

Who Needs Specs?

"We don't need specifications. We just use notes on our drawings."

Just designing for friends? Enjoying a run of good luck? If not, make sure you have all of these issues addressed on your drawings, or else issue written specifications. The building code, the architectural licensing board, and liability insurance carriers expect these issues to be addressed in construction contracts. A typical set of well prepared specifications cover all these issues, and more.

Thanks to Julia Hall, CSI, CCS, CCCA, whose notes started this list some years ago.

Division 00 Documents

005000 Contracting Requirements: Form of Agreement, Form of General Conditions, and administrative forms. Is the role of the architect defined in the construction contract? Is it consistent with the owner/architect service agreement, so that the contractor knows what to expect? Is the architect's role consistent with state architectural license requirements?

007300 Supplementary Conditions: If AIA Document A201 is being used, a good set of supplementary conditions can provide significant added protections for the client and the architect – including liability insurance protection, election or exclusion of arbitration and mediation, and adequate contractor liability insurance.

Division 01 General Requirements

What is the architect's role in construction administration: Review submittals? Certify payments? Review quality assurance and quality control activities and documents? Certify conformance to special inspection requirements? Other statutory and fiduciary obligations?

- Are substitutions permitted? What are requirements and review responsibilities?
- How does pricing/estimating/VE work? Who issues revised documents following VE decisions?
- Testing: Who pays? What is scope of testing? Special Inspections provisions?
- Mock-ups - which ones are necessary?
- Temporary utilities: Who pays?
- Erosion and sedimentation control: Enforcement provisions
- Installation: What requirements does the contractor have to follow?
- Construction layout: Who is responsible?

033000 Cast-in-Place Concrete

- Vapor retarder sheet for vapor, moisture control
- Levelness tolerances for floor slabs
- Slip resistance on ramps
- Water/moisture content for application of finish flooring
- Relation between applied floor finishes and the finishing and curing of the slab surface
- Concrete testing scope and methods

- Special inspections

042000 Unit Masonry

- Structural Engineer responsible for reinforced masonry design, if any
- Is integral water repellent advisable in exterior CMU, mortar?
- Are seismic veneer anchors required?
- Quality of concealed flashing material and workmanship
- Cavity fill material and bottom/top weep vents
- Materials and procedures to limit efflorescence
- Masonry testing scope and methods
- Special inspections

051200 Structural Steel

- Professional Engineer seal for shop drawings and calculations
- Coordination of primer and sprayed fire resistive materials
- Coordination of primer and field-applied paints and coatings
- Structural steel testing scope and methods
- Special inspections

053100 Steel Decking

- Wind uplift standards for fastening
- Fire resistance rated assembly standards for fastening
- Coordination of preparation for finish and sprayed fire resistive materials

054000 Cold-Formed Metal Framing

- Professional Engineer seal for shop drawings and calculations
- Minimum stud metal thickness for fastening of cladding components – special attention when in high-wind zone
- Water vapor transmission analysis before deciding on design of wall

055100, 055200 Metal Stairs and Railings

- Professional Engineer seal for shop drawings and calculations
- Code requirements for live loads
- Accessibility provisions
- Coordination of primer and field-applied paints and coatings

061000 Rough Carpentry

- Use of and restrictions on use of fire-retardant-treated wood

061753 Wood Trusses

- Professional Engineer seal for shop drawings and calculations

062000/064000 Finish Carpentry/Architectural Woodwork

- Use of and restrictions on use of fire-retardant-treated wood

071000 Waterproofing Sections

- Inspection, testing, and warranty requirements

072100 Thermal Insulation

- Faced or unfaced; vapor retarder sheet or no: Water vapor transmission analysis performed?
- Flame spread/smoke developed rating of exposed insulation materials
- Minimum insulation values required to meet Energy Code

072400 EIFS

- Fire performance requirements
- High-impact zone requirements
- EIMA standards for minimum base coat thickness
- Inspection and warranty requirements
- Special Inspections

075000 Roofing Sections

- FMG insured? FMG standard of quality for installation? Other owner insurance requirements?
- Wind uplift resistance
- Perimeter anchoring and flashing standards
- Class A surface burning characteristics
- Use of gypsum board thermal barrier: if polystyrene insulation is specified, or if required by UL fire-resistance-rated roof assembly
- Quality of membrane, flashing, adhesives, and accessories
- Use of cover board over insulation per NRCA standards
- Use of NRCA details as basis of design
- Installation and completion inspections by manufacturer and by third party inspector
- Warranty: Scope; Terms and conditions; Length of warranty; owner responsibilities; Installer provisions

078100 Applied Fireproofing

- Special inspections

078400 and 07842 Firestopping/Fire Resistive Joints

- Shop drawing requirements
- Trained, certified specialist installers

- Identified openings
- Inspection provisions

079200 Joint Sealants

- Compatibility testing, pull testing, warranty requirements

079500 Architectural Joint Systems

- Joints part of fire-resistance-rated assemblies
- Coordination with structural provisions for seismic joint size and movement

081100 Steel Doors and Frames

- Positive pressure tested fire-rated doors/frames
- SDI Performance ratings for interior, exterior doors
- Coordination with doors, frames, hardware for rated openings
- Intumescent seals in door stile

082100 Flush Wood Doors

- Positive pressure tested fire-rated doors/frames
- Coordination with doors, frames, hardware for rated openings
- Intumescent seals in door stile
- Reinforcing for applied hardware
- Factory applied finish standards
- Door warranty

084000, 085000 Aluminum Storefront, Curtain Walls, Windows

- Professional Engineer seal for shop drawings and calculations
- Design wind pressures
- Hurricane wind-borne debris – shutters or laminated glass
- Accessibility requirements
- Egress requirements
- Opening limitations
- Coordination of exit door hardware with security, life safety, access control

084200 Automatic Entrance Doors

- Professional Engineer seal for shop drawings and calculations
- Accessibility provisions
- Safety provisions of BHMA A156.10

087100 Door Hardware

- Fully-developed hardware sets for all openings
- Positive pressure tested fire-rated doors/frames
- Coordination with doors, frames, hardware for rated openings
- ADA, ANSI A117.1, and NFPA requirements for levers, thresholds, closer pressures, mounting heights
- Coordination of door hardware with security and life safety access control requirements
- Egress and life-safety issues still responsibility of Architect
- Coordination of electrified door hardware with electrical and fire alarm specifications

088000 Glazing

- Coordination of HVAC thermal modeling with HVAC related to insulating glass, tints, and solar control low-e provisions
- Opening protectives in wind-borne debris regions
- Fire-rated glazing
- Safety glazing standards: tempered and laminated glazing

092216 Non-Load-Bearing Steel Partitions

- Framing provisions for fire-resistance-rated head-of-wall assemblies

092900 Gypsum Board

- Fire-rated partitions
- Acoustic-rated partitions
- Abuse-resistant panels
- Construction practices to minimize possibilities of mold
- Use of mold and moisture resistant panels if gypsum board installed before drying in building
- Finish level 5 for critical lighting and gloss paints

093100 Tiling

- Application methods: special attention to structural slabs
- Use of crack suppression membranes at large tiles, crack-prone floors
- Slip resistance of materials
- Grout quality

095113 Acoustical Panel Ceilings

- Seismic restraint scope based upon site classification and room size
- USDA standards for food prep areas
- Clean room standards
- Fire-rated assemblies

- Corrosion-resistance
- Acoustical performance requirements
- ANSI acoustical standards for classrooms

096800 Carpet

- Flame-spread testing
- Anti-microbial treatment

099100 Painting

- Substrate compatibility and preparation
- Paint system compatibility and performance

101400 Signage

- Code required signage: Accessibility, life safety, elevator
- Tamper-resistant design and mounting

105613 Shelving

- Seismic fastening requirements
- Load-bearing requirements

102813 Toilet and Bath Accessories

- Undercounter lavatory guards required
- Accessibility mounting heights
- Loading of grab bars
- Vandal resistance for mirrors

310000 Earthwork

- Definition and unit price provisions for rock and unsuitable soils
- Definition and quality requirements for earth materials and fill operations, including compaction
- Requirements for proper pipe bedding in trenches
- Earthwork testing and scope
- Special inspections

313116 Termite Control

- State agency requirements

323113 Chain Link Fence

- Electrical grounding and bonding requirements and testing

323223 Segmental Retaining Walls

- Professional Engineer seal for shop drawings and calculations

321816 Playground Equipment

- Surface systems provide fall protection per CPSC