

Working Design Review Pre-Submission Checklist



WILLIAM & MARY
CHARTERED 1693

Project Title

W&M Project Number

Requirements for A/E Sealing and Signatures: The Seal and Signature of the licensed Professional Engineer, Architect or Certified Landscape Architect on the drawings provides notice to the public the drawings are complete and that the professional has exercised complete direction and control over the work to which the seal or signature is affixed. All plans and specifications for building projects designed for the College must bear the seal and signature of the responsible licensed professional.

| | Yes | No | N/A |
|--|-----|----|-----|
| The drawing cover sheet shows a complete list of the drawings in the set, seal and signature of the responsible licensed professional and a uniform document date | | | |
| The original cover sheet without seal and signature has been reproduced and is attached to copies of the other drawings in the set. Each cover sheet print shall then be sealed, signed and dated with original seals and signatures. | | | |
| The specification cover sheet shall bears the seal, signature and date of the Architect and all Engineers | | | |
| The specification table of contents bears the seal and signature of each responsible licensed professional. | | | |
| All drawings bear the seal, signature and date of the Architect or Engineer responsible for that discipline | | | |
| Calculations are organized, indexed, numbered and submitted for each discipline involved. Design calculations indicate assumptions, considerations and factors involved in the design and support the design shown on the plans and specifications. One (1) copy of the completed design calculations of each discipline to the College Code Review Team with the Contract Document submission. Calculations bear the seal, signature and date of the Architect and all Engineers. | | | |

General Requirements:

| | Yes | No | N/A |
|---|-----|----|-----|
| Items included from Preliminary Design Checklist | | | |
| Built In Equipment: Specifications and drawings for built-in equipment are included with the working drawings, whether or not such equipment is to be procured under another contract, in order that such work can be coordinated and bid on at the same time. | | | |
| Changes from Preliminary: Have any changes from the information submitted at the preliminary stage relating to the mix or amount of space for institutions of higher education been provided to the College Project Manager | | | |
| Fire Rated Assemblies: drawings and specifications display all necessary information to describe the components for the fire-resistive rated construction assemblies and fire protection systems needed to provide the necessary fire integrity of the structure for compliance with all applicable governing Codes | | | |

Cost Estimate:

| | Yes | No | N/A |
|---|-----|----|-----|
| A/E shall submit a detailed Cost Estimate | | | |
| Advise the College of any adjustments to previous statements of estimated construction cost | | | |
| A/E shall submit a signed Building Cost Summary Sheet with the estimated cost of work covered by the working drawings and specifications and square footage of the proposed building data completed | | | |
| If this data varies significantly from that shown on the Preliminary Cost Estimate, the A/E will attach an explanation to the working drawing Cost Estimate | | | |
| Has College elected to have an independent cost estimate made using copies of the working drawings and specifications | | | |

Quality Control and Quality Assurance: The A/E shall be responsible for the professional and technical accuracy and coordination of all designs, drawings, specifications, cost estimates, and other work or materials furnished:

| | Yes | No | N/A |
|---|-----|----|-----|
| <p>The first sheet of the plans and specifications to be submitted bear the following statement signed by the responsible A/E:</p> <p>“A Quality Control/Quality Assurance check has been made on this project’s documents and corrections have been made. The undersigned states that these plans and specifications submitted for review are complete and ready for bidding.”</p> <p>Signed: _____(Type Name & Title)</p> | | | |

Title Sheet: shows the following items:

| | Yes | No | N/A |
|--|-----|----|-----|
| Project Identification: Agency number, Appropriation Act number, Project Code, College PIMS (or Work Order) number | | | |
| Location and vicinity maps noted to show project location | | | |
| Tabulation of floor areas (new and renovated), total area, volume | | | |
| Tabulation of units: Number of parking spaces, auditorium seats, bedrooms etc | | | |
| Listing of applicable codes with dates | | | |
| Building Purpose/Occupancy | | | |
| Use Group(s) per VUSBC | | | |
| Type of construction and VUSBC Type # | | | |
| Occupancy Load(s) per VUSBC | | | |
| Design Floor Live Loads | | | |
| Index of drawings | | | |

Demolition Drawings: For total building demolition provide:

| | Yes | No | N/A |
|---|-----|----|-----|
| Plan of building with length & width dimensions, elevations (drawn or photographic) and cross section of building to be demolished is shown | | | |
| Details of termination of demolition, underpinning, etc. are shown | | | |

Demolition Drawings: For interior / selective demolition provide:

| | Yes | No | N/A |
|---|-----|----|-----|
| Floor plans show existing partition, etc., and show or describe existing material /construction to be removed | | | |
| Information or estimates for bidding for work to be removed is shown | | | |

Site Plans: Site/improvement plan & composite utility plan display at a minimum:

| | Yes | No | N/A |
|--|-----|----|-----|
| Based on approved comprehensive Master Plan | | | |
| Scale and north arrow | | | |
| Existing and new contours affected by the proposed work | | | |
| Floor and pavement elevations | | | |
| Applicable boundaries with survey computations | | | |
| Dimensioned relationship of new work to boundaries and existing structures | | | |
| Location of test borings | | | |
| General parking and handicap parking | | | |
| Handicap accessible routes | | | |
| Pedestrian traffic routes | | | |
| Demolitions: structures, walks, utilities, trees, etc. | | | |
| Proposed landscaping (planting materials) | | | |
| Existing and new utilities: storm sewers, sanitary sewers, water supply, gas, steam distribution pipes and tunnels, electric and telephone poles and lines | | | |
| Hydrant locations with data on fire flow test | | | |
| Profile of all utilities and any roads over 100 feet in length | | | |
| Site improvements such as fencing, lighting, etc | | | |
| Typical paving section of each type and thickness required | | | |
| Identify/show special earthwork recommended and construction considerations noted in soils report | | | |
| Archaeology features | | | |

Architectural drawings: Floor Plans (for each floor) show:

| | Yes | No | N/A |
|---|-----|----|-----|
| Each floor draw with scale 1/8" = 1'-0" preferred (but not less than 1/16" = 1'-0" with approval of College Code Review Team) | | | |
| Room/space numbers assigned by the College are shown | | | |
| Overall dimensions | | | |
| Relationship between new to existing spaces/construction | | | |
| Demolition on the architectural plans or separate plans | | | |
| Asbestos locations regardless of who removes it or how it is removed | | | |
| All openings, entrances, delivery areas, and handicap accesses | | | |
| Scale and north arrow | | | |

Architectural drawings: Reflected Ceiling Plans show:

| | Yes | No | N/A |
|---|-----|----|-----|
| Ceiling tile / grid layout | | | |
| Light fixture locations | | | |
| Sprinkler head locations | | | |
| HVAC diffuser and grille locations | | | |
| Coffers, drop soffits, changes in height or materials | | | |
| Space numbers | | | |
| Speakers and smoke detectors | | | |

Architectural drawings: Roof Plan show:

| | Yes | No | N/A |
|---|-----|----|-----|
| Plan(s) of each roof at a minimum 1/8"=1'-0" preferred (but not less than 1/16" = 1'-0" with approval of College Code Review Team). | | | |
| All proposed and existing drains, including auxiliary drains | | | |
| Roof slope: 1/4" per 1'-0" to drains minimum (unless waived for reroofing) | | | |
| All new and existing equipment | | | |
| All significant roof penetrations and structures | | | |
| Materials on existing roofs | | | |
| Typical roofing section identifying materials. | | | |
| Access to roof | | | |
| Direction of slope (high to low) with arrows | | | |

Architectural drawings: Exterior Elevations show:

| | Yes | No | N/A |
|--|-----|----|-----|
| Scale (1/16" = 1'-0" minimum) | | | |
| All openings: windows, doors, louvers, vents | | | |
| Percentage of glass vs. gross wall area | | | |
| Floor elevations (above sea level). Coordinated with Site Plan elevations | | | |
| Identification of all major finishes | | | |
| All stairs, ramps, and railings | | | |
| Rooftop equipment and structures as well as sidewall equipment and louvers | | | |
| Expansion and control joints | | | |
| Grade at the face of the building wall | | | |
| Subsurface construction (dotted in) | | | |
| Existing and new work clearly distinguished | | | |

Architectural drawings: Building Cross Section show:

| | Yes | No | N/A |
|---|-----|----|-----|
| Scale (1/16" = 1'-0" minimum) | | | |
| One longitudinal and one transverse section minimum | | | |
| All floor levels / elevations on sections | | | |
| Indicate ceilings in proper relation to floors | | | |
| Method and extent of insulating exterior envelope | | | |

Architectural drawings: Detail Sections show:

| | Yes | No | N/A |
|--|-----|----|-----|
| Scale: 3/4" = 1'-0" minimum | | | |
| One section minimum for each type of wall construction | | | |
| Identify all major materials and components | | | |
| Identify insulation and note 'R' value | | | |
| One section with dimensions and details for each stair configuration | | | |

Architectural drawings: Details provide:

| | Yes | No | N/A |
|--|-----|----|-----|
| Typical window, door and special opening details are drawn at a minimum 1-1/2" = 1'-0" scale | | | |
| Drawing includes Interior and exterior details, including special doors, windows, woodwork and other decorative work | | | |
| Toilet plans and elevations drawn at a minimum 1/4"=1'-0" scale | | | |

Architectural drawings: Finish Schedule provides:

| | Yes | No | N/A |
|--|-----|----|-----|
| Indicates proposed finishes for all spaces and identifies those existing finishes to remain | | | |
| Ceiling heights of interior spaces are identified | | | |
| Shows (or specifies) all finishes, textures, colors, etc., required to be provided by the Contractor | | | |
| Uses College assigned room numbers | | | |

Architectural drawings: Door Schedule provides:

| | Yes | No | N/A |
|---|-----|----|-----|
| Doors numbered per College standards, type, size, material, hardware set number and fire rating (if required) | | | |

Architectural drawings: Window Schedule provides:

| | Yes | No | N/A |
|--|-----|----|-----|
| Type, size, material and lintel identified | | | |
| Elevations of each window type | | | |

Furnishing/Equipment Plans: display the following:

| | Yes | No | N/A |
|---|-----|----|-----|
| All major equipment to approximate scale | | | |
| An outline of all built-in furnishings to scale | | | |
| Elevations, sections and details to describe built-in equipment, casework and furnishings | | | |

Structural Drawings: display the following:

| | Yes | No | N/A |
|---|-----|----|-----|
| Provide complete details of all structural components so that no additional structural design will be required for the preparation of shop drawings except for standard connection details and fabrication calculations | | | |
| Design live loads, wind loads, and seismic criteria used for design of structural systems per VUSBC Section 1603 are shown | | | |
| Design procurement criteria and typical details for Engineered systems such as Cast-In-Place Post-Tensioned Concrete, Precast Concrete Components, Steel Joists and Joist Girders, PreEngineered Metal Structures, and Shop / Prefabricated Wood Components as described in Chapter 9 of the DCM are provided by the contractor, and when provided, the structural drawings shall show complete loading information as well as all other performance or size constraints for the components | | | |
| Structural drawings include plans, with defined gridlines, at the same scale as the architectural plans and details and sections are shown at a scale no less than 3/4" to 1' | | | |
| The plans, details and specifications define the structural system and any special conditions for the project | | | |
| Foundation Plan indicates type & sizes | | | |
| Foundation details with improvement criteria for bearing strata and other special requirements are provided | | | |
| Floor Framing Plans of each level indicating type of system, and member sizes/depths and column spacing and all penetrations are provided | | | |
| Roof Framing Plan is shown | | | |
| Typical Section(s) of floor and roof systems identifying materials, thicknesses, depths and appropriate details to define structure are provided | | | |
| Details of connections to existing buildings, if applicable are provided | | | |
| Underpinning and temporary support of existing structures are designed to extent possible with available information. (Ensure Design criteria and load information to be provided for completing the design by the Contractor for review by the A/E.) | | | |
| Typical details for openings in floors and walls with limitations are clearly noted | | | |

Fire Detection & Alarm System Drawings: The following, at a minimum have been provided to demonstrate compliance with the requirements of the code:

| | Yes | No | N/A |
|---|-----|----|-----|
| All Fire Alarm System alarm- initiating and notification appliances are located and identified | | | |
| Protective covers that are utilized with Fire Alarm System alarm-initiating and notification appliances are identified | | | |
| All Fire Alarm control and trouble signaling equipment have been identified | | | |
| All Existing Alarm System alarm- initiating and notification appliances have been identified | | | |
| All Existing Fire Alarm control and trouble signaling equipment have been identified | | | |
| Interface requirements for all Fire Alarm System alarm initiating devices provided by other trades such as HVAC Duct Smoke Detectors, Kitchen Hood Fire Suppression Systems, Fire Sprinkler Flow and Tamper Switches are located and identified | | | |
| The interface requirements for all devices whose operation is initiated by the Fire Alarm System such as Door Hold Open Devices, Fire Shutters, Elevator Recall, Electronic Door Hardware, and Smoke Control Systems have been located and identified | | | |
| Primary and Secondary Power Supplies and Connections are identified | | | |
| Candela output levels for all visual alarm notification appliance have been identified (Candela ratings such as "15/75" are not compliant) | | | |
| Matrix that defines the interface of the Fire Safety Control Functions has been provided | | | |
| A definition of the action that will initiate an alarm or trouble condition. (Define the alarm- initiating device activated, the action of the control and trouble signaling equipment, and the resulting alarm notification appliance actions and resulting operation of interfaced equipment) | | | |
| Fire Alarm System Riser Diagram showing all system components has been provided. (Define the "Zones" to be protected. Diagrammatically define the location of the constantly attended location from which the Fire Alarm System will be supervised. Define the interface between the Fire Alarm System and the constantly attended location.) | | | |

Fire Suppression Systems- Sprinkler Drawings: The following, at a minimum have been provided to demonstrate compliance with the requirements of the code:

| | Yes | No | N/A |
|--|-----|----|-----|
| Occupancy Hazard Classification has been identified and the location of sprinklers for each of the spaces on each floor within the buildings are shown. (The location of Sprinklers are to be based on the VUSBC, NFPA 13 and the User's Programmatic Requirements with the understanding that the quantity, coverage, location and type of sprinkler are not to be altered by the Contractor, without prior written approval by the A/E and the Building Official.) | | | |
| Location of Fire Department Valves and Risers within the building are shown | | | |
| It has been indicate that the Fire Department Valves are attached to either a Standpipe Riser, Combined Standpipe and Sprinkler Riser, or Wet Pipe Sprinkler System Risers. (The locations of Fire Department Valves are to be based on the VUSBC, NFPA 13, NFPA 14 and the User's Programmatic Requirements) | | | |
| Design shows sprinkler piping and standpipe layout including the sprinkler mains (including cross mains) within the building and layout of branch lines for the most hydraulically demanding zone(s) on each floor of each Sprinkler System | | | |
| Size of pipes are shown | | | |
| A table summarizing the characteristics of each of the Sprinkler Systems has been provided | | | |
| The type of Sprinkler System(s), Areas of Coverage, Hazard, Minimum rate of water coverage (Density) per Area, Water required for each Area of Coverage, Hose Stream Allowances for each area, Total Water Requirements for each area of coverage, Hydraulically Calculated Pressure requirements at a common reference point at design flow for each area of coverage, and Water Supply (Flow & Pressure) available at the common reference point have been defined | | | |
| A small scale drawing shows locations of water hydrants, test and flow hydrants (for water flow-tests), and routing of underground pipe. The Water-flow Test results list date and time taken and who conducted the test. Indicate the Water Supply (Flow & Pressure) at a reference point common with the Sprinkler/ Standpipe System Design | | | |
| All existing Sprinkler Systems and Standpipe Systems have been identified | | | |
| All new connections to existing systems are shown | | | |
| Sprinkler riser diagram with appropriate fittings, accessories, sizes, alarms, valves, drains, etc., are shown | | | |
| All Inspector's Test Station locations and associated discharge/ drainage piping are shown | | | |
| The location of the Fire Department Connection(s) with all interconnecting piping to the Sprinkler and Standpipe Systems are shown | | | |
| The location and details of the Fire Pump, Driver, Fire Pump Controller, piping, components and piping specialties are shown | | | |
| The location of the Fire Pump Test Header and all interconnecting piping are shown | | | |
| Sprinkler head type, K-factor and temperature ratings are shown | | | |

Fire Suppression Systems-Clean Agents Drawings: The following, at a minimum have been provided to demonstrate compliance with the requirements of the code:

| | Yes | No | N/A |
|--|-----|----|-----|
| Rooms/spaces to be protected by the proposed Fire Suppression System | | | |
| Enclosure partitions (full and partial height) of the protected area are shown | | | |
| Locations of the major Fire Suppression System Components | | | |
| Routing has been shown for the Fire Suppression System lines between the stored agent and the dispersion nozzles within each of the protected spaces. Indicate sizes of pipes that are shown | | | |
| A table defining the type of Fire Suppression System(s), Areas of Coverage, Hazard, Minimum required Concentration of Fire Suppression Agent, Volume of Agent required for each Area of Coverage, Total Volume of agent for the areas protected by this system has been provided | | | |
| All Existing Fire Suppression Systems are shown | | | |
| Location of all dispersion nozzles for all spaces/areas protected are shown | | | |
| Locations and components of the Automatic Detection System and Agent Releasing System are identified | | | |
| Definition for and location of the interface requirements to connect to the building's Fire Alarm System are listed | | | |
| Location of components which will allow manually releasing of agent are identified | | | |
| Location of controlled devices such as dampers and shutters are shown | | | |
| Fire Suppression System riser diagram showing appropriate fittings, fire suppression agent storage tanks, accessories, sizes, alarms, valves, etc. are shown | | | |
| All new connections to existing systems are shown | | | |
| Location of instructional signage are identified | | | |

Sprayed-On Fireproofing Design and Specification Drawings: The following, at a minimum have been provided to demonstrate compliance with the requirements of the code:

| | Yes | No | N/A |
|--|-----|----|-----|
| Drawings including typical and special details that clearly define the locations and extents of the application of Sprayed-on Fireproofing | | | |
| UL Design Assemblies have been specified and defined to the respective locations and application of the Sprayed-on Fireproofing | | | |

Plumbing Drawings: show the following:

| | Yes | No | N/A |
|--|-----|----|-----|
| For renovation projects, plans showing demolition in sufficient detail | | | |
| Plans for each floor show fixture (including laboratory and compressed air outlet) locations and types of each | | | |
| Fixture schedules shows designations, connection sizes, and mounting heights of handicapped fixtures. (Note that flush valve handles shall be located on the wide side of the handicapped enclosure) | | | |
| Plans show layout and sizes of sanitary DWV piping, cold condensate drainage systems, floor drains, acid waste systems, neutralizing tanks, etc. | | | |
| Plans show roof drains and areas served by each in square feet, piping and sizes. | | | |
| Downspout boots and connections to foundation drains are shown | | | |
| Plans showing domestic hot and cold water systems, including piping sizes, domestic water heaters with expansion and storage tanks, backflow preventers, water hammer arrestors, water meters, relief devices, and valves including pressure reducing, isolation and balancing | | | |
| Plans show layouts and sizes of compressed air piping, air compressors, air dryers, drains, etc. | | | |
| Plans show deionized water systems | | | |
| Riser diagram have been provided for sanitary drain, waste and vent; domestic hot and cold water; deionized water; and compressed air where the system is extensive. Risers are designated and keyed to the plans. Room numbers are shown where the outlets/inlets occur, and drain fixture units are shown at the base of each riser. Sizes of water hammer arrestors are shown | | | |
| Details of hookups at water heaters, air compressors, etc., and roof drain installation are provided | | | |
| Schedules of water heaters, air compressors, air dryers, and drains are provided | | | |

Fire and Smoke Dampers Drawings: The following at a minimum have been provided to demonstrate compliance with the requirements of the code:

| | Yes | No | N/A |
|---|-----|----|-----|
| Location and identification of the Fire Resistance Rating of all fire and smoke dampers | | | |
| Location and identification of all ceiling radiation dampers in rated ceilings | | | |
| A typical fire damper detail indicating damper, sleeve, method of support, fusible link, duct access door and break-away joint between the sleeve and the connecting duct has been provided | | | |
| A note stating that each must be installed in accordance with the conditions of their listing and the manufacturer's installation instructions | | | |

Fire Pump Drawings: The following at a minimum have been provided to demonstrate compliance with the requirements of the code:

| | Yes | No | N/A |
|---|-----|----|-----|
| Location of the Fire Pump, Pressure Maintenance Pump, Pump Controllers, piping, components and piping specialties. | | | |
| Details of the Fire Pump, Pressure Maintenance Pumps, Pump Controllers, suction piping, discharge piping, components and piping specialties | | | |
| A table summarizing the water supply characteristics for the most demanding area of each of the Sprinkler Systems supplied by the fire pump | | | |
| Definition of the type of Sprinkler System(s), Water Flow and Pressure requirements for each Area of Coverage, Hose Stream Allowances for each area, resulting Total Water Flow and Pressure Requirements for each area of coverage, Water Supply (Flow & Pressure) available, fire pump, resulting available Water Supply, resulting safety factor in psig for each Sprinkler System | | | |
| A small scale drawing showing locations of water hydrants, test and flow hydrants (for water-flow tests), and routing of underground pipe. The Water-flow Test results indicated, including the date and time taken and who conducted the test. The Water Supply (Flow & Pressure) indicated at a reference point common with the Sprinkler /Standpipe System Design | | | |
| All existing Sprinkler Systems and Standpipe Systems identified in the vicinity of the fire pump(s). | | | |
| All new connections to existing systems | | | |
| Location of the Fire Department Connection(s) with all interconnecting piping back to the Fire Pump | | | |
| Location of the Fire Pump Test Header and all interconnecting piping | | | |
| Location of the electrical components of the Fire Pump, Driver, Fire Pump Controller, and ancillary electrical components | | | |
| Location, size and routing of the conduits and conductors serving the Fire Pump, Driver, Fire Pump Controller, and ancillary electrical components | | | |
| Details of the electrical components serving the Fire Pump, Driver, Fire Pump Controller, piping, components and piping specialties | | | |
| When multiple fire pumps or multiple sources of power are required, a diagram has been provided on the drawings that defines all of the applicable components and defines the sequence of operation. | | | |

Mechanical (HVAC) Drawings:

| | Yes | No | N/A |
|---|-----|----|-----|
| For renovation work, plans show demolition in sufficient detail | | | |
| Plans of each floor and roof showing double line-duct layouts, mechanical equipment location and layouts. | | | |
| Plans shall show ceiling-mounted lighting fixtures for reference | | | |
| Plans of each floor showing chilled water, heating hot water, steam and condensate piping and piping sizes. Show provisions for expansion. (Can be shown on ductwork plans where congestion is not a problem.) | | | |
| Layouts of mechanical equipment and fan rooms to a scale not less than twice that of the floor plans have been provided and equipment, ducts, piping, etc. have been shown to coordinate the installation in tight areas | | | |
| Access and service space requirements such as that required for tube, coil, and fan removal. have been shown with dashed lines, with notes to maintain clearance. | | | |
| Schedules have been provided for all mechanical equipment, steam traps, air devices, etc. showing sizes, capacities, HP, CFM, electrical characteristics, locations, features, etc | | | |
| Drawings showing control schematics, automation points, etc. | | | |
| Schematic diagrams of chilled and heating water, steam, and condensate piping have been provided | | | |
| Central heating and cooling plants, distribution piping, equipment, anchors, expansion joints, etc. shall be shown as necessary to clearly describe the work | | | |
| Sections have been provided to clearly show the work in 3 dimensions for details | | | |
| Building loads are shown (in BTU or pounds of steam per hour) to include transmission plus infiltration, outside air, domestic hot water, and kitchen, laundry and hospital hot water and outside air loads that are supplemental to those mentioned where applicable | | | |
| Indicate the sensible and total air conditioning load of the building in tons. Also show the outside air portion of the cooling load in tons | | | |
| Necessary details are provided to show fittings for ducts | | | |

Electrical Drawings: (Power and lighting plans may be combined if the combined drawing clearly conveys required information.)

| | Yes | No | N/A |
|---|-----|----|-----|
| For renovation work or existing buildings, plans show existing electrical equipment, devices and lighting fixtures, etc., both to be removed and to remain. | | | |
| Plans shall show all casework, furniture, mechanical equipment and other equipment that impacts the electrical design. | | | |
| Plans shall list, in kVA, the total electrical load and the total load on any generators. Indicate the largest motor size, in horsepower | | | |

Electrical Drawings: Lighting Plans show:

| | Yes | No | N/A |
|---|-----|----|-----|
| fixture location, type, and lighting level (calculated, in foot-candles) for each floor. | | | |
| Lighting Fixture schedule that includes, at a minimum: fixture type, lamp and ballast information, reflector, lens and louver information, mounting method. | | | |

Electrical Drawings: Power Plans show:

| | Yes | No | N/A |
|--|-----|----|-----|
| Location of incoming service (transformers and primary switches), generators, main switchgear, motor control centers, and panel boards. | | | |
| Service entrances, main control panels, and backboards for communications, fire alarm, EMCS and other pertinent systems | | | |
| Plans provided for each floor showing locations, and mounting heights, of receptacles, telephone and data outlets, switches, disconnect switches, motor starters and other devices | | | |

Electrical Drawings: Fire Alarm Plan shows:

| | Yes | No | N/A |
|--|-----|----|-----|
| Location of control panel, battery and charger, transmitter, annunciator, fusible safety switch, remote trouble device, alarm devices, and each actuation device including fire extinguishing system switches. | | | |
| Location of any PIV valves or devices to be connected to the fire alarm system. | | | |
| Single line fire alarm riser diagram | | | |

Electrical Drawings: Site Plan shows:

| | Yes | No | N/A |
|--|-----|----|-----|
| Electrical and telephone/data/CATV services, both new and existing; new and existing site lighting and heir associated circuitry; location of transformers, primary witches, generators; circuitry to chillers, cooling towers, etc. | | | |
| Details of duct banks, equipment pads, manholes, lighting pole bases | | | |

Electrical Drawings: Control Systems drawing provide:

| | Yes | No | N/A |
|--|-----|----|-----|
| Written sequence of operation has been provided for each mechanical and electrical control system stating explicitly how systems are to function | | | |
| Pertinent data regarding safety, alarms, indicators, and control parameters. | | | |
| The sequence of operations shown, either by the control diagrams or in the specification | | | |
| Point(s) of connection of new to existing system | | | |
| Location of operator interface (PC) unit | | | |