

July 25, 2023

ADDENDUM 1 | Wilmette Public Library

BAS

TO ALL DOCUMENT HOLDERS:

This addendum is issued to modify, explain or correct the Bidding Documents issued for the referenced project. Attach this addendum or transfer its information to the documents in your possession. Acknowledge receipt of this addendum in the appropriate places on the Bid Form. Each Bidder shall carefully read all items in their entirety and thoroughly examine the Contract Documents to determine to what extent the addendum affects the Bids.

Part One - Revisions to the Drawings

1. MCD100
 - a. Add control device to be demolished in Mech-A02 with keynote 3.
 - b. Add keynote #3 reading as follows: "UNDER ALTERNATE 2 TCC TO DEMOLISH EXISTING EXTERIOR LIGHTING TIMER CONTROLLER AND PREPARE SYSTEM FOR RECONNECTION. TCC RESPONSIBLE TO CARRY OVER EXISTING SEQUENCES, PROGRAMMING, AND OPERATION TO NEW CONTROLLER. REFER TO NEW WORK FOR MORE INFORMATION. "
2. MC100
 - a. Add new CP-5 in Mech A-02 with keynote 4.
 - b. Add keynote #4 reading as follows: "UNDER ALTERNATE 2 TCC TO PROVIDE INTERMATIC ET90215CE AND INTERMATIC ET9500. RECONNECT ALL COMPONENTS OF EXISTING SYSTEM TO ET90215CE AND PROVIDE CONNECTION FROM ET9500 TO BAS. ONCE INSTALLED CONFIRM SYSTEM MATCHES EXISTING OPERATION. PROVIDE OWNER WITH ABILITY TO TURN CIRCUITS ON AND OFF, ADJUST SCHEDULES, AND MONITOR ALL STATUS AND ALARMS AT THE BAS INTERFACE."
3. MC300
 - a. Update Network Layout to include CP-5 and associated wiring under Alternate 2.

Part Two - Revisions to the Project Manual

1. Section 00 01 07-1 Seals
 - a. Engineer Professional Seal Added to Spec
2. Section 26 09 33 – Lighting Control Systems
 - a. Add Lighting Control specification to cover appropriate scope.

Part Three – Contractor Questions

3. None

Attachments:

Pre-Bid Attendance List, 00 01 07-1 Seals Page, MCD100, MC100, MC300, 26 09 33 – Lighting Control Systems

END OF ADDENDUM 01

**Wilmette Public
Library**

Wilmette Public Library
1242 Wilmette Avenue
Wilmette, IL 60091

PROJECT NUMBER 223537.00



SEAL 06/28/2023
EXP. 11/30/2023

ISSUED FOR:

BID 06/30/2023

REVISION FOR: DATE

NO.	DESCRIPTION	DATE
1	ADDENDUM 01	07/25/2023

DRAWN BY LHS

CHECKED BY JMO

**BASEMENT PLAN -
CONTROLS**

MC100

GENERAL SHEET NOTES:

- REFER TO MC200, MC200, MC300, & SPECIFICATIONS FOR MORE INFORMATION.

KEYNOTES: #

- TCC TO PROVIDE CONTACTORS/RELAYS AS REQUIRED TO CONTROL ALL COMMON SPACE LIGHTING ZONES AS NOTED ON DEMOLITION DRAWINGS. REFER TO 1/MC200. TCC RESPONSIBLE TO DETERMINE QUANTITY AND LOCATION OF CONTACTORS/RELAYS FOR MINIMAL COST AND IMPACT ON BUILDING OPERATION. TCC RESPONSIBLE FOR NEW LOW VOLTAGE CONTROLS CONNECTION TO CONTACTORS/RELAYS AND TO REROUTE EXISTING SWITCH LEG ELECTRICAL CONNECTION MATCHING EXISTING CONDUIT AND WIRE (MINIMUM #12 IN 3/4" C). TCC TO DETERMINE ROUTING FOR AND INSTALL ALL CONDUIT, CABLE, & WIRING. REFER TO ARCHITECTURAL DRAWINGS FOR REFLECTED CEILING PLANS. COORDINATE ANY REQUIRED CEILING, WALL, AND/OR FLOOR REWORK WITH THE ARCHITECT. COSTS FOR ANY CEILING, WALL, AND/OR FLOOR WORK REQUIRED TO COMPLETE PROJECT WILL BE INCLUDED IN THE BID.
- UNDER ALTERNATE 1 TCC TO PROVIDE A TEKMAR 680 CONTROL PANEL. RECONNECT ALL EXISTING SNOW MELT SYSTEM COMPONENTS TO NEW CONTROL PANEL. ONCE INSTALLED CONFIRM SYSTEM MATCHES EXISTING OPERATION. TCC TO PROVIDE CONNECTION TO BAS, PROVIDE OWNER ABILITY TO ADJUST SYSTEM START OUTSIDE AIR TEMPERATURE SETPOINT AND MONITOR THE ON/OFF STATUS OF THE SNOWMELT SYSTEM.
- TCC TO PROVIDE OVERRIDE SWITCH TO TURN ON ALL BASEMENT COMMON SPACE LIGHTS FOR TWO HOURS. REFER TO MC200.
- UNDER ALTERNATE 2 TCC TO PROVIDE INTERMATIC ET90215CE AND INTERMATIC ET9500. RECONNECT ALL COMPONENTS OF EXISTING SYSTEM TO ET90215CE AND PROVIDE CONNECTION FROM ET9500 TO BAS. ONCE INSTALLED CONFIRM SYSTEM MATCHES EXISTING OPERATION. PROVIDE OWNER WITH ABILITY TO TURN CIRCUITS ON AND OFF, ADJUST SCHEDULES, AND MONITOR ALL STATUS AND ALARMS AT THE BAS INTERFACE.



BASEMENT PLAN - CONTROLS
1/8" = 1'-0"

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Illinois Design Firm Registration #164 007637-0014

REF. SCALE IN INCHES PROJECT #23001169.00

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Wilmette Public Library
1242 Wilmette Avenue
Wilmette, IL 60091

PROJECT NUMBER 223537.00



SEAL ISSUED FOR: 06/29/2023
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BID 06/30/2023

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**CONTROL
DIAGRAMS**

MC300

GENERAL SHEET NOTES:
1. REFER TO MC000, FLOOR PLANS, MC200, & SPECIFICATIONS FOR MORE INFORMATION.

KEYNOTES: #
1. EQUIPMENT AND EXISTING CONTROLLER IN REGION ARE TO REMAIN. TCC WILL MAKE ACCOMMODATIONS FOR EXISTING EQUIPMENT TO MAINTAIN OPERATION DURING SYSTEM CHANGEOVER. CONTRACTOR TO COORDINATE ANY REQUIRED OUTAGES WITH OWNER AND MINIMIZE ALL DOWN TIME. CONTRACTOR RESPONSIBLE TO FIELD VERIFY ALL EQUIPMENT ON EXISTING BUILDING AUTOMATION SYSTEM IS CARRIED OVER.

RTU-4 WAS NOT PART OF THE ORIGINAL BAS PROJECT AT THE LIBRARY. RTU-4 WAS ADDED AS PART OF A LATER PROJECT AND INTEGRATED INTO THE BAS SYSTEM AT THAT TIME. RTU-4 MUST BE INCLUDED ON NEW BAS SYSTEM AT MINIMUM MATCHING EXISTING CAPABILITIES.

EXISTING BAS INTERFACE DOES NOT PROVIDE FUNCTIONING LINK TO VRF SYSTEMS WEB BASED CONTROLS AS REQUIRED IN EXISTING SEQUENCES. TCC RESPONSIBLE FOR PROVIDING ACCESS TO VRF MANUFACTURER WEB BASED CONTROLS VIA BAS INTERFACE AS PART OF UPGRADE.

PROVIDE NEW CONTROL CONNECTIONS TO ALL LIGHTING CONTROL CONTACTORS/RELAYS AS REQUIRED. PROVIDE MINIMUM BACNET COMM WIRE 22-1 PR. LOW CAP. SHIELDED, PLNEUM RATED, RWTISED PAIR, STRANDED CONDUCTOR WIRE.

DISCONNECT EXISTING BACNET CONNECTIONS FROM JACE 700 AND RECONNECT TO JACE 8000.

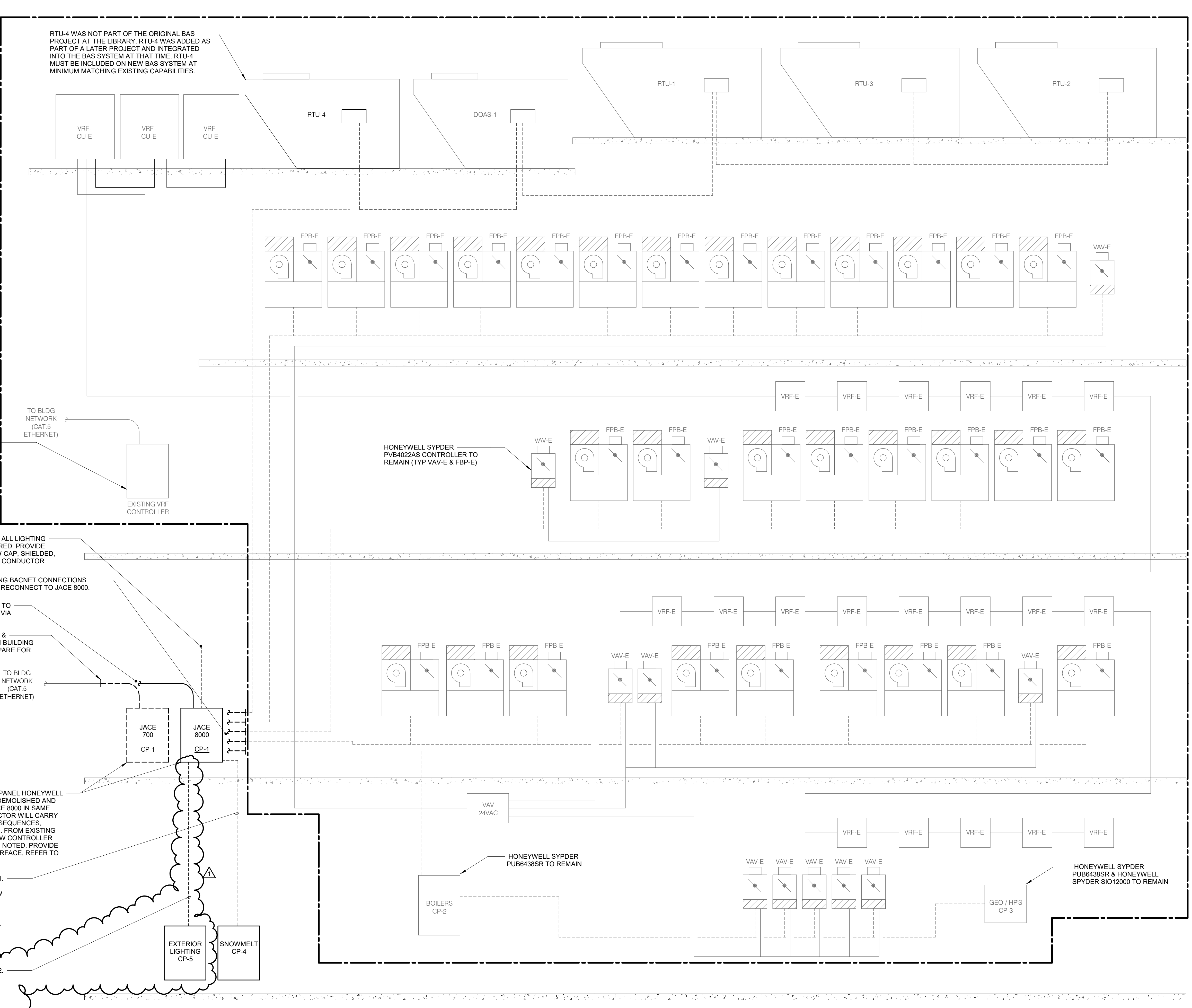
CONNECT JACE 8000 TO BUILDING NETWORK VIA CAT. 5 ETHERNET.

DISCONNECT JACE 7 & ACCESSORIES FROM BUILDING NETWORK AND PREPARE FOR NEW CONNECTION.

EXISTING CONTROL PANEL HONEYWELL JACE 700 SHALL BE DEMOLISHED AND REPLACED WITH JACE 8000 IN SAME LOCATION. CONTRACTOR WILL CARRY OVER ALL EXISTING SEQUENCES, PROGRAMMING, ETC. FROM EXISTING CONTROLLER TO NEW CONTROLLER UNLESS OTHERWISE NOTED. PROVIDE NEW BAS USER INTERFACE, REFER TO SPECIFICATIONS.

UNDER ALTERNATE 1. CONNECT CP-4, TEKMAR 680, TO NEW CP-1. PROVIDE MINIMUM BACNET COMM WIRE 22-1 PR. LOW CAP. SHIELDED, PLNEUM RATED, RWTISED PAIR, STRANDED CONDUCTOR WIRE.

UNDER ALTERNATE 2. CONNECT CP-5, INTERMATIC ET902150E AND INTERMATIC ET9500, TO NEW CP-1. PROVIDE MINIMUM BACNET COMM WIRE 22-1 PR. LOW CAP. SHIELDED, PLNEUM RATED, RWTISED PAIR, STRANDED CONDUCTOR WIRE.



1 NETWORK LAYOUT
NO SCALE

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**BASEMENT
DEMOLITION PLAN
- CONTROLS**

GENERAL SHEET NOTES:

- REFER TO MC000, MC200, MC300, & SPECIFICATIONS FOR MORE INFORMATION.

KEYNOTES: #

- TCC TO REMOVE SWITCH AND REROUTE SWITCH LEG VIA LIGHTING CONTACTOR OR RELAY TO BE CONTROLLED BY BAS. PROVIDE BLANK COVERPLATE TO COVER EXISTING WALL OPENING. MATCH COLOR TO EXISTING WALL AND CONFIRM WITH ARCHITECT. MATCH EXISTING CONDUIT AND WIRE (MINIMUM #12 IN 3/4" O). REFER TO NEW WORK FOR MORE INFORMATION.
- UNDER ALTERNATE 1 TCC TO DEMOLISH EXISTING SNOW MELT CONTROL PANEL AND PREPARE SYSTEM FOR RECONNECTION. TCC RESPONSIBLE TO CARRY OVER EXISTING SEQUENCES, PROGRAMMING, AND OPERATION TO NEW CONTROLLER. REFER TO NEW WORK FOR MORE INFORMATION.
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1 BASEMENT DEMOLITION PLAN - CONTROLS
1/8" = 1'-0"

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0 1 2 3
REF. SCALE IN INCHES PROJECT #23001169.00

MCD100

DOCUMENT 000107 - SEALS PAGE


1.1 Architect:

Responsible for Divisions 01, 09

Name	Joseph M, Huberty	Seal/Signature
Registration Number	001-019306	
Expiration Date		
Date Signed		
Design Firm Name	Engberg Anderson, Inc.	
Design Firm Number	184.001940	

1.2 Mechanical Engineer:

Responsible for Division 23

Name	Blair Hawn	Seal/Signature 
Registration Number	062-064724	
Expiration Date	11/30/2023	
Date Signed	06/30/2023	
Design Firm Name	IMEG Corp	
Design Firm Number	184.007637-0014 035.003125	

END OF DOCUMENT 000107

SECTION 260933 - LIGHTING CONTROL SYSTEMS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Lighting Control

1.2 RELATED SECTIONS

- A. The lighting system design includes a combination of luminaire sources, lighting control components, programming sequences, and supplementary components for building and energy code compliance. The design uses performance-based specifications for portions of the lighting system to account for the limitation of comparable product solutions available by competitive manufacturers. The Contractor shall reference related specification sections, plans, schedules, and details prior to submitting pricing, submittals, and installation. The Contractor shall coordinate system component compatibility among various manufacturers and suppliers for a turnkey lighting system. Referenced sections include, but are not limited to, the following:

1. 23 09 00 Controls
2. Control Drawings: Plans, lighting control sequence of operations, diagrams, and details.

1.3 RELATED WORK

- A. Section 230900 - Controls

1.4 QUALITY ASSURANCE

- A. Manufacturers shall be regularly engaged in the manufacture of lighting control equipment and ancillary equipment, of types and capacities required, whose products have been in satisfactory use in similar service for not less than five (5) years.
- B. All components and assemblies are to be factory pre-tested prior to delivery and installation.
- C. Comply with Electrical Code as applicable to electrical wiring work.
- D. Comply with applicable portions of NEMA standards pertaining to types of electrical equipment and enclosures.
- E. Panels and accessory devices are to be UL listed under UL 916 Energy Management Equipment. Panels and accessories used for control of life safety and critical branch circuits shall be listed under UL 924 Emergency Lighting and Power Equipment.
- F. All assemblies are to be in compliance with FCC emissions standards specified in Part 15 Subpart J for Class A applications.

1.5 REFERENCES

- A. FCC Rules and Regulations, Part 15, Subpart J - Radio Frequency Interference
- B. FS W S 896 Switch, Toggle
- C. NEMA WD 1 - General Color Requirements for Wiring Devices
- D. NFPA 70 - National Electrical Code (NEC)
- E. UL Standard 916 Energy Management Equipment
- F. UL 924 - Emergency Lighting and Power Equipment

1.6 SUBMITTALS

- A. Submit product data under provisions of Section 230500, Section 230900, and items below. Submit all product data under one 23 09 00 Controls submittal.
- B. Submit a comprehensive package including devices, hardware, software, product specification, finishes, dimensions, installation instructions, warranty, system software requirements.
- C. Provide floor plan showing location, orientation, and coverage area of each control device, sensor, and controller/interface.
- D. Submit a list of devices and equipment that will be installed for each sequence of operation.
- E. Submit project specific control wiring diagrams showing all equipment, line voltage, and control wiring requirements for all components including, but not limited to, dimmers, relays, low voltage switches, occupancy sensors, control stations, and communication interfaces and programming instructions for each sequence of operation. Include network cable specification and end-of-line termination details, if required.
- F. Coordinate integration with mechanical and/or other trades.
- G. Verify acceptance of communications connection to building automation system. Submit BACnet IP parameters.

1.7 EXTRA STOCK

- A. Sensors, Controls, Power Supplies, and Relays: Five (5) percent of quantity installed. Minimum of two (2) of each configuration and type.

1.8 PROJECT RECORD DOCUMENTS

- A. Submit project record documents under provisions of Section 230500.

- B. Accurately record location of all controls and devices. Include description of switching sequences and circuiting arrangements.

1.9 OPERATION AND MAINTENANCE DATA

- A. Submit emergency, operation, and maintenance data under provisions of Section 230500. Data shall also include the following:
 - 1. Schedule for routine maintenance, inspection, and calibration of all lighting control devices and system components. Recommended schedule for inspection and recalibration of sensors.
 - 2. Complete narrative describing intended operation and sequence for each control scenario and system component, updated to reflect all changes resulting from commissioning of systems. Narrative shall indicate recommended settings for devices where applicable.
 - 3. Replacement part numbers for all system components.
- B. Submit software operating and maintenance manuals, program software backup on compact disc or compatible media with data files, device address list, and a printout of software application and graphic screens, where applicable.

1.10 SYSTEM DESCRIPTION

- A. Performance Statement: This specification section and the accompanying design documents describe the minimum material quality, required features, and operational requirements of the lighting control system (LCS). These documents do not convey every wire that must be installed and every equipment connection that must be made. Based on the performance required of the system, as presented in these documents, the Contractor and system manufacturer/vendor are solely responsible for determining all equipment, wiring, and programming required for a complete and operational system.
- B. Provide an integrated lighting controls system consisting of panels, power supplies, controllers, sensors, relays, switches, devices, wiring, etc. necessary to perform the Lighting Control Sequence of Operation as defined on the plans and specifications. Contractor is responsible for confirming that all components and luminaires interoperate as a single system.
 - 1. Sequence of Operation: Describes the required operation and performance for lighting control in each space. Sequences of operation are indicated on the drawings.
 - 2. Drawings: The drawings include sequences of operation, locations of control interface devices, sensors, and control zones. Wiring and additional equipment to make a complete and functioning system has not been shown, but shall be submitted with the shop drawings.

1.11 WARRANTY

- A. Manufacturer shall warrant products under normal use and service to be free from defects in materials and workmanship for a period of two (2) years from date of commissioning.

- B. Occupancy, vacancy, daylight sensors and controls shall have a five (5) year warranty from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 LIGHTING CONTROLS

- A. All items of material having a similar function (e.g., switches, dimmers, sensors, contactors, relays, etc.) shall be of the same manufacturer, unless specifically stated otherwise on drawings or elsewhere in the specifications. Lighting control switches, systems, and components shall be listed.
- B. The functions described in the lighting sequence of operation shall dictate the actual lighting control device required to accomplish the functions described for the space.

2.2 LIGHTING CONTROL STATION

- A. SW; The lighting control station shall contain the controls required by the lighting sequence of operation in a common coverplate. The controls may consist of switches, dimmers, occupancy sensors, pushbuttons, etc.

2.3 DEVICE COLOR

- A. All switch, lighting controls, and coverplate colors shall be the same as wiring devices, unless indicated otherwise. Contractor shall confirm all exposed colors with architect prior to commencing work.

2.4 COVERPLATES

- A. All switches and lighting controls shall be complete with coverplates that match material and color of the wiring device coverplates in the space.
- B. Where several devices are ganged together, the coverplate shall be of the ganged style for the number of devices used.
- C. Plate-securing screws shall be metal with head color matching the wall plate finish.

2.5 WALL SWITCHES

- A. SW-1P; Single Pole Switch:
 - 1. Single throw, 120/277-volt, 20-amp maintained contact. Toggle handle, side and back wired.
 - 2. Manufacturers:
 - a. Hubbell HBL1221
 - b. Leviton 1221-2

- c. Pass & Seymour PS20AC1
- d. Cooper AH1221

B. SW-1P-ADJ; Local Timer Switch:

- 1. User adjustable timeout, 120/277-volt, 800/1200 watt rating. No minimum load requirement. Flashes lights one minute before timeout.
- 2. Manufacturers:
 - a. Watt Stopper TS-400
 - b. Hubbell Automation TD200

2.6 CONDUCTORS AND CABLES

A. Control Wiring:

- 1. Where installed with the line-voltage wiring, control wiring shall be copper conductors not smaller than No. 16 AWG with insulation voltage rating and temperature rating equal to that of the line-voltage wiring.
- 2. Tap conductors to switches or relays: Stranded copper conductors of 16 AWG or solid 16 or 18 AWG with insulation rating equal to that of the line-voltage wiring.
- 3. Network cabling as required by manufacturer.

B. Splices and Taps:

- 1. Tapping or wire trap connectors shall be used to splice all Class 1 and Class 2 control wiring. Twist-on, wire-nut type connectors are not allowed.

PART 3 - EXECUTION

3.1 PRE-CONSTRUCTION MEETING

- A. Schedule a pre-construction meeting with the controls representative, installing contractor, Architect/Engineer, and Owner to explain the proposed lighting control centralized, wireless, and distributed systems.

3.2 EXAMINATION

- A. Verify that surfaces are ready to receive work.
- B. Verify field dimensions and coordinate physical size of all equipment with the architectural requirements of the spaces into which they are to be installed. Allow space for adequate ventilation and circulation of air.
- C. Verify that required utilities are available, in proper location, and ready for use.
- D. Beginning of installation means installer accepts existing conditions.

3.3 INSTALLATION

- A. Install in accordance with manufacturer's instructions and approved shop drawings.
- B. All wiring shall be installed in conduit.

3.4 SUPPORT SERVICES

- A. Testing:
 - 1. System shall be completely functional tested by a authorized technician. All loads shall be tested live for continuity and freedom from defects, and all control wiring shall be tested for continuity and connections prior to energizing the system components.
 - 2. Programming of initial zones, schedules, lighting levels, control station groups, and sensor settings shall be performed by a authorized technician. Lighting Control Sequence of Operation shall serve as a basis for programming, However, all final decisions regarding groups and schedules shall be at the direction of the Owner. The following procedures shall be performed at a minimum:
 - a. Confirm that schedules and time controls are configured to meet specified performance criteria and Owner's operating requirements.
- B. Training:
 - 1. Contractor will include training for owner on new lighting control systems as part of training provided via 23 09 00 Controls.

END OF SECTION