

## Quality Assessment

### CONSTRUCTION CHECKLIST

**Instructions:**

- The PM will provide a copy of the Quality Assessment (QA) Development and Construction Checklists to the Project Architect (PA) and General Contractor (GC) during the identified project process step.
- The PA has prime responsibility for quality assurance on the project.
- The PA should ensure completion of both QA checklists with the assistance of the GC.
- These checklists are to be used throughout the duration of the project.
- The PM ensures that the QA checklists are applied during all new construction projects and that all required verification information is gathered and filed upon completion of the project.

**QA Checklist requirements and responsibilities:**

- The PA reviews each of the QA checklist items with the assistance of the GC and uses the indicated Verification Criteria to verify that each item has been completed correctly.
- The PA & GC provides the requested evidence (photographs, field reports, test results, record drawings, contract documentation, etc.) verifying compliance.
- The PA provides both completed QA checklists and documented evidence to the PM at the completion of the project.

The checklists and documentation serve as a basis for the project Quality Assessment (QA) review. All documentation should be brought to the QA review. This information is critical for an effective QA assessment and any missing or incomplete information may negatively impact the QA score.

Item Number	Discipline Name	Training Item #	Item	Verification Criteria
1	CIVIL	1	Grades adjacent to building provide adequate drainage.	<p>Verification Criteria</p> <p>Verify by electronic level that final grades of landscaped and walkway areas provide adequate drainage around the building:</p> <ul style="list-style-type: none"> <li>• 2% (minimum) slope at lawn areas</li> <li>• 2% (minimum) slope, 8% (maximum) slope at sidewalks</li> <li>• 2 horizontal to 1 vertical (maximum) at landscaped areas</li> <li>• 3 horizontal to 1 vertical maximum slope in lawn areas</li> </ul>
2	CIVIL	2	Spacing and location of control joints and expansion joints in mow strips, concrete sidewalks and entries are per standard.	<p>Verification Criteria</p> <p>Verify that control joints and expansion joints are installed at the spacings indicated in specification Section 03 3053:</p> <p>Joint sealants are required in all expansion joints noted in specification section 03 3053 (caulk).</p> <p>In sidewalks:</p> <ul style="list-style-type: none"> <li>• Control joints should be spaced between 4' and 6' on center.</li> <li>• Expansion joints should be spaced between 40' and 100' on center.</li> </ul> <p>In mow strips:</p> <ul style="list-style-type: none"> <li>• Control joints in mow strips should be between 3' and 5' on center</li> <li>• Expansion joints should be spaced at 40' to 100' on center.</li> </ul>
3	CIVIL	3	Water does not pond on pavement, in gutters, and in lawn or landscape areas.	<p>Verification Criteria</p> <p>Verify by electronic level that ponding does not occur on pavement or in gutters:</p> <ul style="list-style-type: none"> <li>• 2% minimum slope on asphalt paving</li> <li>• 5% maximum slope on asphalt paving</li> <li>• 1% minimum slope on concrete paving</li> <li>• 5% maximum slope on concrete paving</li> <li>• .5% minimum slope in gutters</li> <li>• 8% maximum slope in gutters</li> <li>• 2% minimum slope in lawn areas intended to drain</li> <li>• 3 horizontal to 1 vertical maximum slope in lawn areas</li> <li>• 2% minimum slope in landscaped areas intended to drain</li> <li>• 2 horizontal to 1 vertical maximum slope in planter areas</li> </ul>

4	CIVIL	4	Concrete strength used in site work is per standard.	<p>Verification Criteria</p> <p>Verify by review of concrete test reports that the concrete mix design and tests for concrete strength match specification Section 03 3111.</p> <ul style="list-style-type: none"> <li>• It should be 4,000 psi (Concrete Mix Type A) unless the geotechnical report requires otherwise.</li> <li>• For exterior concrete in areas of freeze/thaw, the concrete strength in the Schedule of Construction Materials in the structural drawings should be 4,500 psi (Concrete Mix Type D).</li> </ul>
5	CIVIL	5	Mix designs used match the specifications of the contract documents and material and workmanship of pavement (asphalt or concrete) are per standard.	<p>Verification Criteria</p> <ol style="list-style-type: none"> <li>1. Verify that the mix designs (or specifications) for the paving supplied matches that of the specifications of the contract documents.</li> <li>2. Provide the specification actually used for the project if other than the specification within the contract specifications.</li> <li>3. Verify that the reports- <ul style="list-style-type: none"> <li>For asphalt: <ol style="list-style-type: none"> <li>a. For Marshall or Hveem Mix Designs, the compaction of the asphalt is 96% minimum.</li> <li>b. For Superpave Mix Designs, the compaction of the asphalt is between 92% and 96%.</li> </ol> </li> <li>For Concrete: <ol style="list-style-type: none"> <li>a. Concrete strength is 4500 psi in freeze thaw areas, 4000 psi otherwise.</li> <li>b. Surfaces are smooth (1/4" in 10').</li> </ol> </li> </ul> </li> </ol>
6	LANDSCAPE	1	Proper finish grading depth at lawn areas.	<p>Verification Criteria</p> <p>Verify by measurement that top of finish grade in all lawn areas is as follows:</p> <ol style="list-style-type: none"> <li>1. Sod areas: 2 inches</li> <li>2. Seed areas: 1 inch</li> </ol>
7	LANDSCAPE	2	Trees have top 1/3 of burlap / containers removed, are properly staked, and are planted at appropriate depth.	<p>Verification Criteria</p> <p>Observe one tree for proper staking (2 - 2" diameter stakes, 5' above ground, connected with a cinch tie), planting depth (2" above finish grade), and that top 1/3 of burlap or container materials were removed. Staking height of evergreen trees should be 6" less than the height of tree.</p>
8	LANDSCAPE	3	Proper depth of bark mulch, rock mulch, or decomposed granite are provided in shrub beds.	<p>Verification Criteria</p> <p>Observe one shrub bed that a minimum of 3" in depth of specified bark or rock mulch is provided. Exception: A 2" rock mulch depth may be allowed in locations such as Southern Arizona and Southern Nevada where that depth is common.</p>
9	LANDSCAPE	4	Installation of valve box assembly.	<p>Verification Criteria</p> <p>Observe one valve box to check dimensions, location of elements and depth as follows:</p> <ol style="list-style-type: none"> <li>1. Gravel - Located 4" below lateral line.</li> <li>2. Action unions - Verify that one is located on each side of valves.</li> <li>3. Valve locations - Verify that no more than two valves are located in each valve box.</li> <li>4. Control wire connections - Verify that waterproof wire connectors have been installed properly.</li> </ol>
10	LANDSCAPE	5	Proper installation and location of drip system and/or spray heads in shrub areas.	<p>Verification Criteria</p> <p>Observe two different heads in shrub areas for depth, location and spacing as follows:</p> <ol style="list-style-type: none"> <li>1. Spray heads - 1" below top of concrete, 1" minimum to 3" maximum from edge of concrete, number and location of heads match irrigation plan.</li> <li>2. Drip system - drip emitter should be located 2" above top of mulch and is visible; emitters are located next to shrubs and trees as per irrigation plan; number and location of heads match irrigation plan.</li> </ol>
11	LANDSCAPE	6	Proper location and depth of lawn irrigation heads.	<p>Verification Criteria</p> <p>Observe two spray or rotor heads in lawn areas for location, depth and spacing as follows:</p> <ol style="list-style-type: none"> <li>1. Rotor - 3/4" minimum, 1 1/2" maximum below top of concrete, 1" minimum to 3" maximum from edge of concrete, number and location of heads match irrigation plan.</li> <li>2. Spray - 3/4" minimum, 1 1/2" maximum below top of concrete, 1" minimum to 3" maximum from edge of concrete, number and location of heads match irrigation plan.</li> </ol>

12	LANDSCAPE	7	Lamination and location of irrigation as-built drawing.	Verification Criteria Verify that 11" x 17" copy of the record drawing irrigation plan has been provided at half size, is laminated for protection, and located in the building for easy access to the FM group.
13	LANDSCAPE	8	Controller, rain sensor, moisture sensor wire connections and all grounding for lightning protection are properly installed.	Verification Criteria Controller and rain sensor are: 1. Mounted properly with 2" steel conduit. 2. Wired properly with 18 gauge wires connected to controller. 3. Properly grounded for lightning protection with ground wire connected inside of controller.
14	LANDSCAPE	9	Smart controller installation is tested and working properly.	Verification Criteria Verify manufacturers checklist is completely filled out and finalized.
15	LANDSCAPE	10	Determine that the irrigation main line has been tested.	Verification Criteria Verify by review of observation report from architect or landscape architect that irrigation main line was tested per specification Section 32 8423.
16	LANDSCAPE	11	Landscape elements are installed per contract documents.	Verification Criteria Verify by observation that the installation for the number, size, spacing and location of trees, shrubs, ground cover and boulders matches the planting plan.
17	LANDSCAPE	12	Meetinghouse Site Management Plan (MSMP) including Topsoil Testing Report was prepared by landscape architect and appropriate FM training completed.	Verification Criteria Review MSMP to verify that: 1. Document follows standard format and is completed. 2. FM and subcontractor have signed the Plant Establishment Period and training verification section of the document. 3. Training is complete.
18	ARCHITECTURAL	1	Exposed concrete foundation has a consistent smooth rubbed surface finish.	Verification Criteria Verify exposed concrete foundation surface has a consistent smooth rubbed finish and is free of rough surfaces, discoloration, broken corners, voids, and/or unrepaired damaged areas.
19	ARCHITECTURAL	2	Brick veneer maintains a consistent overhang of the concrete foundation.	Verification Criteria Verify brick veneer consistently overhangs the face of the foundation. Foundation should not extend past the face of the masonry. Specified overhang ranges from 1/2 inch up to 1-1/4 inch, according to plan type, with an allowed +1/4 inch tolerance.
20	ARCHITECTURAL	3	Veneer brick is uniform in appearance and weep vents are correctly installed.	Verification Criteria 1. Verify brick are laid flush in plane with properly tooled and consistently sized joints. 2. Verify that weep vents are installed at 33 inches maximum spacing, including within bottom courses over door and window heads.
21	ARCHITECTURAL	4	Fascia and soffit are correctly fabricated and installed in weather tight fashion.	Verification Criteria Verify metal surfaces are smooth, and that joints are tight with no gaps.
22	ARCHITECTURAL	5	EIFS is properly installed and properly integrated into building facade.	Verification Criteria Verify EIFS is correctly installed and perimeter edges are properly sealed where abutting dissimilar materials.
23	ARCHITECTURAL	6	Exterior handrails and railings are properly installed and grouted.	Verification Criteria 1. Verify exterior handrails and railings are properly grouted, where applicable. Handrails should be continuous, without interruption or other obstructions (such as skateboard deterrents) in compliance with IBC 1012.4. 2. Verify by measurement installed height is between 34 and 38 inches.
24	ARCHITECTURAL	7	Joint sealants are properly installed.	Verification Criteria 1. Verify joint sealants are installed where dissimilar materials intersect and applied to provide a weather tight seal and prevent entry of insects. 2. Review joint sealant submittal for compliance with specification Section 07 9213 and to verify that no latex based sealant has been used.
25	ARCHITECTURAL	8	Roofing shingles are correctly installed.	Verification Criteria 1. Verify shingle courses are installed in straight, uniform lines with no exposed fasteners. 2. Verify or by photo that each shingle is fastened with four nails minimum, set flush, straight, and secure to roof slope.

26	ARCHITECTURAL	9	Valley metal installation properly tapers with sealed shingle edges.	<p>Verification Criteria</p> <ol style="list-style-type: none"> <li>1. Verify that valley metal is installed with tapered exposure (about one inch in 11 feet down slope divergence).</li> <li>2. Verify by touch that cut shingle edges are firmly set in mastic to valley metal and drip edge flashing.</li> <li>3. Verify water diverter is installed at bottom spill point of valley metal.</li> </ol>
27	ARCHITECTURAL	10	Roof flashings, including drip edges and flashings around roof penetrations, are weather tight.	<p>Verification Criteria</p> <ol style="list-style-type: none"> <li>1. Verify VTR's are securely installed plumb and properly sealed with flexible rubber flashing that does not significantly reduce inside clear opening of vent pipe. Minimum VTR extension above roof surface (measured on upslope side) is six inches, except in areas where front/snow closure is possible, minimum extension is 10 inches.</li> <li>2. Verify flues and penthouses are securely installed and sealed with metal flashings and water diverter upslope of penthouse.</li> </ol>
28	ARCHITECTURAL	11	Ridge vent is properly installed.	<p>Verification Criteria</p> <p>Verify ridge vent is securely fastened with painted corrosion resistant screws at eight inch spacing (top and skirting), flush to roof slope, and straight. End caps are installed.</p>
29	ARCHITECTURAL	12	Applicable gutters are properly installed with adequate drainage.	<p>Verification Criteria</p> <p>Verify gutters and downspouts are correctly fabricated with smooth metal finish, are properly sealed and sloped.</p>
30	ARCHITECTURAL	13	Tile and grout are properly installed in restrooms, font and serving area.	<p>Verification Criteria</p> <ol style="list-style-type: none"> <li>1. Verify tile and grout are installed uniformly and grout is absent of voids, bubbles or cracks.</li> <li>2. Verify the wall tile colors and pattern comply with the contract documents.</li> <li>3. Verify that grout is set and not easily removed.</li> <li>4. Verify wall tile height in restrooms is per standard plan documents.</li> <li>5. Verify tile is per spec and installed in the proper location.</li> <li>6. Verify that the joint between the ceiling and wall is level.</li> </ol>
31	ARCHITECTURAL	14	Plumbing fixtures are properly mounted and caulked.	<p>Verification Criteria</p> <ol style="list-style-type: none"> <li>1. Verify plumbing fixtures are caulked at floors and walls with a continuous, full bead of caulk.</li> <li>2. Verify by measurement plumbing fixture elevations are: <ul style="list-style-type: none"> <li>- Water closet seat: 17 - 19 inches above the floor</li> <li>- Wall hung urinal: 17-24 inches above floor to the rim</li> <li>- Lavatory: 34 inches maximum above the floor to the higher of the rim or counter surface</li> <li>- Wheel chair drinking fountain: 36 inches maximum to the spout outlet</li> <li>- Standing drinking fountain: 38 - 43 inches to the spout outlet</li> <li>- Accessible urinal: 17 inches maximum above floor to the rim</li> </ul> </li> </ol>
32	ARCHITECTURAL	15	Rostrum casework, associated ramp and stairs are properly installed with tight joints.	<p>Verification Criteria</p> <ol style="list-style-type: none"> <li>1. Verify joints are tight and straight.</li> <li>2. Verify handrails and base trim are correctly installed.</li> <li>3. Verify by measurement that ramp and stairs have required 60 inch landings and 12-inch extension of handrails at top and bottom of ramp.</li> </ol>
33	ARCHITECTURAL	16	Vinyl and sisal wall coverings are correctly applied.	<p>Verification Criteria</p> <p>Verify vinyl and sisal wall coverings are installed as specified in sections 09 7216 and 09 7226. Verify that seams are tight with no frayed edges and that there are no bubbles or creases.</p>
34	ARCHITECTURAL	17	Wood floor system and aluminum angle base are correctly installed.	<p>Verification Criteria</p> <ol style="list-style-type: none"> <li>1. Verify wood floor is free of transverse cupping, severe chatter, and sanding swirl marks.</li> <li>2. Verify floor finish is uniform without bubbles and embedded dust particles in areas around bottom of exit doors.</li> <li>3. Verify aluminum angle base is used, installed with no exposed sharp edges, and outside corners are radiused.</li> </ol>

35	ARCHITECTURAL	18	Supports are installed for suspended gypsum board ceiling track system. Seismic bracing is correctly installed where applicable.	<p>Verification Criteria</p> <ol style="list-style-type: none"> <li>1. Supports should be taut and not loose to the touch.</li> <li>2. For Seismic Category D, E, and F locations, verify from mechanical mezzanine level that required seismic support wires are securely fastened at 45 degree angles from the suspended ceiling grid/track to overhead structure and grid support points are spaced at 12 feet maximum each way. Compression post/struts are correctly installed to restrict vertical movement in ceiling grid.</li> </ol>
36	ARCHITECTURAL	19	Hollow metal door frames, including silencers and smoke seals, are installed properly.	<p>Verification Criteria</p> <ol style="list-style-type: none"> <li>1. Verify insulation placement in hollow metal door frames by tapping on the frame and listening for a low resonating tone.</li> <li>2. Verify frame perimeter is properly caulked with no exposed gaps at wall juncture and verify by touch that frame is not bent outward at corners or otherwise damaged.</li> <li>3. Verify installation of silencers and/or smoke seals on door frames. Smoke seals should be properly compressed when door is fully closed.</li> </ol>
37	ARCHITECTURAL	20	Custom casework is properly installed.	<p>Verification Criteria</p> <ol style="list-style-type: none"> <li>1. Verify installation of wood veneer on inside face of cabinet doors.</li> <li>2. Verify installation of melamine on the inside face of cabinets.</li> <li>3. Verify running book match on outside face of cabinet doors.</li> </ol>
38	ARCHITECTURAL	21	Interior wood trim is properly installed.	<p>Verification Criteria</p> <ol style="list-style-type: none"> <li>1. Verify wood trim at ceilings in chapel is painted, not stained.</li> <li>2. Verify that wood trim in other locations is stained.</li> <li>3. Verify that nail holes are filled and not visible from minimum six feet.</li> <li>4. Verify that interior trim lengths are not less than 24 inches.</li> </ol>
39	ARCHITECTURAL	22	Wood doors are properly hung in the frame with correct gaps between double doors.	<p>Verification Criteria</p> <ol style="list-style-type: none"> <li>1. Verify door perimeter gap is uniform as hung in the frame. Door is not warped in place.</li> <li>2. Gap between double doors is 3/16 inches maximum.</li> </ol>
40	ARCHITECTURAL	23	Ceiling sound insulation is properly installed.	<p>Verification Criteria</p> <p>Verify that sound blanket insulation is the correct thickness, is properly and uniformly placed to fit snugly.</p>
41	STRUCTURAL	1	The engineered fill is compacted as per contract documents.	<p>Verification Criteria</p> <p>Verify by review of the compaction test reports that engineered fill under the paving and building pad areas has been properly compacted.</p> <ul style="list-style-type: none"> <li>• Engineered fill under footings is normally compacted to 95%. Verify this with the geotechnical report.</li> <li>• Engineered fill under slabs on grade is normally compacted to 90%. Verify this with the geotechnical report.</li> </ul>
42	STRUCTURAL	2	Footings and foundation walls are reinforced as per contract documents.	<p>Verification Criteria</p> <p>Verify by review of the structural engineer's site observation report(s) and at least two photos that the footings and foundation walls are reinforced.</p> <ul style="list-style-type: none"> <li>• Footings require horizontal reinforcing.</li> <li>• Walls require vertical and horizontal reinforcing.</li> <li>• Dowels are required from footings into walls.</li> </ul>
43	STRUCTURAL	3	Prefabricated trusses are as per contract documents.	<p>Verification Criteria</p> <p>Verify by review of structural engineer's site observation report(s) and at least two photos that the prefabricated wood trusses are acceptable.</p> <ul style="list-style-type: none"> <li>• Trusses show no signs of breakage or damage</li> <li>• Trusses are not in contact with the ground</li> <li>• Trusses elements (top chord, bottom chord, webs) type, size, and placement are correct</li> <li>• Truss plates type, size, and placement are correct</li> </ul>

44	STRUCTURAL	4	Structural wall connections to foundations are as per the contract documents.	<p>Verification Criteria</p> <p>Verify by review of the structural engineer's site observation report(s) and at least two photos that:</p> <ul style="list-style-type: none"> <li>• The walls are attached to the foundation walls with specified anchor bolts. At least one photo should show anchor bolts.</li> <li>• Washer plates are installed in Seismic Design Categories D, E and F. At least one photo should show washer plates.</li> <li>• The jambs are attached to the foundation walls with specified holdown anchors. At least one photo should show holdown anchors.</li> </ul>
45	STRUCTURAL	5	Structural wall sheathing and edge blocking are installed as per the contract documents.	<p>Verification Criteria</p> <p>Verify by review of structural engineer's site observation report(s) and at least two photos that:</p> <ul style="list-style-type: none"> <li>• The walls are attached to the structure with the specified nails (or staples). At least one photo should show a nail pattern.</li> <li>• The edge blocking is installed as specified. At least one photo should show edge blocking.</li> </ul>
46	STRUCTURAL	6	Gable end outlookers and blocking between outlookers are installed as per the contract documents.	<p>Verification Criteria</p> <p>Verify by review of the structural engineer's site observation report(s) and at least two photos that:</p> <ul style="list-style-type: none"> <li>• Outlookers are attached to the walls with framing anchors or toe nails as specified. At least one photo should show framing anchors or toe nails.</li> <li>• Blocking between outlookers is installed with framing anchors or toe nails as specified. At least one photo should show blocking and framing anchors or toe nails.</li> </ul>
47	STRUCTURAL	7	Wood trusses and blocking between wood trusses are installed as per the contract documents.	<p>Verification Criteria</p> <p>Verify by review of the structural engineer's site observation report(s) and at least two photos that:</p> <ul style="list-style-type: none"> <li>• Wood trusses are attached to the walls with the specified framing anchors or toe nails. At least one photo should show framing anchors or toe nails.</li> <li>• Blocking between wood trusses is installed as specified. At least one photo should show framing anchors or toe nails.</li> </ul>
48	STRUCTURAL	8	Beam/girder to wall/column connections are installed per the contract documents.	<p>Verification Criteria</p> <p>Verify by review of the structural engineer's site observation report(s) and at least two photos that:</p> <ul style="list-style-type: none"> <li>• Beams are attached to columns with steel buckets and thru bolts. At least one photo should show a complete beam to column connection.</li> <li>• Beams are attached to other beams using framing anchors. At least one photo should show a complete beam to beam connection.</li> <li>• Trusses are attached to walls with framing anchors. At least one photo should show a complete truss to wall connection.</li> </ul>
49	STRUCTURAL	9	Structural roof sheathing has been properly installed as per contract documents.	<p>Verification Criteria</p> <p>Verify by review of structural engineer's site observation report(s) and at least two photos noting that roof sheathing has been attached per the contract documents.</p> <ul style="list-style-type: none"> <li>• Nail spacing is typically 6" on center at edges; 12" on center in-field.</li> <li>• Blocking is installed above all structural walls.</li> </ul>
50	STRUCTURAL	10	Attachment of the steeple platform to the structure and the attachment of the steeple to the platform are correct and complete.	<p>Verification Criteria</p> <p>Verify by review of structural engineer's site observation report(s) and at least two photos noting that connections of the steeple and platform are complete.</p> <p>The platform is attached to the structure with steel plates, angles and bolts.</p>
51	FIRE PROTECTION	1	Fire sprinkler heads are installed flush with the ceiling.	<p>Verification Criteria</p> <ol style="list-style-type: none"> <li>1. Verify that concealed fire sprinkler heads are installed flush with ceiling.</li> <li>2. Unscrew a concealed cover plate and verify deflector drops below ceiling.</li> </ol>
52	FIRE PROTECTION	2	Building insulation envelope maintains temperatures above freezing in wet pipe areas.	<p>Verification Criteria</p> <ol style="list-style-type: none"> <li>1. Verify that gypsum board is installed and holds insulation in place.</li> <li>2. Verify that gypsum board joints are sealed.</li> <li>3. Verify that all penetrations are sealed.</li> </ol>

53	FIRE PROTECTION	3	Anti-freeze has been added to anti-freeze system by taking a sample at the bottom of the anti-freeze loop. System should not be leaking.	Verification Criteria Open test valve on glycol riser enough to check a small sample for glycol. Solution will be slick (oily) to the touch and colored if glycol has been added. Solution should not be leaking from test valve.
54	FIRE PROTECTION	4	Pressure gauge differential at dry pipe riser.	Verification Criteria Verify by reading pressure of the water gauge and air gauge. Pressures should be significantly different. Water pressure ranges will be 60 to 100 psig. Air pressure ranges are 30 to 50 psig. If pressure readings are the same (within 1 PSIG), the dry system is full of water.
55	FIRE PROTECTION	5	Fire protection system passed the above ground contractor's test.	Verification Criteria Verify by reviewing the completed contractor's test form in the FM O&M manual.
56	MECHANICAL	1	Thermostats are installed properly.	Verification Criteria 1. Verify that the installation CD has been given to FM. 2. Verify set-up of one thermostat by pushing thermostat center button to display set point temperature and push button again to display discharge air temperature.
57	MECHANICAL	2	Remote sensor installation and operation.	Verification Criteria 1. With the system in unoccupied mode, push the over-ride occupancy button. The LED should light up and the furnace turn on. 2. With the RED and BLUE arrows keys, move LED associated with them to the right and to the left. If the LED moves, the sensor is functioning.
58	MECHANICAL	3	RP panels are supplied by approved panel manufacturers.	Verification Criteria Remove cover from panel. Verify that panel builder's sticker is located inside panel. Panel builders are listed in specification Section 23 0933.
59	MECHANICAL	4	Heating is operating.	Verification Criteria On a thermostat perform the following functions: 1. Press Temporary Occupied and wait for furnace to come on. 2. Press Occupied Cool and press the up arrow (raise) to raise cooling set point to 76° F. 3. Press Occupied Heat and press the up arrow (raise) to raise heat set point to bring furnace burner on. 4. Press the center button twice to reveal discharge air temperature. Verify temperature goes up. 5. Press Occupied Heat and press the down arrow (lower) to lower heat set point to original setting. 6. Press Occupied Cool and press the down arrow (lower) to lower cooling set point back to original setting. 7. Press Run Schedule.
60	MECHANICAL	5	Cooling is operating.	Verification Criteria On a thermostat perform the following functions: 1. Press Temporary Occupied and wait for furnace to come on. 2. Press Occupied Heat and push lower button to lower heating set point to 65 F. 3. Press Occupied Cool and push the down arrow (lower) to lower cooling set point to bring condensing unit on. 4. Press the center button twice to reveal discharge air temperature. Verify temperature goes down. 5. Press Occupied Cool and push the up arrow (raise) to raise cooling set point back to original setting. 6. Press Occupied Heat and push the up arrow (raise) to raise heating set point back to original setting. 7. Press Run Schedule.
61	MECHANICAL	6	Outside air damper is operating.	Verification Criteria 1. Verify the damper position by opening access door between manual and motorized outside air dampers. 2. Verify that motorized outside air damper is open in occupied mode and closed in unoccupied mode. 3. Verify that the end of the damper shaft is correctly marked with damper blade orientation. 4. Verify that actuator jaws are clamped securely to shaft. 5. Verify that damper blade is secured to shaft.
62	MECHANICAL	7	Furnace filter that is installed is correct type.	Verification Criteria Open filter door and remove filter. verify filter is one inch thick fiberglass type. Pleated media filters should not be used. Pleated media filters use more energy and may cause the cooling coil to freeze.

63	MECHANICAL	8	Water heater is installed properly and is operational.	<p>Verification Criteria</p> <ol style="list-style-type: none"> <li>1. Verify discharge temperature is set at 110° F for an instantaneous type water heater or 140° F for a tank type water heater.</li> <li>2. Verify hot and cold water pipe is insulated with fiberglass insulation.</li> </ol>
64	MECHANICAL	9	Seismic gas valve is installed properly, when applicable.	<p>Verification Criteria</p> <p>Verify seismic gas valve is installed horizontally in gas line, is level, and is attached to the main building wall.</p>
65	ELECTRICAL	1	Main electrical system grounding is as shown on electrical single line diagram.	<p>Verification Criteria</p> <p>Verify main grounding conductor is installed at and bonded to building main water line.</p>
66	ELECTRICAL	2	Emergency lighting is operational.	<p>Verification Criteria</p> <p>Turn off circuit breaker of circuit feeding lighting in area and observe operation of emergency lighting.</p>
67	ELECTRICAL	3	Lightning protection cable is grounded.	<p>Verification Criteria</p> <p>Verify grounding inspection wells are located outside on each side of the chapel.</p>
68	ELECTRICAL	4	Electrical panel circuit schedules are accurate.	<p>Verification Criteria</p> <ol style="list-style-type: none"> <li>1. Verify that each circuit breaker is labeled with a number.</li> <li>2. Verify that printed circuit schedules are included in panels.</li> <li>3. Turn off one circuit breaker of lighting to verify accuracy.</li> </ol>
69	ELECTRICAL	5	Chapel pendant light fixtures are as shown in contract documents.	<p>Verification Criteria</p> <p>Verify pendant lighting fixtures in chapel match the cut sheet in building O&amp;M binder and the catalog number on the fixture schedule matches the catalog number on the cut sheet. Verify fixture location and mounting heights per standard.</p>
70	ELECTRICAL	6	Corridor light fixtures are as shown in contract documents.	<p>Verification Criteria</p> <p>Verify that lighting fixtures in corridor match the cut sheet in building O&amp;M binder and the catalog number on the fixture schedule matches the catalog number on the cut sheet.</p>
71	ELECTRICAL	7	Exterior lighting photo cells are properly located.	<p>Verification Criteria</p> <p>verify that photo cells are mounted under the soffit and not in direct sunlight.</p>
72	SOUND	1	Sound system is working properly in chapel.	<p>Verification Criteria</p> <ol style="list-style-type: none"> <li>1. Turn sound system on.</li> <li>2. Talk into the pulpit microphone and check that the system is loud enough, that there is no feedback, that it is clear and that there is no distortion. Check sound consistency throughout the chapel (no dead spots).</li> </ol>
73	SOUND	2	Cultural center and foyers are receiving chapel sound.	<p>Verification Criteria</p> <ol style="list-style-type: none"> <li>1. Turn chapel sound system on.</li> <li>2. With someone talking into chapel microphone, open folding partitions between chapel and cultural center and listen for chapel sound in cultural center. Volume should be adequate and at about the same or slightly higher volume level than that heard in the chapel.</li> <li>3. Listen in foyer by adjusting foyer audio control mounted on foyer wall.</li> </ol>
74	SOUND	3	Assistive listening system is working properly.	<p>Verification Criteria</p> <ol style="list-style-type: none"> <li>1. FM should provide an Assistive Listening System (ALS) receiver and ear piece found in the material center.</li> <li>2. With chapel sound system on, have someone talk into pulpit microphone.</li> <li>3. Listen through ALS receiver at rear of cultural center or chapel. The sound should be clear and undistorted.</li> </ol>
75	SOUND	4	Audio controls are installed properly.	<p>Verification Criteria</p> <ol style="list-style-type: none"> <li>1. Verify sound system controls at side of pulpit are installed as per detail shown on plan furnishings sheet. Color of control plates should match and be squarely mounted.</li> <li>2. Verify bishop's sound control pedestal is mounted at side of bishopric's seats as detailed in Enlarged Rostrum section of architectural drawings. It should be easy to reach and control by counselor.</li> </ol>
76	SOUND	5	Satellite dish is not blocked.	<p>Verification Criteria</p> <p>Verify that landscape (current or future growth), satellite enclosure, and other structures do not partially or fully block the satellite dish.</p>

77	SOUND	6	Satellite audio system is working.	<p>Verification Criteria</p> <ol style="list-style-type: none"> <li>1. Turn on chapel sound system.</li> <li>2. Turn on satellite audio and adjust volume control. Satellite control is located near audio equipment rack.</li> <li>3. Verify satellite audio in chapel has adequate sound volume and is clear and not distorted.</li> </ol>
78	SOUND	7	Listen in the chapel for higher than normal air handling noise.	<p>Verification Criteria</p> <p>With the heating or air conditioning on, listen for distracting noise or vibration produced by the mechanical equipment which is usually caused by fan speed being set higher than needed.</p>
79	SOUND	8	Office door seals are properly installed (includes stake suite).	<p>Verification Criteria</p> <ol style="list-style-type: none"> <li>1. Verify that the door seals and threshold are installed correctly so that no light can be seen coming from the office when the door is closed.</li> <li>2. Sound seals should be installed so they are in compression when the door is in a closed position.</li> </ol>