DEPARTMENT OF VETERANS AFFAIRS

CONSOLIDATED MAIL OUTPATIENT PHARMACY (CMOP)

LEAVENWORTH, KANSAS

APPENDIX C

AGENCY SPECIFIC REQUIREMENTS (ASR)

TABLE OF CONTENTS

PART I. BASIC SOLICITATION REQUIREMENTS

EXHIBIT C - AGENCY SPECIFIC REQUIREMENTS

SECTION 1 BASIS OF DESIGN NARRATIVE

This appendix contains Agency Specific Requirements (ASR) that must be included in the construction and operation of the leased premises. These requirements supersede any conflicting requirements in the Lease.

The Leavenworth CMOP is one of seven Consolidated Mail Outpatient Pharmacy (CMOP) facilities located across the United States. This Department of Veterans Affairs (VA) program provides prescription fulfillment and mailing for Veteran patients. Advanced automation and equipment schemes are used in this highly automated environment to fulfill prescription orders from Department of Veterans Affairs Medical Centers (VAMC) and Community Based Outpatient Clinics (CBOC) throughout the country.

Leavenworth CMOP has a contractor that will provide and install the Automated Prescription Fulfillment System (APFS). The APFS consists of the primary automation equipment, which includes conveyors, robots, workstations, computers, etc. Additionally, the contractor will provide and install the equipment for the replenishment room, the air compressors, and the warehouse racking system.

CMOP is NOT open to the public, nor is its location advertised to customers. The building occupants are personnel assigned to the facility. A significant majority of the visitors are scheduled contractors, deliveries, and shipping.

1.1 CMOP REQUIREMENTS

The Lessor shall design and construct the building and site work in accordance with the RLP and Lease, all applicable federal regulations and local building codes. VA follows the latest editions of National Fire Codes (NFC) published by the National Fire Protection Association (NFPA).

1.2 GENERAL SITE REQUIREMENTS

Lessor shall comply with the requirements within the Lease document.

1.3 BUILDING FEATURES

Lessor shall comply with the requirements within the Lease document.

1.4 SECURITY REQUIREMENTS

Lessor shall comply with the security requirements shown in the Facility Security Level (FSL) II document. The document includes requirements for the site and building including concentric levels of protection, building systems, closed circuit television system, intrusion detection system, physical access control system, duress alarms, security phones, and intercoms.

Duress alarms are required for the following locations: Director's Office, Reception, Receiving, Shipping, Break / Cafeteria / Meeting Room, and the National Office Deputy Chief Consultant's Office.

Electronic access control, with HSPD-12 compliant Government issued Personal Identity Verification (PIV) card, is required for the following locations, estimated at a total of 94 rooms: Building Entrances, Offices, Access Doors to the Production floor, Training Room, Maintenance Shop, Maintenance Storage, IT Rooms, Telecommunication Rooms, Receiving, Shipping, Warehouse, and Lactation Room.

The following rooms require "up and over" protection to prevent unauthorized access: HR Offices, PIV Room, Record Files Storage, IT Storage, Server Room, Production, Receiving, Warehouse, Demarc Room, Building Communication Room, and the Satellite Communication Room.

1.5 SPECIAL SPACE REQUIREMENTS

Lessor shall comply with the requirements within the Lease document.

1.6 COMMISSIONING REQUIREMENTS

Lessor shall perform commissioning in accordance with the VA Whole Building Commissioning Process Manual, specifically the following systems:

1. Building Exterior Closure
2. Fire Suppression
3. Plumbing
4. HVAC
5. Electrical
6. Communications
7. Electronic Safety and Security

1.7 MAINTENANCE REQUIREMENTS

Lessor will maintain utilities and equipment as prescribed by local codes and references listed in the Lease and Appendix D, CMOP Code Lease Code Compliance. Lessor will provide records of the maintenance in the format and frequency required by the CMOP.

1.8 ENVIRONMENTAL MANAGEMENT PLAN

Lessor shall comply with the requirements within the Lease document.

SECTION 2 MISCELLANEOUS

2.1 DESIGN AND CONSTRUCTION DOCUMENTS AFTER AWARD

Design development after award shall be in accordance with the requirements of this Solicitation, and shall be a direct extension of the submitted design concept. The design development shall retain all the functional and basic physical characteristics of that concept. The Contracting Officer shall have the right to reject any aspect of subsequent design that varies

from the concept and would adversely affect the Government's use and occupancy of the space or the Government's other interests in the building as set forth or implied in this Solicitation. Nonetheless, the Offeror may propose for the Contracting Officer's acceptance, or the Contracting Officer may propose for the Offeror's acceptance, evolutionary adaptations or changes to the concept, that improve the design. Neither party will unreasonably withhold such acceptance of demonstrated beneficial design adaptations of the concept which would not measurably increase the costs of construction, operation, or occupancy of the space or building and which would not decrease the utility of the space or building to either party. **Changes to planned design layout do not constitute a change for cost.**

2.1.1 RESPONSIBILITIES OF LESSOR'S DESIGN TEAM

The Lessor's design team (A/E) shall be responsible for producing a complete set of drawings, design narrative/analysis, calculations, sample boards, and specifications in accordance with professional standard practices and the criteria contained in this RLP. Drawings and related data shall be prepared in accordance with the National CAD Standard (NCS) published by the National Institute of Building Sciences (NIBS) as amended by the VHA National CAD Standard Application Guide with regard to conventions in layer names, drawing organization, and plotting. Each A/E discipline shall receive a copy of VHA National CAD Standard Application Guide. The Lessor and Lessor's A/E are responsible for obtaining the NCS (http://www.cfm.va.gov/til/projReq.asp#cad).

The Lessor's A/E shall develop and execute a Quality Assurance/Quality Control (QA/QC) program; and shall demonstrate that the project plans and specifications have gone through a rigorous review and coordination effort with each required submittal. The Lessor's A/E shall conduct coordination meetings between A/E technical disciplines before submitting material for each VA review and provide minutes of the meetings to VA.

2.1.2 INDEPENDENT TECHNICAL REVIEW

The Lessor shall be responsible for paying for three independent technical and life safety reviews at the Second Design Development submittal, at the 75% Construction Document submission, and independent back check of the Final (100%) Construction Documents. The reviews shall encompass all disciplines. The reviews shall be accomplished by independent professional entities selected by VA that are registered in the appropriate fields of expertise.

NOTE: The Lessor shall allow approximately 20 business days for review and comment by the Government at each review stage. Independent Technical Reviewer has 20 calendar days to provide their comments to the SRE.

The independent reviews are limited to checking for general compliance with the RLP and VA requirements. The independent reviews do not take the place of the Lessor's QA/QC program, nor the code review by the Authority Having Jurisdiction (AHJ). The Lessor shall have the responsibility of ensuring that the documents go through the review and permitting process of the local AHJ. If the independent technical review conflicts with the review by the AHJ, the more stringent requirement shall apply. If there is any question as to which requirement shall apply, the Lessor shall request a determination from the Contracting Officer.

For purposes of this Solicitation For Offers (RLP), the firm of Atriax Group is the authorized representative of the Department of Veterans Affairs (VA) and shall provide technical review services to VA in connection with this Lease. It is understood between the Lessor and VA that

Atriax Group shall provide independent technical services on behalf of VA to assist in reviewing drawings.

In connection with the provisions of such independent technical services, the Lessor shall provide in the base rental rate a sum of $37,223.88 [thirty-seven thousand, two hundred twenty-three dollars and eighty-eight cents] to be paid to Atriax Group. Such fee shall be due and payable, as follows:

Approximately forty (40)% of the fee shall be paid to Atriax Group within thirty (30) calendar days following receipt by the Lessor of an invoice certified and approved by VA; following review of the Second Design Development package, and:

Approximately fifty (50)% of the fee shall be paid to Atriax Group within thirty (30) calendar days following receipt by the Lessor of a invoice certified and approved by VA; following review of the 75% Construction Document package.

The balance of the fee shall be paid to Atriax Group within thirty (30) calendar days following receipt by the Lessor of a final invoice certified and approved by VA, following back check of the final Construction Document package.

The Lessor's responsibilities to pay the fee(s) to Atriax Group is independent of any other Lessor financial responsibilities of this Lease and shall not be used to negotiate or offset any credits owed VA by the Lessor. However, in the event Lessor shall fail to pay the fee(s) owed to Atriax Group pursuant to the compensation schedule outlined herein, VA, at VA's sole option, shall pay the fee owed on behalf of Lessor to Atriax Group out of rent payments and/or any lump-sum payments owed or to-be-owed to Lessor for reimbursement(s) for services/work provided by the Lessor.

2.2 DESIGN DEVELOPMENT

The Design Development phase involves the production of drawings, specifications, calculations, narratives, reports, and other materials as listed in Paragraph "SUBMITTAL REQUIREMENTS FOR DD AND CD REVIEWS." Two Design Development submissions shall be required for review by the government. The submittals shall fully describe the architectural and engineering design approach used, and the systems, materials, and layout for the site and building. The submittals shall be reviewed by VA and the independent technical reviewers to determine that the design proposed by the Lessor conforms to the space / functional and technical requirements of this RLP.

Utilizing the conceptual layout diagram provided by VA at time of award and working in conjunction with the Contracting Officer or designee, the Lessor shall produce the First Design Development Submittal within 45 calendar days of award.

After VA review and comment on the First Design Development Submittal, the Lessor shall complete and submit the Second Design Development Submittal within 30 calendar days.

2.3 CONSTRUCTION DOCUMENTS

The Construction Document phase involves the production of complete drawings, specifications, and other documents necessary for the bidding and construction of the

project. Construction documents shall be prepared from the approved design development documents. It is the Lessor's responsibility to provide a quality set of documents. Documents shall be complete and fully coordinated. Prior to reproduction for issue for construction bids, make any changes to the documents identified as necessary by the Contracting Officer during reviews. 100% Construction Documents shall contain the seal (or stamp) of a professional engineer or architect, registered in the discipline represented by the drawing. Final calculations shall contain the seal (or stamp) of a registered professional engineer. Persons sealing the construction documents or calculations shall be the entities identified by the Lessor under Paragraph Design Team Qualifications above. Two construction document period submissions shall be required: the first at 75% complete and the second at 100% complete.

2.4 SUBMITTAL REQUIREMENTS FOR DD AND CD REVIEWS

2.4.1 GENERAL REQUIREMENTS

Provide a design narrative/analysis for each technical discipline (e.g., architectural, mechanical, fire protection, etc.) which describes the intent of each discipline with each design development submission.

Provide computations and sizing calculations for electrical, mechanical (HVAC, plumbing, and steam), sanitary, structural, and fire protection designs. For computerized calculations, submit complete and clear documentation of computer programs, interpretation of input/output, and description of program procedures.

Provide individually packaged drawings for each submission to each unit specified in Paragraph "Distribution of A/E Materials."

At each submission, the A/E shall date and appropriately label all materials. In each submission, the A/E shall incorporate the corrections, adjustments, and changes made by VA at the previous review.

A. Format

(1) Drawings

Hard copies shall be black line prints on bond paper, full size (30" x 42") and half size (15" x 21"). Each set shall contain all sheets for all disciplines (partial sets are not allowed). Electronic submissions may be plots or scans in Adobe® PDF format; except floor (space layout) plans shall be provided in both PDF format and as AutoCAD® release 2014 drawing files to facilitate verification of net and rentable areas. Quantities shall be as indicated below.

(2) Specifications

Hard copies shall be printed double-sided on 81/2" x 11" bond paper. Electronic submissions may be in Microsoft® Word® or Adobe® PDF format. Electronic files containing two or more specification sections shall be indexed or bookmarked.

(3) Narratives

Hard copies shall be printed on 81/2" x 11" bond paper. Electronic submissions may be in Microsoft® Word® or Adobe® PDF format. Bookmark or index all electronic files.

(4) Calculations

Hard copies shall be printed on 81/2" x 11" bond paper. Electronic submissions may be Adobe® PDF format. Bookmark or index all electronic files.

B. Distribution of A/E Materials

Electronic materials shall be submitted on CD/DVD or FTP Site. Each set of paper (hard) copies shall be bound or may be assembled in three-ring binders. Label each disk and paper set to identify the project, location, contract number, and submittal type and date. Required number of copies is designated in the following table.

Submittal	Leavenworth CMOP	National CMOP	Ind Tech Reviewer
First Design Development			
Narratives	1 each hard and electronic	1 each hard and electronic	6 hard copies
Drawings	1 each hard and electronic	1 each hard and electronic	6 hard copies
Specifications	1 each hard and electronic	1 each hard and electronic	6 hard copies
Calculations	1 each hard and electronic	1 each hard and electronic	1 hard copy each discipline
Second Design Development			
Narratives	1 each hard and electronic	1 each hard and electronic	6 hard copies
Drawings	1 each hard and electronic	1 each hard and electronic	6 hard copies
Specifications	1 each hard and electronic	1 each hard and electronic	6 hard copies
Calculations	1 each hard and electronic	1 each hard and electronic	1 hard copy each discipline
75% Construction Documents			
Drawings	1 each hard and electronic	1 each hard and electronic	6 hard copies
Specifications	1 each hard and electronic	1 each hard and electronic	6 hard copies
Calculations	1 each hard and electronic	1 each hard and electronic	1 hard copy each discipline
100% Construction Documents			
Drawings	1 each hard and electronic	1 each hard and electronic	6 hard copies
Specifications	1 each hard and electronic	1 each hard and electronic	6 hard copies
Calculations	1 each hard and electronic	1 each hard and electronic	1 hard copy each discipline

2.4.2 FIRST DESIGN DEVELOPMENT SUBMITTAL

A. Site

Submit preliminary drawings showing the development concept. Submit copies of topographic, utility, and landscape surveys.

Include layout plan(s) showing location of: building and structures, roads, fire access, parking, mechanical, electrical, and telecommunications equipment on grade, service area(s), entrances and exits, and walks; Grading plan, showing existing and proposed contours; and Planting plan, showing plant groupings.

Submit preliminary narrative for site design concept with analysis of site, circulation study, phasing analysis, and parking analysis.

B. Structural

Submit preliminary structural plans and sections. Show bay sizes, locations and sizes of columns, bearing walls, and foundations. Show locations and depths of floor and roof framing members. Show locations and sizes of lateral force resisting elements. Indicate locations of major mechanical, electrical, and other special equipment items.

Submit preliminary design narrative, including basis for selection of proposed structural system, and preliminary supporting calculations.

C. Architectural

Submit final layout drawings (floor plans) for all floors at 1/8-inch scale. Drawings shall be of sufficient precision and/or adequately dimensioned so that the Government may accurately compute rentable and useable areas to verify compliance with solicitation requirements.

Submit preliminary equipment plans (at 1/4-inch scale) and preliminary equipment schedules that reflect the requirements in this Basic Solicitation as well as Schedule B "Special Equipment Requirements." Identify all equipment for each room listed in Schedule B. Equipment plans are not required for offices, classrooms, conference rooms, and waiting rooms.

Submit building elevations, showing all significant materials, including their colors, roof top mechanical equipment, and any architectural screens. Elevations shall show massing, proposed fenestration, and the building's relationship to adjacent structures and the finish grade. If building is designed for future expansion, delineate elevations with and without the future expansion.

D. Interior Design

No requirements at this submittal.

E. Sustainable Design & Energy Efficiency

Submit preliminary narrative addressing how the design will meet Federal Mandates for sustainability and energy efficiency, including site base conditions analysis, preliminary base case energy and water analysis, and integrated strategies.

F. Fire Protection/Life Safety

Submit preliminary design narrative. The fire protection narrative shall discuss: fire and smoke separations, fire sprinkler/standpipe system, size of fire pumps, water supply available/max. demand, water flow testing results, fire alarm systems, size of air handling units, exit paths from each zone, distances to stairs, occupancy of each area, exit calculations for each floor, and smoke control features.

Submit preliminary fire protection plans plans/drawings (minimum 1/8-inch scale) illustrating: sprinkler zones, fire alarm zones, smoke zones, building water supply, interior sprinkler supply risers, standpipes, fire extinguisher cabinets, and fireproofing of structural members.

G. Mechanical

Submit preliminary design narrative addressing description of HVAC systems, equipment for each functional space, and life-cycle cost analysis. Submit preliminary engineering calculations. Provide specific design recommendations and full back-up data. Include the heating and cooling capacities of each functional area and the block cooling and heating loads for the building.

Submit preliminary drawings (minimum 1/8-inch scale) indicating: tentative location/sizes for mechanical equipment room(s), principal vertical shafts, and block layout of equipment. Indicate preliminary sizes and locations of louvers required for outside, exhaust, and relief air.

H. Plumbing

Submit preliminary design narrative addressing plumbing systems including supply, waste, and medical or laboratory gas systems.

Submit preliminary drawings (minimum 1/8-inch scale) indicating: tentative location/sizes for mechanical equipment room(s), principal vertical shafts, and block layout of equipment. Indicate preliminary sizes and locations of louvers required for outside, exhaust, and relief air.

I. Electrical

Submit preliminary design narrative for electrical systems and preliminary load calculations for normal and emergency power. Include basic assumptions, and projected load of new construction.

Contact the electrical utility that will supply electrical power. Submit a written summary of any conversations with the electrical utility. Submit a full set of preliminary electrical site, lighting, and power floor plans, showing equipment, lighting, and receptacle locations. Submit proposed one-line and riser diagrams of the normal electrical power distribution system and the emergency power system. Final equipment ratings may vary, but locate all equipment and identify and size dimensionally for adequate capacity. Provide preliminary fault current, generator sizing, load, feeder and equipment sizing, voltage drop, lightning protection risk analysis, and lighting and energy calculations.

J. Telecommunications and Special Systems

Submit preliminary design narrative addressing Telecommunications and Special Systems.

Submit preliminary Telecommunications and Special Systems drawings including site plan and floor plans (minimum 1/8-inch scale). Show locations of and sizes of computer rooms and equipment and distribution rooms for telecommunications and special systems. Identify low-voltage outlet connections and major equipment items. Include hanger and j-rook routing. Provide legend of symbols.

2.4.3 SECOND DESIGN DEVELOPMENT SUBMITTAL

A. Site

Submit design narrative and calculations for site development. Include a Geotechnical Report that addresses at a minimum, soil bearing pressures, slab design, existing soil conditions, percolation rates, slope stability and recommended mitigation, pavement design, etc.

Include a Hydrology and Hydraulic analysis and report in support of the proposed design which complies with local, state, and federal flood plain management standards and methodologies. It is not acceptable to connect storm drain systems to the sanitary system.

Submit completed design development drawings for all site work and utility systems. Include layout plan(s) showing location of: building and structures, roads, fire access, parking, accessible spaces, van spaces, mechanical and electrical equipment on grade, off-site roads, off-site utilities, service area(s), entrances and exits, walks, inlets, vertical and horizontal road alignment, and paving joint patterns.

Submit grading plan showing: existing contours, proposed contours, spot elevations at structure corners, entrances, equipment pads, etc., first floor elevations, rim and invert elevations on storm drainage fixtures, and erosion and sediment control.

Include conceptual drawings that reflect the alignment of the water distribution system, including location of fire hydrants and points of connection to the public water system.

Include conceptual drawings that reflect the alignment of the sanitary sewer system, including manhole locations and points of connection to the downstream sewer system.

Include conceptual storm drain drawings based on the Hydrology and Hydraulic report. The drawings should reflect the alignment of the storm sewer system, including location of detention/retention basins, junction structures, channels, pipe structures and catch basins, connections to the existing storm system (if one exists) or flow arrows indicating the direction of surface flow.

Submit landscape drawings including planting plan showing: list of plant material and limits of irrigation.

Submit signage plan and schedule.

Submit site and landscape details.

Submit completed design narrative and calculations.

Submit draft specifications for earthwork, utility systems, and site improvements.

B. Structural

Submit completed design development drawings including structural plans, sections, and details. Show bay sizes, locations and sizes of columns, bearing walls, and foundations. Show locations and depths of floor and roof framing members. Indicate floor and roof slab thickness. Coordinate floor or roof depressions and penetrations with architectural, mechanical, plumbing, and electrical work. Indicate major mechanical, electrical, and other special equipment items; and show chases or shafts. Show framing and support required at those locations. Show locations and sizes of lateral force resisting elements.

Submit final design narrative including basis for selection of proposed structural system.
Submit calculations for gravity and lateral design.

Submit draft specifications for structural materials.

C. Architectural

Submit completed design development floor plans (minimum 1/8-inch scale) for each floor showing all rooms, room names, room numbers, door locations and swings, smoke and fire rated partitions, and fire extinguisher cabinets. Label departments or services. Show all rooms

and chases for mechanical, electrical, and low-voltage (communications) equipment. Show wall thickness and chase walls. Show plumbing fixtures and equipment occupying floor space. Indicate handrails and corner guards. Show column grid with columns indicated and expansion and seismic joints.

Submit completed equipment plans, elevations (minimum 1/4-inch scale), and schedules. List any changes or deviations from Schedule B for review and approval by the Contracting Officer or designee.

Submit completed design development roof plan, exterior elevations, building and wall sections, and key details. Submit room finish, door, and window schedules. Submit general notes, symbol legends, and abbreviations.

Submit final design narrative.

Submit draft specification sections.

D. Interior Design

Submit interior design narrative. Discuss information gathered during interior design programming with the CMOP project coordinator including, but not limited to the following: interior and exterior design and materials, light, safety, customer's "vision" or desired image, public vs. private spaces, signage, regional influences, etc.

Present the preliminary design solution for the primary areas of the project. Use broad categories of materials, finishes, color palettes, patterns, textures, and scales. Include primary and secondary corridors, lobbies, waiting rooms, offices, and toilet rooms. Discuss the relationship among departments and functions, and between public and private spaces.

E. Sustainable Design & Energy Efficiency

Submit narrative addressing how the design will meet Federal Mandates for sustainability and energy efficiency. Submit refined ASHRAE 90.1-2013 base-case energy model and as-designed energy model, including all assumptions used, targeting compliance with the 30% energy reduction goal, or exceeding the goal. Submit refined water use analysis calculations. Submit preliminary commissioning specifications.

F. Fire Protection/Life Safety

Submit completed fire protection narrative. Indicate NFPA 220 and UBC fire resistive rating of the building, NFPA 101 occupancy type, and fire protection code analysis to assess compliance with NFPA 101. Provide information to meet Joint Commission requirements, e.g., location of all fire rated barriers, smoke barriers, exit signs, fire extinguishers, manual pull stations, smoke detectors, and sprinkler flow switches.

Submit completed design development fire protection plans/drawings illustrating: sprinkler zones, fire alarm zones, smoke zones, building water supply, sprinkler/standpipe riser supply piping, termination of sprinkler main and inspector test drains, sprinkler alarm valves, water flow and tamper switches, sprinkler system fire department connections, sprinkler design hazards per NFPA 13, exit signs and emergency lighting, fire sprinklers, fire hydrants, fire pumps, post indicator valves, sectional valves, fire extinguisher cabinets, electromagnetic door hold open devices, wall sections indicating fire resistive ratings, and evacuation plan signage.

Submit draft specifications for fire alarm and suppression systems.

G. Mechanical

Submit completed design narrative and calculations for HVAC systems. Include room-by-room, peak zone-by-zone, and building block heating and cooling loads. Discuss selection of HVAC equipment and provide catalog cuts of equipment. Provide room-by-room heating and cooling loads, zone–by-zone heating and cooling loads; and building block heating and cooling loads. Include Psychometric chart for air handling unit, coil entering and leaving conditions, fan motor heat gains, consumption of humidification loads, sound/acoustic analysis. Provide room-by-room air balance charts. Show supply, return, exhaust, make-up, and transfer quantities with intended pressure relationships, i.e., positive, negative, or zero with respect to adjoining spaces.

Submit completed design development drawings indicating: main supply, return and exhaust ductwork, volume dampers, fire and smoke partitions, fire and smoke dampers, smoke detectors, automatic control dampers, air quantities for each room, air inlets/outlets, rises and drops in ductwork, and interconnection of HVAC equipment with fire protection equipment (see fire protection). Provide plan and section of mechanical equipment rooms and building corridors (show routing of main ductwork, plumbing, fire protection, major conduit or cable tray runs). Provide schematic flow and riser diagrams, schematic control diagrams, and equipment schedules. Indicate required seismic bracing. Provide legends, symbols, and abbreviations.

Submit draft specifications for mechanical systems and equipment.

H. Plumbing

Submit completed design narrative addressing plumbing systems. Submit calculations for piping systems and equipment.

Submit completed design development drawing. In addition to the requirements of the first design development submittal, show the following: size of pipe, equipment schedule, fire and smoke partitions, riser diagrams, legend, notes, and details; location and size of sprinkler riser, standpipes, and fire pumps (see fire protection); and location of emergency eyewash and shower equipment.

Submit draft specifications for plumbing systems and equipment.

I. Electrical

Show all new services to building, utility transformers, location, exterior lighting, and the utility service point and meter location on the electrical site plan. Submit a written summary of any conversations with the electrical utility.

Provide legend of symbols and abbreviations. Submit a full set of electrical lighting, power, and lightning protection plans for building and site. Submit one-line diagrams of the normal electrical power distribution system and the emergency power system.

Provide pre-final fault current, generator sizing, load, feeder, and equipment sizing, voltage drop, lightning protection risk analysis, and lighting and energy calculations.

Submit draft specifications for electrical equipment.

J. Telecommunications and Special Systems

Submit completed design narrative.

Submit Telecommunications and Special Systems site and building drawings. Identify low-

voltage outlet connections and major equipment items. Include hanger and j-rook routing and floor penetration location for routing of low-voltage cabling.

Submit 1/4-inch scale enlarged Telecommunications Room plans. Identify equipment rack location, overhead ladder rack, and wall field equipment with proper clearances. Submit 1- inch scale enlarged plans of the rack details including termination areas of copper and fiber cabling and equipment layout.

Submit draft specifications for Telecommunications and Special Systems.

2.4.4 75% CONSTRUCTION DOCUMENTS

A. Site

The Site drawings shall indicate all site features required by the lease documents, e.g., topography (1-foot contours), building location by legal description, site setbacks, grading, parking, roadways, access ways, pedestrian routes, landscaping, irrigation system, smoking shelter, sidewalks, conformance with local design standards, etc. The site drawing shall be at a minimum scale of 1" = 40'. Provide specifications for site improvements.

The site drawings shall reference the Geotechnical Report for drainage design, pavement design recommendations, and slope stability, etc.

Include a Hydrology and Hydraulic analysis and report in support of the proposed design which complies with local, state, and federal flood plain management standards and methodologies. It is not acceptable to connect storm drain systems to the sanitary system.

The Site drawings shall include details for connecting to the public water distribution system. Include points of connection, zone boundaries, fire hydrants (spaced per local codes), domestic and irrigation meter size and location, and all other water distribution components as required by the local water utility.

The Site drawings shall include details for connecting to the public wastewater system. Include the downstream point of connection, manholes, and cleanouts, etc., per the standards and specifications of the local wastewater jurisdiction. The proposed wastewater system cannot be designed to be integrated with the storm drain system.

Include detailed drainage plans based on the Hydrology and Hydraulics Report that identify location and depth of basins, storm sewer, catch basins, channels, connection points, pipe structures and all other drainage related items, as proposed in the report or required by the local jurisdiction.

B. Structural

Submit 75% complete structural drawings including foundation plans, floor and roof framing plans, sections, elevations, general notes, schedules, and details. Coordinate floor or roof depressions and penetrations with architectural, mechanical, plumbing, and electrical work. Indicate major mechanical, electrical, and other special equipment items, and show chases or shafts. Show framing and support required at those locations.

Submit calculations for gravity and lateral (wind/seismic) load requirements. Submit structural specifications.

C. Architectural

Submit 75% complete architectural drawings including fully dimensioned floor plans showing all revisions required by comments from the design development phase. Submit interior details, elevations, and sections. Submit complete and coordinated finish, door, hardware, and window schedules. Submit roof plans, building sections, wall sections, and exterior elevations that show finish floor elevations and indicate all building systems and materials. Submit completed, coordinated reflected ceiling plans for entire building, indicating all ceiling mounted equipment, lighting fixtures, air diffusers, registers, tracks, etc. Submit 1/4-inch scale equipment plans, elevations, schedules, and details. Submit general notes, symbol legends, abbreviations, and all necessary and coordinated interior and exterior details. Submit fully edited specifications.

D. Interior Design

(1) Fabrication of Sample Boards

Provide 2 complete sets of sample boards. Distribution will be Contracting Officer-1 set, CMOP-1 set. Sample boards are not returnable. Designer should fabricate an extra copy of each submission for their records.

Identify each sample board with project and location information.

(2) Product Samples

Organize the finish and material samples on the boards to clearly convey the design intent. Apply an actual sample of all interior and exterior materials, finishes and paints specified on the project. Securely adhere all samples with a strong adhesive and/or double sided foam tape. Place exterior materials on a separate board. Assign a color and material code to all samples.

(3) Sample Boards

Use mat board, foam core or any other suitable lightweight material. Board size should not exceed 30" x 40". Use a white board. Backer boards of other colors may be used for bordering. Do not use frames.

(4) Signage and Wayfinding

Submit drawing(s), specifications, and narrative to illustrate the wayfinding concept and signage systems proposed for the project. Include all graphics and signage that are to be provided as part of the solicitation.

E. Sustainable Design and Energy Efficiency

Submit final documentation. Where proposed Credits will not achieve all federally-mandated strategies for sustainability and energy efficiency, submit documentation showing compliance with federally-mandated strategies. Submit final ASHRAE 90.1-2013 base-case energy model and as-designed energy model based on the Construction Documents, including all assumptions used, demonstrating compliance with the 30% energy reduction goal. Submit final models for all other systems. Submit final commissioning specifications.

F. Fire Protection/Life Safety

Submit 75% complete fire protection drawings. In addition to the drawing requirements of the Second Design Development submission, include the following:

Door and window schedule indicating fire rating and whether fire rated glazing will be provided;

Height and configuration of storage racks and shelving in relation to fire sprinkler heads. The Automated Prescription Fulfillment System vendor is responsible for providing the rack layout.

The Lessor shall evaluate and provide sprinkler protection for high bay rack in accordance with NFPA. VA CMOP will provide and install the racks.

Reference note to HVAC drawings that indicates interconnection of HVAC system components (dampers, fans) with duct smoke detectors and/or fire alarm system;

When fire pump is required, submit details of the fire pump system, including elevation and isometric detail of fire pump, and interconnection of the fire pump system to the fire alarm system;

Show zoning of each fire alarm initiating device, single line riser diagram for the fire alarm system, and detail of annunciator panel;

Provide final calculations.

Submit fire protection specifications.

G. Mechanical

Provide complete and final engineering calculations of all systems. In addition to specifications, provide complete selection data, including catalog cuts and calculations, for all HVAC equipment and drawings showing all equipment schedules. Complete the coordination requirements with fire protection, electrical, plumbing, architectural (louvers, ceiling access panels, reflected ceiling plans, etc.), and structural work (operating weights of ceiling and floor mounted equipment, concrete and steel supports, roof and floor openings, etc.). Submit 75% complete HVAC floor plans for all areas, showing all ductwork and piping at 1/8-inch scale. Submit 75% complete HVAC floor plans for all mechanical equipment rooms with at least two cross-sections taken at right angles to each other at 1/4-inch scale. Show all equipment located on roof and/or grade.

H. Plumbing

Submit 75% complete and coordinated drawings to include riser diagrams, legend, notes and details. Submit specifications and final calculations.

I. Electrical

Complete the site and building electrical lighting, power, and lightning protection plans. Provide normal and emergency one-line riser diagrams including all conduit and cable quantities and sizes, complete ground system, and electrical equipment amperage/voltage/phase/poles/AIC ratings. Show transformers, switchboards, panelboards, and feeders in relative positions. Tabulate all panelboard schedules. Provide specifications and final calculations. Provide written approval by the utility company of the design of the electrical incoming service.

J. Telecommunications and Special Systems

Show all new services to building from service providers and/or inter-connections. Complete a site plan and a one-line riser diagram including all conduit, backbone cable. Provide telephone, data, security, and special systems risers. Identify all devices and locations. Complete the building low-voltage floor plans. Provide complete specifications for all low-voltage systems and final device locations.

2.4.5 100% CONSTRUCTION DOCUMENTS

All disciplines: complete and coordinate all drawings, specifications, and schedules for 100% construction document submittal. Incorporate all VA and technical review comments. Provide

seal (stamp) and signature of the responsible charged A/E on all construction documents and final calculations. Submit design team responses to review comments and QA/QC documentation with 100% document package for back check.

The documents submitted to the Authorities Having Jurisdiction for plan review and permitting shall be the 100% construction documents with VA review comments incorporated.

2.4.6 APPROVED PLANS AND PERMITS

Prior to the start of construction, submit to VA copies of all permits and two complete sets of construction documents as approved by the Authorities Having Jurisdiction.

2.4.7 FINAL CONSTRUCTION DOCUMENTS

All VA and technical review comments, including the 100% construction documents review comments, shall be incorporated into the 100% construction documents to produce the final construction documents.

2.5 PROJECT SCHEDULE

2.5.1 NAS SCHEDULE

The Lessor shall develop a Network Analysis System (NAS) plan and schedule demonstrating fulfillment of the contract requirements, shall keep the network up-to-date in accordance with the requirements of this paragraph, and shall utilize the plan for scheduling, coordinating, and monitoring work under this lease contract (including all activities of subcontractors, equipment vendors, and suppliers). Conventional scheduling techniques shall be utilized to satisfy time applications. All schedule data and reports required under this paragraph shall be based upon regular total float schedules. The Lessor shall designate an authorized representative in the firm who will be responsible for the preparation of the network diagram and will review and report progress of the project with and to the Contracting Officer or designee. The Lessor's designated representative shall have direct project control and complete authority to act on behalf of the Lessor in fulfilling the requirements of this paragraph, and such authority shall not be interrupted throughout the duration of the project.

2.5.2 SCHEDULE UPDATES

The Lessor shall provide to VA **monthly** computer-generated schedule report updates. The Lessor is responsible for the timely submission and correctness of the monthly reports provided to the Contracting Officer or designee. VA shall report errors in the reports to the Lessor's representative within seven (7) calendar days from receipt of reports. The Lessor shall reprocess the reports when requested by the Contracting Officer or designee, to correct errors that affect the schedule for the project.

2.5.3 DATES

The successful Lessor shall provide a combined project schedule for design and construction. Within 45 calendar days after award, the Lessor shall submit to the Contracting Officer or designee a project schedule giving the dates on which the various phases of design and construction will be completed to coincide with the Government's required occupancy date (refer to Paragraph 1.6 of this Solicitation). The schedule shall demonstrate a reasonable and realistic sequence of activities which represent all work through the entire contract performance period.

Include in the design-build schedule detailed design and permitting activities, including but not limited to identification of individual design packages, design submissions, reviews and conferences; permit submission and any required Government actions; and long lead item acquisition prior to design completion. Also, cover in the preliminary design-build schedule the entire construction effort with as much detail as is known at the time but, as a minimum, include all construction start and completion milestones, and detailed construction activities through the dry-in milestone. Include the remaining construction, but it may be scheduled summary in nature. As the design proceeds and design packages are developed, fully detail the remaining construction activities concurrent with the monthly schedule updating process. When the design is complete incorporate into the approved schedule all remaining detailed construction activities that are planned to occur after the dry-in milestone. The schedule shall clearly indicate the completion of significant activities/events, including but not limited to:

- Submittal of completed First Design Development Package
- Submittal of completed Second Design Development Package
- Submittal of 75% Construction Documents
- Submittal of 100% Construction Documents
- Submittal of Final Construction Documents
- Issuance of a Building Permit
- Submittal to VA of copies of Permits and Approved Construction Documents
- Issuance of required site work and construction permits
- Start of construction
- Delivery of VA-provided equipment
- VA Equipment and Item Installation
- Completion of principal categories of work
- Testing and balancing
- Building Systems Certification
- Final inspection
- Final completion of construction
- Occupancy permit

2.5.4 ACTIVITIES

The schedule shall contain approximately 1,000 activities/events and shall break up the work into activities/events of duration no longer than 20 work days each, except as to non-construction activities/events (i.e., submittal of shop drawings, submittal review, fabrication, procurement of materials and equipment, delivery of materials and equipment, concrete and asphalt curing, testing and balancing, etc.) and any other activities/events for which the Contracting Officer or designee may approve the showing of a longer duration. The duration for VA approval of any required submittal, shop drawing, or other submittals shall not be less than 15 calendar days.

The schedule shall describe work activities/events clearly, so the work is readily identifiable for assessment of completion. Activities/events labeled "start," "continue," or "completion," are not specific and will not be allowed. Lead and lag time activities will not be acceptable.

2.5.5 GOVERNMENT REVIEW

To the extent that the network diagram or any revised network diagram shows anything not jointly agreed upon, it shall not be deemed to have been approved by the Contracting Officer or designee. Failure to include any element of work required for the performance of this contract shall not excuse the Lessor from completing all work required within any applicable completion date of each phase regardless of the Contracting Officer or designee approval of the network diagram.

2.5.6 REMEDIAL ACTION

Whenever it becomes apparent from the current monthly updated schedule that phasing or contract completion dates will not be met, the Lessor shall execute some or all of the following remedial actions:

- Increase construction manpower in such quantities and crafts as necessary to eliminate the backlog of work.
- Increase the number of working hours per shift, shifts per working day, working days per week, the amount of construction equipment, or any combination of the foregoing to eliminate the backlog of work.
- Reschedule the work in conformance with the solicitation requirements.

The Lessor shall notify the Contracting Officer or designee as to what actions are being taken to mitigate the proposed schedule changes. The project schedule revisions shall be incorporated by the Lessor into the network diagram before the next update, at no additional cost to the Government.

2.5.7 REVISIONS TO SCHEDULE

Within 10 calendar days after any project progress schedule update, the Lessor shall submit a revised project schedule for any of the following reasons:

Delay in completion of any activity/event or group of activities/events that indicates an extension of the project completion by 20 working days or 10% of the remaining project duration, whichever is less. Such delays, which may be involved with contract changes, strikes, unusual weather, and other delays, will not relieve the Lessor from the requirements specified unless the conditions are shown on the schedule as the direct cause for delaying the project beyond the acceptable limits.

Delays in submittals, or deliveries, or work stoppage are encountered which make rescheduling of the work necessary.

The schedule does not represent the actual execution and progress of the project.

Project schedule revisions made under this paragraph that affect the previously approved computer-produced schedules for Government furnished equipment, contract phase(s) and sub-

phase(s) or any other previously contracted item, must be furnished in writing to the Contracting Officer or designee for approval.

2.5.8 APPROVAL OF SCHEDULE

The Contracting Officer or designee approval for the revised network diagram and all relevant data is contingent upon compliance with all other paragraphs of this section and any other previous agreements by the Contracting Officer or designee.

2.5.9 COSTS OF REVISIONS

The cost of revisions to the network diagram resulting from contract changes will be included in the proposal for changes in work as specified in Paragraph 3.8, Contract Changes, of this Solicitation, and will be based on the complexity of the revision or contract change, man hours expended in analyzing the change, and the total cost of the change.
The cost of revisions to the network diagram not resulting from contract changes is the responsibility of the Lessor.

2.6 CONSTRUCTION OBSERVATION

2.6.1 RESIDENT ENGINEER'S OFFICE SPACE

The Lessor shall provide a temporary field office, furniture, and two-inch deep gravel-surfaced parking area for use of the Resident Engineer. Office and furniture shall be new or in "like new" condition.

A. Temporary Field Office

The field office shall provide not less than 720 gross square feet of floor area in one unit. Installation of the office shall meet all local codes.

Provide office with two 3-foot wide exterior doors, including hardware and OSHA approved platform and stairs leading to grade. A stainless steel lock guard shall be provided over deadbolts on exterior at each door.

Enclose the entire perimeter of the office from the floor to the ground and finish to match exterior. Provide R7 insulation and seal tight to ground with a painted ¾-inch exterior grade plywood skirt.

Exterior finishes shall be manufacturer's standards.

Provide floor, wall, and roof with not less than R5 insulation.

Interior finishes shall consist of resilient flooring, plywood paneling or painted wallboard on walls, and acoustical tile ceilings. Interior doors may be either painted or stained.

Interior shall be subdivided with full height partitions to provide one office, one sample room, one conference room, one toilet. Provide each space with three-foot wide door with master keyed locks. Section off an area with a low partition and counter for the administrative assistant's desk.

Provide 2-1/2 ft wide x 3 ft high operable windows; two in each room (none required in sample room), except provide only one 2-foot high window with frosted glass in toilet room(s). Provide steel mesh over all glass in doors and windows. The windows shall have mini-blinds.

Provide sufficient fluorescent lighting in each room to deliver 30-foot candles of light at desktop height without the aid of daylight. Provide one light switch in each room. Provide one cord-connected, portable 24-inch fluorescent task light at each secretarial workstation and office desk.

Provide one quadraplex receptacle in each wall of each room. If a wall is 10 feet long or more, provide two quadraplex receptacles for each 10 feet, or portion thereof, of wall. Provide two quadraplex receptacles in low partition at administrative assistant's desk.

B. Utilities and Services
The Lessor shall provide the following:

Electricity, hot and cold water, and necessary utility services (except telephone).

All necessary piping, power circuits, electrical fixtures, lighting, and other items necessary to provide a habitable structure for the purpose intended.

Thermostatically controlled, centralized heating and air conditioning system designed to maintain the temperature between 70 and 80 degrees F with 50% relative humidity. The relative humidity shall be uncontrolled.

One water closet, lavatory, mirror, toilet paper dispenser, paper towel dispenser, soap dispenser, towel bar, and two-prong coat hooks for each toilet room.

Telephone and Internet connections: Provide two (2) telephone lines and one (1) Internet cable service.

Lessor shall, for the duration of the Resident Engineer's occupancy, provide the following:

- Shall be responsible for cost of utilities.
- Secure, safe, and sanitary conditions in and around the field office and parking area.
- Maintenance of gravel surfaced area, including the area for parking, in an acceptable condition for vehicle and foot traffic at all times.
- Maintenance of utility services.
- Daily janitorial services and supplies (toilet paper, soap, etc.).
- Potable water, fuel, and electric power for normal office uses, including lights, heating, and air conditioning.
- Lessor shall be responsible for all maintenance for field office and equipment including replacement of burned out light bulbs or tubes and changing of A/C filters.

C. Furnishings and Equipment

The Lessor shall provide the following new or "like" new reconditioned items:

QUANTITY REQUIRED

1 Administrative assistant workstation with adjustable keying desk or drawer size 29-1/2" H x 60" W x 30" D

1 Printer stand, size 26-1/2" H x 60" W x 30" D

3 Office desks, double pedestal

1 Conference table, size 3' x 6'

1 Plan table 4' x 7'

3 Work tables, folding 30" x 72"

1 Secretary chair

4 Swivel chairs with arms

6 Conference chairs (armless and folding)

2 Arm chairs

4 5 drawer file cabinets, letter size

1 Drawing rack, with 12-30 inch "Plan Hold" drawing holders, freestanding

1 Shelves for sample room, 7 adjustable shelves, 12" W x 3' L

3 Bookcases

1 Electric water cooler

1 Metal storage cabinet, 36" x 18" x 72" with six shelves

D. Disposition of Field Office at Completion of Construction

At the completion of all work, including the punch list, the Resident Engineer's field office and facilities, except 5 drawer file cabinets shall become the property of the Lessor, and Lessor shall remove same, including utility connections, from the site. The site shall be restored to original condition and finished in accordance with contract requirements.

E. Submittal of Plans for Field Office

The Lessor shall furnish floor plans for approval by the Resident Engineer prior to furnishing the field office.

F. Cost of Resident Engineer's Office

All costs associated with the Resident Engineer's office including, but not limited to, construction, demolition, hook-ups to utilities, furniture, fixtures, and equipment (RE Office Costs) shall be paid by the Lessor. Upon acceptance of the space, VA shall reimburse the Lessor for all RE Office Costs as part of the lump sum payment VA will make upon acceptance of the space. **Offerors shall list the lump sum cost associated with Resident Engineer's Office on GSA Form 1364 and Attachment 1 to GSA Form 1364.**

2.7 SAMPLES AND SHOP DRAWINGS

The Lessor shall provide submittals to the Government for approval of all materials and equipment in accordance with this solicitation. The Government accepts no responsibility for checking schedules or layout drawings for exact sizes, exact numbers, or detailed positioning of items. Approval by the Government does not relieve the Lessor of the responsibility of complying with the requirements of the specifications and lease.

2.8 SITE AMENITIES

2.8.1 SMOKING SHELTERS

An exterior structure of approximately 150 square feet [45.72 sq m] must be provided near one of the outside doors connected to the Break/Cafeteria/Meeting Room of the CMOP building for the purpose of providing shelter for visitors and employees who wish to smoke. The structure shall be built near the side or rear of the building away from and out of sight of the main CMOP entrance. The smoking shelter shall be architecturally compatible with the main structure. The shelter must be at least 50 feet [15.24 m] from the main building. The structure must be accessible to disabled persons. Provide suitable lighting for smoking shelter; control with the other site lighting.

SECTION 3 BUILDING DESIGN CRITERIA

3.1 STRUCTURAL

3.1.1 FOUNDATIONS

Provide a freezer sub-floor flush with the existing floor level, estimated at 400 SF. The VA APFS (Automatic Production Fulfillment System) manufacturer will provide the freezer itself. The lessor shall coordinate with the manufacturer during design. The estimate is based upon a 16" pit with a 4" sub floor, #10 plastic vapor barrier, and 6" of rigid high-density type foam insulation, and 6" of concrete flooring. Unit will be on an exterior wall on the Production floor with the exact location to be determined in design.

3.2 ARCHITECTURAL

3.2.1 ENCLOSURE SYSTEMS

Provide an area for staff to locate during temporary periods of severe weather. CMOP will be evacuated during long periods of severe weather. Plan for 160 staff, 13 of which are handicapped. The details of the location and level of strengthening will be determined with the Lessor during design since it is heavily dependent upon building type.

3.3 EQUIPMENT

3.3.1 PROVISIONS FOR VA-FURNISHED/VA-INSTALLED EQUIPMENT

As part of the rental consideration, the Offeror shall include supporting construction, HVAC systems, utilities, and electrical distribution as required for VA-furnished and VA-installed equipment to be installed in the CMOP.

3.4 MECHANICAL

3.4.1 INTRODUCTION

The HVAC systems shall be designed to AHRAE 90.1-2016 including appendix G, the Energy Policy Act of 2005 (EPACT 2005), Certification requirements and as follows:

All equipment efficiencies shall meet or exceed the minimum equipment requirements set forth in ASHRAE 90.1 or as required to achieve energy efficiency compliance which is to be 30% more energy efficient than the Baseline.

Energy Modeling shall be performed at the concept stage and shall be updated throughout the design phase. The energy model provided shall compare the baseline and proposed system(s) for each of the climate zones being evaluated.

CMOP's constructed in climates that are conducive to low humidity within the building envelope shall be provided with commercial grade ultrasonic humidifiers. Humidification is necessary for the reliable functioning of the production equipment and electronics as well as for Rx handling.

Toilet rooms will use inline or ceiling-mounted exhaust fans interlocked with outside air controls. Janitor's closets will have continuous exhaust.

The Telecomm Rooms shall comply with ASHRAE, the VA HVAC Design Manual, and the VA OI&T Design Guide, and VA Specification 23_81_23 Computer Room Air Conditioners. Telecomm Rooms consist of the Server Room, Intermediate Communication Closet, Building Communication Room, Satellite Communication Room, and UPS Room. All rooms shall maintain continuous and dedicated environmental control (24/7).

The Server Room shall have a primary and secondary Computer Room Air Conditioner (CRAC), both capable of independently maintaining the room condition parameters according to the projected heat load, with 20% extra capacity. The system shall be designed with a cold aisle and hot aisle while considering air changes and air pressure.

The Intermediate Communication Closet, Communication Demarcation Room, Building Communication Room, Satellite Communication Room, and UPS Room shall be planned for individual split systems capable of maintaining the room condition parameters, with extra capacity.

3.4.2 HVAC DESIGN CALCULATIONS

References: Latest Edition of ASHRAE 62.1 and VA HVAC Design Manual.
The HVAC design calculations shall be based on the following parameters:

A. Outdoor Design Conditions

(1) Cooling Mode – Air Handling Unit (Minimum Outdoor Air)
1%, Monthly Design Dry bulb and Mean Coincident Wet bulb Temperatures.

(2) Cooling Mode – Air Handling Unit (100% Outdoor Air):
1%, Monthly Design Wet bulb and Mean Coincident Dry bulb Temperatures.

(3) Heating Mode
99%, Annual Design Dry bulb Temperature.

B. Indoor Design Conditions

Verify occupancy and heat loads from all government-furnished equipment prior to commencing HVAC system design.

Inside-Production and Warehouse:
Summer 75 Degrees F DB
Winter 70 Degrees F DB
30% - 60%RH
4 Minimum Total Air Changes per Hour
2 Minimum Outside Air Changes per Hour
Positive Room Air Balance

Inside-Admin:
Summer 75 Degrees F DB
Winter 70 Degrees F DB
20% - 60%RH
4 Minimum Total Air Changes per Hour
2 Minimum Outside Air Changes per Hour
Neutral Room Air Balance

Inside-Computer Rooms (Server Room, Intermediate Communication Closet, Communication Demarcation Room, Building Communication Room, Satellite Communication Room, UPS Room):
64 – 81 Degrees F DB
30% - 60%RH

Unoccupied Mode
Non-sensitive, non-drug storage, areas shall be provided with an adjustable night setback, 55 to 88 F.

3.4.3 AIR SYSTEMS

A. General

The HVAC systems shall be zoned to provide maximum year-around comfort and provide separate control for spaces of differing functions. Admin spaces shall be zoned such that no more than 4 offices share a common thermostat. Conference room, cafeteria, etc shall be on separate zones.

Air handler fan motors shall have VFDs and energy efficient gold motors as required by the Department of Energy, and Energy Independence and Security Act (EISA 2007).

Testing, balancing, and adjusting of all HVAC systems by a certified AABC or NEBB test and balance firm shall be required.

B. AHU Controls

A complete automatic temperature control system shall be provided. The direct digital control (DDC) system shall be a complete system suitable for the heating, ventilating, and air conditioning (HVAC) systems provided. The system shall also be accessible by VA.

The system shall have a GUI interface that includes a floor plan that shows the location and status of the points listed below. It shall be expandable and capable of accepting additional points.

DDC *Minimum* Points to be Monitored, If Applicable

Air Handling Units:
Entering air temperature
Temperature in each zone
Temperature set-point in each zone
Fan on-off indication
Filter differential pressure
Supply Air Quantity

Outside Air Quantity
Economizer Damper Position

VAV Boxes:
Supply air temperature
Supply air volume
Air valve position
Hot water valve position
Space temperature

Main Mechanical Room:
Boiler on-off
Steam Trap Monitoring Status
Hot water temperature in and out
Boiler "Out of Operation"
Pump on-off indication, each pump

Computer Room Units (Server Room, Intermediate Communication Closet, Communication Demarcation Room, Building Communication Room, Satellite Communication Room, and UPS Room):
Run Status
Return air temperature
Supply air temperature
Space humidity

Split-System Heat Pump Units:
Run Status
Return air temperature
Supply air temperature
Space humidity
Space temperature setpoint

Ultrasonic Humidifier:
On-of
Low Water level
Return air temperature

Fuel Monitoring:
Current fuel level status

DDC Minimum Alarm Print Outs

- Boiler failure to start
- Air handling unit fan failure
- Air handling unit high head pressure
- Air handling unit low head pressure
- Zone space temperature rise to 4 degrees above set-point
- Zone RH 5% above/below set-point
- Pump failure
- Water on Floor of Mechanical Room
- Water on Floor of Computer Rooms
- Ultrasonic Humidifier Low Water Level

- Fuel level low and high-level alarms

3.4.4 AUTOMATIC SPRINKLER AND STANDPIPE SYSTEMS

The server room rooms shall be protected with a wet pipe sprinkler system overhead and standard response fusible link sprinkler heads. Quick response glass bulb heads shall not be acceptable. Gaseous, FM200 clean agent, fire suppression system shall also be installed in accordance with NFPA 75 and the VA CFM OIT Design Guide. Provide the system inside a closet adjacent to the server room.

Warehouse shelving shall be such that overhead sprinkler discharge shall flow through the shelves. In rack sprinklers shall be installed in the event that the rack configuration and storage type(s) are not conducive to overhead coverage. The Automated Prescription Fulfillment System vendor is responsible for providing the rack layout. The Lessor shall evaluate and provide sprinkler protection for high bay rack in accordance with NFPA 231, Standard for General Storage, and NFPA 231C, Standard for Rack Storage. VA CMOP will provide and install the racks.

3.5 PLUMBING

3.5.1 PLUMBING DESIGN SCOPE

Compressed Air Systems
Provide power to two disconnects for two variable frequency air compressors, located in the compressor room. Air compressors, associated equipment, and distribution piping will be provided by the CMOP equipment manufacturer, size to be determined. The estimated load is 300-400 SCFM.

3.6 ELECTRICAL

3.6.1 SPECIFIC DESIGN REQUIREMENTS

This is not a mission critical facility; therefore, multiple utility sources are not required.

New electrical service shall be 480/277V, 3 phase, 4 wire. Estimated minimum capacity is 1600A. There shall be a minimum 1600A service main circuit breaker, a minimum 1600A four pole transfer switch, and a minimum 1600A switchgear with feeder breakers.

The electrical distribution system shall be designed such that additional building modules can be added without having to route conduit through production areas.

A. Lighting

Lessor shall follow the VA PG-18-10 Lighting Design Manual, December 2015.

Lighting levels for all areas shall use the Illuminating Engineers Society (I.E.S.) recommended levels as average maintained levels of illumination.

Multiple switching of areas with multiple entrances shall be required at each entrance to that area.

All areas shall be provided with their own light switches and occupancy sensor(s) as required by ASHRAE 90.1.

LED exit signs on an emergency circuit shall also be used.

Egress lighting shall comply with Life Safety Code NFPA 101 and shall be incorporated into the light fixtures in the Administration area and separate units in the warehouse areas.

The high bay area shall incorporate LED fixtures. The LED fixtures will be used to minimize maintenance over the conveyor systems, allow daylight harvesting (due to overhead sky lights). Low voltage controls will be used to minimize wiring and allow multiple light levels.

Exterior wall packs and parking lot fixtures will be LED. Exterior lighting shall comply with energy requirements and with Dark Sky principals. Criteria recommended by IESNA Guideline for Security Lighting for People, Property, and Public Spaces shall govern the lighting design. Light fixture locations shall be coordinated with physical security, CCTV and landscaping requirements. Parking lots shall utilize alternate circuiting, with the maximum pole mounting height of 40'. Exterior lighting poles shall be direct embedded, color impregnated concrete.

LED lighting with articulating arms shall be provided for all loading bays.

B. Special Lighting/Other Requirements

In the office areas utilizing computer work stations, the lighting system shall be such that glare on the monitors will be minimized. The lighting to be used in the areas with 9' or lower ceilings shall be direct/indirect fixtures. Non-office areas such as break rooms and storage areas shall utilize direct/indirect fixtures. Mechanical rooms, electrical rooms, and communications closets shall utilize linear surface mounted, acrylic lensed fixtures. Wall mounted fluorescent fixtures shall be provided over vanity areas with single toilets. Gang toilets shall be provided with soffit lighting along the room's long perimeter walls. The light source shall be shielded with a lensed overlay. All fluorescent fixtures shall be equipped with electronic ballasts to reduce energy consumption with energy saving T5 lamps. All exterior lighting fixtures shall have integrated photoelectric controls.

C. Corridors

Corridors shall utilize a combination lighting system including 2x4 recessed fluorescent light fixtures and recessed LED downlights as appropriate for the architectural theme. Main lobby/entrance areas shall utilize architectural wall accent lighting as appropriate for the architectural theme. Ceiling mounted dual technology motion sensor will be used in all rest rooms, janitor closets, and store rooms.

D. Conference Rooms

Conference rooms shall utilize a combination lighting system including 2x4 recessed fluorescent light fixtures and recessed LED downlights with dimmable ballasts. The dimming system shall dim the lighting continuously from 100% to 5%.

E. Lighting controls

A complete lighting system will be provided for the warehouse/production areas. For lighting control in restrooms, showers, and locker rooms, dual technology occupancy sensors with wall mounted override switches will be provided. Wall mounted passive infrared occupancy sensors with integral on/off toggle switch will be provided in offices. Dual technology sensors will be used for warehouse areas to control zones. No automatic lighting controls will be provided in production, shop areas, electrical, mechanical, Telecommunications Room, and other rooms, spaces, and areas, as determined that may be a safety hazard. Override switches shall be provided each entry point to each room, space, or area. Occupancy sensor's time delay settings and auto shut off sensitivity settings shall be set for optimal performance without undue inconvenience to users. The lighting system shall be designed to use the most energy efficient type of luminaires and be in compliance with ASHRAE 90.1. The CCTV system must be considered during the design of the lighting controls system.

F. Power Distribution

The electrical distribution shall be designed and provided and installed in accordance with NFPA 70 (National Electrical Code, current edition), and other national standards as applicable to the system under consideration.

K-rated transformers, K-13, shall be utilized for stepping down voltages to supply non-linear loads. The neutral on the secondary side of K-rated transformers feeding dedicated computer/IT equipment panels shall be sized at 200%.

Branch circuits feeding receptacles of unknown loads shall be limited to 1200VA per circuit. The interior electrical distribution system shall be designed with a minimum of 25% excess load capacity in all switchboards, panelboards, and feeders after all load and demand factors have been applied to the electrical calculations. Additionally, all distribution panelboards shall have 25% excess physical space for future use. All electrical equipment shall be located in rooms, closets or spaces dedicated solely for this purpose.

All panelboards serving work stations and critical electronic equipment shall be provided with surge protection.

Service entrance equipment shall have built-in integral surge protection.

Panelboards and circuits shall be suited to a wide range of utilization patterns. Circuit breakers within the distribution panels shall be fully rated for the available fault current. Panelboards serving nonlinear loads shall have double rated neutral buses. Computers shall have dedicated circuits and full sized dedicated neutrals. Shared neutrals shall not be used. Motors connected to the same power source as nonlinear loads shall also be upgraded in size similarly.

The CMOP production equipment manufacturer is responsible for providing power to the equipment by connecting into the main switchgear. Lessor shall not be responsible for connectivity.

All circuits serving equipment with nonlinear loads shall meet the requirements of IEEE Std 1100 "Powering and Grounding Sensitive Electronic Equipment" and IEEE Std. 519 "Practices and Requirements for Harmonic Control in Electrical Power Systems".

Dedicated receptacles shall be provided for the electrical equipment charging area, sized as required for piece of equipment.

Provide a minimum of one general-purpose 120 volt, 20 ampere duplex receptacle outlet per wall in each room. In rooms where walls exceed 10 feet, provide an additional duplex outlet for each 8 feet of wall or fraction thereof. Receptacle spacing shall not exceed 8 feet. No more than six general-purpose receptacles shall be located on a single circuit. Systems furniture workstations shall be fed by wall mounted outlets. Where systems furniture is not located adjacent to a wall, above ceiling junction boxes shall be provided for connection/routing of circuits via power poles.

Provide a minimum of one general-purpose 120 volt, 20 ampere duplex receptacle outlet on the interior at each exterior dock, on the interior at each exterior passenger door, and at each column for the purposes of the RTLS (Real Time Location System), which is VA, GFGI, equipment.

Communication rooms shall be provided with NEMA L5-30R receptacles on dedicated circuits from the central UPS system.

Receptacles serving ceiling mounted projectors shall be installed flush on the ceiling, receptacles shall not be mounted in any ceiling.

Voltage drop shall be limited to 2% for feeders and 3% for branch circuits.

Power monitoring and metering shall be installed on the service entrance equipment, emergency backup system and all panelboards. All meters shall be interconnected with Ethernet to a VA centralized remote metering station on a VLAN with a security plan approved by VA IT. As a minimum, the smart meters shall be able to provide the following: record, store and trend voltage, current, kW, kWh, kVA, kVAR, power factor as well as voltage and current total harmonic distortion.

Contractor shall perform an Arc-Flash study on all power distribution equipment provided with the facility in accordance with NFPA 70E. The equipment labels shall show specific and correct information for specific equipment based on its arc flash calculations. All serviceable electric equipment (such as panels, transformers, switches, etc) shall be labeled with the following:

- Nominal system voltage.
- Equipment/bus name, date prepared, and manufacturer name and address.
- Arc flash boundary.
- Available arc flash incident energy and the corresponding working distance.
- Minimum arc rating of clothing.
- Site-specific level of PPE.

All serviceable electric equipment (such as panels, transformers, switches, etc) shall be labeled with the appropriate lockout/tag-out procedures that will disconnect all power to the device prior to performing maintenance. The label shall clearly state the location of the upstream switch(es) or breaker(s) that must be turned off and locked out in order to ensure that all power is disconnected.

G. Backup Power Systems

A UPS system shall be provided for all computer, data, and security equipment (Estimated at 250 kVA, upgradeable to 500 kVA (additional UPS module and batteries)). The UPS system shall be provided with a 4-way by-pass switch. A kill switch shall be provided at the UPS room exit door. Dedicated distribution equipment shall be provided (including panelboards) throughout the facility. A 1200A 208Y/120V panelboard shall be supplied for the UPS distribution. Dedicated distribution from this UPS panelboard shall be provided in all areas that required UPS power.

The entire facility shall be provided with generator backup (Estimated at Two (2) - 600 kW diesel units). The generators shall be prime rated. Generators will be operated in paralleled configuration and integrated into the electrical service equipment (4 pole transfer). The automatic transfer switch (ATS) shall be located on the interior of the building in the main electrical room. Each generator will be provided with a sound-attenuated enclosure, critical stainless steel exhaust and a double wall, sub-base fuel tank with an integral fuel polishing system. Fuel capacity for each generator is 1,920 gallons. **Each generator consumes 40 gallons/hour at 100% load (2 days storage).** A galvanized platform will be required to access and service the generators. A common platform can be used for both generators. The generators, enclosures, fuel tanks and platform shall all be bonded to the grounding system.

Provide an automatic digital continuous fuel monitoring system compliant with VA CFM Specification 23_10_10. Can be adjustable between gallons and liters. Include low and high-level alarms as well as current status with visual and audible indicators. Low level alarm actuation adjustable 0-25% of capacity, and high level 75-100% capacity. Locate local indicators, selector switches, and alarms on face of wall-mounted NEMA 250, Type 4 panel. Connect remote monitoring to the AHU DDC system as monitoring and alarm points, also noted in 6.4.5.

All exit and egress lighting shall be supplied with integral battery backup. Egress lighting within the production area shall be mounted on columns and walls such that periodic maintenance can be performed.

3.7 ELECTRONICS AND TELECOMMUNICATIONS

A. Special Systems Specific Requirements

(1) Public Address (PA)

Provide public address and mass notification (PA) system(s) as required. System(s) shall be most current technology or manufacturer. System shall be capable of being zoned by area such as administrative versus warehouse versus production versus main break room. Exterior speakers shall be a separate zone.

(2) Two-Way Radio System

Provide two-way radio systems as required. System(s) shall be updated to most current technology or manufacturer.

Non-VA Networks

The facility will contain Non-VA networks for CMOP contractors and the Lessor. Non-VA modems and routers shall be located in the Demarc room, not the VA IT rooms. The Non-VA networks shall not utilize wireless connectivity, only hard-wired, to prevent interference with VA

wireless antennas. Additionally, provide outlets and conduit for the (4) time clocks, located in the Staff Entry Vestibule, to the third-party contractor's office.

Non-VA network infrastructure including outlets, cabling, pathways, patch panels, wire management, racks and other components of the Non-VA network system shall be provided with the facility construction.

All Non-VA active equipment such as servers, switches, wireless access points, PC's, etc will not be included in the building construction scope but will be furnished using other sources.

B. Special Electronics Systems

Audio-Visual rough-in conduit and back boxes shall be installed within the training and meeting rooms and throughout the production floor at approximately (10) locations. Rough-in shall be provided for projectors and electronic screens or large format monitors as required by the user. Display type shall be dependent on room size and shall be selected by the A/V designer. Floor boxes shall be installed within rooms for serving telecommunications requirements and A/V cabling.

Audio-Visual rough-in shall be installed within the director's office. The room shall be capable of sharing local PC images on a wall mounted, large format monitor. A floor box shall be installed within the room for serving telecommunications requirements and A/V cabling.

A. The tenant Space must meet the requirements of Green Globes® SI at the Two Green Globes level, at a minimum. The Lessor, at the Lessor's expense, shall obtain certification from the GBI (for Green Globes®) within 9 months of occupancy. For requirements to achieve certification, Lessor must refer to latest version at the time of submittal of the Green Globes® SI Technical Reference Manual (at http://www.thegbi.org/). At completion of all documentation and receipt of final certification, the Lessor must provide the Government two electronic copies on compact disks of all documentation submitted to the GBI. Acceptable file format is Adobe PDF copied to disk from the Green Globes® online surveys. In addition, the Lessor will provide the Government viewing access to the Green Globes® online surveys as applicable during design and through the term of the Lease.

B. Prior to the end of the first 9 months of occupancy, if the Lessor fails to achieve Green Globes® certification, the Government may assist the Lessor in implementing a corrective action program to achieve Green Globes® certification and deduct its costs (including administrative costs) from the rent.

C. Any Building shell modifications necessary for the Space to meet the requirements of Green Globes® SI certification, shall be noted and incorporated into the construction documents and shall be included as part of the Building shell costs. The Lessor must coordinate TI and shell requirements as necessary to meet the certification.