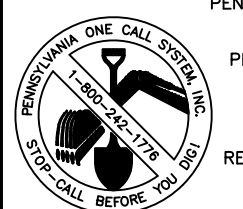


FLOOR PLAN -CONTROL

SCALE: 3/16" = 1'-0"

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PENNSYLVANIA ONE CALL SYSTEM, INC.
1-800-242-1776

PENNSYLVANIA LAW REQUIRES NOT LESS THAN THREE NOR MORE THAN TEN WORKING DAYS NOTICE BEFORE EXCAVATION

REFER TO PENNSYLVANIA ONE CALL SYSTEM, INC.

UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE

PP20 LOW VOLTAGE POWER SUPPLY/ CONTROLS FOR OCCUPANCY SENSORS

PROVIDE ONE PP20 UNIT IN EACH ROOM OR AREA FOR THE LOW VOLTAGE OCCUPANCY SENSORS

CO DETECTORS:

CO DETECTOR: VERIS SERIES G, GWRAS, 24VAC POWER SUPPLY, 1 NO, 1 NC CONTACT OUTPUT. RATED FOR 120VAC/VDC AT 2A (MIN.) (S.F. OF COVERAGE=4,000 PER DETECTOR; POWER CONSUMPTION= 0.3 AMPS @ 24VAC PER DETECTOR.)-ITEMS TO BE SUITABLE FOR WET LOCATIONS IN THE WASH BAY

NOX DETECTORS:

NOX DETECTOR: KELE #GDS-WNO2 (ALARM SET POINT 1 PPM NO2) OR EQUAL VERIS UNIT. 24VAC POWER SUPPLY, 1 NO, 1 NC OUTPUT CONTACTS, RATED FOR 120VAC/VDC AT 2A (MIN.). ITEMS SHALL BE SUITABLE FOR WET LOCATIONS. LOCATE IN CEILING AS DIRECTED BY THE MANUFACTURER.

OCCUPANCY SENSORS:

REFER TO DWG. NO. E-X, OCCUPANCY SENSORS AND PP20 IN THE WASH BAYS TO BE SUITABLE FOR WET LOCATIONS.

EQUIPMENT CABINET:

EQUIPMENT CABINET WHERE INDICATED ON THE DRAWINGS IN THE SHOP TO CONSIST OF A HOFFMAN BOX WITH A LOCKABLE HINGED COVER OF REQUIRED SIZE TO HOUSE ALL ITEMS. PROVIDE TERMINAL BLOCK FOR CONNECTION OF ALL FIELD WIRING AND MOUNT ALL ITEMS ON MOUNTING RAILS ON A EQUIPMENT MOUNTING PANEL WITHIN THE ENCLOSURE. THE FUSES AND DISCONNECT SWITCHES WITHIN THE CABINET SHALL BE TERMINAL BLOCK TYPE RATING AT NOT LESS THAN 20 AMPERES. MOUNT INDICATING LIGHTS ON THE FRONT COVER.

SEQUENCE OF OPERATION

COORDINATE WITH THE HVAC DRAWINGS

NOTE:

THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE THE SEQUENCE OF OPERATION SCHEME AND THE CONTROL WIRING ARRANGEMENT WITH THE HVAC CONTRACTOR PRIOR TO THE EXECUTION OF ANY WORK OR PROGRAMMING OR ORDERING ANY EQUIPMENT AND MATERIALS.

VENTILATING FAN CONTROL SYSTEM

THE VENTILATION SYSTEM FANS AND ASSOCIATED DAMPERS SHALL BE FURNISHED AND INSTALLED BY THE M.C. THE E.C. SHALL PROVIDE ALL ASSOCIATED POWER WIRING, CONTROL WIRING AND CONTROLS. ALL ASSOCIATED POWER WIRING AND CONTROL WIRING SHALL BE INSTALLED IN CONDUIT OF REQUIRED SIZE. VERIFY VOLTAGE, PHASE AND RATINGS OF ALL ITEMS WITH THE M.C. PRIOR TO THE EXECUTION OF ROUGHIN. THE VENTILATION FANS AND DAMPERS SHALL BE CONTROLLED BY THE PLC IN ACCORDANCE WITH THE SEQUENCE OPERATION.

PROGRAMMABLE LOAD CONTROLLER (PLC)

THE PLC SHALL BE ALLEN BRADLEY MICRO 810 SERIES AS INDICATED ON THE DRAWINGS. ALL OUTPUTS TO BE RELAY TYPE, RATED 120VAC AT 8 AMPS. THE INPUTS ARE 120VAC. THE CONTRACTOR SHALL SECURE ALL REQUIRED SOFTWARE REQUIRED FOR PROGRAMMING AND SHALL PROVIDE ALL PROGRAMMING AS REQUIRED FOR PLC TO OPERATE IN ACCORDANCE WITH THE SEQUENCE OF OPERATION. COORDINATE PROGRAMMING WITH THE OWNER'S REPRESENTATIVE AND THE HVAC.

CONTACTOR: (C.1,C.1A,C.2,C3,C4)

THE CONTACTORS SHALL BE ALLEN BRADLEY SOLID STATE TYPE. X-POLE, 20A, 120VAC NEMA SIZE 1 OR 4 ENCLD, 24VAC COIL AS INDICATED, INDICATING LED's FOR ON, ON FRONT COVER. ALLEN BRADLEY BULLETIN 156-C.

PP20 LOW VOLTAGE POWER SUPPLY/ CONTROLS FOR OCCUPANCY SENSORS

PROVIDE ONE PP20 UNIT IN EACH ROOM OR AREA FOR THE LOW VOLTAGE OCCUPANCY SENSORS

CO DETECTORS:

CO DETECTOR: VERIS SERIES G, GWRAS, 24VAC POWER SUPPLY, 1 NO, 1 NC CONTACT OUTPUT. RATED FOR 120VAC/VDC AT 2A (MIN.) (S.F. OF COVERAGE=4,000 PER DETECTOR; POWER CONSUMPTION= 0.3 AMPS @ 24VAC PER DETECTOR.)

NOX DETECTORS:

NOX DETECTOR: KELE #GDS-WNO2 (ALARM SET POINT 1 PPM NO2) OR EQUAL VERIS UNIT. 24VAC POWER SUPPLY, 1 NO, 1 NC OUTPUT CONTACTS, RATED FOR 120VAC/VDC AT 2A (MIN.)

OCCUPANCY SENSORS:

REFER TO THE DRAWINGS.

EQUIPMENT CABINET:

EQUIPMENT CABINET WHERE INDICATED ON THE DRAWINGS IN THE SHOP TO CONSIST OF A HOFFMAN BOX WITH A LOCKABLE HINGED COVER OF REQUIRED SIZE TO HOUSE ALL ITEMS. PROVIDE TERMINAL BLOCK FOR CONNECTION OF ALL FIELD WIRING AND MOUNT ALL ITEMS ON MOUNTING RAILS ON A EQUIPMENT MOUNTING PANEL WITHIN THE ENCLOSURE. THE FUSES AND DISCONNECT SWITCHES WITHIN THE CABINET SHALL BE TERMINAL BLOCK TYPE RATING AT NOT LESS THAN 20 AMPERES. MOUNT INDICATING LIGHTS ON THE FRONT COVER.

SEQUENCE OF OPERATION

OCCUPANCY DETECTED IN GARAGE AREA-- OPERATION:
VENT. FAN WPF-1 AND ASSOCIATED DAMPERS SHALL OPERATE.

CO/NOX AND REV. T'STAT OPERATION:
VENT FAN WPF-2 AND ASSOCIATED DAMPERS SHALL OPERATE.
VENT. FAN WPF-1 AND ASSOCIATED DAMPERS SHALL OPERATE.
VERIFY SEQUENCE OF OPERATION WITH THE HVAC CONTRACTOR

NOTE:

THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE THE ABOVE SEQUENCE OF OPERATION SCHEME AND THE CONTROL WIRING ARRANGEMENT WITH THE HVAC CONTRACTOR PRIOR TO THE EXECUTION OF ANY WORK OR PROGRAMMING OR ORDERING ANY EQUIPMENT AND MATERIALS.

VENTILATING FAN CONTROL SYSTEM

THE VENTILATION SYSTEM FANS AND ASSOCIATED DAMPERS SHALL BE FURNISHED AND INSTALLED BY THE M.C. THE E.C. SHALL PROVIDE ALL ASSOCIATED POWER WIRING, CONTROL WIRING AND CONTROLS. ALL ASSOCIATED POWER WIRING AND CONTROL WIRING SHALL BE INSTALLED IN CONDUIT OF REQUIRED SIZE. VERIFY VOLTAGE, PHASE AND RATINGS OF ALL ITEMS WITH THE M.C. PRIOR TO THE EXECUTION OF ROUGHIN. THE VENTILATION FANS AND DAMPERS SHALL BE CONTROLLED BY THE PLC IN ACCORDANCE WITH THE SEQUENCE OPERATION.

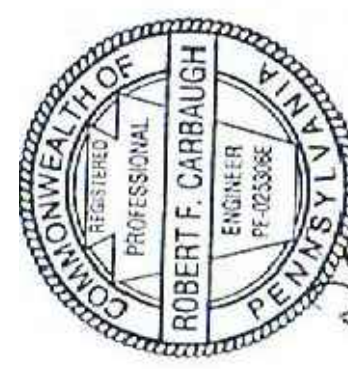
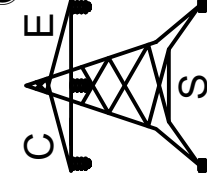
VENTILATION FAN CONTROL

THE VENTILATION FANS SHALL BE CONTROLLED AS INDICATED IN THE PLC SEQUENCE OF OPERATION.

CONTACTOR: (C.1 & C.2)

THE CONTACTORS SHALL BE ALLEN BRADLEY SOLID STATE TYPE, 2-POLE, 20A, 120VAC NEMA SIZE 1 OR 4 ENCLD, 24VAC COIL AS INDICATED, INDICATING LED's FOR ON, ON FRONT COVER. ALLEN BRADLEY BULLETIN 156-C.

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Elizabethtown, PA 17022
Phone: (717) 367-7102
Cellular: (717) 201-9657
E-Mail: carbaugh6383@comcast.net



| NO. | REVISION NOTES | DATE |
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BREHM-LEBO ENGINEERING, INC.
CIVIL ENGINEERS PLANNERS SURVEYORS STRUCTURAL ENGINEERS
40 NORTH SECOND STREET
CHAMBERSBURG, PA 17201
PH: (717) 267-1401
FAX: (717) 243-3301

EQUIPMENT BUILDING
CONSTRUCTION DRAWING
FOR
PROPOSED FIRST FLOOR PLAN
SOUTH HAMPTON TWP. CUMBERLAND COUNTY, PA

| |
|--------------------|
| Drawn By: HH |
| Designed By: HH |
| Checked By: RC |
| File: 2022-SH-009 |
| Date: 08/18/2023 |
| Scale: 3/16"=1'-0" |