Division 27 Communications 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.

- [ ] Structured cabling system manufacturer substitutions (CommScope/Systimax, Panduit, Corning, Belden, Leviton, Hubbell) - most specs require a single-manufacturer end-to-end warranty
- [ ] Rack and cabinet manufacturer substitutions (Chatsworth/CPI, Great Lakes, Panduit)
- [ ] Fiber optic cable and connector manufacturer mismatches (Corning, CommScope, Panduit)
- [ ] Wireless access point manufacturer substitutions (Cisco/Meraki, Aruba/HPE, Ruckus/CommScope)
- [ ] DAS equipment manufacturer substitutions (Corning, CommScope, JMA Wireless, Galtronics)
- [ ] AV equipment manufacturer substitutions (Crestron, Extron, Biamp, QSC)
- [ ] Paging/intercom system manufacturer substitutions (AtlasIED, Bogen, TOA)

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.

- [ ] **Cabling category** (Cat 5e, Cat 6, Cat 6A, Cat 8) - must match spec exactly; lower category is always a blocker
- [ ] **Fiber type** (OM3, OM4, OM5 multimode; OS2 single-mode) - lower grade does not support specified bandwidth/distance

- [ ] **Fiber connector type** (LC, SC, MPO/MTP) - must match spec for patching compatibility
- [ ] **Fiber strand count** per cable (12, 24, 48, 72, 96, 144) - must meet or exceed spec
- [ ] **Cable pathway fill ratio** - 40% maximum per TIA-569; submitted conduit sizing must support cable count
- [ ] **Telecommunications room size** - must meet TIA-569 minimums for served area
- [ ] **Rack unit capacity (RU)** and depth - must accommodate specified equipment with growth
- [ ] **Power density per rack (kW)** - submitted power distribution must support heat load
- [ ] **Wireless AP coverage** (dBm at cell edge) - submitted AP model/placement must meet design coverage
- [ ] **DAS coverage** (signal strength threshold, typically -85 dBm) - submitted system must cover all required areas
- [ ] **Cable test results** - permanent link or channel test per TIA-568; submitted test equipment must match spec
- [ ] **Bandwidth support** (1G, 10G, 25G, 40G, 100G) at specified distances
- [ ] **Plenum vs riser vs general-purpose cable jacket** - must match installation environment

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.

- [ ] **TIA-568 compliance** (structured cabling standard) - testing and component compliance
- [ ] **TIA-569 compliance** (pathways and spaces) - room sizing and pathway fill documentation
- [ ] **TIA-606 compliance** (administration standard) - labeling and documentation plan
- [ ] **TIA-607 compliance** (grounding and bonding for telecommunications)
- [ ] **BICSI standards compliance** for design and installation
- [ ] **ANSI/NECA/BICSI 568** (installation standard) for workmanship
- [ ] **ETL/UL verified** cabling components (UL listed or ETL verified per applicable standard)
- [ ] **UL 2043** listing for cables and equipment in plenum air-handling spaces
- [ ] **NFPA 70 (NEC) Article 800** compliance for communications circuits
- [ ] **NFPA 90A** compliance for plenum-rated cable
- [ ] **FCC Part 15** certification for wireless equipment (access points, DAS)
- [ ] **Manufacturer extended warranty** letter (most specs require 15-25 year system warranty from single manufacturer)
- [ ] **RCDD (Registered Communications Distribution Designer)** credential for system designer where spec requires
- [ ] **Installer certification** from cabling manufacturer (factory-authorized installer)
- [ ] **Test equipment calibration** certificates for field testers

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.

- [ ] Faceplate color and style (white, ivory, black, stainless, custom) - must match architectural finish schedule
- [ ] Cable pathway finish (J-hooks, cable tray, basket tray) in architecturally exposed areas
- [ ] Rack and cabinet color (black, gray) where visible
- [ ] Wireless AP housing color (white, black) and form factor (ceiling, wall)
- [ ] AV device finishes and mounting styles (wall plates, touch panels, displays)
- [ ] Speaker grille color and style for paging/intercom systems

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.

- [ ] **Cable pathway type** mismatch (conduit vs cable tray vs J-hook vs innerduct) - spec may require specific types in specific locations
- [ ] **Conduit size** undersized for cable count at 40% fill per TIA-569
- [ ] **Cable bend radius** - submitted cable specs must support the minimum bend radius for the installation method
- [ ] **Firestop method** at penetrations differs from spec or UL-listed assembly
- [ ] **Outlet height** for work area outlets differs from spec or ADA requirements
- [ ] **Rack grounding method** (TGB, TMGB) differs from TIA-607 or spec
- [ ] **Cable support spacing** (J-hook, cable tray support) does not meet TIA-569 or spec
- [ ] **Patch cord length** or type at work area outlets differs from spec
- [ ] **AP mounting method** (ceiling tile, hard-lid, wall) differs from design
- [ ] **DAS antenna type or placement** differs from RF design coverage model
- [ ] **AV signal routing** (HDMI, HDBaseT, AVoIP, fiber) differs from spec

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.

- [ ] Cabling system product data sheets (cable, connectors, patch panels, faceplates)
- [ ] Manufacturer system warranty documentation and installer authorization letter
- [ ] Telecommunications room layout drawings (rack elevations, equipment placement)
- [ ] Cable pathway layout and fill calculations per TIA-569
- [ ] Labeling plan per TIA-606
- [ ] Grounding and bonding plan per TIA-607
- [ ] Fiber optic link loss budget calculations
- [ ] Wireless site survey and predictive heat map (AP placement, coverage, channel plan)

- [ ] DAS RF design documentation (coverage maps, signal strength predictions)
- [ ] Test equipment specifications and calibration certificates
- [ ] Sample test reports (permanent link or channel per TIA-568)
- [ ] AV system signal flow diagrams and equipment rack elevations
- [ ] Paging/intercom zone layout and speaker coverage plan
- [ ] Project-specific installation details (firestop, seismic bracing, support methods)
- [ ] Training plan for owner's personnel

Free checklist from deviationcheck.com/checklists/27-communications/. Want the package checked against your spec? Deviation Check reviews it for $35 at deviationcheck.com.