

ARCHITECTURE

T M P ARCHITECTURE I N C
 1191 WEST SQUARE LAKE ROAD · BLOOMFIELD HILLS · MICHIGAN · 48302
 PH · 248.338.4561 FX · 248.338.0223 EM · INFO@TMP-ARCHITECTURE.COM

Peter Basso Associates Inc
 CONSULTING ENGINEERS
 5145 Livernois, Suite 100
 Troy, Michigan 48068-3276
 Tel: 248-879-5866
 Fax: 248-879-0007
 www.PeterBassoAssociates.com

TROY HIGH SCHOOL STEM LAB

TROY SCHOOL DISTRICT - TROY, MICHIGAN

2013 BOND PROGRAM - BID PACKAGE NO. 36

PROJECT NUMBER 13174I

CONSTRUCTION DOCUMENTS

CONSULTANTS:
 CIVIL ENGINEER

STRUCTURAL ENGINEER
WILLIAM A. KIBBE & ASSOCIATES, INC.
 ENGINEERS, ARCHITECTS, SURVEYORS
 1475 S. WASHINGTON AVENUE
 SIOGNAW, MICHIGAN 48001
 PHONE: (989) 752-5000
 FAX: (989) 752-5002

LIST OF DRAWINGS

GENERAL INFORMATION
 TS.1 COVER SHEET
 TG.1 GENERAL INFORMATION

CIVIL
 NOT USED

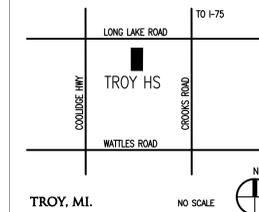
LANDSCAPE
 NOT USED

ARCHITECTURAL
 A1.2E SECOND LEVEL FLOOR PLAN - ZONE "E"
 AD.2 DOOR DETAILS

MECHANICAL
 NOT USED

ELECTRICAL
 E0.1 ELECTRICAL STANDARDS AND DRAWING INDEX
 E0.2 ELECTRICAL STANDARD SCHEDULES
 E1.2E SECOND LEVEL ELECTRICAL PLAN - ZONE "E"

PROJECT DATA:
 LOCATION MAP



TROY, MI.

BUILDING:
 BUILDING AREA = SEE DRAWING AC.1

CODE:
GOVERNING CODES:
 - 2016 SCHOOL FIRE SAFETY RULES
 - (2012 Life Safety Code, plus amendments)
 - 2015 MICHIGAN BUILDING CODE
 - 2015 MICHIGAN REHABILITATION CODE FOR EXISTING BUILDINGS
 - 2015 MICHIGAN PLUMBING CODE
 - 2015 MICHIGAN MECHANICAL CODE
 - 2009 MICHIGAN UNIFORM ENERGY CODE
 (ANSI/ASHRAE/ESNA Standard 90.1-2007)
 - 2017 MICHIGAN ELECTRICAL RULES (2017 NEC, plus Part 8 Rules)
 - 2010 MICHIGAN ELEVATOR RULES
 (ASME A17.1-2010, ASME A18.1-2011)
 - MICHIGAN BARRIER FREE CODE
 (Michigan Building Code 2015 and ICC A117.1-2009)
 - 2013 MICHIGAN BOILER CODE RULES
 (ASME Boiler and Pressure Vessel Code, 2010 edition,
 plus 2011a addenda)
 (National Board Inspection Code [NBIC], 2011 edition)
 CONSTRUCTION CLASSIFICATION: II-B(MBC)/11(000)NFPA
 USE GROUP CLASSIFICATION: E-EDUCATION

MECHANICAL ENGINEER

ELECTRICAL ENGINEER
PETER BASSO ASSOCIATES INC.
 ELECTRICAL ENGINEERS
 5145 LIVERNOIS ROAD, SUITE 100
 TROY, MICHIGAN 48068-3276
 PHONE: (248) 879-5866
 FAX: (248) 879-0007

STRUCTURAL
 S1.0 STRUCTURAL GENERAL NOTES AND DETAILS

FOOD SERVICE EQUIPMENT
 NOT USED

ADDRESS: TROY HIGH SCHOOL
 4777 NORTHFIELD PARKWAY
 TROY, MICHIGAN 48098

9-10-2022 CONSTRUCTION DOCUMENTS
 DATE ISSUED FOR:

LICENSEE'S STATEMENT:

This Document has been prepared under the supervision of the Architect, as the person in Responsible Charge with the firm of TMP ARCHITECTURE, INC. An original embossed or rubber stamp seal and original signature of the Architect is required and shall be affixed to any copy of this Document submitted to a governmental agency for approval or record. This is in conformance with the State of Michigan's PA 299, Article 20 and the General Rules of the Board of Architects.

The Architect's seal provided hereon does not take responsibility for certain portions of the Documentation or project requiring the services of a licensed Professional Engineer or other design professional. An original embossed or rubber stamp seal and original signature of the Professional Engineer is required and shall be affixed to any copy of this or other Document submitted to a governmental agency for approval or record. The engineering firms associated with this document are listed above as Consultants.

REGISTRATION SEALS

COPYRIGHT

© The "architectural work" displayed on these documents is owned exclusively by TMP Architecture, Inc. and may not be used for any purpose without their involvement or express written consent.

PROJECT TITLE
TROY HIGH SCHOOL STEM LAB
PROJECT NO.
13174I
DRAWING NO.
TS.1

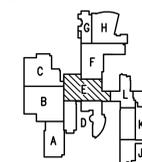
REGISTRATION SEAL

CONSULTANT

PROJECT TITLE
Troy High School Stem Lab

Troy School District
Troy, Michigan

DRAWING TITLE
Second Level Floor Plan - Zone 'E'



ISSUE DATES

8-10-2022 CONSTRUCTION DOCUMENTS

DATE: ISSUED FOR:

DRAWN: JFW

CHECKED: JFW

APPROVED: JFW

PROJECT NO.

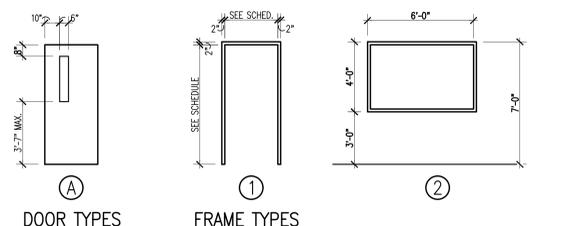
131741

DRAWING NO.

A1.2E

| GLAZING TYPES | |
|---|--|
| (REFER TO SPECIFICATIONS FOR ASSEMBLIES) | |
| GL-1 1/4" (6mm) CLEAR TEMPERED MONOLITHIC GLASS | |

| DOOR & FRAME SCHEDULE | | | | | | | | | | | | | | | |
|--------------------------------|-------------------------------|------|----------|--------|-------|------|----------|---------|-------|--------|-----------|------------|-----------|---------|------|
| Opening | | Door | | | Frame | | | Details | | | Threshold | U.L. Label | Hdwe. Set | Remarks | |
| No. | Opening Size (Width x Height) | Type | Material | Finish | Glass | Type | Material | Finish | Glass | Head | | | | | Jamb |
| Second Level - Zone 'E' | | | | | | | | | | | | | | | |
| E206A | 3'-0" x 6'-10" | A | H.M. | PTD | - | 1 | H.M. | PTD | - | 4/AD.2 | 3/AD.2 | - | - | 1 | - |
| E206B | 6'-0" x 4'-0" | - | - | - | - | 2 | H.M. | PTD | GL-1 | 2/AD.2 | 5/AD.2 | 1/AD.2 | - | - | - |
| E206C | 6'-0" x 4'-0" | - | - | - | - | 2 | H.M. | PTD | GL-1 | 2/AD.2 | 5/AD.2 | 1/AD.2 | - | - | - |



DOOR SCHEDULE ABBREVIATIONS AND NOTES

(REFER TO SPECIFICATIONS FOR ADDITIONAL DOOR INFORMATION)

DOOR SCHEDULE ABBREVIATIONS

- AL ALUMINUM
- ALGL ALUMINUM AND GLASS
- EX EXISTING
- FRF FIRE RATED ALUMINUM FRAMING
- FRP FIBROGLASS REINFORCED POLYESTER
- HM HOLLOW METAL
- LAM PLASTIC LAMINATE CLAD
- MET METAL THRESHOLD
- NAT NATURAL FINISHED WOODWORK
- PFN PREFINISHED BY MANUFACTURER
- PTD PAINTED
- SSF SOLID SURFACE THRESHOLD
- STL STEEL
- STSL STAINLESS STEEL
- WD WOOD

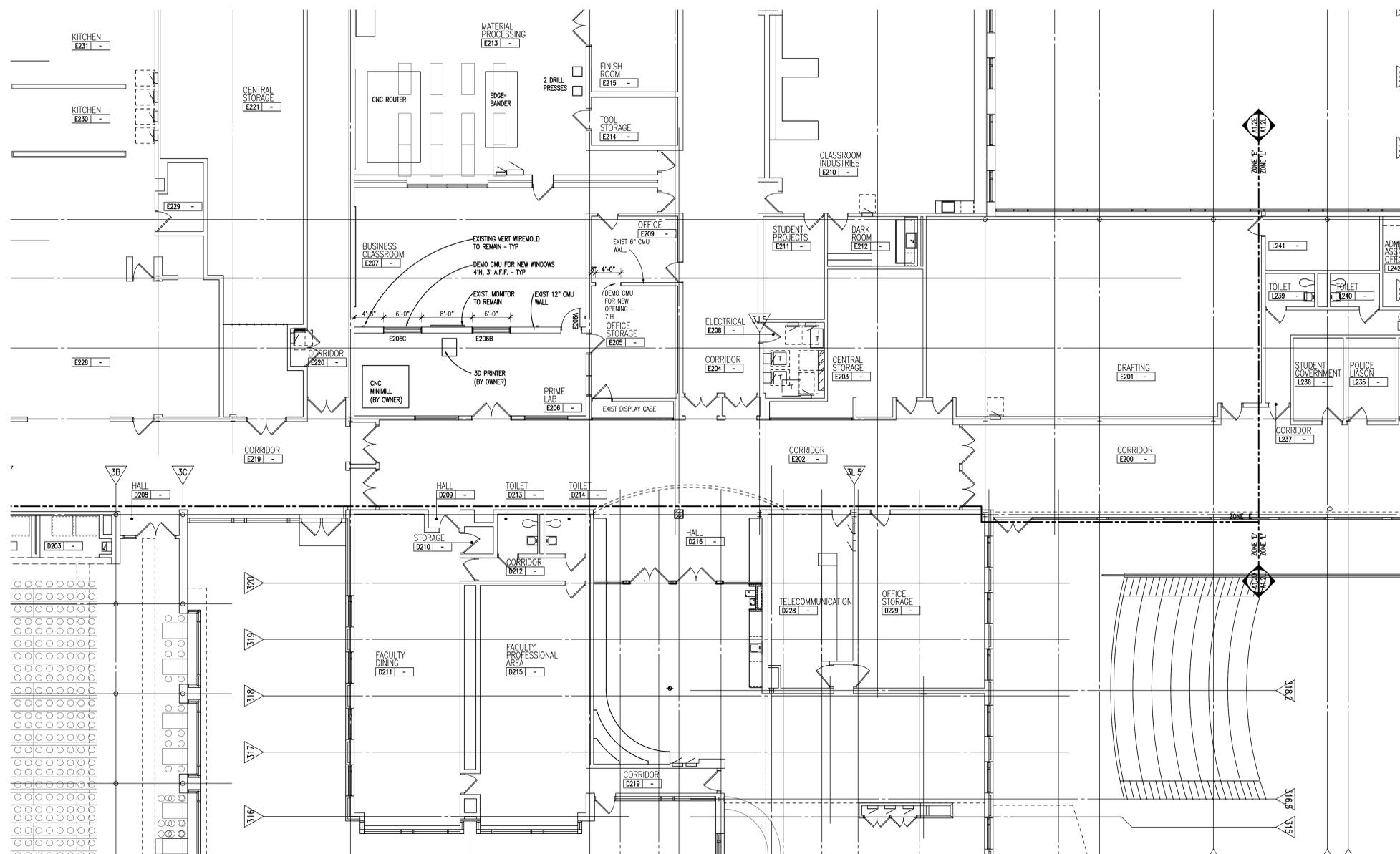
DOOR SCHEDULE GENERAL NOTES

1. GALVANIZED METAL TO BE PROVIDED FOR HOLLOW METAL DOOR AND/OR FRAME AT EXTERIOR LOCATION.
2. DOORS ARE 1-3/4" THICK UNLESS OTHERWISE NOTED.
3. DETAIL NUMBERS NOTED SIM. REFER TO DETAILS SHOWING HEAD, JAMB, AND/OR SILL DETAILS THAT REPRESENT CONDITIONS SIMILAR TO THOSE NOTED.
4. HOLLOW METAL FRAMES SET IN MASONRY WALLS ARE 5 3/4" WIDE (U.O.N.).
5. HOLLOW METAL FRAMES, SET IN GYPSUM BD./METAL STUD PARTITIONS, SHALL BE "DOUBLE BACK-BEND" FRAMES WITH A THROAT DIMENSION EQUAL TO THE PARTITION THICKNESS PLUS 9/16" RETURNS ON EACH SIDE OF THE PARTITION. PROVIDE EQUAL RABBETS.
6. AN ASTERISK (*) CALLS ATTENTION TO THE REMARKS COLUMN OF THE SCHEDULE.

U.L. DOOR LABEL DESIGNATIONS:

| U.L. LABEL** | MIN. OPENING PROTECTION ASSEMBLY |
|--------------|----------------------------------|
| 180 | 3 HR. FIRE RATING |
| 90 | 1-1/2 HR. FIRE RATING |
| 60 | 1 HR. FIRE RATING |
| 45 | 3/4 HR. FIRE RATING |
| 20 | 1/3 HR. FIRE RATING |

** ALL FIRE RATED DOORS SHALL BE SMOKE AND DRAFT CONTROL LABELED IN ADDITION TO U.L. LABELS INDICATED.



SECOND LEVEL FLOOR PLAN - ZONE 'E'

SCALE: 1/8" = 1'-0"

ELECTRICAL SYMBOL LIST

(NOTE: SOME SYMBOLS AND ABBREVIATIONS SHOWN MAY NOT APPLY TO THIS PROJECT)

| SYMBOL | DESCRIPTION | SYMBOL | DESCRIPTION | SYMBOL | DESCRIPTION | SYMBOL | DESCRIPTION |
|---------|--|--------|--|--------|---|--|--|
| FX (NL) | FIXTURE TYPE (NL INDICATES NIGHT LIGHT) | TWC | TWO-WAY COMMUNICATION SYSTEM CALL STATION | CP | CONTROL PANEL | F | MANUAL FIRE ALARM BOX |
| [] | LIGHTING FIXTURE | TWCD | TWO-WAY COMMUNICATION SYSTEM AUTO DIALER | M | MOTOR | SD | SMOKE DETECTOR |
| [] | DIRECT/INDIRECT LIGHTING FIXTURE | TWCA | TWO-WAY COMMUNICATION SYSTEM ANNUNCIATOR & COMMUNICATION PANEL | VFC | VARIABLE FREQUENCY CONTROLLER | DD | DUCT SMOKE DETECTOR |
| [] | EMERGENCY FIXTURE | TWCP | TWO-WAY COMMUNICATION SYSTEM POWER SUPPLY WITH BATTERY BACK-UP | MC | MAGNETIC CONTROLLER | CO | CARBON MONOXIDE DETECTOR |
| [] | LIGHTING FIXTURE | TWCP2 | TWO-WAY COMMUNICATION SYSTEM AUTO DIALER POWER SUPPLY WITH BATTERY BACK-UP | CR | COMBINATION MAGNETIC CONTROLLER | TD | THERMAL DETECTOR |
| [] | WALL MOUNTED LIGHTING FIXTURE | RGP | REMOTE GENERATOR ANNUNCIATOR PANEL | DS | NON-FUSIBLE DISCONNECT SWITCH | BD | PROJECTED BEAM DETECTOR |
| [] | LIGHTING FIXTURE | ATS | AUTOMATIC TRANSFER SWITCH | FS | FUSIBLE DISCONNECT SWITCH | FB | FIRE ALARM BELL |
| [] | DIRECTIONAL LIGHTING FIXTURE | UPS | UNINTERRUPTIBLE POWER SUPPLY | ES | ENCLOSED CIRCUIT BREAKER | FA | FIRE ALARM AUDIBLE NOTIFICATION APPLIANCE |
| [] | PENDANT LIGHTING FIXTURE | CSX | LOW VOLTAGE CONTROL STATION "X" INDICATES TYPE | PS | PUSH BUTTON STATION | FAV | FIRE ALARM VISUAL NOTIFICATION APPLIANCE "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd |
| [] | WALL SCONCE | | | JB | JUNCTION BOX | FAVXX | FIRE ALARM VISUAL NOTIFICATION APPLIANCE - CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd |
| [] | LIGHTING TRACK | | | DO | DOOR OPERATOR | FAVXXC | FIRE ALARM VISUAL NOTIFICATION APPLIANCE - CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd |
| [] | TRACK LIGHTING FIXTURE | | | DA | DOOR ACTUATOR | FAVXXCXX | FIRE ALARM VISUAL NOTIFICATION APPLIANCE - CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd |
| [] | POLE MOUNTED LIGHTING FIXTURE | | | AC | ACCESS CONTROL STATION | FAVXXCXXC | FIRE ALARM VISUAL NOTIFICATION APPLIANCE - CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd |
| [] | POLE MOUNTED LIGHTING FIXTURE - POST TOP | | | ACCP | ACCESS CONTROL CONTROL PANEL | FAVXXCXXCXX | FIRE ALARM VISUAL NOTIFICATION APPLIANCE - CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd |
| [] | BOLLARD LIGHTING FIXTURE | | | ACPS | ACCESS CONTROL POWER SUPPLY | FAVXXCXXCXXC | FIRE ALARM VISUAL NOTIFICATION APPLIANCE - CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd |
| [] | EMERGENCY LIGHTING UNIT | | | CB | CIRCUIT BREAKER | FAVXXCXXCXXCXX | FIRE ALARM VISUAL NOTIFICATION APPLIANCE - CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd |
| [] | EXIT LIGHTING FIXTURE WITH DIRECTIONAL ARROWS (SHADED AREA INDICATES FACE) | | | CBM | DRAWOUT CIRCUIT BREAKER MANUALLY OPERATED | FAVXXCXXCXXCXXC | FIRE ALARM VISUAL NOTIFICATION APPLIANCE - CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd |
| [] | EXIT LIGHTING FIXTURE WITH DIRECTIONAL ARROWS (SHADED AREA INDICATES FACE) | | | CBM | DRAWOUT CIRCUIT BREAKER ELECTRICALLY OPERATED | FAVXXCXXCXXCXXCXX | FIRE ALARM VISUAL NOTIFICATION APPLIANCE - CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd |
| [] | EXIT LIGHTING FIXTURE - WALL MOUNTED | | | CBM | SWITCH | FAVXXCXXCXXCXXCXXC | FIRE ALARM VISUAL NOTIFICATION APPLIANCE - CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd |
| [] | EXIT/EMERGENCY LIGHTING COMBO | | | CBM | AUTOMATIC OR MANUAL TRANSFER SWITCH | FAVXXCXXCXXCXXCXXCXX | FIRE ALARM VISUAL NOTIFICATION APPLIANCE - CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd |
| [] | BRANCH CIRCUIT EMERGENCY LIGHTING TRANSFER SWITCH | | | CBM | FUSE | FAVXXCXXCXXCXXCXXCXXC | FIRE ALARM VISUAL NOTIFICATION APPLIANCE - CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd |
| [] | AUTOMATIC LOAD CONTROL RELAY | | | CBM | TRANSFORMER | FAVXXCXXCXXCXXCXXCXXCXX | FIRE ALARM VISUAL NOTIFICATION APPLIANCE - CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd |
| [] | LIGHTING CONTROL DEVICE - REFER TO LIGHTING CONTROL SCHEDULE | | | CBM | CURRENT TRANSFORMER | FAVXXCXXCXXCXXCXXCXXCXXC | FIRE ALARM VISUAL NOTIFICATION APPLIANCE - CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd |
| [] | ROOM CONTROL DESIGNATION - REFER TO LIGHTING CONTROL SCHEDULE | | | CBM | POTENTIAL TRANSFORMER | FAVXXCXXCXXCXXCXXCXXCXXCXX | FIRE ALARM VISUAL NOTIFICATION APPLIANCE - CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd |
| [] | SINGLE POLE TOGGLE SWITCH | | | CBM | LIGHTNING ARRESTOR | FAVXXCXXCXXCXXCXXCXXCXXCXXC | FIRE ALARM VISUAL NOTIFICATION APPLIANCE - CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd |
| [] | TWO POLE TOGGLE SWITCH | | | CBM | PANELBOARD "X" INDICATES PANELBOARD NAME | FAVXXCXXCXXCXXCXXCXXCXXCXXCXX | FIRE ALARM VISUAL NOTIFICATION APPLIANCE - CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd |
| [] | 3 WAY TOGGLE SWITCH | | | CBM | GROUND | FAVXXCXXCXXCXXCXXCXXCXXCXXCXXC | FIRE ALARM VISUAL NOTIFICATION APPLIANCE - CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd |
| [] | 4 WAY TOGGLE SWITCH | | | CBM | STRESS CONE TERMINATION | FAVXXCXXCXXCXXCXXCXXCXXCXXCXXCXX | FIRE ALARM VISUAL NOTIFICATION APPLIANCE - CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd |
| [] | KEY OPERATED SWITCH | | | CBM | SECURITY KEY INTERLOCK | FAVXXCXXCXXCXXCXXCXXCXXCXXCXXCXXC | FIRE ALARM VISUAL NOTIFICATION APPLIANCE - CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd |
| [] | 3 WAY KEY OPERATED SWITCH | | | CBM | ENGINE GENERATOR | FAVXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXX | FIRE ALARM VISUAL NOTIFICATION APPLIANCE - CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd |
| [] | 4 WAY KEY OPERATED SWITCH | | | CBM | UTILITY METER | FAVXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXC | FIRE ALARM VISUAL NOTIFICATION APPLIANCE - CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd |
| [] | DIMMER SWITCH | | | CBM | ELECTRONIC METERING UNIT | FAVXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXX | FIRE ALARM VISUAL NOTIFICATION APPLIANCE - CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd |
| [] | 3 WAY DIMMER SWITCH | | | CBM | AMMETER | FAVXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXC | FIRE ALARM VISUAL NOTIFICATION APPLIANCE - CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd |
| [] | DIMMER OCCUPANCY SENSOR SWITCH | | | CBM | VOLTMETER | FAVXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXX | FIRE ALARM VISUAL NOTIFICATION APPLIANCE - CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd |
| [] | LOW VOLTAGE DIMMER SWITCH | | | CBM | AMMETER SWITCH | FAVXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXC | FIRE ALARM VISUAL NOTIFICATION APPLIANCE - CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd |
| [] | PILOT SWITCH | | | CBM | VOLTMETER SWITCH | FAVXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXX | FIRE ALARM VISUAL NOTIFICATION APPLIANCE - CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd |
| [] | | | | CBM | SURGE PROTECTIVE DEVICE | FAVXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXC | FIRE ALARM VISUAL NOTIFICATION APPLIANCE - CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd |
| [] | | | | CBM | CONTROL RELAY | FAVXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXX | FIRE ALARM VISUAL NOTIFICATION APPLIANCE - CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd |
| [] | | | | CBM | TIME DELAY RELAY | FAVXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXC | FIRE ALARM VISUAL NOTIFICATION APPLIANCE - CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd |
| [] | | | | CBM | PHASE ROTATION MONITOR | FAVXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXX | FIRE ALARM VISUAL NOTIFICATION APPLIANCE - CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd |
| [] | | | | CBM | CAMLOCK - MALE | FAVXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXC | FIRE ALARM VISUAL NOTIFICATION APPLIANCE - CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd |
| [] | | | | CBM | CAMLOCK - FEMALE | FAVXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXX | FIRE ALARM VISUAL NOTIFICATION APPLIANCE - CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd |
| [] | | | | CBM | THERMAL OVERLOAD RELAY | FAVXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXC | FIRE ALARM VISUAL NOTIFICATION APPLIANCE - CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd |
| [] | | | | CBM | NORMALLY OPEN CONTACTS | FAVXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXX | FIRE ALARM VISUAL NOTIFICATION APPLIANCE - CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd |
| [] | | | | CBM | NORMALLY CLOSED CONTACTS | FAVXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXC | FIRE ALARM VISUAL NOTIFICATION APPLIANCE - CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd |
| [] | | | | CBM | N.O. PUSH BUTTON SINGLE CIRCUIT | FAVXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXX | FIRE ALARM VISUAL NOTIFICATION APPLIANCE - CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd |
| [] | | | | CBM | N.C. PUSH BUTTON SINGLE CIRCUIT | FAVXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXC | FIRE ALARM VISUAL NOTIFICATION APPLIANCE - CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd |
| [] | | | | CBM | CABLE VAULT "X-X" INDICATES TYPE | FAVXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXXCXX | FIRE ALARM VISUAL NOTIFICATION APPLIANCE - CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd |
| [] | | | | CBM | BRANCH CIRCUIT PANELBOARD | FAVXXC | FIRE ALARM VISUAL NOTIFICATION APPLIANCE - CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd |
| [] | | | | CBM | LOAD CENTER | FAVXXCXX | FIRE ALARM VISUAL NOTIFICATION APPLIANCE - CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd |
| [] | | | | CBM | MOTOR CONTROL CENTER | FAVXXC | FIRE ALARM VISUAL NOTIFICATION APPLIANCE - CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd |
| [] | | | | CBM | TRANSFORMER | FAVXXCXX | FIRE ALARM VISUAL NOTIFICATION APPLIANCE - CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd |
| [] | | | | CBM | DISTRIBUTION PANEL | FAVXXCXX | FIRE ALARM VISUAL NOTIFICATION APPLIANCE - CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd |
| [] | | | | CBM | GROUND BUS | FAVXXC | FIRE ALARM VISUAL NOTIFICATION APPLIANCE - CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd |
| [] | | | | CBM | PLUG IN BUSWAY | FAVXXCXX | FIRE ALARM VISUAL NOTIFICATION APPLIANCE - CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd |
| [] | | | | CBM | FEEDER BUSWAY | FAVXXC | FIRE ALARM VISUAL NOTIFICATION APPLIANCE - CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd |

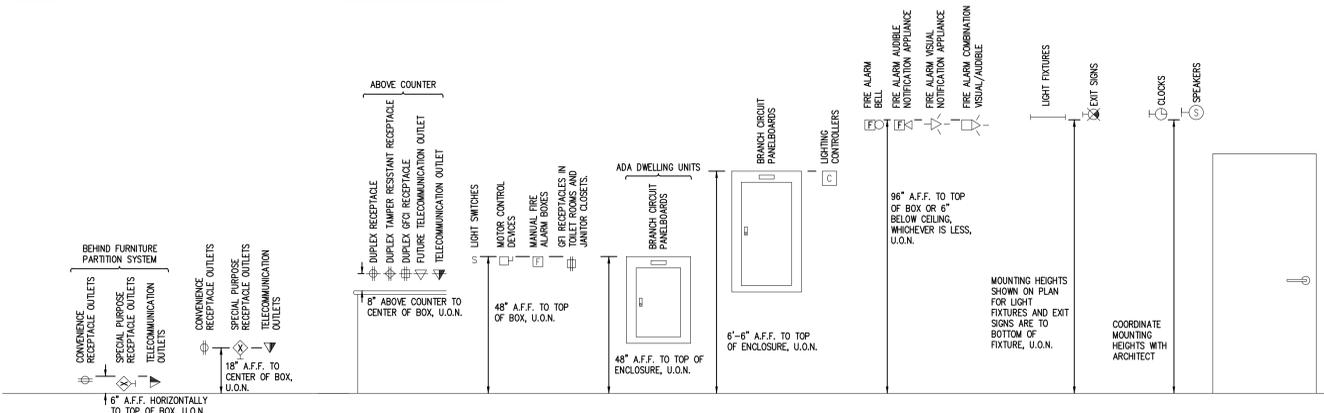
ELECTRICAL DRAWING INDEX

| SHEET NO. | SHEET TITLE |
|-----------|--|
| E0.1 | ELECTRICAL STANDARDS AND DRAWING INDEX |
| E0.2 | ELECTRICAL STANDARD SCHEDULES |
| E1.2 | SECOND LEVEL ELECTRICAL PLAN |

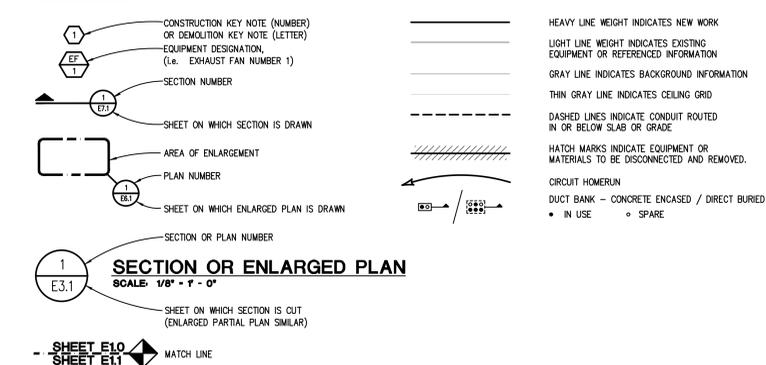
ELECTRICAL ABBREVIATION LIST

| ABBREVIATION | DESCRIPTION | ABBREVIATION | DESCRIPTION | ABBREVIATION | DESCRIPTION |
|--------------|---|--------------|----------------------------------|--------------|---------------------------------------|
| A | AMPERES | C/GRO/EG | GROUND FAULT CIRCUIT INTERRUPTER | OC | ON CENTER |
| AER | ARC ENERGY REDUCTION | GFP | GROUND FAULT PROTECTION | OFCI | OWNER FURNISHED, CONTRACTOR INSTALLED |
| AF | AMPERES FRAME (BREAKER RATING) | HOA | HAND-OFF-AUTO | OFOI | OWNER FURNISHED, OWNER INSTALLED |
| AFDI | ARC FAULT CIRCUIT INTERRUPTER ABOVE FINISH FLOOR | HP | HORSEPOWER | P | POLE |
| A.F.F. | AMPS INTERRUPTING CAPACITY | HZ | HERTZ | PB | PUSHBUTTON STATION |
| AL | AUDIENCE LEFT | IG | ISOLATED GROUND | PH | PHASE |
| ALCR | AUTOMATIC LOAD CONTROL RELAY | JB | JUNCTION BOX | PT | POTENTIAL TRANSFORMER |
| AR | AUDIENCE RIGHT | KA | THOUSAND AMP | PDP | POWER DISTRIBUTION PANEL |
| ATS | AMPERES TRIP (BREAKER SETTING) | KV | KILOVOLT | RECEPT. | RECEPTACLE |
| AUX | AUTOMATIC TRANSFER SWITCH | KVA | KILOVOLT - AMPERES | RDP | RECEPTACLE DISTRIBUTION PANEL |
| BECLTS | BRANCH CIRCUIT EMERGENCY LIGHTING TRANSFER SWITCH | KW | KILOWATT | RP | RECEPTACLE PANEL |
| BKR | BOLTED PRESSURE SWITCH | KWH | KILOWATT - HOURS | RSC | RIGID STEEL CONDUIT |
| BPS | BOLTED PRESSURE SWITCH | LA | LIGHTNING ARRESTOR | SCCR | SHORT CIRCUIT CURRENT RATING |
| C | CONDUIT | LP | LIGHTING PANEL | SCHED | SCHEDULE |
| CB | CIRCUIT BREAKER | LDP | LIGHTING DISTRIBUTION PANEL | SPD | SURGE PROTECTION DEVICE |
| OFCI | CONTRACTOR FURNISHED, CONTRACTOR INSTALLED | MAX | MAXIMUM | ST | SHUNT TRIP |
| CT | CURRENT TRANSFORMER | MCA | MINIMUM CIRCUIT AMPACITY | SW | SWITCH |
| CT | CURRENT TRANSFORMER | MCB | MAIN CIRCUIT BREAKER | SWBD | SWITCHBOARD |
| DEMO | DEMOLITION | MCC | MOTOR CONTROL CENTER | SWGR | SWITCHGEAR |
| DEM | DEMOLITION | MDP | MAIN DISTRIBUTION PANEL | TB | TERMINAL BOX |
| DISC | DISCONNECT | MECH | MECHANICAL | TELECOM | TELECOMMUNICATIONS |
| DP | DISTRIBUTION PANEL | MN | MINIMUM | TR | TAMPER RESISTANT |
| DS | DOWNSTAGE | MISC. | MISCELLANEOUS | TR | TELEPHONE TERMINAL BACKBOARD |
| DWG | DRAWING | MLO | MAIN LUGS ONLY | TYP | TYPICAL |
| EBU | EMERGENCY BATTERY UNIT | MOP | MAXIMUM OVERCURRENT PROTECTION | U.O.N. | UNLESS OTHERWISE NOTED |
| EC | ELECTRICAL CONTRACTOR | MTD | MOUNTED | US | UPSTAGE |
| EM/EMERG | EMERGENCY | MTG | MOUNTING | V | VOLTS |
| EMT | ELECTRICAL METALLIC TUBING | MTR | MOTOR | W | WIRE OR WATTS |
| EO | ELECTRICALLY OPERATED | N | NEUTRAL | WG | WIRE GUARD |
| EPO | EMERGENCY POWER OFF | NC | NORMALLY CLOSED | WP | WEATHERPROOF |
| EW | ELECTRIC WATER COOLER | NEC | NATIONAL ELECTRICAL CODE | WR | WEATHER RESISTANT |
| EXIST | EXISTING | NF | NON-FUSIBLE | XMR | TRANSFORMER |
| FA | FIRE ALARM | NIC | NOT IN CONTRACT | XPF | EXPLOSION PROOF |
| FLA | FULL LOAD AMPS | NL | NIGHT LIGHT | XPR | EXPLOSION PROOF |
| FLR | FLOOR | NO | NORMALLY OPEN | (E) | EXISTING |
| FHH | FRONT OF HOUSE | NTS | NOT TO SCALE | (R) | RELOCATED |
| FSEC | FOOD SERVICE EQUIPMENT CONTRACTOR | | | | |
| FU | FUSE | | | | |

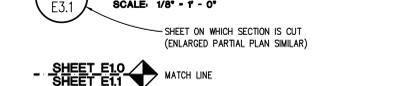
STANDARD MOUNTING HEIGHTS



STANDARD METHODS OF NOTATION



SECTION OR ENLARGED PLAN



REGISTRATION SEAL



PROJECT TITLE
Troy High School Stem Lab

Troy School District
Troy, Michigan

DRAWING TITLE
ELECTRICAL STANDARDS AND DRAWING INDEX

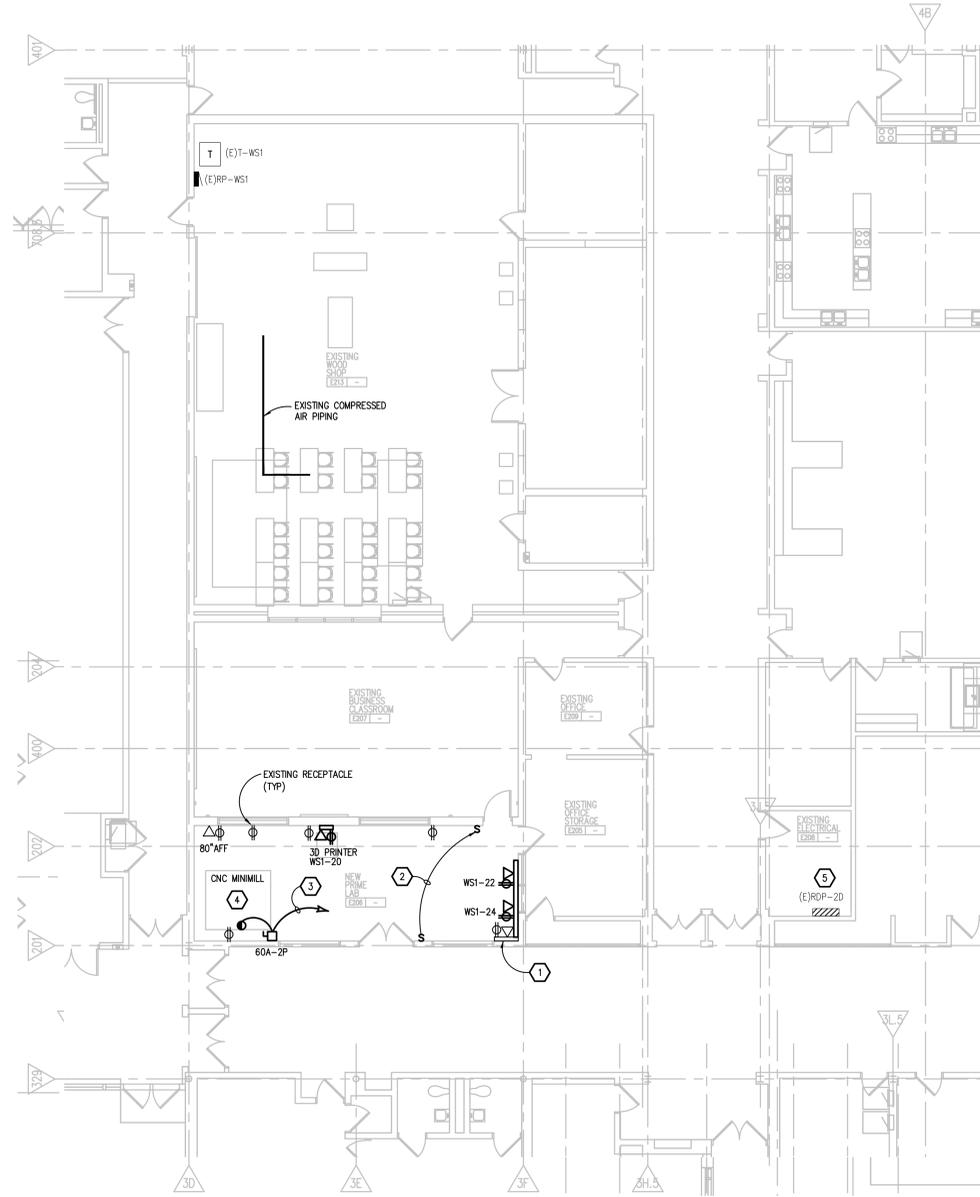
ISSUE DATES

| DATE | ISSUED FOR: |
|-----------|------------------------|
| 8-10-2022 | CONSTRUCTION DOCUMENTS |

PROJECT NO.
131741

DRAWING NO.
E0.1

THE FOLLOWING DIMENSION EQUALS ONE INCH WHEN PRINTED TO SCALE.



SECOND LEVEL ELECTRICAL PLAN
SCALE: 1/8" = 1' - 0"

ELECTRICAL GENERAL NOTES:

- THESE DRAWINGS REPRESENT THE GENERAL EXTENT AND ARRANGEMENT OF SYSTEMS, COORDINATE EXACT EQUIPMENT LOCATIONS, ELEVATIONS, AND FINAL CONNECTION REQUIREMENTS. PROVIDE EACH SYSTEM COMPLETE, INCLUDING ALL NECESSARY COMPONENTS, FITTINGS AND OFFSETS.
- INSTALL SYSTEMS SUCH THAT REQUIRED CLEARANCE AND SERVICE ACCESS SPACE IS PROVIDED AROUND ALL MECHANICAL AND ELECTRICAL EQUIPMENT, AND AROUND ANY COMPONENTS WHICH REQUIRE SERVICE ACCESS.
- COORDINATE AND PROVIDE ACCESS DOORS WITHIN INACCESSIBLE CEILING, SHAFT, AND CHASE AREAS FOR ALL COMPONENTS WHICH REQUIRE SERVICE ACCESS. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES.
- PROVIDE SUPPLEMENTARY STEEL AS REQUIRED FOR THE PROPER SUPPORT OF ALL SYSTEMS.
- EXISTING LIGHTING SHALL REMAIN, EXCEPT FOR RELOCATION OF LIGHT SWITCH.
- EXISTING FIRE ALARM DEVICES SHALL REMAIN.
- COORDINATE THE MOUNTING HEIGHTS OF DEVICES WITH ARCHITECTURAL ELEVATIONS AND THE TRADES INSTALLING THE WORK.

CONSTRUCTION KEY NOTES:

- EXISTING #4000 WIREMOLD WITH DUPLEX RECEPTACLE AND DATA OUTLET. EXTEND WIREMOLD AROUND CORNER AND UNDER EXISTING WINDOW OPENING. PROVIDE NEW DUPLEX RECEPTACLES AND DATA OUTLETS (WITH BLANK COVERS) AS INDICATED FOR FUTURE 3D PRINTERS. PROVIDE ALL WIREMOLD PARTS AND PIECES AS REQUIRED.
- RELOCATE LIGHT SWITCH FROM EXISTING LOCATION (PROVIDE BLANK COVER PLATE) AND INSTALL NEXT TO NEW DOOR AS INDICATED. EXTEND CIRCUITING AS REQUIRED.
- 2#6 & 1#10GRC, 3/4" C. TO SPARE 60A-3P SWITCH IN (E)RDP-20. PROVIDE (2) 60 AMP FUSES.
- CNC MINIMILL REQUIRES COMPRESSED AIR. THE OWNER WILL PROVIDE THE COMPRESSED AIR PIPING/CONNECTION. COMPRESSED AIR IS AVAILABLE IN THE ADJACENT WOOD SHOP.
- EXISTING RDP-20: 200A-3P MAIN SWITCH FUSED AT 200 AMPS, 120/208V, 3Ø, 4W. EXISTING LOAD (METERED PER NEC 220.87): 67 AMPS X 125% = 84 AMPS. CNC MINIMILL DRAWS A MAXIMUM OF 40 AMPS. (E)RDP-20 LOAD = 84 + 40 = 124 AMPS.



REGISTRATION SEAL

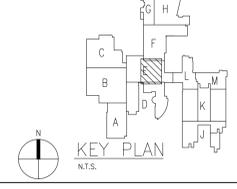
CONSULTANT



PROJECT TITLE
**Troy High School
Stem Lab**

Troy School District
Troy, Michigan

DRAWING TITLE
**SECOND LEVEL
ELECTRICAL PLAN**



ISSUE DATES

| | |
|--|--|
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

8-10-2022 CONSTRUCTION DOCUMENTS

| | |
|--------------|-------------|
| DATE: | ISSUED FOR: |
| DRAWN GJZ | |
| CHECKED GJZ | |
| APPROVED GJZ | |

PROJECT NO.
131741

DRAWING NO.
E1.2

g:\2022\2022-0252-00\CAD\2022-0252-00-E1.dwg, E1.1, 8/10/2022 11:30:32 AM, Remy Ruffin, None, 0.09759, Peter Basso Associates Inc.