | |
| | | | |
| Z | | | |
| Z | ZONE | | |

ELECTRICAL SYMBOLS (ALL SYMBOLS ARE NOT NECESSARILY USED ON THE DRAWINGS)

LIGHTING

| | |
|--|--|
| | INCANDESCENT OR HID LIGHTING FIXTURE, LETTER DENOTES TYPE. |
| | EXIT SIGN, ARROWS AS INDICATED, LETTER DENOTES TYPE |
| | FLUORESCENT LIGHTING FIXTURE, LETTER DENOTES TYPE. |
| | FLUORESCENT LIGHTING FIXTURE, EXISTING |
| | FLUORESCENT LIGHTING FIXTURE, RELOCATED |

SWITCHES

| | |
|--|--|
| | SWITCH: SPST, 20A, 120/277V |
| | SWITCH: SPST, 20A, 120/277V. "K" DENOTES KEY SWITCH, "P" DENOTES PILOT LIGHT, "T" DENOTES SPRING WOUND TIMER |
| | SWITCH WITH DIMMER CONTROL - AS NOTED OR SPECIFIED |
| | MOTOR RATED SWITCH |
| | OCCUPANCY SENSOR SWITCH - AS NOTED OR SPECIFIED |
| | CEILING MOUNTED OCCUPANCY SENSOR SWITCH - AS NOTED OR SPECIFIED |
| | ABOVE CEILING OCCUPANCY SENSOR POWER PACK |
| | SWITCH: 20A, 120/277V. "2" DENOTES DPST, "3" DENOTES THREE-WAY, "4" DENOTES FOUR-WAY |
| | SWITCH: SPOT, CENTER OFF, MOMENTARY CONTACT |

RECEPTACLES AND OUTLETS

| | |
|--|--|
| | SIMPLEX WALL RECEPTACLE, NEMA 5-20R, 20A, 120 VOLT |
| | DUPLEX WALL RECEPTACLE, NEMA 5-15R, 15A, 125V OR NEMA 5-20R, 20A, 125V. |
| | GROUND FAULT INTERRUPTER PROTECTED RECEPTACLE |
| | EXISTING RECEPTACLE |
| | MOUNTED 6" ABOVE COUNTER |
| | MOUNTED 48" ABOVE FINISHED FLOOR |
| | ISOLATED GROUND RECEPTACLE USE DIFFERENT COLOR RECEPTACLES |
| | FLOOR OUTLET |
| | CEILING OUTLET |
| | FOUR PLEX 120 VOLT RECEPTACLE |
| | MULTI-OUTLET SURFACE RACEWAY |
| | JUNCTION BOX |
| | COMBINATION VOICE/DATA OUTLET. 2 GANG 3" DEEP BOX, 1" C ~ 12" ABOVE ACCESSIBLE CLG. W/ PLASTIC BUSHING. LOCATE WITHIN 12" OF 120V RECEPTACLE. CABLE & WALL PLATE BY OWNER. |
| | TELEPHONE WALL OUTLET |
| | DIRECT CONNECTION TO EQUIPMENT |
| | CABLE TV OUTLET, 1 GANG 3" DEEP BOX, 1" C ~ 10" ABOVE ACCESSIBLE CLG. CABLE & WALL PLATE BY OWNER. |
| | 250 VOLT RECEPTACLE XX = AMPERAGE |

INTERCOM AND PUBLIC ADDRESS SYSTEM

| | |
|--|----------------------------------|
| | INTERCOM CONSOLE |
| | INTERCOM SPEAKER |
| | HOME RUN CIRCUIT TO THE CONSOLE |
| | SPEAKER VOLUME CONTROL |
| | WALL MOUNTED INTERCOM SPEAKER |
| | FLOOR MICROPHONE OUTLET |
| | WALL MICROPHONE OUTLET |
| | PA SYSTEM SPEAKER |
| | PA SYSTEM SPEAKER MOISTURE PROOF |
| | PA SYSTEM SPEAKER OUTDOOR |
| | PA SYSTEM AMPLIFIER |
| | VIDEO CAMERA |

CIRCUITING AND WIRING

| | |
|--|--------------------------------------|
| | CIRCUIT CONCEALED IN WALL OR CEILING |
| | LOW VOLTAGE WIRING |
| | OVERHEAD WIRING |
| | UNDERGROUND CONDUIT/DUCTBANK |
| | SPEAKER WIRING |
| | POWER CIRCUIT, HOT, NEUTRAL, GROUND |

ELECTRICAL EQUIPMENT

| | |
|--|--|
| | DISTRIBUTION PANEL |
| | SWITCHBOARD OR MOTOR CONTROL CENTER |
| | PANELBOARD (FLUSH/SURFACE MOUNT) |
| | DRY-TYPE TRANSFORMER |
| | AUTOMATIC TRANSFER SWITCH |
| | PLYWOOD TERMINAL BOARD, TYPE AS NOTED, 4"x8"x3/4" U.N.O. |
| | TERMINAL CABINET (FLUSH/SURFACE MOUNT), TYPE AS NOTED, 24"x48"x3/4" U.N.O. |
| | BATTERY/INVERTER UNIT |

MOTORS AND CONTROLS

| | |
|--|--|
| | SINGLE OR THREE PHASE MOTOR |
| | ELECTRIC DUCT HEATER |
| | DISCONNECT (SAFETY) SWITCH "200/3/150" DENOTES AMPERES/POLE/FUSE, "NF" DENOTES NON-FUSED |
| | ENCLOSED CIRCUIT BREAKER |
| | MOTOR STARTER |
| | COMBINATION DISCONNECT (SAFETY) SWITCH AND MOTOR STARTER "30/3/15/40" DENOTES AMPERES/POLE/FUSE/STARTER SIZE, "NF" DENOTES NON-FUSED |
| | MANUAL MOTOR STARTING WITH TERMINAL OVERLOAD; MOTOR-RATED TOGGLE SWITCH |
| | LIGHTING CONTRACTOR |
| | TIME SWITCH, TIME CLOCK |
| | PHOTOCELL |
| | PUSH BUTTON |
| | DOOR CONTACT SWITCH |
| | EXHAUST FAN |

FIRE ALARM

| | |
|--|--|
| | AUDIBLE NOTIFICATION APPLIANCE |
| | COMBINATION AUDIBLE & VISIBLE NOTIFICATION APPLIANCE |
| | # CANDELA NEEDED CM CEILING MOUNTED |
| | VISIBLE NOTIFICATION APPLIANCE |
| | # CANDELA NEEDED CM CEILING MOUNTED |
| | COMBINATION VOICE & VISIBLE NOTIFICATION APPLIANCE |
| | # CANDELA NEEDED CM CEILING MOUNTED |