Division 25 Integrated Automation pre-submittal checklist

PROJECT	SPEC SECTION	SUBMITTAL NO.

CHECKED BY	DATE

1. Before you start

These apply to every submittal, whatever the trade.

- [ ] Pull the exact spec section this package answers to, including addenda that changed it.
- [ ] Read the submittal articles in Part 1 and list every item they ask for.
- [ ] Confirm the transmittal names the right section number, and that each product is tagged to the paragraph it answers.
- [ ] Mark any deviation from the spec yourself on the transmittal. A declared deviation gets reviewed; a hidden one gets the package rejected.
- [ ] Keep a copy of exactly what you sent, with the date, for your submittal log.

2. Named manufacturers and products match the spec **Blocker**

Compare every product in the package to the manufacturer and model the spec names. If anything differs, attach the approved substitution or or-equal letter, or swap back before you send. Tick each item once you have checked it and nothing below applies without written approval.

- [ ] BAS platform substitutions (Metasys, Desigo CC, Niagara/Tridium, EcoStruxure, Tracer, WebCTRL)
- [ ] Controller hardware swaps (Delta Controls, Distech Controls, KMC Controls replacing specified manufacturer)
- [ ] Sensor and transmitter brand changes that affect calibration or wiring compatibility
- [ ] Graphics workstation and server hardware substitutions
- [ ] Field-level device substitutions (actuators, damper/valve controllers) from a different ecosystem
- [ ] Software platform version substitutions (e.g., older release lacking specified features)
- [ ] Third-party integration middleware replacing the specified native solution

3. Performance values meet the spec numbers **Blocker**

Put the data sheet next to the spec and compare the actual values, not just the test method. A sheet that says "tested per ASTM" without the number is not proof. Tick each value once it meets or beats the spec.

- [ ] **Point count capacity** (digital inputs, digital outputs, analog inputs, analog outputs) - controller must support the specified number of points without expansion

- [ ] **Controller memory and processing** - RAM, flash storage, and CPU speed must meet or exceed spec for the programmed sequences
- [ ] **Communication protocol** (BACnet/IP, BACnet MS/TP, LonWorks, Modbus RTU/TCP, MQTT) - must match spec exactly
- [ ] **Network architecture** - peer-to-peer vs. hierarchical topology as specified
- [ ] **Trending and data logging capacity** - number of trended points multiplied by sample interval; storage duration
- [ ] **Graphics workstation count and display resolution** - screen count, minimum resolution, concurrent user sessions
- [ ] **Alarm management** - number of priority levels, acknowledgment workflow, response time thresholds
- [ ] **System integration points** - interfaces to HVAC, lighting, fire alarm, access control, metering subsystems
- [ ] **Energy dashboard reporting interval** - real-time vs. 1-minute vs. 15-minute aggregation as specified
- [ ] **Latency and response time** - maximum acceptable delay from sensor input to control output action
- [ ] **Scalability** - ability to add future points or controllers without replacing head-end hardware
- [ ] **Redundancy and failover** - standby server, controller auto-recovery, and battery backup as specified

4. Certifications and test reports are attached Fix and Resubmit

Reviewers want the report itself, not a line on the data sheet saying one exists. Tick each document that the spec requires and the package actually contains. Skip lines that do not apply to your section.

- [ ] **UL 916** listing for energy management equipment - absence is a blocker
- [ ] **UL 864** listing where controllers interface with fire alarm systems
- [ ] **BACnet Testing Laboratories (BTL) listing** confirming protocol conformance class
- [ ] **LonMark certification** for LonWorks-based devices
- [ ] **ASHRAE Standard 135** compliance statement for BACnet devices
- [ ] **ASHRAE Guideline 13** conformance for DDC system specification
- [ ] **IEC 61131-3** compliance for PLC programming languages used in controllers
- [ ] **NEMA standards** compliance for enclosures housing automation equipment
- [ ] **NIST cybersecurity framework** alignment documentation for networked building systems
- [ ] **ENERGY STAR** building certification data where spec requires
- [ ] **FCC Part 15** compliance for wireless sensors and devices
- [ ] **Seismic certification** (IBC, OSHPD) for controller panel anchorage where required
- [ ] **Factory acceptance test (FAT) reports** for head-end servers and controllers

5. Colors, finishes, and profiles match the selection Fix and Resubmit

Match each visible attribute to the spec text and the architect's approved sample or color schedule. Tick each one you have confirmed.

- [ ] Operator workstation monitor size, mounting style, and finish

- [ ] Touchscreen panel bezels and colors in occupied spaces
- [ ] Wall-mounted sensor and thermostat housing color and form factor
- [ ] Graphics interface color schemes and branding if specified in the design documents
- [ ] Controller panel door finish and labeling style in visible mechanical rooms

6. Details and installation match the spec and drawings Fix and Resubmit

These are the mismatches reviewers catch most in this division. Check your shop drawings and installation data against the spec and the contract drawings, and tick each line once you have confirmed it does not apply to your package.

- [ ] **Wiring topology** different from spec (daisy-chain vs. home-run for MS/TP trunks)
- [ ] **Network segment length** exceeding BACnet MS/TP or LonWorks cable distance limits
- [ ] **Controller panel layout** differing from approved shop drawings
- [ ] **Cable type** mismatch (shielded twisted pair vs. unshielded, Cat 5e vs. Cat 6 for IP networks)
- [ ] **IP addressing scheme** or subnet allocation not matching the network design
- [ ] **Power supply sizing** for controllers and field devices differs from load calculations
- [ ] **Sensor placement locations** not matching the mechanical drawings or sequences of operation
- [ ] **Integration wiring** (hardwired interlock vs. software integration) differs from the specified method
- [ ] **Surge protection** or network isolation devices omitted at building entry points
- [ ] **End-of-line termination** missing or incorrect on MS/TP or LonWorks segments
- [ ] **Outdoor sensor enclosure rating** lower than specified NEMA rating for the location

7. Every required item is in the package Fix and Resubmit

Open the submittal articles in Part 1 of your spec section (often split into action and informational submittals) and confirm each required item is present. The list below is what this division's specs most often require.

- [ ] System architecture riser diagram showing all controllers, networks, and integration points
- [ ] Controller hardware cut sheets with point capacity and supported protocols
- [ ] Network architecture diagrams with IP/MSTP/LonWorks segment detail
- [ ] Sequences of operation (matched to mechanical spec sections)
- [ ] Points list with point names, types, and engineering units
- [ ] Graphics workstation hardware and software specifications
- [ ] Operator interface screenshots or mockups
- [ ] Integration protocol documentation for each connected subsystem
- [ ] Bill of materials with all controllers, sensors, actuators, and network devices
- [ ] Cybersecurity plan for building network segmentation
- [ ] Trending and data logging configuration details (points, intervals, retention period)

- [ ] Alarm priority matrix and notification routing plan
- [ ] Commissioning and functional performance test procedures
- [ ] Training plan and warranty documentation
- [ ] Spare parts list and recommended inventory

Free checklist from deviationcheck.com/checklists/25-integrated-automation/. Want the package checked against your spec? Deviation Check reviews it for $35 at deviationcheck.com.