Duties and Tasks	Knowledge of	Skills and Abilities	Tools, Equipment, and Resources
A **Implement Pre-Installation Activities**			
1 **Review AV Project Documentation**			
	allied trades (e.g. mechanical, electrical, plumbing, security, comms, HVAC, structural, BMS) architectural symbols audiovisual products and appropriate applications client needs construction drawings and plans contract documents industry best practices and standards industry jargon and terminology (e.g., AV and allied trades) life safety (e.g., electrical hazards, access issues, structural hazards) local laws and regulations measurement conversions project milestones and scheduling processes project workflow signal flow	ability to collaborate with allied trades ability to identify design deficiencies ability to interpret charts and schedules ability to read technical drawings attention to detail AV math skills customer service skills general math skills measurement skills organizational skills prioritization skills professional communication skills	bill of materials construction documents document management software general tools industry resources industry standards local laws and regulations project management tools scheduling software schematics scope of work
2 **Conduct Site Survey**			
	allied trades (e.g. mechanical, electrical, plumbing, security, comms, HVAC, structural, BMS) architectural symbols audiovisual products and appropriate applications client needs construction drawings and plans general construction principles and materials industry best practices and standards industry jargon and terminology (e.g., AV and allied trades) IT and networking	ability to collaborate with allied trades ability to conduct a safety and risk analysis ability to coordinate with project team ability to document findings ability to identify infrastructure (e.g., conduit, floor boxes, power location, data points, grounding, cable paths) ability to identify mounting/rigging points for substructures ability to identify site obstacles (e.g., ceilings, flooring, walls) ability to identify the need for special equipment and use them appropriately (e.g., scaffolding, personnel lifts, tall ladders, powder actuated tools) ability to read technical drawings	construction documents general tools industry resources industry standards local laws and regulations personal protective equipment (PPE) personnel lift project management tools schematics

Duties and Tasks	Knowledge of	Skills and Abilities	Tools, Equipment, and Resources
	life safety (e.g., electrical hazards, access issues, structural hazards)	ability to reconcile documents to site conditions	scope of work
	local laws and regulations	ability to verify ambient lighting	specialty measurement tools
	measurement conversions	ability to verify ambient noise	
	site access and obstacles	ability to verify conduit capacities	
	site security	ability to verify throw distances	
	site specific attributes (e.g., acoustics, lighting HVAC, furniture, finishes, sightlines, historical, zoning)	attention to detail	
	special equipment (e.g., scaffolding, personnel lifts, tall ladders, powder actuated tools)	AV math skills	
		customer service skills	
		general math skills	
		measurement skills	
		observational skills	
		organizational skills	
		prioritization skills	
		professional communication skills	
3 Evaluate Overall Facility Readiness			
	activities performed by other construction trades	ability to collaborate with allied trades	construction documents
	allied trades (e.g. mechanical, electrical, plumbing, security, comms, HVAC, structural, BMS)	ability to conduct a safety and risk analysis	general tools
	client needs	ability to coordinate with project team	local laws and regulations
	construction drawings and plans	ability to document findings	personal protective equipment (PPE)
	general construction principles and materials	ability to identify infrastructure (e.g., conduit, floor boxes, power location, data points, grounding, cable paths)	personnel lift
	industry best practices and standards	ability to identify mounting/rigging points for substructures	project management tools
	industry jargon and terminology (e.g., AV and allied trades)	ability to identify site obstacles (e.g., ceilings, flooring, walls)	scope of work
	IT and networking	ability to reconcile documents to site conditions	
	life safety (e.g., electrical hazards, access issues, structural hazards)	ability to verify operation of owner furnished equipment	
	local laws and regulations	attention to detail	
	project timelines	customer service skills	
	site access and obstacles	general math skills	

Duties and Tasks	Knowledge of	Skills and Abilities	Tools, Equipment, and Resources
	site availability	measurement skills	
	site security	observational skills	
		professional communication skills	
4 **Prepare for Installation**			
	allied trades (e.g. mechanical, electrical, plumbing, security, comms, HVAC, structural, BMS)	ability to collaborate with allied trades	bill of materials
	architectural symbols	ability to conduct a safety and risk analysis	cables and connectors
	audiovisual products and appropriate applications	ability to coordinate with project team	construction documents
	audiovisual products and appropriate applications	ability to document findings	general tools
	cables and connectors	ability to identify infrastructure (e.g., conduit, floor boxes, power location, data points, grounding, cable paths)	hardware (e.g. nuts, bolts, washers, fasteners)
	client needs	ability to identify mounting/rigging points for substructures	industry resources
	construction drawings and plans	ability to identify site obstacles (e.g., ceilings, flooring, walls)	industry standards
	equipment rigging and mounting best practices	ability to identify the need for special equipment and use them appropriately (e.g., scaffolding, personnel lifts, tall ladders, powder actuated tools)	local laws and regulations
	general construction principles and materials	ability to mark installation locations based on engineering specifications	personal protective equipment (PPE)
	industry best practices and standards	ability to plan site logistics	personnel lift
	industry jargon and terminology (e.g., AV and allied trades)	ability to read technical drawings	project management tools
	installation techniques (e.g. proper hardware applications, fastener types)	ability to reconcile documents to site conditions	schematics
	IT and networking	ability to verify ambient lighting	scope of work
	life safety (e.g., electrical hazards, access issues, structural hazards)	ability to verify ambient noise	specialty measurement tools
	local laws and regulations	ability to verify conduit capacities	
	measurement conversions	ability to verify throw distances	
	mounting surfaces	attention to detail	
	resource availability (e.g. equipment, labor)	AV math skills	
	site access and obstacles	customer service skills	
	site security	general math skills	
	site specific attributes (e.g., acoustics, lighting HVAC, furniture, finishes, sightlines, historical, zoning)	measurement skills	

Duties and Tasks	Knowledge of	Skills and Abilities	Tools, Equipment, and Resources
	special equipment (e.g., scaffolding, personnel lifts, tall ladders, powder actuated tools)	observational skills organizational skills prioritization skills professional communication skills	
B	**Practice Ongoing Project Responsibilities**		
1	**Complete Field Reports (e.g., daily, issues, progress, risk, injury)**		
	client needs construction drawings and plans general construction principles and materials industry best practices and standards industry jargon and terminology (e.g., AV and allied trades) IT and networking local laws and regulations project milestones and scheduling processes site specific attributes (e.g., acoustics, lighting HVAC, furniture, finishes, sightlines, historical, zoning) types of field reports	ability to collaborate with allied trades ability to document findings ability to estimate time to project completion ability to identify and report damaged, defective, or missing equipment ability to identify appropriate stakeholders ability to identify the need for and initiate RFI and change order ability to interpret charts and schedules attention to detail customer service skills organizational skills prioritization skills professional communication skills technical writing skills	construction documents general tools industry resources industry standards local laws and regulations project management tools report templates scheduling software scope of work
2	**Coordinate with Allied Trades**		
	allied trades (e.g. mechanical, electrical, plumbing, security, comms, HVAC, structural, BMS) change management client needs construction drawings and plans general construction principles and materials industry best practices and standards industry jargon and terminology (e.g., AV and allied trades) IT and networking	ability to collaborate with allied trades ability to document findings ability to estimate time to project completion ability to identify and report damaged, defective, or missing equipment ability to identify appropriate stakeholders ability to identify the need for and initiate RFI and change order ability to interpret charts and schedules ability to read technical drawings	construction documents general tools industry resources industry standards local laws and regulations project management tools report templates scheduling software

Duties and Tasks	Knowledge of	Skills and Abilities	Tools, Equipment, and Resources
	local laws and regulations	attention to detail	scope of work
	project milestones and scheduling processes site specific attributes (e.g., acoustics, lighting HVAC, furniture, finishes, sightlines, historical, zoning)	customer service skills organizational skills prioritization skills professional communication skills technical writing skills	
3 Address Needed Field Modifications			
	allied trades (e.g. mechanical, electrical, plumbing, security, comms, HVAC, structural, BMS) architectural symbols audiovisual products and appropriate applications audiovisual products and appropriate applications cables and connectors client needs construction drawings and plans documentation process (e.g. RFI, change order) equipment rigging and mounting best practices general construction principles and materials industry best practices and standards industry jargon and terminology (e.g., AV and allied trades) installation techniques (e.g. proper hardware applications, fastener types) IT and networking life safety (e.g., electrical hazards, access issues, structural hazards) measurement conversions mounting surfaces	ability to collaborate with allied trades ability to conduct a safety and risk analysis ability to coordinate with project team ability to create field mark-ups (e.g., design changes, site conditions) ability to determine and communicate the need for field modifications ability to document findings ability to identify infrastructure (e.g., conduit, floor boxes, power location, data points, grounding, cable paths) ability to identify mounting/rigging points for substructures ability to identify site obstacles (e.g., ceilings, flooring, walls) ability to identify the need for special equipment and use them appropriately (e.g., scaffolding, personnel lifts, tall ladders, powder actuated tools) ability to implement design modifications to accommodate site issues ability to mark installation locations based on engineering specifications ability to obtain approval for field modifications ability to plan site logistics ability to read technical drawings ability to reconcile documents to site conditions ability to troubleshoot AV equipment	construction documents general tools hardware (e.g. nuts, bolts, washers, fasteners) industry resources industry standards local laws and regulations personal protective equipment (PPE) personnel lift project management tools report templates schematics scope of work specialty measurement tools

Duties and Tasks	Knowledge of	Skills and Abilities	Tools, Equipment, and Resources
	project timelines	ability to verify load capacity	
	project workflow	attention to detail	
	resource availability (e.g. equipment, labor)	AV math skills	
	signal flow	customer service skills	
	site access and obstacles	general math skills	
	site specific attributes (e.g., acoustics, lighting HVAC, furniture, finishes, sightlines, historical, zoning)	measurement skills	
	special equipment (e.g., scaffolding, personnel lifts, tall ladders, powder actuated tools)	observational skills	
	troubleshooting techniques	organizational skills	
		prioritization skills	
		professional communication skills	
C	**Conduct Site Rough-In/First-Fix**		
I	**Deinstallation of Existing Equipment and Cabling**		
	audiovisual products and appropriate applications	ability to collaborate with allied trades	construction documents
	cables and connectors	ability to conduct a safety and risk analysis	general tools
	client needs	ability to coordinate with project team	industry resources
	construction drawings and plans	ability to dispose of equipment and cabling	industry standards
	disposal best practices	ability to document findings	local laws and regulations
	equipment rigging and mounting best practices	ability to identify equipment and cabling that should be removed	personal protective equipment (PPE)
	general construction principles and materials	ability to identify infrastructure (e.g., conduit, floor boxes, power location, data points, grounding, cable paths)	personnel lift
	industry best practices and standards	ability to identify mounting/rigging points for substructures	project management tools
	industry jargon and terminology (e.g., AV and allied trades)	ability to identify site obstacles (e.g., ceilings, flooring, walls)	schematics
	installation techniques (e.g. proper hardware applications, fastener types)	ability to identify the need for special equipment and use them appropriately (e.g., scaffolding, personnel lifts, tall ladders, powder actuated tools)	scope of work
	IT and networking	ability to plan site logistics	specialty cable pull kit
	life safety (e.g., electrical hazards, access issues, structural hazards)	ability to prepare equipment for reinstallation (e.g., testing, cleaning, labeling)	waste management
	local laws and regulations	ability to read technical drawings	
	mounting surfaces	ability to reconcile documents to site conditions	
	resource availability (e.g. equipment, labor)	ability to remove equipment and cabling	
	site access and obstacles	attention to detail	

Duties and Tasks	Knowledge of	Skills and Abilities	Tools, Equipment, and Resources
	site security	customer service skills	
	special equipment (e.g., scaffolding, personnel lifts, tall ladders, powder actuated tools)	observational skills	
		organizational skills	
		prioritization skills	
		professional communication skills	

2	Mount Substructure and Rigging		
	allied trades (e.g. mechanical, electrical, plumbing, security, comms, HVAC, structural, BMS)	ability to calculate weight capacities	construction documents
	architectural symbols	ability to collaborate with allied trades	equipment specifications
	audiovisual products and appropriate applications	ability to conduct a safety and risk analysis	general tools
	audiovisual products and appropriate applications	ability to coordinate with project team	hardware (e.g. nuts, bolts, washers, fasteners)
	blocking	ability to cut drywall/plaster board	industry resources
	client needs	ability to document findings	industry standards
		ability to identify infrastructure (e.g., conduit, floor boxes, power location, data points, grounding, cable paths)	
	construction drawings and plans		local laws and regulations
	equipment rigging and mounting best practices	ability to identify mounting/rigging points for substructures	personal protective equipment (PPE)
	general construction principles and materials	ability to identify site obstacles (e.g., ceilings, flooring, walls)	personnel lift
		ability to identify the need for special equipment and use them appropriately (e.g., scaffolding, personnel lifts, tall ladders, powder actuated tools)	
	industry best practices and standards		project management tools
	industry jargon and terminology (e.g., AV and allied trades)	ability to install anchors and fasteners	schematics
	installation techniques (e.g. proper hardware applications, fastener types)	ability to install slotted channel and accessories (e.g., unistruts, threaded rods, pipes)	scope of work
	life safety (e.g., electrical hazards, access issues, structural hazards)	ability to mark installation locations based on engineering specifications	
	measurement conversions	ability to mount to prefabricated structures	
	mounting surfaces	ability to plan site logistics	
	resource availability (e.g. equipment, labor)	ability to read technical drawings	
	site access and obstacles	ability to reconcile documents to site conditions	
	site security	ability to select correct mounting hardware for application	

Duties and Tasks	Knowledge of	Skills and Abilities	Tools, Equipment, and Resources
	site specific attributes (e.g., acoustics, lighting HVA	ability to test mountings of substructures	
	special equipment (e.g., scaffolding, personnel lifts, tall ladders, powder actuated tools)	ability to verify throw distances	
		attention to detail AV math skills customer service skills general math skills measurement skills observational skills organizational skills prioritization skills professional communication skills	

3	Pull Cable		

Duties and Tasks	Knowledge of	Skills and Abilities	Tools, Equipment, and Resources
	allied trades (e.g. mechanical, electrical, plumbing, security, comms, HVAC, structural, BMS)	ability to apply fire stop materials	appropriate cables
	architectural symbols	ability to calculate and apply the conduit fill ratio	cable fasteners
	audiovisual products and appropriate applications	ability to calculate weight capacities	cable pull lists
	cable management practices	ability to collaborate with allied trades	construction documents
	client needs	ability to conduct a safety and risk analysis	general tools
	conduit capacity	ability to coordinate with project team	hardware (e.g. nuts, bolts, washers, fasteners)
	construction drawings and plans	ability to cut drywall/plaster board	industry resources
	disposal best practices	ability to cut in mud rings, low voltage rings, electrical boxes/pattresses, backboxes, etc.	industry standards
	general construction principles and materials	ability to determine amount of cable needed per pull	local laws and regulations
	industry best practices and standards	ability to document findings	personal protective equipment (PPE)
	industry jargon and terminology (e.g., AV and allied trades)	ability to identify cable paths by signal types	personnel lift
	installation techniques (e.g. proper hardware applications, fastener types)	ability to identify hazards	project management tools
	life safety (e.g., electrical hazards, access issues, structural hazards)	ability to identify infrastructure (e.g., conduit, floor boxes, power location, data points, grounding, cable paths)	schematics
		ability to identify mounting/rigging points for substructures	
	measurement conversions		scope of work
	resource availability (e.g. equipment, labor)	ability to identify site obstacles (e.g., ceilings, flooring, walls)	specialty cable pull kit

Duties and Tasks	Knowledge of	Skills and Abilities	Tools, Equipment, and Resources
	service loops	ability to identify the need for special equipment and use them appropriately (e.g., scaffolding, personnel lifts, tall ladders, powder actuated tools)	
	site access and obstacles	ability to implement various cable pulling techniques	
	site security	ability to install cable supports	
	site specific attributes (e.g., acoustics, lighting HVAC, furniture, finishes, sightlines, historical, zoning)	ability to plan site logistics	
	special equipment (e.g., scaffolding, personnel lifts, tall ladders, powder actuated tools)	ability to prepare cables for pulling (e.g., labeling, grouping, aligning, lubricating, cable snout)	
	tensile and shear strengths	ability to read technical drawings	
		ability to reconcile documents to site conditions	
		ability to test mountings of substructures	
		attention to detail	
		AV math skills	
		customer service skills	
		general math skills	
		measurement skills	
		observational skills	
		organizational skills	
		prioritization skills	
		professional communication skills	

D	Install AV Systems		
I	Assemble AV Rack		

Duties and Tasks	Knowledge of	Skills and Abilities	Tools, Equipment, and Resources
	accessibility standards	ability to assemble a rack frame	bill of materials
	allied trades (e.g. mechanical, electrical, plumbing, security, comms, HVAC, structural, BMS)	ability to collaborate with allied trades	construction documents
	architectural symbols	ability to conduct a safety and risk analysis	general tools
	audiovisual products and appropriate applications	ability to coordinate with project team	hardware (e.g. nuts, bolts, washers, fasteners)
	cables and connectors	ability to document findings	industry resources
		ability to identify infrastructure (e.g., conduit, floor boxes, power location, data points, grounding, cable paths)	
	client needs		industry standards
	construction drawings and plans	ability to identify mounting/rigging points for substructures	local laws and regulations

Duties and Tasks	Knowledge of	Skills and Abilities	Tools, Equipment, and Resources
	electrical power and grounding/earthing	ability to identify site obstacles (e.g., ceilings, flooring, walls)	personal protective equipment (PPE)
	equipment rigging and mounting best practices	ability to identify the need for special equipment and use them appropriately (e.g., scaffolding, personnel lifts, tall ladders, powder actuated tools)	personnel lift
	general construction principles and materials	ability to install rack accessories (e.g., lacing, power, fans, peripherals)	project management tools
	industry best practices and standards	ability to label panels	rack elevation drawings
	industry jargon and terminology (e.g., AV and allied trades)	ability to mark installation locations based on engineering specifications	rack manual
	installation techniques (e.g. proper hardware applications, fastener types)	ability to plan site logistics	schematics
	IT and networking	ability to read technical drawings	scope of work
	life safety (e.g., electrical hazards, access issues, structural hazards)	ability to verify and document equipment information (e.g., serial numbers, MAC addresses, asset tags)	
	local laws and regulations	ability to verify conduit capacities	
	measurement conversions	attention to detail	
	mounting surfaces	AV math skills	
	rack accessories and components	general math skills	
	resource availability (e.g. equipment, labor)	measurement skills	
	screw gun and torque settings	observational skills	
	site access and obstacles	organizational skills	
	site security	prioritization skills	
	site specific attributes (e.g., acoustics, lighting HVAC, furniture, finishes, sightlines, historical, zoning)		
	special equipment (e.g., scaffolding, personnel lifts, tall ladders, powder actuated tools)		
	thermal management		
	weight distribution		
2 Wire the AV Equipment Rack			
	accessibility standards	ability to collaborate with allied trades	bill of materials
	allied trades (e.g. mechanical, electrical, plumbing, security, comms, HVAC, structural, BMS)	ability to coordinate with project team	construction documents
	anti-static techniques	ability to determine proper cable length	general tools
	architectural symbols	ability to document findings	hardware (e.g. nuts, bolts, washers, fasteners)

Duties and Tasks	Knowledge of	Skills and Abilities	Tools, Equipment, and Resources
	audiovisual products and appropriate applications	ability to identify proper cables for applications	industry resources
	cable management practices	ability to identify the need for special equipment and use them appropriately (e.g., scaffolding, personnel lifts, tall ladders, powder actuated tools)	industry standards
	cable termination types	ability to install rack accessories (e.g., lacing, power, fans, peripherals)	local laws and regulations
	cables and connectors	ability to label panels	personal protective equipment (PPE)
	client needs	ability to read technical drawings	personnel lift
	construction drawings and plans	ability to terminate cables	project management tools
	electrical power and grounding/earthing	ability to test cables	rack elevation drawings
	industry best practices and standards	ability to use cable management techniques (e.g., signal separation, bend radius, proper support)	rack manual
	industry jargon and terminology (e.g., AV and allied trades)	ability to use cable termination techniques (e.g., crimping, soldering, insulation displacement, captive screw, fiber splicing)	schematics
	installation techniques (e.g. proper hardware applications, fastener types)	attention to detail	scope of work
	IT and networking	AV math skills	
	life safety (e.g., electrical hazards, access issues, structural hazards)	cable labeling	
	local laws and regulations	general math skills	
	measurement conversions	measurement skills	
	rack accessories and components	observational skills	
	resource availability (e.g. equipment, labor)	organizational skills	
	service loops	prioritization skills	
	signal types		
	spacing of components for access to connections		
	special equipment (e.g., scaffolding, personnel lifts, tall ladders, powder actuated tools)		
	thermal management		
3	**Distribute AV Equipment (e.g., placement of loose equipment, peripherals)**		
	accessibility standards	ability to collaborate with allied trades	bill of materials
	allied trades (e.g. mechanical, electrical, plumbing, security, comms, HVAC, structural, BMS)	ability to conduct a safety and risk analysis	construction documents
	architectural symbols	ability to coordinate with project team	equipment moving devices (e.g., carts, pallet jacks, furniture dollies, equipment hoists)

Duties and Tasks	Knowledge of	Skills and Abilities	Tools, Equipment, and Resources
	audiovisual products and appropriate applications	ability to document findings	general tools
	cables and connectors	ability to identify infrastructure (e.g., conduit, floor boxes, power location, data points, grounding, cable paths)	industry resources
	client needs	ability to identify site obstacles (e.g., ceilings, flooring, walls)	industry standards
	construction drawings and plans	ability to identify the need for special equipment and use them appropriately (e.g., scaffolding, personnel lifts, tall ladders, powder actuated tools)	local laws and regulations
	electrical power and grounding/earthing	ability to mark installation locations based on engineering specifications	personal protective equipment (PPE)
	industry best practices and standards	ability to plan site logistics	personnel lift
	industry jargon and terminology (e.g., AV and allied trades)	ability to read technical drawings	project management tools
	IT and networking	ability to reconcile documents to site conditions	schematics
	life safety (e.g., electrical hazards, access issues, structural hazards)	ability to verify and document equipment information (e.g., serial numbers, MAC addresses, asset tags)	scope of work
	local laws and regulations	attention to detail	
	measurement conversions	general math skills	
	resource availability (e.g. equipment, labor)	measurement skills	
	service loops	observational skills	
	site access and obstacles	organizational skills	
	site security	prioritization skills	
	site specific attributes (e.g., acoustics, lighting HVAC, furniture, finishes, sightlines, historical, zoning)		
	special equipment (e.g., scaffolding, personnel lifts, tall ladders, powder actuated tools)		
	thermal management		
4 **Mount AV Equipment (e.g., projectors, loud speakers, monitors)**			
	allied trades (e.g. mechanical, electrical, plumbing, security, comms, HVAC, structural, BMS)	ability to calculate weight capacities	construction documents
	acceptable substructures for specific purposes	ability to collaborate with allied trades	bill of materials
	architectural symbols	ability to conduct a safety and risk analysis	equipment moving devices (e.g., carts, pallet jacks, furniture dollies, equipment hoists)

Duties and Tasks	Knowledge of	Skills and Abilities	Tools, Equipment, and Resources
	audiovisual products and appropriate applications	ability to coordinate with project team	general tools
	blocking	ability to cut drywall/plaster board	hardware (e.g. nuts, bolts, washers, fasteners)
	cleaning supplies and techniques	ability to document findings	industry resources
	client needs	ability to identify infrastructure (e.g., conduit, floor boxes, power location, data points, grounding, cable paths)	industry standards
	construction drawings and plans	ability to identify mounting/rigging points for substructures	local laws and regulations
	equipment rigging and mounting best practices	ability to identify site obstacles (e.g., ceilings, flooring, walls)	personal protective equipment (PPE)
	general construction principles and materials	ability to identify the need for special equipment and use them appropriately (e.g., scaffolding, personnel lifts, tall ladders, powder actuated tools)	personnel lift
	industry best practices and standards	ability to install anchors and fasteners	positioning tools (e.g., levels, lasers, plum bob)
	industry jargon and terminology (e.g., AV and allied trades)	ability to install mounting brackets and mounting hardware	Powder actuated tools
	installation techniques (e.g. proper hardware applications, fastener types)	ability to install slotted channel and accessories (e.g., unistruts, threaded rods, pipes)	schematics
	life safety (e.g., electrical hazards, access issues, structural hazards)	ability to mark installation locations based on engineering specifications	scope of work
	measurement conversions	ability to modify substructure as needed	
	mounting surfaces	ability to mount on or around customized substructures (e.g., millwork, furniture, enclosures)	
	resource availability (e.g. equipment, labor)	ability to mount to prefabricated structures	
	site access and obstacles	ability to plan site logistics	
	site security	ability to read technical drawings	
	site specific attributes (e.g., acoustics, lighting HVAC, furniture, finishes, sightlines, historical, zoning)	ability to reconcile documents to site conditions	
	special equipment (e.g., scaffolding, personnel lifts, tall ladders, powder actuated tools)	ability to secure safety restraints on components	
	tensile and shear strengths	ability to test mountings of substructures	
		ability to verify throw distances	
		attention to detail	
		AV math skills	
		customer service skills	
		general math skills	

Duties and Tasks	Knowledge of	Skills and Abilities	Tools, Equipment, and Resources
		measurement skills	
		observational skills	
		organizational skills	
		prioritization skills	
		professional communication skills	
5 Terminate Cables			
	architectural symbols	ability to coordinate with project team	bill of materials
	audiovisual products and appropriate applications	ability to determine proper cable length	cable connectors
	cable management practices	ability to document findings	foil tape
	cable termination types	ability to identify proper cables for applications	general tools
	cables and connectors	ability to identify the need for special equipment and use them appropriately (e.g., scaffolding, personnel lifts, tall ladders, powder actuated tools)	industry resources
	client needs	ability to label panels	industry standards
	electrical power and grounding/earthing	ability to read technical drawings	insulation (e.g., heat shrink, sleeves, tubing)
	industry best practices and standards	ability to test cables	local laws and regulations
	industry jargon and terminology (e.g., AV and allied trades)	ability to use cable management techniques (e.g., signal separation, bend radius, proper support)	personal protective equipment (PPE)
	installation techniques (e.g. proper hardware applications, fastener types)	ability to use cable termination techniques (e.g., crimping, soldering, insulation displacement, captive screw, fiber splicing)	personnel lift
	IT and networking	attention to detail	project management tools
	life safety (e.g., electrical hazards, access issues, structural hazards)	cable labeling	schematics
	local laws and regulations	general math skills	scope of work
	resource availability (e.g. equipment, labor)	measurement skills	
	service loops	observational skills	
	signal types	organizational skills	
	spacing of components for access to connections	prioritization skills	
	special equipment (e.g., scaffolding, personnel lifts, tall ladders, powder actuated tools)		
6 Configure Network Properties of Equipment			
	audiovisual products and appropriate applications	ability to identify AV over IP technologies	bill of materials
	AV control over IP (e.g. device controls)	ability to adjust networking	general tools

Duties and Tasks	Knowledge of	Skills and Abilities	Tools, Equipment, and Resources
	AV over IP (e.g. Dante, NDI, NVX, AVB)	ability to compare tests results with specifications	industry resources
	calibration standards	ability to connect devices to a network (i.e., wireless, wired)	industry software
	client needs	ability to coordinate with project team	industry standards
	communication protocols (e.g. VOIP, SIP, CLOUD, TCP)	ability to document findings	interface cable (e.g. network, USB, console cable)
	control systems	ability to load network configurations into equipment	local laws and regulations
	digital signal architecture (e.g., HDCP, EDID)	ability to perform corrective actions to systems	manufacturers' software
	industry best practices and standards	ability to read technical drawings	project management tools
	industry jargon and terminology (e.g., AV and allied trades)	ability to select appropriate test equipment and supplies	project network documentation
	industry software	ability to troubleshoot AV equipment	schematics
	IT and networking	ability to verify and test network connectivity	scope of work
	local laws and regulations	attention to detail	
	manufacturers' software	AV math skills	
	resource availability (e.g. equipment, labor)	general math skills	
		observational skills	
		organizational skills	
		prioritization skills	
7 Configure Control and Device Settings			
	audiovisual products and appropriate applications	ability to compare tests results with specifications	bill of materials
	AV control over IP (e.g. device controls)	ability to configure device control	general tools
	AV over IP (e.g. Dante, NDI, NVX, AVB)	ability to connect devices to a network (i.e., wireless, wired)	industry resources
	calibration standards	ability to coordinate with project team	industry software
	client needs	ability to document findings	industry standards
	communication protocols (e.g. VOIP, SIP, CLOUD, TCP)	ability to download and upload firmware updates	interface cable (e.g. network, USB, console cable)
	communication standards (RS232, RS485, DMX)	ability to load control programs into equipment	local laws and regulations
	control systems	ability to perform corrective actions to systems	manufacturers' software
	digital signal architecture (e.g., HDCP, EDID)	ability to read technical drawings	project management tools
	industry best practices and standards	ability to select appropriate test equipment and supplies	project network documentation
	industry jargon and terminology (e.g., AV and allied trades)	ability to troubleshoot AV equipment	schematics
	industry software	ability to verify and test network connectivity	scope of work

Duties and Tasks	Knowledge of	Skills and Abilities	Tools, Equipment, and Resources
	IT and networking	attention to detail	user manuals
	local laws and regulations	general math skills	
	manufacturers' software	observational skills	
	resource availability (e.g. equipment, labor)	organizational skills	
	signal types	prioritization skills	
8 Test the AV System			
	anti-static techniques	ability to calculate and verify impedance	bill of materials
	audiovisual products and appropriate applications	ability to compare tests results with specifications	general tools
	cable termination types	ability to coordinate with project team	industry resources
	cables and connectors	ability to document findings	industry standards
	client needs	ability to identify proper cables for applications	local laws and regulations
	electrical power and grounding/earthing	ability to identify the need for special equipment and use them appropriately (e.g., scaffolding, personnel lifts, tall ladders, powder actuated tools)	personal protective equipment (PPE)
	industry best practices and standards	ability to perform corrective actions to systems	personnel lift
	industry jargon and terminology (e.g., AV and allied trades)	ability to read technical drawings	project management tools
	installation techniques (e.g. proper hardware applications, fastener types)	ability to select appropriate test equipment and supplies	schematics
	IT and networking	ability to test cables	scope of work
	life safety (e.g., electrical hazards, access issues, structural hazards)	ability to troubleshoot AV equipment	specialty measurement tools
	local laws and regulations	attention to detail	
	resource availability (e.g. equipment, labor)	AV math skills	
	signal types	general math skills	
	special equipment (e.g., scaffolding, personnel lifts, tall ladders, powder actuated tools)	measurement skills	
		observational skills	
		organizational skills	
		prioritization skills	
9 Calibrate the AV System			
	audiovisual products and appropriate applications	ability to coordinate with project team	general tools
	calibration standards	ability to adjust control systems	industry resources
	client needs	ability to adjust lighting systems	industry software

Duties and Tasks	Knowledge of	Skills and Abilities	Tools, Equipment, and Resources
	control systems	ability to adjust networking	industry standards
	digital signal architecture (e.g., HDCP, EDID) distributed audio systems	ability to adjust sound systems ability to adjust video systems	local laws and regulations manufacturers software
	industry best practices and standards	ability to compare tests results with specifications	personal protective equipment (PPE)
	industry jargon and terminology (e.g., AV and allied trades)	ability to document findings	personnel lift
		ability to identify the need for special equipment and use them appropriately (e.g., scaffolding, personnel lifts, tall ladders, powder actuated tools)	project management tools
	industry software		
	installation techniques (e.g. proper hardware applications, fastener types)	ability to perform corrective actions to systems	schematics
	IT and networking	ability to read technical drawings	scope of work
	lighting systems	ability to select appropriate test equipment and supplies	specialty measurement tools
	local laws and regulations manufacturers software resource availability (e.g. equipment, labor) RF coordination principles signal to noise ratio signal types sound systems	ability to troubleshoot AV equipment attention to detail AV math skills general math skills measurement skills observational skills organizational skills	
	special equipment (e.g., scaffolding, personnel lifts, tall ladders, powder actuated tools)	prioritization skills	
	video systems		

E	**Perform AV Systems Closeout**		
1	**Demonstrate to Client or Client's Representative that System Performs to Specifications**		
	audiovisual products and appropriate applications	ability to compare tests results with specifications	benchmarking
	client needs control systems	ability to coordinate with project team ability to document findings	completion checklist/traceability matrix general tools
	industry best practices and standards	ability to generate and resolve punch lists and deficiency lists	industry resources
	industry jargon and terminology (e.g., AV and allied trades)	ability to identify appropriate stakeholders	industry standards
	industry software	ability to operate the system to specifications	local laws and regulations
	IT and networking	ability to read technical drawings	project management tools
	local laws and regulations	ability to select appropriate test equipment and supplies	schematics

Duties and Tasks	Knowledge of	Skills and Abilities	Tools, Equipment, and Resources
	manufacturers software	attention to detail	scope of work
	media required to demonstrate operation of system	customer service skills	specialty measurement tools
	project milestones and scheduling processes system functionality	observational skills organizational skills prioritization skills	user manual
		professional communication skills	
2 Provide Training on AV System Operation			
	audiovisual products and appropriate applications	ability to apply training techniques	client policies and procedures
	client needs control systems industry best practices and standards industry jargon and terminology (e.g., AV and allied trades)	ability to assess user skill levels ability to coordinate with project team ability to identify appropriate end-users ability to identify appropriate stakeholders	completion checklist/traceability matrix general tools industry resources industry standards
	industry software	ability to operate the system to specifications	local laws and regulations
	IT and networking local laws and regulations manufacturers software media required to demonstrate operation of system system functionality	attention to detail customer service skills observational skills organizational skills prioritization skills	project management tools scope of work user manual
	training and adult learning techniques	professional communication skills	
3 Finalize AV Project Documentation (e.g., punch list, programming files, manuals, completion documentation, as-builts)			
	audiovisual products and appropriate applications	ability to compare tests results with specifications	bill of materials
	calibration standards	ability to compile and provide a list of assets and identifying information (e.g., serial numbers, asset tags, makes, models)	configuration files
	client needs	ability to compile and provide equipment manuals and accessories (e.g., remotes, user manuals, keys)	control system source code
	construction drawings and plans	ability to coordinate with project team	document management software
	contract documents	ability to deliver finalized project documentation (e.g., as-builts, applicable source code, warranties, SLA, maintenance schedules)	DSP files
	control systems	ability to document findings	general tools
	digital signal architecture (e.g., HDCP, EDID)	ability to identify appropriate stakeholders	industry resources

Duties and Tasks	Knowledge of	Skills and Abilities	Tools, Equipment, and Resources
	distributed audio systems	ability to read technical drawings	industry software
	electrical power and grounding/earthing	attention to detail	industry standards
	industry best practices and standards	observational skills	local laws and regulations
	industry jargon and terminology (e.g., AV and allied trades)	organizational skills	manufacturers software
	industry software	prioritization skills	operation manuals
	IT and networking	technical writing skills	project management tools
	lighting systems		punch/deficiency list
	local laws and regulations		schematics
	manufacturers software		scope of work
	RF coordination principles		system documentation (e.g., manuals, quick start guides)
	signal to noise ratio		
	signal types		
	sound systems		
	system drawings		
	video systems		

F	**Conduct Post Project Activities (e.g., support, warranties, maintenance)**		
I	**Maintain AV Systems (e.g., equipment, software, tools)**		

Duties and Tasks	Knowledge of	Skills and Abilities	Tools, Equipment, and Resources
	anti-static techniques	ability to calculate and verify impedance	component maintenance requirements
	audiovisual products and appropriate applications	ability to compare tests results with specifications	general tools
	cable termination types	ability to coordinate with project team	industry resources
	cables and connectors	ability to document findings	industry standards
	client needs	ability to identify and replace consumables (e.g., lamps, filters)	local laws and regulations
	electrical power and grounding/earthing	ability to identify components that require repair	maintenance logs and checklists
	industry best practices and standards	ability to identify proper cables for applications	manufacturer's recommended maintenance schedules
	industry jargon and terminology (e.g., AV and allied trades)	ability to identify the need for special equipment and use them appropriately (e.g., scaffolding, personnel lifts, tall ladders, powder actuated tools)	personal protective equipment (PPE)
	installation techniques (e.g. proper hardware applications, fastener types)	ability to implement cleaning procedures (e.g., filters, displays, lens)	personnel lift
	IT and networking	ability to obtain parts and supplies for maintenance	project management tools
	life safety (e.g., electrical hazards, access issues, structural hazards)	ability to perform corrective actions to systems	schematics

Duties and Tasks	Knowledge of	Skills and Abilities	Tools, Equipment, and Resources
	local laws and regulations	ability to perform system and component functionality tests	scope of work
	resource availability (e.g. equipment, labor)	ability to read technical drawings	service level agreement (SLA)
	signal types	ability to repair or replace defective tools and equipment	specialty measurement tools
	special equipment (e.g., scaffolding, personnel lifts, tall ladders, powder actuated tools)	ability to select appropriate test equipment and supplies	system documentation (e.g., manuals, quick start guides)
		ability to tag unsafe electrical tools and equipment	system maintenance requirements
		ability to test cables	warranties
		ability to test tools and equipment	
		ability to troubleshoot AV equipment	
		ability to verify the integrity of safety equipment and attire	
		attention to detail	
		AV math skills	
		general math skills	
		measurement skills	
		observational skills	
		organizational skills	
		prioritization skills	
		technical writing skills	
2 Repair AV Systems (e.g., failed equipment, warranty, troubleshooting)			
	anti-static techniques	ability to calculate and verify impedance	component maintenance requirements
	audiovisual products and appropriate applications	ability to compare tests results with specifications	general tools
	cable termination types	ability to coordinate with project team	industry resources
	cables and connectors	ability to document findings	industry standards
	client needs	ability to identify and replace consumables (e.g., lamps, filters)	local laws and regulations
	electrical power and grounding/earthing	ability to identify components that require repair	maintenance logs and checklists
	industry best practices and standards	ability to identify proper cables for applications	manufacturer's recommended maintenance schedules
	industry jargon and terminology (e.g., AV and allied trades)	ability to identify the need for special equipment and use them appropriately (e.g., scaffolding, personnel lifts, tall ladders, powder actuated tools)	personal protective equipment (PPE)
	installation techniques (e.g. proper hardware applications, fastener types)	ability to implement cleaning procedures (e.g., filters, displays, lens)	personnel lift

Duties and Tasks	Knowledge of	Skills and Abilities	Tools, Equipment, and Resources
	IT and networking	ability to obtain parts and supplies for maintenance	project management tools
	life safety (e.g., electrical hazards, access issues, structural hazards)	ability to perform corrective actions to systems	schematics
	local laws and regulations	ability to perform system and component functionality tests	scope of work
	resource availability (e.g. equipment, labor)	ability to read technical drawings	service level agreement (SLA)
	RMA procedures	ability to select appropriate test equipment and supplies	specialty measurement tools
	signal types	ability to test cables	system documentation (e.g., manuals, quick start guides)
	special equipment (e.g., scaffolding, personnel lifts, tall ladders, powder actuated tools)	ability to troubleshoot AV equipment	system maintenance requirements
		attention to detail	warranties
		AV math skills	
		general math skills	
		measurement skills	
		observational skills	
		organizational skills	
		prioritization skills	