# DEPARTMENT OF VETERANS AFFAIRS

# COMMUNITY CARE CENTER

# WEST HAVEN, CT

## NOT TO EXCEED 45,000 NET USABLE SQUARE FEET

## NAICS CODE: 531190

**SMALL BUSINESS SIZE STANDARD - $38.5 MILLION**

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Contracting Officer

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Project Manager

**Offers are solicited under Section 40 U.S.C. 490(H)(1), AS AMENDED, AND Section 1 of the Reorganization Plan of 1950 (40 U.S.C. 490 Note).**

**The information collection requirements contained in this Solicitation/Contract that are not required by regulation, have been approved by the Office of Management and Budget pursuant to the Paperwork Reduction Act and assigned the OMB Control No. 3090-0163.**

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# PART I

## BASIC SOLICITATION REQUIREMENTS

### NAICS CODE: 531190

**SMALL BUSINESS SIZE STANDARD - $38.5 MILLION**

# PART I. BASIC SOLICITATION REQUIREMENTS

## SECTION 1 SUMMARY

### 1.1 AMOUNT AND TYPE OF SPACE

The Department of Veterans Affairs (VA) is proposing to lease a maximum of **45,000 Net Usable Square Feet (NUSF)** of space for use by VA for personnel, furnishings, and equipment. Space shall be located in a quality new building, constructed of sound and substantial construction, and shall be in compliance with all of the Government's minimum requirements set forth in this Solicitation for Offers (Solicitation or SFO). Space must be adjoining and be located on one floor. Parking will be the greater of 360 spaces, or as required by local codes, with ten (10%) of the total provided spaces for Architectural Barriers Act Accessibility Standard (ABAAS) compliance.

**Detailed definition of Net Usable Square Feet can be found in Paragraph 3.14 of this Solicitation. Unless otherwise noted, all references in this SFO to square feet shall mean Net Usable Square Feet.**

### 1.2 SITE SUBMISSION REQUIREMENTS

The following sites have been approved by the Government for location of the facility:

- 161 Marsh Hill Road, Orange, CT
- 205-231 Indian River Road, Orange, CT
- 260 Bull Hill Road, Orange, CT
- 253-273 Indian River Road, Orange, CT

Property within the 100-year base flood plain as determined by FEMA shall **not** be considered.

### 1.3 QUALITY OF SPACE

The Offeror shall design and construct a building to suit the Government's requirements. The site, site improvements, building, interior spaces and finishes, and Lessor-furnished equipment and special construction shall be provided in accordance with this SFO, all applicable Federal requirements, local Building Codes and ordinances, and applicable utility company requirements.

Site, site improvements, building, interior construction, and equipment shall comply with General Design Criteria as enumerated in SECTION 4, including Codes and Standards, criteria unique to VA, Fire, and Life Safety requirements, Environmental requirements, Accessibility Standards, OSHA requirements, and Energy Efficiency and Sustainable Design.

### 1.3.1 QUALITY OF SITE DEVELOPMENT

Site development including landscaping, site amenities, utility systems, and exterior signage shall comply with the requirements enumerated in SECTION 5 of this SFO.

On-site vehicle parking spaces, paved and striped, must be provided for use by patients, staff and official Government vehicles, and must be included as part of the rental consideration. The Lessor must provide the greater of the following: the number of parking spaces required by local building or zoning regulations, or the number of parking spaces indicated in SECTION 5.

Pedestrian circulation and site amenities shall be provided as required by SECTION 5 of this SFO.

### 1.3.2 QUALITY OF BUILDING

The space offered shall be of shape and dimensions that will accommodate the space program and interior functional requirements of VA Outpatient Clinic.

The space offered shall be in a building of sound and substantial construction in accordance with the technical requirements of this solicitation.

The space offered shall be located in a new building with facade of stone, brick, aluminum curtain wall, or other permanent materials. The exterior building materials shall be subject to technical and aesthetic review and approval of the Contracting Officer. The building shall be compatible with its surroundings. Overall, the building must project a professional and aesthetically pleasing appearance. Building systems, interior spaces and finishes, and Lessor furnished equipment and special construction shall comply with the requirements enumerated in SECTION 6 and SECTION 7; and Schedule B and Schedule E of this SFO.

### 1.3.3 SPECIAL REQUIREMENTS

- Physical security features shall comply with requirements for "Life Safety Protected" occupancies as enumerated in this SFO.
- Natural disasters resistive features shall comply with the requirements enumerated in this SFO.
- Sustainability and energy efficiency features shall comply with the requirements enumerated in this SFO.
- Comply with Centers for Disease Control (CDC) requirements for Tuberculosis.

## 1.4 TERM

All offerors must submit proposals based on the following:

- Alternative A) 15-year firm term;
- Alternative B) 15-year firm term, with five 1-year options; and

- Alternative C) 20-year term.

The Contracting Officer reserves the right to award on any available alternative listed above, based on what is considered to be in the best interest of the Government. For instance, the Contracting Officer could elect to award a 20-year firm term, a 15-year firm term, or a 15-year firm term with two 1-year options.

All the terms and conditions contained herein shall prevail throughout the term of the lease, including all renewal options. Offerors are advised that they must submit pricing for all Alternates listed above in order to be considered responsive. Offerors submitting different or fewer pricing alternates may be rejected as non-responsive by the Contracting Officer.

## 1.5 OFFER DUE

Offers are due by April 25, 2016, and must remain open until award. VA currently anticipates award on or before Spring of 2017. Offers must remain open, and pricing must remain valid 60 calendar days from the date of award.

A preproposal conference has been scheduled for March 23, 2016 at 10:00 AM at the West Haven Public Library, 300 Elm Street, West Haven, CT in the Connie Sacco Room. Interested parties will be responsible to submit initial questions to be addressed at the preproposal conference by March 16, 2016.

Attendance at the preproposal conference is encouraged, but not required to submit an offer in response to the solicitation.

After, the preproposal conference interested parties may submit any remaining questions in writing via email to the Contracting Officer, and copy ISI Professional Services at the contact information provided in paragraph 1.7 below. The final due time and date for questions submissions will be 4:00PM Eastern on March 31, 2016.

## 1.6 OCCUPANCY DATE

Occupancy is required by twenty-four (24) months from lease award.

## 1.7 HOW TO OFFER

Proposals are required to be received by the Contracting Office by the date and time specified in Paragraph 1.5 of the SFO. In addition, a courtesy copy must be submitted to VA's broker by the date and time specified in Paragraph 1.5 of the SFO. The VA's receipt will serve as the official proposal submission for determining if the proposal was submitted on time. For proposals shipped, provide both VA and VA's Broker a receipt demonstrating delivery to VA is scheduled to occur before 4:00 PM ET on the specified date.

Hand carried proposals must be coordinated with Kimberly Warren at (202) 632-6614 to arrange for her to pick up the package in the lobby of 425 I Street, NW Washington, DC 20001.

All delivery submissions must be completed before 4:00 PM ET.

All original offers, including all required documents, must be submitted to VA, with a copy to VA's broker, at the following addresses:

Zebulon Fox
Contracting Officer
Department of Veterans Affairs
Office of Facilities Acquisition, (003C4)
425 I Street, NW, Room 6E411D
Washington, DC 20001
Email: Zebulon.Fox@va.gov

Daniel Marshall
Vice President
ISI Professional Services
1201 15th Street, NW, Suite 200
Washington, DC 20005
Phone: (202) 263-0881
Email: dmarsh@isiwdc.com

### 1.7.1 DOCUMENTS TO SUBMIT WITH OFFER

Offers shall be submitted to VA at the above referenced location in two (2) separate Volumes. Offers shall be properly signed, initialed, converted to a **PDF file and indexed with bookmarks**, and submitted on compact discs. Each compact disc shall be marked appropriately: Volume 1-Technical Proposal and Volume 2-Price Proposal. No hard copy of materials shall be submitted to VA. Offerors shall only submit one electronic copy (Compact Discs) of each Volume to the Contracting Officer at the address above. **NO hard copies, of any kind, will be accepted by VA.**

In addition to the requested number of submission packages listed above, Offerors will submit seven (7) compact discs of Volume 1 – Technical Proposal, one (1) compact disc of Volume 2 – Price Proposal and one original hard copy of each Volume to ISI Professional Services at the above address; the original hard copy shall be properly signed, initialed, indexed and packaged in 3-ring binders marked, Volume 1-Technical Proposal and Volume 2-Price Proposal. Additionally, one (1) hard copy of drawing and renderings shall be provided to ISI.

Offers shall consist of the following documents:

**Volume 1-Technical Proposal (8 discs)**

- Technical Information that addresses evaluation factors and sub factors which are listed Paragraph 2.3 of the Solicitation.

- Plans, written narratives, design concept, calculations, mechanical and electrical systems, and energy efficiency of the proposed building as described in Paragraphs 10.7, 10.8, and 10.9 of the Solicitation;

- Building Operating Plan as described in Paragraph 8.4 of the Solicitation;
- Detailed Operations and Maintenance Plan narrative and completed FMA Worksheet as described in Schedule A;
- GSA Form 527, Contractor's Qualifications and Financial Information;
- GSA Form 330, Architect-Engineer Qualifications;
- Past Performance Survey Form;
- Past Performance Reference Questionnaire;
- Basic Solicitation and Amendments, if applicable;
- PART VII Labor Standard Provisions;
- GSA Form 3516A, Solicitation Provisions;
- 3517B, General Clauses
- Modified General Clauses – CASUALTY; REPAIR AND RESTORATION;
- 3518, Representations and Certifications;
- To receive credit for the small business evaluation criteria, small businesses must have an active registration in the System for Award Management (SAM) System, available at www.sam.gov, at the time of initial offer submission. In addition, the small business must be registered with the Small Business Administration (SBA). Provide proof of verification with offer. System for Award Management (SAM) electronic printout demonstrating applicable size standard and associated North American Industry Classification System (NAICS) code;
- To receive credit as SDVOSB or VOSB, an offeror must be registered and verified in Vendor Information Pages (VIP) database. (http://www.VetBiz.gov). Provide proof of verification with offer.
- System for Award Management (SAM) electronic printout demonstrating applicable size standard and associated North American Industry Classification System (NAICS) code. Offerors shall submit the complete SAM "Entity Record" (not Entity Overview) with following provisions expanded:
    - FAR 52.204-3: Taxpayer Identification
    - FAR 52.212-3: Offeror Representations and Certifications -Commercial Items (Alternate I)
    - FAR 52.219-1: Small Business Program Representations (Alternate I);
- Certification of Building Energy Performance;
- Certificate of Seismic Compliance

- A proposed sustainable checklist identifying targeted solutions to meet LEED® Silver for Healthcare Certification. Along with the proposed checklist, the Offeror shall submit a brief statement outlining how each of the LEED® credits proposed will be achieved.

- Evidence of compliance with Seismic criteria as described in Paragraph 6.1 STRUCTURAL of the Solicitation.

- Provide proof of ownership and chain of title through a current title report. Provide proof that all encumbrances have been addressed or identified in a current title report; current within 90 days.

- Documentation of ownership or control of the property and evidence of signature authority of the party(ies) who will sign and lease documents and ability to meet the minimum site requirements.

- Small Business Subcontracting Plan (requirement for large businesses offerors identified.)

- Initialed FAR Clause 52.204-10, Reporting Executive Compensation and First-
- Tier Subcontract Awards;

- Initialed FAR Clause 52.209-5, Certification Regarding Responsibility Matters;

- In the initial offer and prior to award, the Offeror shall provide evidence of a firm commitment of teaming arrangements with both the general contractor and the architect firm(s) that were presented in the Lessor's proposal in the form of a letter on each company's letterhead addressed to the Contracting Officer from the principal(s) of each of the respective firms.

- Schedule E

- Schedule F

**Volume 2-Price Proposal (2 discs)**

- GSA Form 1364A, Proposal to Lease Space;

- Attachment #1 to GSA Form 1364A ("Proposal Summary");

- GSA Form 1217, Lessor's Annual Cost Statement;

- An itemized cost for all individual items in Schedule B, including Parts III, IV, and V;

- A list of Unit Costs for Adjustments (Part IV Schedule C Exhibit A), and a list of Unit Prices for Alterations (Part IV Schedule C Exhibit B). Refer to Paragraphs 3.2 and 3.3; and Certificate of Current Cost.

- Bid Summary Form (Part V Schedule D).

- Maintenance Cost Worksheet from Schedule A. (Schedule A Narrative should be included in the Technical Disc).
- Form 3881 – Vendorizing Form;
- Bid Bond

### 1.7.2 INSTRUCTIONS AND ADDITIONAL INFORMATION

Instructions for preparation of the offer can be found in SECTION 10 INSTRUCTIONS AND PREPARATION of this part of the Solicitation and GSA Form 3516A, Solicitation Provisions (located in PART VIII). If additional information is needed, VA's broker, ISI Professional Services (ISI), should be contacted.

Daniel Marshall
Vice President
ISI Professional Services
1201 15th Street, NW, Suite 200
Washington, DC 20005
Phone: (202) 263-0881
Email: dmarsh@isiwdc.com

### 1.7.3 OPENING OF OFFERS

There will be no public opening of the offer, and all information will be confidential until the lease has been awarded. However, the Government may release the proposal outside the Government to a Government support contractor to assist in the evaluation of the proposal. Such Government contractors shall be required to protect the data from unauthorized disclosure. If you desire to maximize protection of information in your offer, you may apply the restriction notice to your offer as prescribed in the provision entitled "552.270-1(d)(1) & (2), Instructions to Offerors" (see GSA Form 3516A, Solicitation Provisions, page 3).

## 1.8 PROPOSALS

### 1.8.1 RENTABLE SQUARE FEET

Offerors shall submit the total rentable square feet (RSF) of the building and a cost per rentable square foot. The submission of a rentable square foot cost is required for scoring purposes to determine if the proposed lease is a capital or operating lease.

NOTE: Definitions for rentable and net usable square feet are located in Paragraph 3.14 RENTABLE AND NET USABLE SQUARE FEET of this solicitation.

### 1.8.2 SPECIAL EQUIPMENT

Offerors shall submit cost proposals for all special equipment requirements set forth in Schedule B.

### 1.8.3 NET USABLE SQUARE FEET RATES

For evaluation and negotiation purposes, the offer shall state the following on GSA Form 1364A, Proposal to Lease Space:

A NUSF rental rate that **includes** the costs of all special equipment and other requirements described in Schedule B and Janitorial.

A NUSF rental rate that **excludes** the costs of all special equipment and other requirements described in Schedule B, but includes Janitorial.

Cost per NUSF for Janitorial Services.

A lump-sum payment cost for all special equipment and other requirements described in Schedule B.

Offerors shall provide cost for all methods of evaluation in order to be considered for award. VA may elect the option it deems most favorable.

**NOTE: WHEN PRICING SCHEDULE B, THE OFFEROR MUST PROVIDE A SEPARATE COST FOR EACH LINE ITEM OF THE SPECIAL EQUIPMENT AND REQUIREMENTS DESCRIBED. ALSO, REPRESENTATIONAL PRICING OF EACH PROGRAM AREA MUST BE PROVIDED ON THE SCHEDULE B "SUMMARY PRICE SHEET." PROFIT AND OVERHEAD SHOULD BE INCLUDED WITHIN COST OF EACH LINE ITEM AND NOT PROVIDED AS SEPARATE LINE ITEMS. SUMMARY COST SHEET MUST BE SIGNED BY THE OFFEROR.**

**Offerors who do not offer cost proposals as stated in Paragraphs 1.8.2 and 1.8.3 above will be rejected as unacceptable,**

## 1.9 BONDS

All sureties must be listed in the Department of Treasury Circular 570 Approved Surety List. Standard Form 24 (Bid Bond) and Standard Form 25 (Performance Bond) must be used in accordance with FAR 28.106-1. Copies of the forms are included in PART VII of this Solicitation or forms may be acquired by visiting the GSA Forms Library Website at http://www.gsa.gov/Portal/gsa/ep/formslibrary.do?formType=SF. The Government shall have the right to approve or reject any and all terms and conditions of any and all bonds obtained by the Offeror pursuant to this Solicitation. In addition, the terms and conditions of the Bond(s) shall be subject to the prior approval of the Government.

### 1.9.1 BID BOND

To assure the faithful execution of the terms and conditions of the agreement, each Offeror shall submit a Bid Bond with their initial offer. Offers without Bid Bonds will not be considered. The Bond shall remain in effect until a Performance Bond becomes effective should the Offeror be successful, or until VA has notified the Offeror that his proposal is no longer under consideration by VA. A surety company holding a certificate of authority from the Secretary of the Treasury as acceptable surety will execute the Bond. A verifax or other facsimile copy of

the agent's authority to sign bonds for the Surety Company shall accompany the Bond. The Offeror shall furnish a proposal guarantee in the form of a Bid Bond supported by good and sufficient surety acceptable to the Government. The amount of the Bid Bond guarantee shall be in the amount of $100,000. Acceptable alternate bonding protection will be in accordance with FAR 28.204-1 United States Bonds or Notes, or FAR 28.204-3 Irrevocable Letter of Credit (ILC). Invalid bonds may be grounds to render your proposal non-responsive and will not be eligible for an award. Once an award has been made all original Bid Bonds will be returned, except for the successful Offeror whose Bid Bond will be required to remain in full force until such time as a Performance Bond has been received and accepted by the Government.

**1.9.2 PERFORMANCE AND PAYMENT BONDS – CONSTRUCTION (NOV 2006)**

*(a) Definitions*. As used in this clause—

"Original contract price" means the award price of the contract; or, for requirements contracts, the price payable for the estimated total quantity; or, for indefinite-quantity contracts, the price payable for the specified minimum quantity. Original contract price does not include the price of any options, except those options exercised at the time of contract award.

(b) *Amount of required bonds*. Unless the resulting contract price is $100,000 or less, the successful offeror shall furnish performance and payment bonds to the Contracting Officer as follows:

(1) *Payment Bonds (*Standard Form 25A*)*. To assure faithful payment to subcontractors and material suppliers, a surety bond is required by the Offeror to guaranty that his subcontractors and material suppliers on the project will be paid. The penal amount of payment bonds at the time of contract award shall be 100 percent of the original contract **(construction)** price no later than 60 days from VA's final review and written approval of the completed construction documents. The Payment Bond shall remain in effect until the Government accepts the space for occupancy. The United States of America, acting through the Secretary of the Department of Veterans Affairs, shall be named as co-beneficiary on the Bond obtained by the Offeror.

(2) *Performance Bonds* (Standard Form 25). To assure faithful execution of the contract, the successful Offeror shall provide a Performance Bond for 100% of the Total Project Cost as shown in the Offeror's Schedule D no later than thirty (30) days after the date of lease award. The Performance Bond shall remain in effect until it is amended or replaced as set forth in Paragraph (3) below. The United States of America, acting through the Secretary of the Department of Veterans Affairs, shall be named as co-beneficiary on the Bond obtained by the Offeror.

*(3) Performance Bonds after 100% Construction Drawings.* The successful Offeror shall provide an amended or replacement Performance Bond for 100% of the actual construction cost, based on the completed construction documents, no later than 60 days of VA's final review and written approval of the completed construction documents. The amended or replacement Performance Bond shall remain in effect until the Government accepts the space for occupancy. The United States of America, acting through the Secretary of the Department of Veterans Affairs, shall be named as co-beneficiary on the Bond obtained by the Offeror.

(4) Additional bond protection.

(i) The Government may require additional performance and payment bond protection if the contract price is increased. The increase in protection generally will equal 100 percent of the increase in contract price.

(ii) The Government may secure the additional protection by **directing the Contractor to obtain an additional bond for the increased amount.**

(c) *Furnishing executed bonds*. The Contractor shall furnish all executed bonds, including any necessary reinsurance agreements, to the Contracting Officer, within the time period specified in the Bid Guarantee provision of the solicitation, or otherwise specified by the Contracting Officer, but in any event, before starting work.

(d) *Surety or other security for bonds*. The bonds shall be in the form of firm commitment, supported by corporate sureties whose names appear on the list contained in Treasury Department Circular 570, individual sureties, or by other acceptable security such as postal money order, certified check, cashier's check, irrevocable letter of credit, or, in accordance with Treasury Department regulations, certain bonds or notes of the United States. Treasury Circular 570 is published in the *Federal Register* or may be obtained from the:

U.S. Department of the Treasury
Financial Management Service
Surety Bond Branch
3700 East West Highway, Room 6F01
Hyattsville, MD 20782.
Or via the internet at http://www.fms.treas.gov/c570/.

(e) *Notice of subcontractor waiver of protection (40_U.S.C. 3133(c))*. Any waiver of the right to sue on the payment bond is void unless it is in writing, signed by the person whose right is waived, and executed after such person has first furnished labor or material for use in the performance of the contract.

## 1.10 DAVIS BACON WAGES

The wages to be paid during performance under this lease contract must conform to the Department of Labor's General Wage Decision No. CT160023, dated January 15, 2016, and as may be amended during the period of construction of the leased premises. A copy of the standards is provided in PART VII of this Solicitation. It is the Lessor's responsibility to obtain and maintain the most current rates. Lessor will provide Senior Resident Engineer copies of certified payrolls for Davis Bacon compliance review.

## 1.11 SITE SELECTION CRITERIA

The Site offered must meet the following minimum characteristics:

- Be able to accommodate the proposed building and provide the required amount of appropriately located parking with appropriate vehicular circulation, loading dock and service vehicle access, emergency vehicle (ambulance) access and entry, building

utility equipment (chillers, emergency generator, fuel tanks, etc.), safe ways of passage for pedestrians, barrier-free access to public entrances, and adequate open space with landscaping to complement the architecture and create a pleasing outdoor environment.

- Any configurations will be considered, provided the space can adequately accommodate the building program, design requirements, and designated activities.

- Topography shall be without steep grades and shall not be affected by the 100-year flood plain as mapped by FEMA, rock outcroppings, or adverse subsurface conditions.

- Be free of environmental hazards or restrictions. A Phase 1 Environmental Assessment may be requested by the Contracting Officer, if deemed necessary.

- Provide proof of ownership and chain of title through a current title report. Provide proof that all encumbrances have been addressed or identified in a current title report; current within 90 days.

- Provide prominent visibility of the facility from major public thoroughfares.

- Main ingress/egress for on-site pedestrian and vehicular circulation shall be easily accessible from major public thoroughfares.

- Regularly scheduled public transportation shall be available within ¼ mile (1,320 feet) of the OPC site.

- Offeror must provide evidence of the right to ownership or control of the site during the term of the lease and all option terms for the lease. Evidence of control includes, but is not limited to the following fully executed documents:

  a. An Option to Purchase
  b. A Purchase and Sale Contract
  c. A Fee Simple Deed
  d. An Option To Lease Property For Longer Than the Duration of the Lease Term Including All Renewal Options.

## 1.12 BROKER COMMISSION

The Lessor shall be responsible for paying all real estate commissions due in connection with the consummation of this Lease.

For purposes of this Solicitation, the real estate firm of ISI Professional Services (ISI) is the authorized representative of the US Department of Veterans Affairs (VA) and is providing Lease Acquisition Services to VA in connection with this transaction. It is understood between Lessor and VA that ISI has provided Lease Acquisition Services on behalf of VA to assist in the completion of this transaction.

In connection with the provisions of such Lease Acquisition Services and in the event of consummation of a lease agreement between Lessor and VA, Lessor will pay a commission or lease acquisition fee to ISI in the amount of a percentage equal to one and one/half percent (1.5%) of the total contract value of the lease term to include, but not be limited to, base rent (including fixed rental increases or as annualized), other rental income, operating expenses (base year), real estate taxes (base year), and tenant improvement allowance (or applicable amortization). The total contract value that will be used to determine the one and one-half percent (1.5%) commission will be established based on the final lease documents upon lease execution or as amended thereof. Such commission or lease acquisition fee shall be due and payable, as follows:

Seventy-five percent (75%) of commission or lease acquisition fee shall be paid to ISI within thirty (30) calendar days following lease execution between Lessor and VA; and

The remaining twenty-five percent (25%) of commission or lease acquisition fee shall be paid to ISI within thirty (30) calendar days following the earlier to occur of VA's acceptance of space or commencement of rent payments.

The Lessor's responsibilities to pay the commission(s) or lease acquisition fee 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 commission(s) or lease acquisition fee amount owed to ISI pursuant to the compensation schedule outlined herein, VA, at VA's sole option, shall pay the commission(s) or lease acquisition fee on behalf of Lessor to ISI out of rent payments and/or any lump-sum payments owed or to be owed to Lessor for reimbursement(s) of tenant improvement costs or payment(s) for services/work provided by Lessor. The Lease Acquisition Fee shall not exceed one million dollars ($1,000,000.00).

## 1.13 WAIVER OF RESTORATION (APR 2011)

The Lessor shall have no right to require the Government to restore the Premises upon termination of the Lease, and waives all claims against the Government for waste, damages, or restoration arising from or related to (a) the Government's normal and customary use of the Premises during the term of the Lease (including any extensions thereof), as well as (b) any initial or subsequent alteration to the Premises regardless of whether such alterations are performed by the Lessor or by the Government. At its sole option, the Government may abandon property in the Space following expiration of the Lease, in which case the property will become the property of the Lessor and the Government will be relieved of any liability in connection therewith.

## 1.14 BUDGET SCOREKEEPING; OPERATING LEASE TREATMENT (APR 2011)

The Government will award a Lease pursuant to this SFO only if the Lease will score as an operating lease under Office of Management and Budget Circular A-11, Appendix B. Only offers that are compliant with operating lease limitations will be eligible for award. Offerors are obligated to provide supporting documentation at the request of the CO to facilitate the Government's determination in this regard.

## 1.15 OFF-SITE IMPROVEMENTS

**The cost of off-site improvements will be borne by the Lessor. The Lessor is responsible for determining the cost of off-site improvements prior to lease award, and including the costs of off-site improvements in the proposed rent.**

The LESSOR, at its own cost, shall perform and complete all off-site work and improvements which may consist of, but are not limited to, streets, street name signs, traffic signs, sewers, water systems, fire hydrants, curbs, gutters, sidewalks, street lighting, driveways, drainage facilities, accesses, survey monuments, etc., hereinafter referred to as off-site improvements, and said off-site improvements shall be constructed in accordance with applicable Federal, State, and local laws, regulations, standards, and specifications. Lessor is responsible for obtaining all permits and required approvals, including VA approval, of the off-site improvement plan. Lessor is required to obtain all permits and approvals, prior to commencing work. Lessor is solely responsible for initiating and completing any related hazardous material abatement, remediation, removal, or other environmental cleanup actions related to the off-site work and improvements that may be necessary or required pursuant to Federal, State and local laws, regulations, ordinances, codes or other requirements.

"Hazardous materials" shall mean any substance which is or contains: (i) any "hazardous substance" as now or hereafter defined in Section101(14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (42 U.S.C. Section 9601 et seq.) ("CERCLA") or any regulations promulgated under CERCLA; (ii) any "hazardous waste" as now or hereafter defined the Recourse Conservation and Recovery Act (42 U.S.C. Section6901 et seq.) ("RCRA") or regulations promulgated under RCRA; (iii) any substance regulated by the Toxic Substances Control Act (15 U.S.C. Section2601 et. seq.); (iv) gasoline, diesel fuel or other petroleum hydrocarbons; (v) asbestos and asbestos containing materials, in any form, whether friable or non-friable; (vi) polychlorinated biphenyls; and (vii) any additional substances or materials which are now or hereafter classified or considered to be hazardous or toxic under any laws, ordinances, statutes, codes, rules, regulations, agreements, judgments, orders and decrees now or hereafter enacted, promulgated, or amended, of the United States, the state, the county, the city or any other political subdivision in which the Property is located and any other political subdivision, agency or instrumentality exercising jurisdiction over Lessor.

The Lessor is responsible for proper construction, maintenance, and compliance with all federal, state, and local laws and regulations of all required off-site improvements through the duration of the lease. At completion or termination of the lease, the Lessor, and not the Government, is responsible for any restoration or removal of the off-site improvements, including, but not limited to, the removal of any environmental, safety, and hazardous materials.

## 1.16 DUE DILIGENCE

The LESSOR acknowledges its duty to conduct reasonable site inspections and due diligence activities for the proposed site. The LESSOR warrants that it has considered all factors which a prudent, experienced bidder customarily uses in making judgments about site conditions, quantity, quality and methods of performing the particular work. By submitting a proposal for consideration in response to this Solicitation, the LESSOR acknowledges that it has taken

steps reasonably necessary to ascertain the nature and location of the work, and that it has investigated and satisfied itself as to the general and local conditions which can affect the work or its cost, including but not limited to the conformation and conditions of the ground. The LESSOR also acknowledges that it has satisfied itself as to the character, quality and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from inspection of the site.

## 1.17 APPLICABLE LAW

Any provision in this Lease that purports to assign liability or require expenditure of funds to the Lessor shall be governed by the provisions of the Contract Disputes Act of 1978, 41 USC 601-613, Anti-Deficiency Act, 31 USC 1341, and the Federal Tort Claims Act, 28 USC 2671 et seq.

# SECTION 2 COMMUNICATIONS AND AWARD

## 2.1 ORAL PRESENTATIONS

Oral presentations may be made to augment written information. Oral presentations will not be required unless specifically requested by the Government in writing. Oral presentations may occur at any time during the acquisition process and are subject to the same restrictions as written information with regard to timing and content. Information pertaining to areas such as an Offeror's capability to perform, past performance, key personnel resources, work plan approaches, etc., may be suitable for oral presentations. Should the Government require an oral presentation, the Offeror will be provided with (1) sufficient information to prepare them, including the types of information to be presented and the associated evaluation factors that will be used; (2) the qualifications for personnel that will conduct the oral presentation; (3) the requirement for, and any limitations and/or prohibitions on, the use of written material or other media to supplement the oral presentation; (4) the location, date, and time for the oral presentation; (5) the restrictions governing the time permitted for each oral presentation; and (6) the scope and content of exchanges that may occur between the Government and the Offeror as part of the oral presentation.

## 2.2 EVALUATION OF OFFERS

This is a competitive negotiated with Best Value Trade Offs lease procurement following procedures in FAR 15. Evaluation of offers and subsequent award will be made on the basis of price, and the following technical factors and subfactors. Competitive negotiated best value trade off source selection procedures will be used to evaluate proposals and award will be made to responsible firm(s) offering the best value to the Government after evaluation of both the total evaluated contract price and non-priced technical factors. Offerors must meet the mandatory minimum requirements of the solicitation, including qualifications defined in this solicitation The Contracting Officer will evaluate all proposals to assess the Offeror's ability to perform the contract successfully. The evaluation will be conducted based on the factors and sub-factors specified in this Solicitation.

The technical evaluation factors and subfactors, when combined, are equal to cost or price. ***Offerors are advised that if proposals are considered technically equal, price may become the determining factor.***

### 2.2.1 TECHNICAL EVALUATION

The technical evaluation factors include Technical Quality, Evidence of Capability to Perform, Operation and Maintenance Plan, and the Offeror's Socio-Economic Status. The Offeror is required to submit drawings, narratives, and calculations that address this factor and all of its sub-factors. Submittal requirements for these materials are in SECTION 10. All technical factors are listed in descending order of importance. All technical sub-factors are also listed in descending order of importance within each main factor.

### 2.2.2 FACTOR NO. 1 – TECHNICAL QUALITY

The importance of the subfactors within Factor No. 1 (Technical Quality) is as follows:
The individual subfactor A is more important than individual subfactors B-D; individual subfactor B is of more importance than individual subfactors C-D; individual subfactor C is of more importance than individual subfactor D.

**SUBFACTORS:**

**A. Quality of Building and Design Concept**
The exterior design shall be subject to technical and aesthetic review and approval of the Contracting Officer. The building shall be new construction of permanent materials and shall be compatible with its surroundings. Acceptable facades include stone, brick or aluminum curtain wall systems, architectural metal panel systems, or other permanent materials as indicated on contract documents. Overall, the building must project a professional and aesthetically pleasing appearance. Site and building design shall present a clear and direct entry sequence for patients and visitors.

**B. Architectural Concept**
This factor considers the interior functional and spatial relationships shown in the Offeror's floor plan. The space offered shall be of shape and dimensions that will accommodate the space program and interior functional requirements of VA Outpatient Clinic. Consideration will be given to the number and size of floors, column placement, shape of footprint, circulation systems, and placement of mechanical, plumbing, and electrical service spaces. The Contracting Officer will reject buildings that are unsuitable in configuration for VA clinic space.

**C. Sustainable Design and Energy Efficiency**
The building envelope and systems will be evaluated for compliance with the requirements of Paragraphs 4.2.1B Mandatory Provisions for Energy Conservation and 4.8 SUSTAINABLE DESIGN AND ENERGY EFFICIENCY. Drawings, specifications, calculations, and narrative(s) submitted in accordance with SECTION 10 will be evaluated for compliance with requirements for sustainable design and energy efficiency. Reasonable innovation in this area will be looked upon favorably.

**D. Quality of Site Development**
This factor considers the Offeror's development of the site to accommodate VA's conceptual building footprint including the required setbacks; the ingresses and egresses to and from the main (public), emergency, and staff entrances; and loading dock and service entrances; accessible parking lots and walkways; traffic patterns to maximize the flow of vehicles to and from the main thoroughfare; and how the landscaping design fits the surrounding areas, adheres to local landscaping codes, and provides an aesthetically pleasing atmosphere.

### 2.2.3 FACTOR NO. 2 – EVIDENCE OF CAPABILITY TO PERFORM

The importance of the sub-factors within Factor No. 2 (Evidence of Capability to Perform) is as follows: The individual subfactor A is more important than individual subfactors B-D; individual subfactor B is more important than individual subfactors C-D; individual subfactor C is more important than individual subfactor D.

**SUBFACTORS:**

**A. Past Performance**

Include the following information for each contract and subcontract performed by the **Offeror and key personnel** during the past three (3) years, as well as those contracts and subcontracts currently in progress. A separate record must be completed for each contract and subcontract. A Past Performance Survey Form is located in the FORMS part of this SFO and includes the following:

- Name and Address of Contracting Activity
- Contract Number
- Type of Contract
- Total Contract Amount and Status
- Date of Award and Date of Completion
- Description and Location of Contract Work
- List of Major Subcontractors
- Contracting Officer or Individual Responsible for Signing Contract and Telephone/FAX Numbers
- Project Manager and Telephone/FAX Numbers
- Resident Engineer/Contracting Officer's Technical Representative or Construction Supervisor and Telephone/FAX Numbers
- Administrative Contracting Officer or Individual Responsible for Administering the Contract (if different from Contracting Officer above) and Telephone/FAX Numbers

The Offeror must provide examples of past performance and experience, as a prime contractor, in successfully building, renovating, and maintaining facilities comparable in size and complexity to the one described in this Solicitation. Consideration will be given to:

- Timeliness of Performance
- Cost Control
- Effective Management
- Customer Satisfaction
- Quality Awards
- The Technical Success of the Project

The Offeror must also provide a list of references for the Offeror and key personnel. References may be business, financial, and/or personal, and may include letters of recommendation or commendation, awards or certifications that indicate Offeror possesses a high quality process for developing and providing the final project or service.

**B. Financial Resources**

Both must provide satisfactory evidence of **at least two (2) conditional commitment of funds in an amount necessary to prepare and/or construct the space**. Such commitment must be signed by an authorized bank officer or other financial institution, dated within 10 days of the date of submission of the Offeror's proposal, and, at a minimum, must state:

- Amount of Loan
- Term in Years
- Annual Percentage Rate
- Length of Loan Commitment
- Name of the Principal(s) Involved
- The Purpose of the Loan
- Type of Funding (Bonds vs. Traditional)

In the case an Offeror is requested to submit a Final Proposal Revision, the Offeror shall submit evidence of a firm commitment of funds in an amount sufficient to perform the work with the final offer.

With the initial offer, provide satisfactory evidence of financial resources sufficient to prosecute the work. Such evidence may be one of the following:

- A Statement of Financial Condition
- Personal or Business Financial Statements, including Balance Sheets, and Profit and Loss Statements
- Investment Schedule
- Note Payable Schedule
- Previous Year's Federal Tax Return
- Annual Report
- Equity sources for transaction
- Back-up equity sources (if applicable)

If requested, more information must be provided.

**C. Design Team Qualifications**

Provide a completed SF 330, "Architect-Engineer Qualifications" for each individual or firm on the Lessor's design team. Identify key personnel that are to be committed to the project. In Part I, Section H of SF 330, provide a description of outstanding commitments for each firm and key personnel. As a minimum, the design team shall include entities providing the following services: Architecture, Civil Engineering, Mechanical Engineering, Fire Protection, Electrical Engineering, Interior Design, and appropriate Low Voltage Engineering (Structured Telecommunications Cabling, Security, Audio Visual, and Special Systems). The Offeror must also provide past performance through submission of completed Form Pt 08J.

Provide a copy of the license or certification of the individual(s) and/or firm(s), providing architectural and engineering design services, proving their ability to practice in the state where the facility is located. Low-voltage designers shall be BICSI-certified for structural cabling, and shall have OEM credentials for the Special Systems listed in 6.8.1.G, Special Systems Specific Requirements.

Lessor shall maintain the same design team for the duration of the design development and construction process. Design team firm and key personnel shall not be changed without prior approval by the Contracting Officer.

In the initial offer and prior to award, the Offeror shall provide evidence of a firm commitment of teaming arrangements with the architect firm(s) that are presented in the Lessor's proposal

in the form of a letter on each company's letterhead addressed to the Contracting Officer from the principal(s) of each of the respective firms.

**D. Contractor Qualifications**

Provide a completed GSA Form 527, "Contractor's Qualifications and Financial Information" for the General Contractor, Mechanical Contractor, and Electrical Contractor; except Section V need not be completed. In Section VII of Form 527, provide a description of outstanding commitments, names and qualifications of key personnel, and any other information related to experience, competency, and performance capabilities with construction projects similar in scope to that which is required herein. The Offeror must also provide past performance through submission of completed Form Pt 08J.

Provide a copy of the license in the state where the facility is located for the individual(s) and/or firm(s) proposed as contractors. If the Lessor is also the Contractor, information provided in response to paragraphs Past Performance and Financial Resources above need not be duplicated.

Lessor shall maintain the same general contractor for the duration of the construction process. General contractor firm and key personnel shall not be changed without prior approval by the Contracting Officer.

The Offeror must submit the name and qualifications of the proposed Commissioning Provider. Include relevant experience and references. The Commissioning Provider must be approved by the Contracting Officer.

In the initial offer and prior to award, the Offeror shall provide evidence of a firm commitment of teaming arrangements with the architect firm(s) that are presented in the Lessor's proposal in the form of a letter on each company's letterhead addressed to the Contracting Officer from the principal(s) of each of the respective firms.

### 2.2.4 FACTOR NO. 3 – OPERATIONS AND MAINTENANCE PLAN

The importance of the sub-factors within Factor No. 3 (Operations and Maintenance Plan) is as follows: The individual subfactor A is more important than individual subfactors B-C; individual subfactor B is more important than individual subfactor C.

The following evaluation criteria will consider the adequacy and efficiency of the proposed Operations and Maintenance Plan to maintain standards of cleanliness, orderliness, and repair for the entire proposed facility. Each sub-factor must be addressed in narrative or chart format. The Plan will be evaluated as a whole and must address at a minimum:

**SUBFACTORS:**

(A) Interior and Exterior Maintenance of Building and Grounds

(B) Routine and Emergency Calls - Procedures and Response Times

(C) Staffing Plan, Administrative Procedures, and Quality Control Plan

### 2.2.5 FACTOR NO. 4 – SOCIO-ECONOMIC STATUS

This factor does not have any individual sub-factors.

For the purposes of this solicitation and resultant contract (lease), North American Industry Classification System (NAICS) codes is 531190. The small business size standard is $38.5 million. Under this classification, a concern is considered a small business if its average annual receipts for its preceding three (3) fiscal years do not exceed the size standard reflected. Prime and Joint Ventures submitting a proposal in response to this solicitation must meet the small business size standard.

Eligible Service-Disabled Veteran-Owned Small Businesses, Veteran-Owned Small Businesses, or Small Businesses shall receive credit for their status. Service-Disabled Veteran-Owned Small Businesses will receive full credit for this evaluation criteria, Veteran-Owned Small Businesses will receive partial credit greater than, all other Small Businesses, which will receive partial credit.

**SMALL BUSINESS**

In order to receive credit for any small business classification, as a component of these evaluation criteria, small businesses must:

- Register and provide a DUNS Number validated in SAM.GOV
- Completed Representations and Certifications in SAM.GOV that have been entered or updated **within the last 12 months**, are current, accurate, complete, and applicable to this solicitation (**including the business size standard applicable to the NAICS code referenced for this solicitation**)
- Provide the SAM.GOV print out verifying offering entity's status for NAICS 531190
- Provide SBA web print out showing registration or a signed acknowledgement of application from the Small Business Administration

**SDVOSB and VOSB**

Status as a Service-Disabled Veteran-Owned Small Business is determined in accordance with 13 CFR Parts 125.8 through 125.13. Additionally, the SDVOSB or VOSB evaluation criteria, **the offeror MUST be registered and have an active status in the Vendor Information Pages (VIP) database at www.vetbiz.gov.** Offerors must provide a copy of the Center for Veterans Enterprises (CVE) Verification letter **at initial offer and with final revised proposals**. The Offeror's DUNS must correspond to the DUNS in SAM.GOV.

The core requirements for a company to become verified are:

- The Veteran owner(s) have direct, unconditional ownership of at least 51% of the company (38 CFR 74.3) and have full decision making authority (38 CFR 74.4 (g));
- The Veteran manages the company on both a strategic policy and a day-to-day basis (38 CFR 74.4);
- The Veteran holds the highest officer position (38 CFR 74.4(c)(2));
- The Veteran should be the highest compensated employee unless there is a logical explanation otherwise submitted by the Veteran as to how taking a lower salary than other employee(s) helps the business (38 CFR 74.4 (g) (3)); and

- The Veteran has the managerial experience of the extent and complexity needed to run the company.

**JOINT VENTURES**

For purposes of this solicitation a Joint Venture (JV) is a Partnership. An Offeror may submit a proposal in the form of a Joint Venture only if the existing Joint Venture has a corresponding DUNS Number in https://www.SAM.gov **and all the proposal submission documents are in the name of the existing Joint Venture, not the individual partners of the Joint Venture**. These include, but are not limited to:

- GSA Form 3518
- GSA Form 1364A
- GSA Form 1217
- Financial Resource Commitment Letters

Offerors who are an existing Joint Venture may submit a proposal under this solicitation subject to the following conditions:

1. The Joint Venture is registered in SAM.GOV and has a corresponding DUNS Number;
2. The Joint Venture meets the definition of a Joint Venture for size determination purposes (FAR 19.101(7)(i));
3. The Joint Venture must meet the requirements of 13 CFR 125.15(b);
4. The Joint Venture fills out and submits the Representations and Certifications in Section K; and,
5. The Offeror must submit a complete copy of the Joint Venture agreement that established the relationship, disclosing the legal identity of each partner of the Joint Venture, the relationship between the partners, the form of ownership of each team member, any limitations on liability or authority for each partner, and a specific statement of what resources each partner provides the teaming arrangement. In addition, the existing Joint Venture must:
   a. Clearly identify the entities which make up the Joint Venture relationship, including disclosure of the primary point of contact for each of the partners;
   b. Disclose the member of the Joint Venture that is designated as the “team lead,” and clearly explain the specific duties/responsibilities of the “team lead” relative to the other members of the team and to the Government;
   c. Describe the specific duties/responsibilities of each partner of the team as they relate to each other and explain the specific duties/responsibilities that each team member will have for purposes of contract performance under this contract; and,
   d. Address the duration of the Joint Venture, including when it became effective, when it expires, and the basis for determination.
6. If the Joint Venture meets the small business size determination (FAR19.101(7)(i)), each Joint Venture partner must be registered in SAM.GOV, have a corresponding DUNS Number, and provide the SAM.GOV print out verifying each entities status for NAICS 531190.
7. A joint venture may be considered a Service-Disabled Veteran-Owned Small Business if:
   a. The Joint Venture is registered and verified in the Vendor Information Pages (VIP) database at www.vetbiz.gov. Offerors must provide a copy of the Center for

Veterans Enterprises (CVE) Verification letter. The Offeror's DUNS must correspond to the DUNS in SAM.GOV.

b. Each other concern is small under the size standard corresponding to the NAICS code assigned to the procurement
c. The Joint Venture meets the requirements of paragraph 7 of the explanation of Affiliates in 19.101; and
d. The Joint Venture meets the requirements of 13 CFR 125.15(b)

**Small Business Subcontracting Plan**. If the contractor is offering as a Large Business and subcontracting opportunities exist, the offer must include with the **initial offer** a Small Business Plan as defined in FAR 52.219-8, FAR 52.219-9, and VAAR 852.219-9 which are included by reference in this solicitation. An acceptable template can be found on the following website: http://www.va.gov/oal/business/fss/sbsp.asp. This is a suggested format only. Other formats are acceptable; however, all identified elements must be included for your plan to be processed and approved. Additional guidance is included in FAR 52.219-9. The subcontracting plan will be evaluated and rated on the demonstrated plan of meeting or exceeding VA's small business goals outlined in the table below and the following:

- Reflects a valid corporate commitment between all parties in providing subcontracting opportunities for small business, small disadvantaged business, women-owned small business, HUBZone small business, veteran-owned small business, and service-disabled veteran-owned concerns. Includes the strength and specificity of each corporate commitment (i.e., what type of commitment, how binding is the commitment, how specific is the commitment to this proposed effort, and what types of tasks are included in these subcontracting opportunities).

- Reflects a one year history demonstrating your corporate commitment to meet your subcontracting goals/targets by providing Individual Subcontracting Report (ISR), for those contracts/projects in which you are submitting under Past Performance. If goals were not met on the ISR, provide an explanation as to why the goals/targets were not met.

- Demonstrates realistic targets expressed in dollars and in percentages of the total proposed subcontracting dollars for each small business category listed above.

- Reflects compliance, at a minimum, with VA goals listed below.

| Category | Goal |
|---|---|
| **Small Business** | 17.5% |
| **Veteran-Owned Small Business** | 5% |
| **Service-Disabled Veteran-Owned Small Business** | 3% |
| **Small Disadvantaged Business (including Section 8(a))** | 5% |
| **Women-Owned Small Business** | 5% |

| | |
|---|---|
| **Historically Underutilized Business Zone (HUBZone) Small Business** | 3% |

For Small Businesses: If the Offeror is a small business concern, the Offeror is not required to submit a small business plan.

The subcontracting plan submitted with the offer will be evaluated on the extent to which the proposal provides Small Business Subcontracting targets that meet the Department of Veteran Affairs Small Business goals for this project and the extent to which the offeror's Small Business Subcontracting Plan establishes reasonable efforts demonstrating the subcontracting targets can be met during the performance of the contract. **Failure to submit subcontracting plan at the time of initial offer shall make the offeror ineligible for award of the contract.**

### 2.2.6 PRICE EVALUATION

The basic price offered will be the rate per Net Usable Square Foot (NUSF). Refer to Paragraph 3.14 of this Solicitation for a definition of NUSF. This price shall be used to determine the total annual rental to be paid, adjusted for any discrepancies in the quantity of space delivered against the amount offered and accepted, as described elsewhere in this Solicitation.

If annual CPI adjustments in operating expenses are included, the Offeror shall be required to submit the offer with the total "gross" annual price per rentable square foot and a breakout of the "base" price per rentable square foot for services and utilities (operating expenses) to be provided by the Lessor. The "gross" price shall include the "base" price. The first year's adjusted base price per rentable square foot will be the new base price for the second year of the lease. The second year will be the new base year upon which annual adjustments will be made; beginning with the second year of the lease and each year thereafter, the Government shall pay an adjusted rent for changes in annual costs based upon the annual CPI index.

**A. Present Value Price Evaluation**

(1) The Offeror must submit plans and any other information to demonstrate that the rentable space yields Net Usable space within the required Net Usable range. The Government will convert the rentable prices offered in GSA Form 1364 to Net Usable prices, which will subsequently be used in the price evaluation.

(2) Evaluation of offered prices will be on the basis of the annual shell rental rate per Net Usable square foot, including any option periods and for all Schedule B items, which will be reimbursed to the Lessor by lump sum payment (the costs for these items are present value; therefore, it will not be discounted.) The Government will use that data to perform a net present value price evaluation by reducing the prices per annual shell Net Usable square foot to a composite annual Net Usable square foot price as follows:

(a) Parking and wayward areas will be excluded from the total square footage but not from the price. For different types of space, the gross annual per square foot price will be

determined by dividing the total annual rental by the total square footage minus these areas.

(b) Free or reduced rent will be evaluated in the year in which it is offered. The gross, averaged annual per square foot price is adjusted to reflect free rent.

(c) Also as stated in the "Broker Commission" paragraph, the amount of any commission paid to VA's Broker will not be considered separately as part of this price evaluation since the value of the commission is subsumed in the gross rent rate.

(d) To evaluate the real value of rent today, over the given term of the lease, the analysis will compound the amount of rent at a given (discount) rate. The gross annual per Net Usable square foot shell rental costs will be discounted annually at 3.1 percent (OMB Circular No. A-94) over the entire term of the lease, to yield a net present value cost (NPV) per net usable square foot. This will provide an annual present value of the proposed rent, for years two through the term of the lease, at this 3.1 percent discount.

(e) If annual adjustments in operating expenses will not be made, the operating expenses will be both escalated at 1.9 percent compounded annually and discounted annually at 3.1 percent, then added to the net Present Value Cost (PVC) to yield the gross PVC.

(f) If annual adjustments in operating expenses will be made, the annual per square foot price, and the base cost of operating expenses, will be discounted annually at 3.1 percent to yield a net PVC per square foot.

(g) To the gross PVC will be added:

1. The cost of Government-provided services not included in the rental escalated at 1.9 percent compounded annually and discounted annually at 3.1 percent.

2. The annualized (over the full term) per ANSI/BOMA Office Area square foot cost of any items, which are to be reimbursed in a lump sum payment. (The cost of these items is present value; therefore, it will not be discounted.)

3. The cost of relocation of furniture, telecommunications, replications costs, and other move-related costs, if applicable.

## 2.3 ZONING REQUIREMENTS

Provide evidence of compliance with local zoning laws or evidence of variance, if any, approved by the proper local authority. Provide evidence of compliance with any specific zoning conditions that may be required in order to develop the property. At the discretion of the Contracting Officer, other forms of documentation demonstrating the probability of receiving such variances may be acceptable.

## 2.4 CONTROL OF PROPERTY

In order for an Offeror to submit a site as part of a proposal, the site offered must be one of the approved sites as listed in Section 1.2.

If the Contracting Officer's confirmation included a contingency for submission, the Offeror must submit as part of the proposal a copy of the Contracting Officer's letter, a detailed explanation of how the contingency is or will be addressed by the offeror, and/or evidence that the contingency has been addressed per the terms of the letter. In the event the Offeror has not met or does not present sufficient information to demonstrate that it will meet the contingency to the satisfaction of the Government, in the Government's sole and absolute discretion, the Government reserves the right to consider the proposal non-responsive.

Offeror must submit written evidence that it is authorized by the owner of the site to present the site. In addition, Offeror must provide evidence of site control for longer than the duration of the lease term required in this SFO, including all renewal options. Documentation that constitutes evidence of control includes, but is not limited to, the following fully-executed documents:

- An option to purchase;
- A sales contract;
- A deed showing fee simple ownership; or
- An option to lease the site.

Fee simple title or the option to lease/purchase must be free of any encumbrances or contingencies, including use restrictions, which may limit the rights, responsibilities or liabilities of the parties to the VA lease.

Except for a deed evidencing fee simple ownership, any evidence of owner's consent or site control submitted by Offerors must be signed by both the landowner and the Offeror and be notarized.

## 2.5 EVIDENCE OF CAPABILITY TO PERFORM AFTER AWARD

Within 90 calendar days after award, the successful Offeror/Lessor shall provide the Contracting Officer with evidence of the following:

A firm commitment of funds in an amount sufficient to perform the work.

Satisfactory title showing fee simple ownership of the property, or an option to lease property for longer than the duration of the lease term, including all renewal options. Fee simple title or option to lease must be free of any encumbrances that may limit the rights, responsibilities or liabilities of the parties to the VA lease.

**FAILURE TO MEET ANY OR ALL OF THE REQUIREMENTS AS SET FORTH IN PARAGRAPHS 2.2.3 AND 2.5 INCLUDING SUB-PARAGRAPHS, WITHIN THE SPECIFIED TIMEFRAMES SHALL BE A BASIS FOR DETERMINATION OF NON-RESPONSIBILITY OR FOR TERMINATION OF THE CONTRACT FOR DEFAULT.**

**FAILURE ON THE PART OF THE GOVERNMENT TO ENFORCE ITS RIGHTS TO DECLARE A DEFAULT WILL NOT BE DEEMED A WAIVER OF ANY OF THE GOVERNMENT'S RIGHTS UNDER THIS SOLICITATION.**

## 2.6 COMMUNICATIONS WITH OFFERORS

The Government reserves the right to evaluate proposals and award a contract without discussions with offerors (except clarifications as described in FAR 15.306(a)). Therefore, the offeror's initial proposal should contain the offeror's best terms from a cost or price and technical standpoint. The Government reserves the right to conduct discussions if the Contracting Officer later determines them to be necessary. If the Contracting Officer determines that the number of proposals that would otherwise be in the competitive range exceeds the number at which an efficient competition can be conducted, the Contracting Officer may limit the number of proposals in the competitive range to the greatest number that will permit an efficient competition among the most highly rated proposals.

## 2.7 COMPETITIVE RANGE

If an award is not made based on the initial proposals, the following process will occur:

The Contracting Officer will establish a competitive range, and conduct discussions with each offeror in the competitive range following procedures within FAR 15.306. After discussions, each Offeror in the competitive range will be given an opportunity to submit a revised proposal through an amendment to this solicitation, which will be published on FBO.gov. Offerors may be eliminated from the competitive range any time after receipt of initial offer until lease award. After, the conclusion of discussions and a review of final proposal revisions are completed; the Contracting Officer may award the lease.

## 2.8 DISCUSSIONS

If the Contracting Officer establishes a competitive range, the Contracting Officer will conduct discussions only with those Offerors who have been placed in the competitive range as established under procedures at Paragraph 2.7 above. VA Contracting Officer may conduct discussions in order to obtain the <u>best value</u> to the Government.

## 2.9 AWARD

### 2.9.1 BEST VALUE

The lease will be awarded to the Offeror whose offer represents the <u>best value</u> to the Government, price and other factors considered. For this procurement, price is equal to technical factors. An award will be made based on a best value trade off process using comparative assessment of proposals against all selection criteria in the Solicitation.

To be considered for award, an Offeror must agree to provide a complete facility that meets all technical requirements and specifications set out in this Solicitation. The requirements and specifications contained in this Solicitation are mandatory.

### 2.9.2 LEASE COMPONENTS

At a minimum, the proposed lease shall consist of:

- Standard Form 2 - U.S. Government Lease for Real Property
- Form 35l7B, General Clauses
- Form 35l8, Representations and Certifications
- Form 3516A, Solicitation Provisions
- Property Management Agreement
- All the provisions of the SFO
- The pertinent provisions of the offer

**NOTE:** For purposes of release of information under the Freedom of Information Act (FOIA) or other applicable statutes or regulations, the individual itemized costs as set forth in Schedule B and other proprietary information are considered procurement-sensitive information and **are not** subject to release.

### 2.9.3 AWARD

The award by the Government occurs upon execution of the lease by VA Contracting Officer and issuance of a letter by VA Contracting Officer indicating that the Government accepts the Offeror's proposal.

# SECTION 3 MISCELLANEOUS

## 3.1 SUBSTITUTIONS FOR SPECIFIC BRAND NAMES

When specific equipment is cited using the brand name, model number, etc., a comparable or equal product may be provided in lieu of cited equipment in accordance with the Brand Name clause provided in Schedule B of the Solicitation. Any substitutions need to be approved by the Contracting Officer or his/her designee.

## 3.2 UNIT COSTS FOR ADJUSTMENTS

Schedule E of this Solicitation indicates various types of materials anticipated for floors, walls, and ceilings. Additionally, several paragraphs in this Solicitation specify means for determining quantities of materials not specified in Schedule E. Government projections of these various materials have been made to assist the Offeror in cost estimating and have been included on Section 1 of Schedule C. Actual quantities may not be determined until after the lease is awarded and the space layout completed. To enable an equitable settlement if the final Government layout departs from the projection, the quantities specified on Section 1 of Schedule C are to be included in the per square foot rate being proposed. A unit cost for each of these materials is required. VA will use each unit cost to make a lump sum payment at time of acceptance of the building or to negotiate a rental increase if the amount of material required by the layout is more than specified. If the amount of material is less than specified, VA will take credit from the initial rental payment.

## 3.3 UNIT PRICES FOR ALTERATIONS OF $100,000 OR LESS

The Offeror is required to submit a list of "Unit Prices for Alterations" for any alterations required during the first year. This list will be used, after acceptance by VA, for contracts for alterations costing $100,000 or less. These prices may be indexed or re-negotiated to apply to subsequent years of the lease upon mutual agreement of the Lessor and Government. (Use Schedule C for this purpose.)

Prices for changes in quantities of the types or styles of finish materials requested by the Government shall be computed using the unit costs for the materials in question from Section 1 of Schedule C.

Where unit prices for alterations are not available, the Lessor may be requested to provide a price proposal for the alterations. Orders will be placed by issuance of a GSA Form 276, Supplemental Lease Agreement. The clauses entitled "GSAR 552.232-75, Prompt Payment (SEP 1999)," "GSAR 552.232-70, Invoice Requirements (Variation) (SEP 1999)," and "GSAR 552.232-76, Electronic Funds Transfer Payment (MAR 2000) (Variation)" apply to orders for alterations (See GSA Form 35l7B). All orders are subject to the terms and conditions of the lease.

Orders may be placed by the Contracting Officer or other authorized representatives when specifically authorized to do so by the Contracting Officer. The Contracting Officer will provide the Lessor with a list of agency officials authorized to place orders and will specify any

limitations on the authority delegated to agency officials. The agency officials are not authorized to deal with the Lessor on any other matters.

## 3.4 SPECIAL WORK (INSTALLATIONS AND ALTERATIONS)

The Government may require special installations in the space, such as computer rooms, vaults, or laboratories containing special air conditioning and heating controls, flooring and various electrical, plumbing, and mechanical facilities, and equipment not otherwise specified in this Solicitation. The Government reserves the right to contract separately for such facilities, equipment and/or installations; or it may require the Offeror to perform such work. In the event the Government requires the Offeror to complete such installations, the Offeror will be required to submit a cost estimate to the Contracting Officer within 30 days after receipt of complete specifications for the special installation.

If the Government contracts with the Offeror to effect such installations, payment will be made on a lump-sum basis or through increased rental payments at the Government's option. (Increased rental payments will recognize residual values to the Owner and will include interest, if any, at a rate not in excess of the first mortgage.) In connection therewith, the successful Offeror will be required to accomplish such work on an actual cost basis, and the Government payment, therefore, will be computed on the basis of such.

The successful Offeror will be required to submit, not later than 30 days prior to the date of delivery and occupancy of the space and every year thereafter during the term of the lease, unit prices for such repetitive alteration work items such as (1) installation of electrical outlets, (2) installation of telephone/data outlets, (3) erection and/or relocation of movable partitions, (4) lighting changes, and (5) special painting.

## 3.5 TAX ADJUSTMENTS

### 3.5.1 PURPOSE

This paragraph provides for adjustment in the rent ("Tax Adjustment") to account for increases or decreases in Real Estate Taxes for the Property after the establishment of the Real Estate Tax Base, as those terms are defined herein. Tax Adjustments shall be calculated in accordance with this Clause.

### 3.5.2 DEFINITIONS

The following definitions apply to the use of capitalized terms within this paragraph:

"Property" is the land, buildings and other improvements of which the premises (as fully described in the U.S. Government Lease for Real Property, SF2) form all or a part.

"Real Estate Taxes" are those taxes that are levied upon the owners of real property by a Taxing Authority (as hereinafter defined) of a State or Local Government on an ad valorem basis to raise general revenue for funding the provision of government services. The term excludes, without limitation, special assessments for specific purposes, assessments for business improvement districts, and/or community development assessments.

"Taxing Authority" is a State, Commonwealth, Territory, County, City, Parish, or political subdivision thereof, authorized by law to levy, assess, and collect Real Estate Taxes.

"Tax Year" refers to the 12-month period adopted by a Taxing Authority as its fiscal year for the purpose of assessing Real Estate Taxes on an annual basis.

"Tax Abatement" is an authorized reduction in the Lessor's liability for Real Estate Taxes below that determined by applying the generally applicable Real Estate Tax rate to the Fully Assessed (as hereinafter defined) valuation of the Property.

"Unadjusted Real Estate Taxes" are the full amount of Real Estate Taxes that would be assessed for the Property for one full Tax Year without regard to the Lessor's entitlement to any Tax Abatements (except if such Tax Abatement came into effect after the date of award of the Lease), and not including any late charges, interest, or penalties. If a Tax Abatement comes into effect after the date of award of the Lease, "Unadjusted Real Estate Taxes" are the full amount of Real Estate Taxes assessed for the Property for one full Tax Year, less the amount of such Tax Abatement, and not including any late charges, interest, or penalties.

"Real Estate Tax Base" is the Unadjusted Real Estate Taxes for the first full Tax Year following the commencement of the Lease term. If the Real Estate Taxes for that Tax Year are not based upon a Full Assessment of the Property, then the Real Estate Tax Base shall be the Unadjusted Real Estate Taxes for the Property for the first full Tax Year for which the Real Estate Taxes are based upon a Full Assessment. Such first full Tax Year may be hereinafter referred to as the "Tax Base Year." Alternatively, the Real Estate Tax Base may be an amount negotiated by the parties that reflects an agreed-upon base for a Fully Assessed value of the property.

The Property is deemed to be "Fully Assessed" (and Real Estate Taxes are deemed to be based on a "Full Assessment") only when a Taxing Authority has, for the purpose of determining the Lessor's liability for Real Estate Taxes, determined a value for the Property, taking into account the value of all improvements contemplated for the Property pursuant to the Lease, and issued to the Lessor a tax bill or other notice of levy wherein the Real Estate Taxes for the full Tax Year are based upon such Full Assessment. At no time prior to the issuance of such a bill or notice shall the Property be deemed Fully Assessed.

"Percentage of Occupancy" refers to that portion of the Property exclusively occupied or used by the Government pursuant to the Lease. For buildings, the Percentage of Occupancy is determined by calculating the ratio of the rentable square feet occupied by the Government pursuant to the Lease to the total rentable square feet in the building or buildings so occupied, and shall not take into account the Government's ancillary rights including, but not limited to, parking or roof space for antennas (unless facilities for such ancillary rights are separately assessed). This percentage shall be subject to adjustment to take into account increases or decreases in the amount of space leased by the Government or in the amount of rentable space on the Property.

### 3.5.3 ADJUSTMENT FOR CHANGES IN REAL ESTATE TAXES

After the Property is Fully Assessed, the Government shall pay its share of any increases and shall receive its share of any decreases in the Real Estate Taxes for the Property, such share

of increases or decreases to be referred to herein as "Tax Adjustment." The amount of the Tax Adjustment shall be determined by multiplying the Government's Percentage of Occupancy by the difference between the current year Unadjusted Real Estate Taxes and the Real Estate Tax Base, less the portion of such difference not paid due to a Tax Abatement (except if a Tax Abatement comes into effect after the date of award of the Lease). If a Tax Abatement comes into effect after the date of award of the Lease, the amount of the Tax Adjustment shall be determined by multiplying the Government's Percentage of Occupancy by the difference between the current year Unadjusted Real Estate Taxes and the Real Estate Tax Base. The Government shall pay the Tax Adjustment in a single annual lump sum payment to the Lessor. In the event that this Tax Adjustment results in a credit owed to the Government, the Government may elect to receive payment in the form of a rental credit or lump sum payment.

If the Property contains more than one separately assessed parcel, then more than one Tax Adjustment shall be determined based upon the Percentage of Occupancy, Real Estate Tax Base, and Real Estate Taxes for each respective parcel.

After commencement of the Lease term, the Lessor shall provide to the Contracting Officer copies of all Real Estate Tax Bills for the Property, all documentation of Tax Abatements, credits, or refunds, if any, and all notices which may affect the assessed valuation of the Property, for the Tax Year prior to the commencement of the Lease Term, and all such documentation for every year following. Lessor acknowledges that the Contracting Officer shall rely on the completeness and accuracy of these submissions in order to establish the Real Estate Tax Base and to determine Tax Adjustments. The Contracting Officer may memorialize the establishment of the Real Estate Tax Base by issuing a unilateral administrative Supplemental Lease Agreement indicating the Base Year, the amount of the Real Estate Tax Base, and the Government's Percentage of Occupancy.

The Real Estate Tax Base is subject to adjustment when increases or decreases to Real Estate Taxes in any Tax Year are attributable to a) improvements or renovations to the Property not required by this Lease, or b) changes in net operating income for the Property not derived from this Lease. If either condition results in a change to the Real Estate Taxes, the Contracting Officer may re-establish the Real Estate Tax Base as the Unadjusted Real Estate Taxes for the Tax Year the Property is reassessed under such condition, less the amount by which the Unadjusted Real Estate Taxes for the Tax Year prior to reassessment exceeds the prior Real Estate Tax Base.

If this Lease includes any options to renew the term of the Lease, or be otherwise extended, the Real Estate Tax Base for the purpose of determining Tax Adjustments during the renewal term or extension shall be the last Real Estate Tax Base established during the base term of the Lease.

If any Real Estate Taxes for the Property are retroactively reduced by a Taxing Authority during the term of the Lease, the Government shall be entitled to a proportional share of any tax refunds to which the Lessor is entitled, calculated in accordance with this Clause.

Lessor acknowledges that it has an affirmative duty to disclose to the Government any decreases in the Real Estate Taxes paid for the Property during the term of the Lease. Lessor shall annually provide to the Contracting Officer all relevant tax records for determining whether a Tax Adjustment is due, irrespective of whether it seeks an adjustment in any Tax Year.

If the Lease terminates before the end of a Tax Year, or if rent has been suspended, payment for the Real Estate Tax increase due as a result of this section for the Tax Year will be prorated based on the number of days that the Lease and the rent were in effect. Any credit due the Government after the expiration or earlier termination of the Lease shall be made by a lump sum payment to the Government or as a rental credit to any succeeding lease, as determined in the Contracting Officer's sole discretion. Lessor shall remit any lump sum payment to the Government within 15 calendar days of payment or credit by the Taxing Authority to Lessor or Lessor's designee. If the credit due to the Government is not paid by the due date, interest shall accrue on the late payment at the rate established by the Secretary of the Treasury under Section 12 of the Contract Disputes Act of 1978, as amended (41 USC § 611), that is in effect on the day after the due date. The interest penalty shall accrue daily on the amount of the credit and shall be compounded in 30-day increments inclusive from the first day after the due date through the payment date. The Government shall have the right to pursue the outstanding balance of any tax credit using all such collection methods as are available to the United States to collect debts. Such collection rights shall survive the expiration of this Lease.

In order to obtain a Tax Adjustment, the Lessor shall furnish the Contracting Officer with copies of all paid tax receipts, or other similar evidence of payment acceptable to the Contracting Officer, and a proper invoice (as described in GSA Form 3517, General Clauses, 552.232-75, Prompt Payment) for the requested Tax Adjustment, including the calculation thereof. All such documents must be received by the Contracting Officer within 60 calendar days after the last date the Real Estate Tax payment is due from the Lessor to the Taxing Authority without payment of penalty or interest. FAILURE TO SUBMIT THE PROPER INVOICE AND EVIDENCE OF PAYMENT WITHIN SUCH TIME FRAME SHALL CONSTITUTE A WAIVER OF THE LESSOR'S RIGHT TO RECEIVE A TAX ADJUSTMENT PURSUANT TO THIS CLAUSE FOR THE TAX YEAR AFFECTED.

### 3.5.4 TAX APPEALS

If the Government occupies more than 50% of the Building by virtue of this and any other Government lease(s), the Government may, upon reasonable notice, direct the Lessor to initiate a tax appeal, or the Government may elect to contest the assessed valuation on its own behalf or jointly on behalf of Government and the Lessor. If the Government elects to contest the assessed valuation on its own behalf or on behalf of the Government and the Lessor, the Lessor shall cooperate fully with this effort, including, without limitation, furnishing to the Government information necessary to contest the assessed valuation in accordance with the filing requirements of the Taxing Authority, executing documents, providing documentary and testimonial evidence, and verifying the accuracy and completeness of records. If the Lessor initiates an appeal at the direction of the Government, the Government shall have the right to approve the selection of counsel who shall represent the Lessor with regard to such appeal, which approval shall not be unreasonably withheld, conditioned or delayed, and the Lessor shall be entitled to a credit in the amount of its reasonable expenses in pursuing the appeal.

## 3.6 INSURANCE ADJUSTMENTS

The Government shall 1) make a single annual lump sum payment to the Lessor for its share based on the percentage of occupancy of any increase in hazard and liability insurance premiums during the lease term over the amount established as the base year premium, or 2) receive a lump sum payment for its share of any annual decreases for the duration of the lease in the insurance premium established as the base year premium.

The amount of lump sum payment shall be based upon evidence of insurance policy and payment submitted by the Lessor to the Contracting Officer. The Government shall be responsible for payment of any insurance premium increase over the base year only if the proper invoice and evidence of payment is submitted by the Lessor within 90 calendar days after the date the insurance premium is due from the Lessor to the insurance company. Base year insurance premium as referred to in this paragraph is the insurance premium for the first 12-month period coincident with Government occupancy of leased space in its entirety.

The Government will not pay for any portion of "terrorism insurance" (Terrorism Risk Insurance Act of 2002) obtained by the Lessor.

## 3.7 OPERATING COSTS

In the initial year of the lease, applicable costs listed on GSA Form 1217, Lessor's Annual Cost Statement, when negotiated and agreed upon, will be used to determine the base rate for operating costs. In the second year of the lease, the Government shall pay adjusted rent for changes in costs for cleaning services, supplies, materials, trash removal, landscaping, water, sewer charges, heating, electricity, and certain administrative expenses attributable to occupancy. The Lessor will present their actual costs for the first year with documentation of the paid invoices. In the initial year, these costs should be the best estimate that can be provided based upon the SFO requirements. The adjusted operating cost will be the new base. Each year thereafter, the Government shall pay an adjusted rent for changes in annual costs based upon the annual CPI index.

The amount of adjustment will be determined by multiplying the base rate by the annual percent of change in the Cost of Living Index. The percent change will be computed by comparing the index figure published for the month prior to the lease commencement date with the index figure published for the month prior which begins each successive 12-month period. For example, a lease which commences in June 2005 would use the index published for May 2005, and that figure would be compared with the index published for May 2006, May 2007, and so on, to determine the percent change. The Cost of Living Index will be measured by the Department of Labor revised Consumer Price Index for urban wage earners and clerical workers, U.S. city average, all items figure, (1982 to 1984 = 100) published by the Bureau of Labor Statistics. Payment will be made with the monthly installment of fixed rent. Rental adjustments will be effective on the anniversary date of the lease; however, payment of the adjusted rental rate will become due on the first workday of the second month following the publication of the Cost of Living Index for the month prior to the commencement of each 12-month period.

If the Government exercises an option to extend the lease term at the same rate as that of the original term, the option price will be based on the adjustment during the original term. Annual adjustments will continue.

In the event of any decreases in the Cost of Living Index occurring during the term of the occupancy under the lease, the rental amount will be reduced accordingly. The amount of such reductions will be determined in the same manner as increases in rent provided under this paragraph.

The offer shall clearly state whether the rental is firm throughout the term of the lease or if it is subject to annual adjustment of operating costs as indicated above. If operating costs will be subject to adjustment, those costs shall be specified on GSA Form 1364A, Proposal to Lease Space, contained elsewhere in this SFO.

**The base for the operating cost adjustments will be based upon the Offeror's Final Cost Proposal, Line 27, of GSA Form 1217, Lessor's Annual Cost Statement.**

## 3.8 CONTRACT CHANGES

At any time, the Contracting Officer may make changes within the scope of the lease by a written order pursuant to the Changes Clause set forth in Paragraph 33 of GSA Form 3517B, attached hereto and made a part hereof, and provisions as set forth below. Changes in the design or the work initiated by the Lessor or the Lessor's Design Team or Contractor do not constitute a change for cost. Any such changes must be approved by the Contracting Officer. See design and construction documents afterward.

The clauses entitled "Changes" in FAR 52.243-4 and "Differing Site Conditions" in FAR 52.236-2 will be supplemented with the following two clauses. The clause in Paragraph 3.8.1 below will apply to negotiated changes exceeding $500,000 and does not provide ceiling rates for indirect expenses. Such expenses will be included as part of the submission of certified cost and pricing data, and will be negotiated by the Contracting Officer and audited in accordance with Department of Veterans Affairs Acquisition Regulation (VAAR) 815.805-5. (A copy of this provision is available upon request.) When the negotiated change will be less than $500,000, the clause specified in Paragraph 3.8.2 below will apply. Certificates of current cost and pricing data shall accompany proposals over $100,000 and not exceeding $500,000. If cost and pricing data are required by FAR for proposals of $100,000 or less, the Contracting Officer may require that it be certified in accordance with FAR 15.403-4(a)(2). It must be emphasized that the indirect cost rates are ceiling rates only, and the Contracting Officer will negotiate the indirect expense rates within the ceiling limitations. The clauses are a result of an approved FAR deviation pursuant to Subpart 801.4.

### 3.8.1 APPLICABLE TO CHANGES COSTING OVER $500,000

**A. Proposals for Changes**

When requested by the Contracting Officer, the contractor shall submit proposals for changes in work to the Contracting Officer or the Contracting Officer's designee. Proposals, to be submitted within 30 calendar days after receipt of request, shall be in legible form, original and two copies. The contractor shall provide cost or pricing data in accordance with the instructions in Table 15-2 of FAR 15-403-5 in the format indicated for "Modifications".

Proposals shall consist of an itemized breakdown that includes material quantities, unit prices, labor costs (separated into trades), construction equipment, etc. (Labor costs are to be identified with specific material placed or operation performed.) The contractor shall execute a Certificate of Current Cost or Pricing Data in accordance with FAR 15-406-2. The contractor must obtain and furnish with each proposal an itemized breakdown and certificate as described above, signed by each subcontractor participating in the change regardless to tier.

**B. Tentative Pricing**

When the necessity to proceed with a change does not allow sufficient time to negotiate a modification, or because of failure to reach an agreement, the Contracting Officer may issue a change order instructing the contractor to proceed on the basis of a tentative price based on the best estimate available at the time, with the firm price to be determined later. Furthermore, when the change order is issued, the contractor shall submit a proposal for cost of changes in work within 30 calendar days.

**C. Settlement By Determination**

The Contracting Officer will consider issuing a settlement by determination to the contract, if the contractor's proposal required by Paragraphs 3.8.1A and 3.8.1B of this clause is not received within 30 calendar days or if agreement has not been reached.

### 3.8.2 APPLICABLE TO CHANGES COSTING $500,000 OR LESS

**A. Proposals for Changes**

When requested by the Contracting Officer, the contractor shall submit proposals for changes in work to the Contracting Officer or designee. Proposals, to be submitted within 30 calendar days after receipt of request, shall be in legible form, original and two copies, with an itemized breakdown that will include material, quantities, unit prices, labor costs (separated into trades), construction equipment, etc. (Labor costs are to be identified with specific material placed or operation performed.) The contractor must obtain and furnish with a proposal an itemized breakdown as described above, signed by each subcontractor participating in the change, regardless of tier. When requested by the Contracting Officer, the contractor and each subcontractor participating in the change, regardless of tier, shall execute a Certificate of Current Cost or Pricing Data in accordance with FAR 15-406-2. For proposals over $100,000, the cost or pricing data shall be submitted in accordance with the instructions in Table 15-2 of FAR 15-403-5 in the format indicated for "Modifications". No itemized breakdown will be required for proposals amounting to less than $1,000.

**B. Tentative Pricing**

When the necessity to proceed with a change does not allow sufficient time to negotiate a modification or if there is a failure to reach an agreement, the Contracting Officer may issue a change order instructing the contractor to proceed on the basis of a tentative price based on the best estimate available at the time, with the firm price to be determined later. Furthermore, when the change order is issued, the contractor shall submit a proposal for cost of changes in work within 30 calendar days.

**C. Settlement By Determination**

The Contracting Officer will consider issuing a settlement by determination to the contract, if the contractor's proposal required by paragraphs (a) and (b) of this clause is not received within 30 calendar days, or if agreement has not been reached.

**D. Allowances for Overhead and Profit**

Allowances not to exceed 10% each for overhead and profit for the party performing the work will be based on the value of labor, material, and use of construction equipment required to accomplish the change. As the value of the change increases, a declining scale will be used in negotiating the percentage of overhead and profit. Allowable percentages on changes will not exceed the following:

- 10% overhead and 10% profit on the first $20,000
- 7-1/2% overhead and 7-1/2% profit on the next $30,000
- 5% overhead and 5% profit on balance over $50,000

Profit shall be computed by multiplying the profit percentage by the sum of the direct costs and computed overhead costs.

**E. Allowable Fee On Changes**

The prime contractor's or upper-tier subcontractor's fee on work performed by lower-tier subcontractors will be based on the net increased cost to the prime contractor or upper-tier subcontractor, as applicable. Allowable fee on changes will not exceed the following:

- 10% fee on the first $20,000
- 7-1/2% fee on the next $30,000
- 5% fee on balance over $50,000

**F. Multiple Tiers**

Not more than four percentages, none of which exceed the percentages shown above, will be allowed regardless of the number of tiers of subcontractors.

**G. Credit Items**

Where the contractor's or subcontractor's portion of change involves credit terms, such items must be deducted prior to adding overhead and profit for the party performing the work. The contractor's fee is limited to the net increase to contractor of subcontractors' portions of cost computed in accordance herewith.

Where a change involves credit items only, a proper measure of the amount of downward adjustment in the contract price is the reasonable cost to the contractor if he/she performed the deleted work. A reasonable allowance for overhead and profit are properly includable as part of the downward adjustment for a deductive change. The amount of such allowance is subject to negotiation.

**H. Tax and Insurance**

Cost of Federal Old Age Benefit (Social Security) tax and of Workmen's Compensation and Public Liability insurance appertaining to change are allowable. While no percentage will be allowed thereon for overhead or profit, prime contractor's fee will be allowed on such items in subcontractors' proposals.

**I. Items Included In Overhead and Fee**

Overhead and contractors fee percentages shall be considered to include insurance, other than mentioned herein; field and office supervisors and assistants; security police; use of small tools, incidental job burdens, and general home office expenses; and no separate allowance

will be made therefore. Assistants to office supervisors include all clerical, stenographic, and general office help. Incidental job burdens include, but are not necessarily limited to, office equipment and supplies, temporary toilets, telephone, and conformance to OSHA requirements. Items such as, but not necessarily limited to, review and coordination, estimating, and expediting relative to contract changes, are associated with field and office supervision and are considered to be included in the contractor's overhead and/or fee percentage.

**J. Bond Premium Adjustment**

Bond premium adjustment, consequent upon changes ordered, will be made as elsewhere specified at the time of final settlement under the contract and will not be included in the individual change.

**K. Implementation of Changes**

Upon receipt of a written order from the Contracting Officer for a change(s), the Lessor shall immediately begin to implement such a change(s). Any dispute involving entitlement to additional compensation or additional time for the work performed will be resolved pursuant to the terms of the Disputes Clause, if not otherwise resolved by the parties. However, nothing in that clause shall excuse the Lessor from proceeding with the contract as changed.

Lump sum payment for changes shall be made upon completion, acceptance, and beneficial occupancy of the building.

## 3.9 WAIVER OF CLAIMS FOR WASTE OR DAMAGES

The Lessor will be required to waive the right to claim for waste or damages arising from the making or removing of alterations or special work (Paragraph 3.4).

The Lessor will be required to waive the right to claim for delay, waste, or damages arising from the acts, errors, or omissions of Lessor or the Lessor's Design Team or Contractor.

All property placed in, upon, or attached to the premises to be leased that is provided by the Government or for which the Government pays by means of lump-sum (Schedule B items), shall be and remain the property of the Government, and may be removed or otherwise disposed of by the Government at its sole discretion. The Lessor will be required to waive the right to claims arising from the removal or disposal of any Government property that remains in, upon, or attached to the premises at the termination of the lease.

## 3.10 LIQUIDATED DAMAGES

In case of failure on the part of the Lessor to complete the work within the time fixed in the lease contract or letter of award, the Lessor shall pay the Government as fixed and agreed liquidated damages, pursuant to this clause, the sum of **One Thousand Thirteen Dollars and 59/100 ($1,013.59)** for each and every calendar day that the delivery is delayed beyond the date specified for delivery of all the space ready for acceptance and beneficial occupancy by the Government.

## 3.11 RECORDATION REQUIREMENTS

The Lessor will be required to execute and record a Memorandum of Lease in the land records of the county or other political subdivision in which the facility is located. Preparation of the Memorandum of Lease, recordation, and all expenses associated with this action are the responsibility of the Lessor. Acceptable evidence of recordation is a copy of the Memorandum of Lease bearing a recordation stamp, or other evidence of recordation as may be customary for the particular recordation office. This action must be accomplished within 30 calendar days after award. Evidence of such must be provided to the Contracting Officer.

## 3.12 ADJUSTMENT FOR VACATED PREMISES

If the Government fails to occupy any portion of the leased premises or vacates the premises in whole or in part prior to expiration of the firm term of the lease, the rental rate shall be reduced as follows: the rate shall be reduced by that portion of the cost per square foot of operating expenses not required to maintain the space. Said reduction shall occur after the Government gives 30 days prior notice to the Lessor, and shall continue in effect until the Government occupies the premises or the lease expires or is terminated.

## 3.13 RELOCATION ASSISTANCE ACT

If an improved site is offered and new construction will result in the displacement of individuals or businesses, the successful Offeror shall be responsible for payment of relocation costs for displaced persons in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 as amended and 49 CFR Part 24.

## 3.14 RENTABLE AND NET USABLE SQUARE FEET

### 3.14.1 RENTABLE SPACE

Rentable Space is determined by the building owner and may vary by city or by building within the same city. The rentable space may include a share of building support/common areas such as elevator lobbies, building corridors, and floor service areas. Floor service areas typically include restrooms, janitor rooms, telecommunications rooms, electrical closets, and mechanical rooms. The rentable space does not include vertical building penetrations and their enclosing walls, such as stairs, elevator shafts, and vertical ducts.

### 3.14.2 NET USABLE SPACE

Net usable space is that portion of rentable space that is available for a tenant's personnel, furnishings, and equipment. Net usable space is the area for which VA will pay a square foot rate. It is determined as follows:

- If the space is on a single tenancy floor, compute the inside gross area by measuring between the inside finish of the permanent exterior building walls or from the face of

the convectors (pipes or other wall-hung fixtures) if the convector occupies at least 50% of the length of exterior walls.

- If the space is on a multiple tenancy floor, measure from the exterior building walls as above and to the room side finish of the fixed corridor and shaft walls and/or the center of tenant-separating partitions.

In all measurements, make no deductions for columns and projections enclosing the structural elements of the building. Deduct the following from the inside gross area, including the enclosing walls, to arrive at the figure for net usable square feet:

- 26% of inside gross area for corridors and circulation
- Refer to SECTION 4.2.3 EXCLUSIONS FROM NEW USABLE SPACE, for spaces not included in NUSF.

Offerors shall indicate on GSA Form 1364A, Proposal to Lease Space, Section II (Space Offered and Rates, the amount of rentable space offered (8a.(2)) and the cost per rentable square footage (8a.(4))).

## 3.15 APPURTENANT AREAS

The right to use appurtenant areas and facilities is included. The Government reserves the right to post Government rules and regulations where the Government leases space.

## 3.16 VENDING FACILITIES

VA is required to comply with the provisions of the Randolph-Sheppard Act pertaining to Vending Facility Programs for the Blind, 34 CFR 395, on properties owned, leased, or occupied by the Government. VA will have notified the appropriate State licensing agency of intent to occupy space under this lease. The State licensing agency shall be afforded the opportunity to determine whether the building includes a satisfactory site for a vending facility and, subject to the approval by VA, shall be offered the opportunity to select the location and type of vending facility to be operated by a blind vendor prior to the completion of the final space layout.

The Lessor will have no right to control or receive income from automatic vending machines located in the vending facility of the leased premises.

## 3.17 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 during design and construction development do not constitute a change for cost.**

### 3.17.1 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 SFO. 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.

### 3.17.2 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 15 working days for review and comment by the Government at each review stage.

The independent reviews are limited to checking for general compliance with the SFO 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 (SFO), the firm of Ernest Bland Associates, P.C. 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 Ernest Bland Associates, P.C. 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 seventy-seven thousand five hundred seventy-eight and seventy-two cents ($77,578.72) to be paid to Ernest Bland Associates, P.C. Such fee shall be due and payable, as follows:

Approximately forty (40)% of the fee shall be paid to Ernest Bland Associates, P.C. 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 Ernest Bland Associates, P.C. 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 Ernest Bland Associates, P.C. 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 Ernest Bland Associates, P.C. 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 Ernest Bland Associates, P.C. pursuant to the compensation schedule outlined herein, VA, at VA's sole option, shall pay the fee owed on behalf of Lessor to Ernest Bland Associates, P.C. 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.

The VA shall reimburse Lessor for the Independent Technical Review Fee as part of the lump sum payment VA will make upon acceptance of the space. **Offerors shall list the lump sum cost for Lease Acquisition Fee on GSA Form 1364.**

## 3.18 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 SFO.

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:

## 3.19 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.

Within 45 calendar days of receipt of written VA approval of the Second Design Development Submittal, the Lessor shall produce a complete set of 75% construction documents and specifications for review.

Within 30 calendar days of receiving written notification of VA's 75% construction document review comments, the Lessor shall submit a complete set of 100% working drawings and specifications for review. The Lessor shall incorporate all VA comments of the 75% contract document submittal.

**NOTE: The Lessor shall allow a minimum of 15 working days from date of receipt for review and comment by the Government at each review stage.**

## 3.20 SUBMITTAL REQUIREMENTS FOR DD AND CD REVIEWS

### 3.20.1 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 2011 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 8½" x 11" bond paper. Electronic submissions may be in Microsoft® Word® 2003 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 8½" x 11" bond paper. Electronic submissions may be in Microsoft® Word® 2003 or Adobe® PDF format. Bookmark or index all electronic files.

*(4) Calculations*

Hard copies shall be printed on 8½" 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-ROM or DVD. 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 | Medical Center | Resident Engineer | 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 |

### 3.20.2 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 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 ¼-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 clinical or laboratory room listed in Schedule B. Equipment plans are not required for offices, consultation rooms, 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 LEED® Silver for Healthcare Certification checklist. 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, kitchen extinguishing 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 and waste,

Submit preliminary drawings (minimum 1/8-inch scale) including: room names and numbers, plumbing fixtures w/VA numbering system, equipment, and routing for plumbing piping.

**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 basic cable tray routing. Provide legend of symbols.

### 3.20.3 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.

Submit any off-site improvements design or drawings required by federal, state, and local jurisdictions. (signal lights, traffic lane improvements, routing signage, and etc.)

**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 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 ¼-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 VAMC project coordinator and interior designer including, but not limited to the following: interior and exterior design and materials, light, safety, patient profile, 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, exam and treatment rooms, and toilet rooms. Discuss the relationship among departments and functions, and between public and private spaces.

**E. Sustainable Design & Energy Efficiency**

Submit LEED® Silver for Healthcare Certification checklist. Submit narrative addressing how the design will meet Federal Mandates for sustainability and energy efficiency. Submit refined ASHRAE 90.1-2004 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 and daylighting 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 JCAHO 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, waterflow 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 including supply and waste 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 prefinal 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 basic cable tray routing and floor penetration location for routing of low-voltage cabling.

Submit ¼-inch scale enlarged Telecommunication Rooms 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.

### 3.20.4 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, 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.

Submit any off-site improvements plans and design or drawings required by federal, state, and local jurisdictions. (signal lights, traffic lane improvements, routing signage, and etc.)

**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, VAMC-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 demonstrating LEED® Silver for Healthcare Certification. 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 90.1-2004 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;

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;

Interconnection of kitchen fire extinguishing system to the fire alarm system;

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 ¼-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.

### 3.20.5 100% 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.

### 3.20.6 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.

## 3.21 PROJECT SCHEDULE

### 3.21.1 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.

### 3.21.2 SCHEDULE UPDATES

The Lessor shall provide to VA **monthly** computer-generated schedule report updates by the 10$^{th}$ of each month. 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.

### 3.21.3 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 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
- Issuance of a Building Permit
- Submittal to VA of copies of Permits and Approved Construction Documents
- Start of construction
- Completion of principal categories of work
- Testing and balancing
- Building Systems Certification
- Final inspection
- Final completion of construction
- Occupancy permit

**3.21.4 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.

**3.21.5 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.

## 3.22 PROGRESS REPORTS

After receipt of VA approved Second Design Development Submittal, the successful Lessor shall submit to the Contracting Officer or designee written progress reports every 30-calendar days, based upon the monthly updated NAS. The report shall include information as to percentage of the work completed by phase and trade, a statement as to expected completion and occupancy dates, changes introduced into the work, and general remarks on such items as material shortages, strikes, weather, or the like.

### 3.22.1 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.

### 3.22.2 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 which 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.

### 3.22.3 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.

### 3.22.4 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.

## 3.23 CONSTRUCTION OBSERVATION

Observations of the work during construction will be made periodically by the Contracting Officer and/or the designated Contracting Officer's Technical Representative (COTR) to review compliance with the Solicitation requirements and the final working drawings.

Periodic reviews, tests, and other field observation by the Government are not to be interpreted as superintendence nor as resulting in any approval of the Lessor's apparent progress toward meeting the Government's objectives; but are intended to discover any information that the Contracting Officer may be able to call the Lessor's attention to prevent costly misdirection of effort. The Lessor will remain completely responsible for designing, constructing, operating, and maintaining the building in full accordance with the requirements of this Solicitation.

The Lessor shall provide VA with a copy of all inspection reports for inspections conducted by local, regional, and state code authorities from the start of construction through issuance of the certificate of occupancy.

### 3.23.1 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 and ADA ramp 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 two offices, 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 three (3) telephone lines and one (1) high-speed 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.
- 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.
- Lessor shall provide consumable supplies, including toilet paper, paper towels, and office spill clean-up supplies.

**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

2 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.**

## 3.24 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.

## 3.25 CONSTRUCTION WASTE MANAGEMENT

Recycling construction waste is mandatory for initial space alterations for tenant improvements and subsequent alterations under the lease. Recycling construction waste means providing all services necessary to furnish construction materials or wastes to organizations which will employ these materials or wastes in the production of new materials. Recycling includes required labor and equipment necessary to separate individual materials from the assemblies of which they form a part. Refer to Paragraph 4.8 SUSTAINABLE DESIGN AND ENERGY EFFICIENCY.

## 3.26 USE OF FACILITY PRIOR TO DATE OF POSSESSION

Space shall be delivered ready for occupancy by the date specified in Paragraph 1.6 of the Solicitation provided; however, subject to mutually satisfactory arrangements between the Lessor and the Contracting Officer, the Government may enter the premises at any time subsequent to award of the contract to conduct such ceremonies as ground-breaking, cornerstone laying, and dedication, and may occupy such portions of the property as may be necessary for such purposes. Further, the Lessor agrees to prohibit the conducting of such ceremonies in the leased premises or on the site thereof arranged by parties other than representatives of VA unless written approval is obtained from the Contracting Officer.

During progress of the work and/or prior to the final acceptance of the completed project, the Government reserves the right to place in the building certain Government property and equipment. The Government may occupy portions of the building, and have access to facilities, utilities, and services necessary for such partial occupancy. The Government shall have the right to proceed with installation of the said equipment prior to the completion of the entire project provided that such work will not hinder nor delay the Lessor from completing the entire project within the time set forth herein. The Lessor shall not be responsible for the said equipment installed during construction except for loss or damage to said equipment caused by Lessor's own negligence. Such action by the Government shall not be construed as evidence of the completion of the work, or any portion of it, or as an acceptance of the work, or any portion of it, by the Government.

## 3.27 PLANS: AFTER OCCUPANCY

Within 30 days after occupancy, the following as-built plans for the building under lease shall be provided to the Contracting Officer or designee. If the plans are not provided, VA will have the plans prepared at the Lessor's expense.

One set of mylar reproducible architectural floor plans, scaled at 1/8" = 1"-0".
One set of mylar reproducible equipment plans, scaled at 1/4" = 1'-0".

Purged computer files of architectural floor plans, and equipment plans in AutoCAD 2011 format, shall be submitted on CD-ROM or DVD, properly labeled and indexed. Submission shall be accompanied with a written matrix, indicating the layering standards to ensure that all information is recoverable. All architectural features of the spaces shall be accurately shown.

## 3.28 PARTNERING

In order to accomplish this contract effectively, the Government proposes to form a cohesive partnership with the successful Offeror and its subcontractors. This partnership would strive to draw on the strengths of each organization in an effort to achieve a quality project, executed correctly the first time, within the budget, and on schedule. This partnership will be totally voluntary. The focus of partnering is to build a cooperative relationship with the private sector and avoid or minimize disputes, and to nurture a more collaborative ethic characterized by trust, cooperation, and teamwork. Partnering is defined as the creation of a relationship between the Government and the successful Offeror that promotes mutual and beneficial goals. It is a non-contractual, but formally structured, agreement formation of a "we" mentality for the benefit of the project. Any cost associated with developing this partnership will be agreed to by both parties after contract award, and will be shared equally.

## 3.29 VAAR-85273-75 SECURITY REQUIREMENTS FOR UNCLASSIFIED INFORMATION TECHNOLOGY RESOURCES (INTERIM – OCTOBER 2008)

The contractor and their personnel shall be subject to the same Federal laws, regulations, standards, and VA policies as VA personnel regarding information and information system security. These include, but are not limited to, Federal Information Security Management Act (FISMA), Appendix III of OMB Circular A-130, and guidance and standards, available from the

Department of Commerce's National Institute of Standards and Technology (NIST). This also includes the use of common security configurations available from NIST's website at: http://checklists.nist.gov.

To ensure that appropriate security controls are in place, contractors must follow the procedures set forth in "VA Information and Information System Security/Privacy Requirements for IT Contracts" located at the following website: http://www.iprm.oit.va.gov.

## 3.30 ACCEPTANCE OF SPACE AND CERTIFICATE OF OCCUPANCY

Twenty (20) working days prior to the completion of interior construction, the Lessor shall issue written notice to the Government to inspect the space. The Government shall have ten (10) working days to inspect and to either accept or reject the subject space.

1. Substantially completed space is defined as space which can be fully used for its intended purposes (with the exception of the completion of minor punch list items), and is habitable as verified by local code and required inspections (including, but not limited to: receiving PERMANENT Certificate of Occupancy, security system properly functioning, passed life safety inspection, and government receiving final commissioning report), and completely operational for its intended tenants, clients, and visitors (see the Acceptance of Space and Certificate of Occupancy paragraph of GSA Form 3517, General Clauses). Punch list items include minor cosmetic defects such as paint touch-up, chipped ceiling tiles, and other minor corrective items which in no way compromise the use or function of the space under lease.

MINOR PUNCH ITEMS ARE DEFINED AS BOTH MAGNITUDE AND QUANTITY, WITH NO MORE THAN 100 ITEMS FOR THE INTERIOR OF THE BUILDING AND NO MORE THAN 100 EXTERIOR ITEMS TO INCLUDE ALL PARKING AREAS, ROOFS. RETAINAGE FOR OUTSTANDING PUNCH WORK SHALL BE HELD BY THE GOVERNMENT IN THE AMOUNT OF THE CONTRACTING OFFICER'S REPRESENTATIVE ESTIMATE OF UNIT COSTS X 2.

Space which is not substantially complete will not be accepted by the Government. Should the Government reject the Lessor's space as not substantially complete as defined herein, the Lessor shall immediately undertake remedial action and when ready shall issue a subsequent notice to inspect to the Government.

2. Prior to the Government's acceptance, the Lessor shall provide a valid PERMANENT Certificate of Occupancy, issued by the local jurisdiction, for the intended use of the Government and shall maintain and operate the building in conformance with current local codes and ordinances. If the local jurisdiction does not issue Certificates of Occupancy, the Lessor shall obtain the services of a licensed fire protection engineer to verify the offered space meets all applicable local codes and ordinances to ensure an acceptable level of safety is provided AND A SIGNED CERTIFICATION FROM THE COMMISSIONING ENGINEER THAT ALL BUILDING EQUIPMENT FALLING UNDER THE RESPONSIBILITY OF THE COMMISSIONING ENGINEER IS FULLY AND SAFELY FUNCTIONAL. AN APPROVED AND PASSING AIR BALANCING REPORT MUST BE PROVIDED PRIOR TO REQUEST OF ACCEPTANCE OF THE BUILDING.

# SECTION 4 GENERAL DESIGN CRITERIA

## 4.1 CODES

The Lessor shall design and construct the building and site work in accordance with this solicitation, all applicable Federal regulations, local Building and Zoning Codes and ordinances, and applicable utility company requirements. The term "local building and zoning codes and ordinances," or similar text, shall be understood to mean the current codes and regulations as approved and administered by Authorities Having Jurisdiction (AHJ) at the project location at the time of permitting. Where there is a conflict between the various codes or standards, the most stringent shall apply.

## 4.2 CRITERIA FOR VA FACILITIES

### 4.2.1 VA ADOPTED CODES, STANDARDS, AND EXECUTIVE ORDERS

The Public Buildings Amendment Act of 1988, Public Law (Pub. L.) 100-678 requires Federal agencies to follow national recognized "model" building codes. The Federal Participation in the Development and Use of Voluntary Standards, Office of Management and Budget (OMB) Circular A-119, requires all executive agencies to rely on voluntary standards, both domestic and international, whenever feasible, and to participate in voluntary standard bodies. As a Federal agency, VA is required to comply with Executive Orders.

VA has adopted the following codes and standards as a minimum for all projects performed in the modernization, alteration, addition, or improvement of its real property and the construction of new structures. Applicable requirements have been incorporated in this Solicitation for Offers.

| CODES / STANDARDS | EDITION |
|---|---|
| AIA/FGI (American Institute of Architects/Facility Guidelines Institute): Guidelines for Design and Construction of Healthcare Facilities | 2014 |
| ACI 530 – Building Code Requirements for Masonry Structures | 2008 |
| AISC 360 – Specification for Structural Steel Buildings | 2005 |
| ANSI/ASHRAE Standard 62.1 – Ventilation for Acceptable Indoor Air Quality | 2010 |
| ANSI/ASHRAE Standard 90.1 – Energy Standard for Buildings except Low-Rise Residential Buildings (Use ASHRAE Standard 90.1 – 2004 for computing energy benchmark.) | 2010 |
| ANSI/ASHRAE Standard 15 – Safety Standard for Refrigeration Systems | 2010 |
| ANSI/ASHRAE Standard 170 – Ventilation of Healthcare Facilities | 2008 |
| Architectural Barriers Act Accessibility Standards (ABAAS, 36 CFR Part 1191) | 2013 |
| ASHRAE Handbook of Fundamentals | 2014 |
| ASHRAE Handbook of Refrigeration | 2015 |
| ASHRAE Handbook of Applications | 2011 |
| ASHRAE Handbook of Systems and Equipment | 2012 |

| CODES / STANDARDS | EDITION |
|---|---|
| ASME Boiler and Pressure Vessel Code | 2013 |
| ASME Code for Pressure Piping | 2007 |
| ASPE Data Book, Volume 1: Fundamentals of Plumbing Engineering | 2009-2010 |
| ASPE Data Book, Volume 2: Plumbing Systems | 2012 |
| ASPE Data Book, Volume 3: Special Plumbing Systems | 2013 |
| Building Code Requirements for Reinforced Concrete, American Concrete Institute and Commentary (ACI 318) | 2011 |
| International Building Code (IBC), with the exception of Chapter 10, unless locally adopted | 2015 or as required by AHJ or local amendments |
| International Energy Conservation Code (IECC) | 2012 or as required by AHJ or local amendments |
| International Fuel Gas Code (IFGC) | 2012 or as required by AHJ or local amendments |
| International Mechanical Code | 2012 or as required by AHJ or local amendments |
| International Plumbing Code (IPC) | 2012 or as required by AHJ or local amendments |
| Manual of Steel Construction, Load and Resistance Factor Design Specifications for Structural Steel Buildings, American Institute of Steel Construction (AISC) | 2010 |
| NFPA 101 – Life Safety Code | 2015 or as required by AHJ or local amendments |
| NFPA 900 | 2013 or as required by AHJ or local amendments |
| NFPA 5000 | 2012 |
| All Remaining NFPA National Fire Codes with the exception of NFPA 5000 and NFPA 900 | Current as published in May 2009 |
| National Standard Plumbing Code (NSPC) | 2015 or as required by AHJ or local amendments |
| Occupational Safety & Health Administration (OSHA) Standards (Healthcare) | 2012 or most current adopted regulations that are in effect during all project phases |
| Safety Code for Elevators and Escalators, American Society of Mechanical | 2013 |

| CODES / STANDARDS | EDITION |
|---|---|
| Engineers (ASME) A 17.1 | |
| Safety Standard for Refrigeration Systems – ASHRAE Standard 15 | 2015 |
| SMACNA – HVAC Duct Construction Standards: Metal & Flexible | 2005, 3rd Edition |
| SMACNA – HVAC Air Duct Leakage Test Manual | 2012 |
| VA Barrier Free Design Guide, PG-18-13 | 2011 |
| US Pharmacopeia (USP) Revised General Chapter <797> Pharmaceutical Compounding-Sterile Preparations | 2015 |
| VA Physical Security Design Manual – Life-Safety Protected | 2015 |
| VA Structural Design Manual For Hospital / Replacement Hospital / Clinical Addition / Domiciliary / Nursing Home / Psychiatric Building / Outpatient Clinic / Veterinary Medical Unit Projects | |
| VA Signage Design Guide for Signage Requirements http://www.cfm.va.gov/til/spclRqmts.asp# | |

**A. Life Safety**

NFPA 101 primarily addresses life safety and fire protection features, while the IBC addresses a wide range of considerations, including, but not limited to, structural strength, seismic stability, sanitation, adequate light and ventilation, and energy conservation. VA buildings must meet the requirements of NFPA 101 and documents referenced by NFPA 101 in order to comply with the accreditation requirements of the Joint Commission. Therefore, designs shall comply with the requirements of NFPA 101 and documents referenced therein. Design features not addressed by NFPA 101 or documents referenced therein shall comply with the requirements of the IBC.

**B. Mandatory Provisions for Energy Conservation**

Federally mandated statutory requirements for energy conservation are also applicable to the leased facilities. These requirements include:

*(1) Federal Leadership in High Performance and Sustainable Buildings: MOU (Memorandum of Understanding) Dated November 2006*

This document was signed by 21 Federal Agencies under the Federal Leadership in High Performance and Sustainable Buildings. The stated goals and objectives of the MOU are:

**New Construction:** Reduction in the Energy Cost Budget by 30% over the Baseline performance rating of ASHRAE Standard 90.1 – 2004.

Reduction in the energy cost budget shall be implemented as the reduction in energy consumption measured as BTU (British Thermal Units) or Joules (J).

For major renovations, reduce the energy cost budget by 20% below pre-renovations 2003 baseline. In the event pre-renovation 2003 baseline data is not available, the A/E shall calculate the energy consumption before renovation, compare it with the energy consumption after renovation, and document the mandated saving. It is assumed that the use of the facility

shall remain similar before and after the renovation. The term "major renovation" shall meet the following two guidelines:

- Area of renovation is greater than 50% of the total area.
- A project is planned that significantly extends the building's useful life through alterations or repairs and totals more than 30% of the replacement value of the facility.

Additional issues addressed by MOU are:

**Commissioning:** For the leased facilities, commissioning of the mechanical and other building systems shall be implemented to verify the intent of the design by inspecting and testing the systems.

The Lessor shall incorporate commissioning requirements to verify that the installation and performance of energy consuming systems meet the Government's project requirements. The commissioning shall cover at a minimum: heating, ventilating, air conditioning and refrigeration (HVAC&R) systems and associated controls, lighting controls, and domestic hot water systems.

**Measurements and Verification:** Per DOE Guidelines issued under section 103 of the Energy Policy Act of 2005 (EPAct), install building level utility meters in new major construction and renovation projects to track and continuously optimize performance. MOU mandates that the actual performance data from the first year of operation should be compared with the energy design target. After one year of occupancy, measure all new major installations using the Energy Star® Benchmarking Tool for building and space types covered by ENERGY STAR® or FEMP-designated equipment.

*(2) Energy Policy Act (2005):*
DOE issued mandatory energy conservation guidelines as the final rule for implementing provisions of EPAct 2005.

*(3) Executive Order 13423: Strengthening Federal Environmental, Energy, and Transportation Management*
Mandatory energy conservation guidelines are also reiterated in the above Executive Order
DOE has mandated that a new Federal building must be designed to achieve an energy consumption level that is at least 30% below the level achieved under Standard 90.1-2004, if life-cycle cost-effective.

**C. Life-Cycle Cost (LCC) Analysis (Requirements)**
If additional 30% reduction in energy consumption were not life-cycle cost-effective, the A/E must evaluate alternate designs at successive decrements (25%, 20%, or lower) in order to identify the most energy efficient design that is life-cycle cost-effective. And in so doing, all readily available energy conservation measures, with which the industry is generally familiar, should be considered and evaluated.

DOE further stipulates that the "agencies must estimate the life-cycle costs and energy consumption of the planned building as designed and an otherwise identical building just meeting the minimum criteria set forth in the applicable baseline ASHRAE or IECC standard." This measure is meant to demonstrate and record the mandated compliance and the extent of it.

**D. Life-Cycle Cost Analysis (Methodology)**
LCC shall be performed in accordance with the procedure outlined by the Department of Energy (DOE) in the National Institute of Standards and Technology (NIST) Handbook 135 dated February 1996 (or the latest version) – Life-Cycle Costing Manual for the Federal Energy Management.

**E. Conflicts**
Should a conflict exist between VA requirements and VA-adopted nationally recognized codes and standards, the conflict shall be brought to the attention of VA. The resolution of the conflict shall be made by the authority having jurisdiction for VA to ensure system-wide consistency.

**F. Seismic Design**
The lessor is required to follow local seismic codes and all drawings shall comply with industry AIA standards. The Lessor shall be responsible for the professional quality, technical accuracy, and the coordination of all designs, drawings, specifications, and other services furnished by the Lessor under this contract. The Lessor shall, without additional compensation, correct or revise any errors or deficiencies in its designs, drawings, specifications, or other services.

## 4.2.2 SPECIAL BUILDING REQUIREMENTS

**A. Isolation Exam Room Requirements: NO ISOLATION ROOMS IN THIS PROJECT**

**B. Water Coolers**
The Lessor shall provide electric water coolers in the main lobby, each major waiting area, and in other areas as designated by the Contracting Officer. Lessor shall provide greater quantity of water coolers if required by Code. Water coolers shall be wall mounted bi-level electric water coolers.

**C. Telecommunications/Special Systems Rooms**
Design, size and construction of telecommunications, data, and special systems rooms and spaces shall comply with requirements in Paragraph 6.8.2 TELECOMMUNICATIONS/SPECIAL SYSTEMS ROOMS AND SPACE REQUIREMENTS.

**D. Public Telephones: NO PUBLIC TELEPHONES IN THIS PROJECT**

## 4.2.3 EXCLUSIONS FROM NET USABLE SPACE

**A. Housekeeping Closets**
A minimum of two (2) housekeeping aides closets (HAC) shall be provided for maintaining common areas in the building. Each HAC shall contain a service sink with hot and cold water, ample space for storage of cleaning equipment, and shelving for cleaning materials and supplies. Lessor shall provide the supplies in accordance with SECTION 8 of this SFO. **No rental will be paid for these spaces** (see Paragraph 3.14 RENTABLE AND NET USABLE SQUARE FEET of this Solicitation). In multi-story buildings, there shall be a minimum of one HAC per floor.

Provide additional housekeeping aides closets in leased spaces as required by VA Space Program (PART VI Schedule E). VA will pay rental for HACs required by Schedule E.

**B. Public Restrooms and Lounges**

Space for public toilets must be provided in addition to the net usable square footage requirement contained in Schedule E of this Solicitation. VA will pay no rental for this public restroom facility space. See Paragraph 3.14 RENTABLE AND NET USABLE SQUARE FEET of this Solicitation.

All public and common use toilet rooms shall be accessible to the handicapped. Accessible toilet facilities shall be located along an accessible path of travel and have accessible fixtures, accessories, doors with automatic door openers, and adequate maneuvering clearances. Accessible toilet rooms shall be identified with the international symbol of accessibility. Water closets and urinals shall not be visible when the exterior room door is open.

Separate toilet facilities for men and women shall be provided on each floor occupied by the Government in the building. The facilities must be located so that employees will not be required to travel more than 150 feet on one floor to reach the toilets.

Each toilet room shall have sufficient water closets enclosed with stall partitions and doors as specified in Paragraph 7.13 of this Solicitation, urinals (in men's rooms), and lavatories with hot (set at 105 ˚F [41 ˚C], if practical) and cold water in the number required by local Building Code and ordinances.

Public restrooms that have three or more stalls shall be provided with one lighting fixture on an emergency circuit or one emergency battery lighting unit with dual head.

Public Restrooms Fixture Schedule
Public restrooms and associated fixtures shall be provided in accordance with local code.

**C. Building Equipment and Service Areas**

Lessor shall provide adequate space for the installation, operation, and maintenance of building service equipment. Lessor shall provide office, shop, and storage space necessary for operation and maintenance of the building and grounds. **No rental will be paid for these spaces** (see Paragraph 3.14 of this Solicitation).

- Space for mechanical systems equipment.
- Space for plumbing systems equipment.
- Space for fire protection systems equipment.
- Space for electrical systems equipment.
- Space for telecommunications and special systems equipment (including telephone, data, alarm, security, and other systems).
- Space for building engineering control center.
- Office, shop, and storage space for building management services.
- Space for grounds maintenance.

**D. Public Corridors and Entrance Lobbies**

Lessor shall provide building entrance lobby as shown on conceptual plans. Lessor shall provide public corridors as necessary to common areas. **No rental will be paid for these**

**spaces** (see Paragraph 3.14 RENTABLE AND NET USABLE SQUARE FEET of this Solicitation).

### 4.2.4 PHYSICAL SECURITY AND NATURAL DISASTERS RESISTIVE DESIGN

The requirements for "Life Safety Protected Facilities" (LSP) contained in the VA Physical Security Design Manual apply to all VA constructed or leased Outpatient Clinics. Lessor shall include the following provisions for Site Considerations, Building Entrances and Exits, Building Envelope, Structural System, Utilities and Building Service, Building Systems, Security Systems, and Special Areas in the design and construction.

**A. Site Considerations**

*(1) Site Access and Roads*

Separate entrances to the site shall be provided for patients and visitors, employees and staff, emergency and service and delivery vehicles. Access roads for all vehicles shall allow for separate driveways to the building entrance, service yard or parking areas. Access roads from the entrances to parking for each vehicle type shall be separated, but may be connected for maintenance and emergency vehicles through gates controlled by access cards.

Access roads shall be configured to prevent vehicles from attaining speeds in excess of 25 mph. Avoid any straight-line vehicular approaches to the facility.

*(2) Vehicle Barriers*

Provide passive barriers adjacent to vulnerable perimeter fences, protection for site utility equipment, at building entrance, and other areas requiring additional protection from vehicles. Passive vehicle barrier shall be selected on the appropriateness of the architecture of the facility and specifics of the site and natural environment. Natural or man-made barriers may be used.

- Landscaping examples include berms, gullies, boulders, trees and other terrain.
- Hardscaping examples include benches and planters.
- Structural examples include walls, bollards and cables.

*(3) Parking*

No vehicle shall be parked or be permitted to travel close than 25 feet [7.62 m] to any life-safety protected VA Facility.

Parking and access for patients, visitors, and the persons transporting them to and from the VA facility shall be as convenient as possible to the main entrance, subject to the requirements above. Where vehicles are unscreened, make site provisions to accommodate a shuttle service for persons needing assistance. Parking and facility access shall comply with accessibility requirements.

Emergency entrance shall be provided with a small parking area for emergency patients and space for ambulances. Ambulances shall be permitted to approach the building directly and not be subjected to the distance requirements. **THERE IS NO EMERGENCY ENTRANCE. MAIN ENTRANCE WILL BE USED.**

Vendors shall use the delivery vehicle entrance and service yard at the loading dock. Parking shall be provided for vendors in the service yard.

Where employees share access with patients and visitors, the entrance to the employee parking shall be controlled by a card-actuated gate. Employee parking areas shall be monitored by SSTV. Emergency alert systems, such as blue phones, shall be provided by the lessor one per every 100 feet radius in the parking area; however, final layout and placement shall be required to be approved by the VA in advance of construction activities.

When separation of types of traffic is not feasible, card-controlled access gates and other traffic separation measures shall be used.

**B. Building Entrances and Exits**

Public access to the facility should be restricted to a single entrance. The public entrance is to the main lobby of the facility. Staff entrances shall be located independently of main entrance lobbies and be convenient to staff parking. Design access from drop-off to lobby to prevent a straight line of travel. Provide sufficient size to accommodate several people with mobility aids.

Public access shall include a screening vestibule with sufficient space and power, telecommunications, and data connections for installation of access control and screening equipment. When screening devices are not permanently installed, provide secure storage in close proximity to their installation location.

Entrance doors to the lobby shall be visible to or monitored by security personnel. Access from the lobby to elevators, stairways, and corridors shall be controlled. Separate the public lobby from adjacent areas with partitions that extend to the underside of the floor above. Glazing in the lobby area shall be laminated glass.

Public doors shall be capable of being remotely locked and unlocked from the reception desk in the main lobby. Secondary public entrance doors shall prevent unauthorized access. Staff entrance door hardware shall include either mechanical or electronic locks.

Means of egress doors that do not also function as entrances shall be provided with delayed action and alarmed emergency egress hardware. Delayed egress and alarmed exits shall comply with applicable codes and regulations. Means of egress shall not be obstructed by installation of security devices such as guard stations, screening equipment, or other security devices.

Access for Emergency Responders: The Fire Command Center (FCC) and secure house key box for emergency responders shall be located near an entrance door. **NEED TO SHOW FCC ON FLOOR PLAN.** The entrance shall be controlled and monitored by Security Surveillance Television (SSTV).

SSTV cameras shall be provided to monitor activities in the lobbies of new and existing life-safety protected facilities and shall be located to provide views of approaching pedestrian and vehicular traffic, drop-off areas, building entrances, and departing pedestrian and vehicular traffic. Provide SSTV cameras at locations with alarmed exits, at loading docks, and other

areas subject to pilferage. Install door status monitors at doors intended to be used only for emergency egress.

**C. Building Envelope**

Non-load bearing walls shall be designed to withstand the design level vehicle threat. Walls shall be able to accept the tributary loads transferred from glazed fenestration in addition to the design level pressures applied directly to their surface.

Façade fenestration shall be designed and constructed using debris mitigating materials such as laminated glass. The glass shall be restrained within the mullions and the mullions shall be designed to accept the design level pressures. Curtain wall framing members shall span from slab to slab and shall not be attached directly to gravity load bearing elements (such as columns and shear walls) unless an advanced analysis of the load bearing element demonstrates it can accept the maximum forces of the members framing into it without compromising its load bearing capacity.

Roof structure shall be designed to withstand the design level vehicle threat taking into account the presence of parapets, the diffusion of blast waves, and the spatial extent of the roof surface.

Skylights shall be designed in response to the calculated peak pressures and impulses resulting from the design level vehicle threat. Skylight glass shall be restrained within the mullions and the mullions shall be designed to accept the design level pressures.

Penthouses enclosing mission-critical equipment shall be designed to resist the design level vehicle threat and to be consistent with the hardened intakes and exhausts.

**D. Structural System**

Structural systems shall be constructed to withstand the actual pressures and corresponding impulses produced by the design level vehicle threat and the design level satchel threat that may be delivered to loading docks, mailrooms, and lobbies prior to screening. The design shall provide a level of protection for which progressive collapse will not occur; the building damage will be economically repairable and the space in and around damaged area can be used and will be fully functional after cleanup and repairs.

**E. Building Systems**

HVAC systems: locate major mechanical equipment above the ground floor in an area not subject to flooding. All air intakes shall be located so that they are protected from external sources of contamination. Locate the intakes away from publicly accessible areas, minimize obstructions near the intakes that might conceal a device, and use intrusion alarm sensors to monitor the intake areas.

- Locate all outdoor air intakes a minimum of 100 feet [30.48 m] from areas where vehicles may be stopped with their engines running.

- Locate all outdoor air intakes a minimum of 30 feet [9.14 m] above finish grade or on roof away from the roof line.

Design air intakes and exhausts to minimize the blast over pressure admitted into critical spaces and to deny a direct line of sight from a vehicle threat located at the stand-off distance to the critical infrastructure within.

Maintain positive pressure in lobbies and entrance areas.

Fire protection systems: fire department hose connections located on the exterior of a building shall be secured in suitable enclosure that limits access to authorized personnel. Coordinate with the serving fire department.

**F. Security Systems**

SSTV system shall be provided to monitor building entrances, restricted areas, mission critical asset areas, and alarm conditions. SSTV system shall be used for surveillance and observations of defined exterior areas, such as site and roadway access points, parking lots, and building perimeter, and interior areas from a centralized police operations room or security control center. VA will provide security surveillance 24/7. The design, installation, and use of SSTV cameras shall support the visual identification and surveillance of persons, vehicles, assets, incidents, and defined locations.

The Intrusion Detection System (IDS) shall include motion detection, glass break, and door contact sensors, among other devices. These devices provide alternative methods to detect actual or attempted intrusion into protected areas through the use of alarm components, monitoring, and reporting systems. The IDS shall have the capability of being integrated with DSPI, PACS, and SSTV systems. All IDS shall meet UL 639 Intrusion Detection Standard. IDS shall be used to monitor the site perimeter, building envelope and entrances, and interior building areas where access is restricted or controlled.

The Physical Access Control System (PACS) shall include, but not be limited to: card readers, keypads, biometrics, electromagnetic locks and strikes, and electronic security management system (SMS). PACS devices shall be used for the purpose of controlling access and monitoring building entrances, sensitive areas, mission critical asset areas, and alarm conditions from an access control perspective. This includes maintaining control over defined areas such as site access points, parking lot areas, building perimeter, and interior areas that are monitored from a centralized SCC. PACS shall be able to be fully integrated with other security subsystems using direct hardwire or computer interface.

**Electronic Security Management System (SMS):** The SMS shall allow the configuration of an enrollment and badging, alarm monitoring, administrative, asset management, digital video management, intrusion detection, visitor enrollment, remote access level management, and integrated security workstations or any combination thereof. Entry control software shall allow for programming of the PACS via a CPU. All software shall be updated per manufacturer's instructions. Network interface devices shall consist of all hardware and software required to allow for full interface with other security subsystems via a CPU.

**Duress, Security Phones, and Intercom System (DSPI):** The DSPI system is used to provide security intercommunications for access control, emergency assistance, and identification of locations where persons under duress request a security response. All components of the DSPI shall be fully compatible and shall not require the addition of interface equipment or software upgrades to ensure a fully operational system. DSPI shall be fully integrated with other security subsystems.

**G. Special Areas**

*(1) General Design Criteria*

Apply the following considerations in the layout and design of special areas within the outpatient clinic.

**Telephone Equipment Room and/or Main Computer Room:** The Telephone Equipment Room and/or Main Computer Room shall be located not closer than 50 feet [15.24 m] in any direction to main entrance lobbies, loading docks, and mailrooms, and in no case directly above or below such spaces.

**Emergency and/or Stand-By Generators:** The emergency and stand-by generators and related switchgear may be located in a separate structure from the main building or within the main building. The generator room shall not be located at an elevation subject to flooding at any time. The generator room shall not be located closer than 50 feet [15.24 m] of a loading dock/receiving area or mailroom, and shall not be located beneath such facilities. Areaways and louver openings serving the generator shall not open to the service yard for the loading dock. Entrances from the exterior shall not open to the loading dock service yard.

**Police Operations Room and Holding Room:** Police operations room shall be located on the first floor of the building adjacent to the highest potential trouble area, such as emergency or urgent care room, or lobby and shall be located to allow appropriate response and deployment to respond to a security related event. Holding room shall be separated from police operations room and near a lowly usable exit. When the police operations room is adjacent to or opens onto areas occupied by unscreened public, such a lobbies, emergency rooms, and public corridors, construction, including partitions from slab to slab, doors, windows, and other openings separating the unit from such spaces, shall be 1-hour fire resistive, UL level 3 ballistic-resistant. SSTV surveillance shall be provided of the entire room through an opening glazed with transparent polycarbonate in a steel frame firmly anchored to the wall.

**Records Storage:** Record storage rooms shall be located not nearer than 50 feet [15.24 m] in any direction from main entrance lobbies, loading docks, and mailrooms and in no case directly above or below such spaces.

*(2) Additional Security Requirements*

Lessor shall provide the following physical security measures or features for the spaces or areas listed below.

| SECURITY REQUIREMENTS for SPECIAL AREAS | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **LOCATION** | **APPLICABLE REQUIREMENTS (X)** (See list below table) | | | | | | | | | | | | | |
| | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **13** | **14** |
| Canteen Retail Store | X | O | X | X | X | | | | | X | X | | | |
| Canteen Storage Room | X | O | X | X | X | | | | | X | X | | | |
| Acquisition & Materiel Management (A&MM) (Supply Warehouse) | O | X | X | X | X | | | | | | X | | | |
| Information Resources Management – DHCP | X | | X | X | X | | | | | X | X | | | |

| SECURITY REQUIREMENTS for SPECIAL AREAS | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **LOCATION** | **APPLICABLE REQUIREMENTS (X)** (See list below table) | | | | | | | | | | | | | |
| | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **13** | **14** |
| Main Telephone Equipment Room; Computer Room | X | | X | X | X | | | | | X | X | | | |
| Treatment Rooms | | | | | | | | | | | | X | X | X |

**1: Windows**
Windows with sills less than 40 feet [12.19 m] from the ground or the roof of a lower abutment, less than 25 feet from windows of an adjoining building, and accessible by a building ledge leading to windows of other floor rooms require security mesh screening. Stainless steel security mesh screening shall be equivalent to woven mesh 0.028" wire diameter alloy #304 stainless steel, and have a tensile strength of 800 pounds per lineal inch. Mesh shall be equivalent to 12 x 12 per inch with main and sub frames of 12 gauge carbon steel with baked enamel finish and internal key locking slide bolts. Security mesh screens are to be installed on inside of windows.

**2: Walls**
All walls or partitions for the designated room shall be constructed to resist forced entry.

Exterior walls of brick or masonry construction shall be acceptable. Metal stud walls shall be reinforced with security mesh to provide equivalent protection.

Interior partitions may be solid 4-inch CMU or metal stud with security mesh.
Metal lath or plaster base is unacceptable as security mesh. Security mesh shall be flattened, expanded metal manufactured from high strength, low alloy steel and shall conform to ASTM F 1267, Type 11, Class 1, Mill finish. Mesh designation: 3/4 #13F; Mesh Design Size 0.923 x 2.10 inch; Mesh Opening Size 0.688 x 1.781 inch; 13 meshes per foot, 74% open area; Mesh Strand Width 0.106 inch; Mesh Strand Thickness 0.078 inch; Weight 0.75 pounds per square foot. Provide manufacturer's attachment clips and use recommended fasteners to secure mesh to wall framing.

**3: Doors And Locks**
Solid core wood or hollow steel door construction shall be 1-3/4" thick. Dutch or half doors are unacceptable. Hinge pins on door exterior (unsecured side) shall be non-removable type. Doors shall be set in hollow metal (steel) frames and fitted with mortise lock. All locking arrangements shall comply with NFPA 101 and shall require no more than one operation from the inside (in direction of egress) to unlock/unlatch the door regardless of the number of locks or latches.

Mortise lock shall have latch bolt and independent dead bolt (min ¾-inch throw). Latch bolt must be automatically locking on door closure; requiring re-entry to the room with key or lock combination and allowing egress from the room by use of an inside lever. Key outside or thumb turn inside shall retract or project the dead bolt. When dead bolt is projected, inside lever shall simultaneously retract latch bolt and dead bolt. Combinations or keys to locks will be restricted to service employees and combinations changed immediately on the termination or reassignment of an employee.

**4: Other Room Access Means**
Ceiling overhead areas which enable entry into a secure room from an unsecured room must be barricaded by the installation of a suitable partition or ceiling which deters "up and over" access. Ventilation grills on doors which exceed 96 square inches [620 $cm^2$] in area must be reinforced to prevent their removal from outside the room. All vents, ducts, and similar openings in excess of 96 square inches [620 $cm^2$] that enter or pass through the secure space shall be protected with either bars or grills. If one dimension of the duct measures less than six inches [150 mm] or duct is less than 96 square inches [620 $cm^2$], bars are not required; however, all ducts must be treated to provide sufficient sound attenuation. If bars are used, they must be ½-inch [12.7 mm] diameter steel welded vertically and horizontally six (6) inches [150 mm] on center; if grills are used, they must be of 9-gauge expanded steel. Openings in construction above ceilings or below raised access floors shall be protected as above.

**5: Motion Intrusion Detectors**
An intrusion detection alarm system which detects entry into the room and which broadcasts a local alarm of sufficient volume to induce an illegal entrant to abandon a burglary attempt. Intrusion detectors must have the following essential features:

An internal, automatic charging DC standby power supply and a primary AC power operation.

A remote, key operated activation/deactivation switch installed outside the rooms and adjacent to the room entrance door frame.

An automatic reset capability following an intrusion detection.

A local alarm level of 80 dB (min) to 90 dB (max) up to 100 feet [30.48 m] from the protected room.

An integral capability for the attachment of wiring for remote alarm and intrusion indicator equipment (visual or audio).

A low nuisance alarm susceptibility.

Intrusion detector equipment which operates on the principle of narrow beam interception, microwave, or photo electric eye is unacceptable.

**Installation Notes:**
A locally sounding alarm should not be installed in a room which is close to a cardiac care or other special treatment area where a loud alarm would have an injurious effect on patients.

Intrusion detector alarms will be remotely monitored by a commercial security alarm monitoring firm, a local police department, or a security office charged with building security.

The remoted alarms will be in addition to locally broadcast alarms in the protected areas.

6: *Intentionally Deleted*

7: *Intentionally Deleted*

8: *Intentionally Deleted*

9: *Intentionally Deleted*

**10: Closed Circuit TV**
Security surveillance TV camera with motion detector feature on cameras and at monitor location.

**11: Special Key Control**
Room door lock keys and day lock combinations, where applicable, are Special Keys and are not mastered.

**12: Drug Cabinets**
VA shall provide key locked, all steel cabinets to be firmly anchored in place are required for emergency room or treatment room storage of small quantities of controlled substances. Quantities and locations of drug cabinets shall be as listed in Schedule B. VA will provide the Drug Cabinets. The Lessor will only install the Cabinets provided.

**13: Refrigerators**
VA furnished and installed.

**14: Medicine Cabinets**
VA will provide the Medicine Cabinets. The Lessor will only install the Cabinets.

**H. Natural Disasters Resistive Design**
Lessor shall include the following specific provisions for emergency utility services, emergency site access facilities, and resistive design of non-structural building elements. Where local Seismic Code is more stringent, comply with local code. Non-structural building elements include all components or systems that are not part of the building's structural system whether inside or outside, above or below grade. Non-structural elements of buildings include architectural, elevator and transport, mechanical, plumbing, and electrical elements.

**I. Emergency Utilities**

*(1) Electric Power Services*
Provide emergency electric power in accordance with the requirements of Paragraph 6.7.8 Essential Electrical Systems for Clinics herein.

*(2) Natural Gas Service*
In addition to a manual shut-off valve, provide an earthquake-sensitive automatic safety shut-off valve in the on-site gas supply line serving the outpatient clinic.

**J. Emergency Site Access Facilities**

*(1) Ground Transportation*
Provide for emergency access to VA premises from two or more public roads.

**K. Seismic and Natural Disasters Resistive Design of Non-Structural Building Elements**

*(1) Definitions*

Non-structural building elements include all components or systems that are not part of the building's structural system whether inside or outside, above or below grade. Non-structural elements of buildings include:

**Architectural Elements:** Facades that are not part of the structural system and its shear resistant elements; cornices, and other architectural projections and parapets that do not function structurally; glazing; nonbearing partitions; suspended ceilings; stairs isolated from the basic structure; cabinets; bookshelves; medical equipment; and storage racks.

**Electrical Elements:** Normal and emergency power and lighting systems; switchboards, panelboards, and transformers; emergency engine-generator sets and automatic transfer switches; motor controllers; elevator and transport systems; fire alarm systems; and telecommunication systems.

**Mechanical Elements:** Heating, ventilating, and air-conditioning systems; plumbing systems; sprinkler systems; pneumatic systems; and mechanical and structural elements for transport systems, i.e., elevators and dumbwaiters, including hoisting equipment and counterweights.

*(2) Hurricane and Flood Resistive Design Requirements*

Design and construct the outpatient clinic building and utilities to comply with local code requirements and to provide the following resistive features.

**Air Conditioning Systems:** If possible, avoid the installation of outdoor equipment such as cooling towers, roof mounted fans, ventilators, and air-conditioning units on the roof. If exterior installation is necessary, properly secure equipment to withstand wind forces that comply with local codes. If there are no local codes, use wind velocities indicated in ASCE 7-05 or later version if available.

## 4.3 FIRE PROTECTION

The Public Buildings Amendment Act (PL 100-678) requires all Federal agencies to follow the latest editions of nationally recognized fire and life safety codes. Lessor shall comply with applicable provisions of the local codes and VA adopted codes and standards (Paragraph 4.2). Where conflicts exist between these standards and local codes, the designer shall satisfy the most stringent requirement. Strict compliance to codes and standards is mandatory for new construction.

### 4.3.1 SITE CONSIDERATIONS

Provide access for emergency vehicles to buildings and additions. Design roads, fire lanes, and turn-arounds for the weight and turning radius of fire apparatus. Consult local fire department for fire apparatus requirements. At minimum, one of the long sides of every building shall be accessible to fire department equipment.

Barriers must be placed adjacent to vulnerable perimeter fences, protection for site utility equipment, at building entrance, and other areas requiring additional protection from vehicles.

**Parking:** Passenger vehicles shall not be parked or permitted to travel closer than 25 feet [7.62 m] to a life-safety-protected VA facility.

### 4.3.2 BUILDING CONSTRUCTION

**Types of Construction**: Base the design on the construction type necessary to comply with code requirements for the most restrictive occupancy in the building in accordance with NFPA 101 and locally adopted codes and standards. Should a conflict exist between NFPA 101 requirements and locally adopted codes and standards, the more stringent requirement shall apply.

Consider separation distances to adjoining structures or hazards. Protect exterior walls and openings from exposure as required by Code. Locate combustible structures or structures that have combustible roof assemblies a minimum of 25 feet [7.62 m] from the exposed building. Shelters or pavilions that are of masonry construction shall not be located within 10 feet [3 m] of any building opening.

Roof coverings shall be approved or listed by a nationally recognized testing laboratory for compliance with UL standard 790 and be Class B minimum. Roof deck assemblies shall be FM Class I approved, or UL listed as Fire-Classified.

### 4.3.3 OCCUPANCY TYPE

Occupancy classifications are defined in NFPA 101 and IBC as follows:

### 4.3.4 MEANS OF EGRESS

All exits, corridors, aisles, and passageways that may be used by the Government shall comply with the latest edition of NFPA 101 ("Life Safety Code") and locally adopted codes and standards for the occupancy classification. Should a conflict exist between NFPA 101 requirements and locally adopted codes and standards, the more stringent requirement shall apply. Corridors shall comply as follows:

Major corridors shall have a minimum width of 8 feet [2.44 m] and departmental corridors shall have a minimum width of 6 feet [1.83 m]. Major and departmental corridors are defined in SECTION 7 below.

### 4.3.5 FIRE PROTECTION IN HAZARDOUS AND HIGH HAZARD AREAS

Hazardous and high hazard areas within the outpatient clinic shall be protected as prescribed in NFPA 101, Life Safety Code and local building codes and ordinances. Areas identified as high hazard shall be protected by not less than a minimum 1-hour fire enclosure with C-labeled doors and automatic sprinklers.

**A. Storage Rooms**
Storage rooms of 50 or more square feet [15.24 sq m] net area shall be considered hazardous areas and comply with appropriate occupancy chapter requirements of NFPA 101.

Rooms containing medical records storage or moveable-aisle/mobile shelving shall be provided with automatic sprinkler protection and enclosed with a barrier having a one-hour fire resistance rating.

**B. Flammable and Combustible Storage**
Flammable and Combustible Liquid Storage shall comply with NFPA 30. Do not locate laboratories in basements. Provide adequate space for flammable and combustible liquid storage cabinets.

## 4.4 ENVIRONMENTAL

### 4.4.1 INDOOR AIR QUALITY

Apply requirements of the latest version of ANSI/ASHRAE Standard 62, Ventilation for Acceptable Indoor Air Quality. This standard affects the way ventilation systems are designed and operated. Provide certification to the Contracting Officer that the building is in compliance with this standard. This certification shall be submitted as part of the commissioning process. Refer also to 4.8, SUSTAINABLE DESIGN AND ENERGY EFFICIENCY for indoor air quality before occupancy, and for use of low-VOC-emitting materials.

Air contaminant levels (e.g., dust, vapor, fumes, and gases) shall not exceed those in 29 CFR 1910.1000 and 1910.1001. When actual concentration levels equal or exceed 50% of the levels in 29 CFR 1910, remedial actions shall be initiated. Use of evaporative cooling systems will not be allowed.

The Lessor shall control contaminants at the source so that in no instances during facility operation shall levels for carbon monoxide (CO), carbon dioxide ($CO_2$ ), and formaldehyde (HCHO) exceed indicator levels for office areas of: (1) CO – 9 parts per million (ppm) time weighted average (TWA – 8-hour sample); (2) $CO_2$ – 1000 ppm (TWA); and (3) HCHO – 0.1 ppm (TWA).

Materials that are used for interior design including wall and floor treatment shall emit low amounts of Volatile Organic Compounds. Refer to Paragraph 4.8.

The Lessor shall promptly investigate indoor air quality (IAQ) complaints submitted through the Contracting Officer or his designee, as appropriate. The Lessor shall implement necessary controls to bring facility into compliance with requirements contained in this document including alteration of building ventilating, heating and air conditioning systems, and operating procedures (e.g., adjusting air intakes, adjusting air distribution, cleaning and maintaining HVAC, etc.).

VA reserves the right to conduct independent IAQ assessments and detailed studies in space it occupies, as well as in space serving the VA leased space (e.g., common use areas, mechanical rooms, HVAC systems, etc.). The Lessor shall assist VA in its assessments and detailed studies by making available information on building operations and Lessor activities, providing access to space for assessment and testing, if required, and implementing corrective measures required by the Contracting Officer.

### 4.4.2 ASBESTOS

Materials containing asbestos shall not be used. It shall be the responsibility of the Lessor to certify that asbestos-containing materials have not been used in the construction of the building to be occupied by VA. Lessor acquisition process for materials used in construction, including, but not limited to, thermal insulation, surfacing material, floor tile, sheet vinyl, and fireproofing material shall include clauses to specifically exclude asbestos from the materials being used in the building. The foregoing applies to soil in crawl space containing asbestos in levels that are deemed excessive by State and Federal requirements. Lessor is to provide information in the form of an asbestos survey conducted in conformance to AHERA requirements on the location of all remaining friable and non-friable asbestos. This certification shall be submitted prior to occupancy by the government. The Contracting Officer shall review the certification provided by the Lessor. Lessor shall guarantee that all non-friable asbestos that becomes friable due to any reason shall be removed in accordance with applicable State and Federal requirements.

### 4.4.3 RADON MEASUREMENT AND CORRECTIVE ACTION

Radon levels in space leased to the Government shall not equal or exceed the Environmental Protection Agency (EPA) action level for homes of 4 picocuries per liter (pCi/L).

The space proposed for lease to the Government, which is in ground contact or closest to the ground, shall be measured by the Lessor for radon and the results certified in accordance to EPA procedures. For structures built on a slab (i.e., without a basement) radon levels shall be tested on the first floor of the structure. Radon detectors shall be placed throughout the required area to ensure coverage meets EPA and/or State recommended requirements. In any case, each detector shall cover no more than 2,000 square feet [609.6 sq m] of space. Radon shall be measured in accordance with EPA and manufacturer required procedures for a minimum of 90 days using either Alpha Track Detectors or Electret Ion Chambers. If 90 day testing period is not possible, Alpha Track Detectors may be used for a minimum period of 2 to 4 weeks or Charcoal Canisters or Electret Ion Chambers for a period of 2 to 3 days. If measurements are made for fewer than 90 days, follow-up measurements for a minimum of 90 days, using either Alpha Track Detectors or Electret Ion Chambers, must be completed. A laboratory successfully participating in the EPA-sponsored radon measurement proficiency program shall perform laboratory detector analyses. Quality control/quality assurance procedures shall be developed in accordance with industry standards and applied to radon testing results. Provide VA with a copy of the lab analysis and actual radon measurements for each detector used in support of the certification.

If the space offered for lease to the Government is in a building under construction or proposed for construction, the Lessor shall construct the building to the maximum extent feasible in such a way to minimize radon intrusion into the building. Lessor shall perform the necessary radon testing and submit a certification to the Contracting Officer within 30 days after the test is completed, but not later than 150 days after VA occupies the space. If radon measurements at or above 4 pCi/L are detected, the Lessor shall promptly initiate corrective action to reduce the level to below 4 pCi/L. If the Lessor does not affect corrective action, this is sufficient reason by itself for VA to void or not enter into the lease agreement.

VA reserves the right to measure radon in the space it leases at any time during the term of the lease. If radon measurements at or above 4 pCi/L are detected, the Lessor shall promptly

initiate corrective action to reduce the level to below 4 pCi/L. If radon at or above 4 pCi/L is detected, the Lessor shall restrict the use of the area and provide comparable temporary space for the tenants until the corrective action is completed. Follow-up measurements shall be conducted by the Lessor to determine the effectiveness of the corrective action. The Lessor at no additional cost to VA shall provide all corrective actions, tenant relocation, and follow-up measurements. The Lessor shall provide VA with prior written notice of any proposed corrective action or tenant relocation.

### 4.4.4 RADON IN WATER

Two water samples constituting a sampling pair shall be taken from the same location for quality control. They shall be obtained inside the building and as near the non-public water source as is practical, in accordance with EPA's Radon in Water Sampling Program Manual. An analysis of water samples for radon must be performed by a laboratory that uses the analytical procedures as described in EPA's Two Test Procedures For Radon in Drinking Water.

The Lessor shall perform the necessary radon testing and submit a lab test and a certification to the Contracting Officer before VA occupies the space.

If the EPA action level is reached or exceeded, the Lessor shall institute abatement methods which reduce the radon to below the EPA action level, such as aeration, prior to occupancy by VA.

### 4.4.5 POTABLE WATER QUALITY

Potable water provided to VA from municipal or community water systems shall meet EPA and/or state standards for contaminants.
If potable water does not meet EPA and/or state standards, Lessor shall take action necessary to reduce contamination to acceptable levels. Lessor shall test potable water periodically to ensure that it continues to meet EPA and state standards. Lessor shall provide bottled water at his/her expense at any time contaminant levels exceed EPA and/or state requirements. If potable water does not meet EPA and/or state standards, Lessor shall take action necessary to reduce contamination to acceptable levels.

## 4.5 SPECIAL ENVIRONMENTAL REQUIREMENTS

Any leased project over 75,000 GSF shall comply with the National Environmental Policy Act of 1969. Sites with proposed buildings of less than 75,000 GSF Must acquire CERCLA and SHPO clearance.

If required, special building equipment to treat and exhaust to the atmosphere toxic gases produced by the agency program equipment shall be provided by Lessor. All such installations shall comply with appropriate OSHA, EPA or related regulations of the local community. Lessor shall obtain all necessary permits for construction and operation. In addition, provide up to 100% outside air for clinical laboratories and other areas designated in Section 6 Mechanical requirements.

## 4.6 ACCESSIBILITY STANDARDS

The design, construction, and alteration of facilities shall comply with local codes and ordinances. In addition, all VA facilities must comply with the Architectural Barriers Act Accessibility Standards (ABA-AS) as adopted by GSA and VA Program Guide PG-18-13, "Barrier Free Design Guide."

The ABA-AS consists of Appendices C and D to 36 CFR Part 1191 (ABA Chapters 1 and 2, and Chapters 3 to 10) and is available from United States Access Board http://www.access-board.gov/.

VA Barrier Free Design Guide PG18-13 is available from VA Technical Information Library at http://www.cfm.va.gov/til/dGuide/barrfree.doc.

The Offeror shall comply with the stricter of these standards for each requirement as determined by the Government. **Offerors are cautioned that compliance with ADA does not assure compliance with UFAS or PG-18-13.** The following list includes some of the requirements from the "Barrier Free Design Guide" that typically exceed ADA or local requirements. The more stringent requirement shall be followed.

| VA Accessibility Standards from PG-18-13 | |
|---|---|
| **Paragraph** | **Description of Requirement** |
| 4.1.1(5)(e)(i) | 10% of total parking spaces shall be accessible |
| 4.3.4 | 5'-0" minimum width for accessible routes |
| 4.3.7 | 1:33 (3%) maximum slope for accessible routes, including parking spaces |
| | 1:50 minimum gradient for walk requiring rest areas |
| | 6'-0" x 6'-0" minimum size of level platform at doors |
| 4.5.3 | Carpet cushion or padding is not permitted |
| 4.6.3 | 5'-0" access aisle required both sides of accessible parking spaces |
| 4.7.3 | 4'-0" minimum width for curb ramps |
| 4.8 | Requirements for ramps:<br>1:20 maximum slope<br>40-foot max length for slopes between 1:33 and 1:24<br>35-foot max length for slopes to 1:20<br>4'-0" minimum clear width<br>6'-0" x 6'-0" minimum landing where doors swing into landing |

| VA Accessibility Standards from PG-18-13 | |
|---|---|
| **Paragraph** | **Description of Requirement** |
| 4.9.4(5) | 34" handrail height (not a range of heights) |
| 4.10 | 4'-0" minimum elevator door width<br>Double set of handrails required: 3" x 3/8" with centerlines at 30" and 42" above car floor<br>8'-0" x 6'-0" minimum passenger elevator platform size |
| 4.13 | 2'-10" (34") minimum clear opening |
| 4.17 | Toilet Stalls:<br>5'6" x 6'-0" minimum accessible stall size<br>3'-6" x 6'-0" minimum size "front transfer" stall<br>Grab bars are required in all stalls (not just accessible stalls) |
| 4.22 | 3'-0" (36") minimum width of toilet room entrance doors |
| 5.0 | Cafeterias:<br>2'-3" (25") minimum knee clearance dimension, and<br>2'-5" (27") for minimum 5-percent of tables<br>40 to 48" range for cutlery and supply height |

## 4.7 OSHA REQUIREMENTS

The Lessor agrees to comply with all Occupational Safety & Health Administration (OSHA) Safety and Health Standards located in 29 CFR.

## 4.8 SUSTAINABLE DESIGN AND ENERGY EFFICIENCY

### 4.8.1 LEED® SILVER FOR HEALTHCARE CERTIFICATION (LEED-HC)

Demonstrable LEED® Silver for Healthcare Certification is required. Lessor shall provide documentation that the design and construction of facilities meets this goal. From the entirety of available LEED® Credits, certain credits are mandatory. The Lessor shall supplement the mandatory credits with other credits chosen to accomplish sufficient credits for LEED® Silver for Healthcare Certification. The latest version of LEED® available shall be used. The mandatory credits (based on LEED® 3) are:

| | |
|---|---|
| Water Efficiency: | Credit 3 Water Efficient Landscaping, Reduce By 50% |
| Energy & Atmosphere: | Credit 2 Enhanced Commissioning Option 1 at a minimum |
| Materials and Resources: | Credit 3 Sustainability Source Materials10% of Materials and Products – Minimum 2 points |
| Indoor Environmental Quality: | Credit 4 Low-Emitting Materials |

| | |
|---|---|
| Indoor Environmental Quality: | Credit 3.2 Construction IAQ Management Plan – Before Occupancy |

LEED® prerequisites necessary to obtain the required credits are also required. These include:

| | |
|---|---|
| Water Efficiency | WEp1, Water Use Reduction; Minimize Potable Water User for Medical Equipment Cooling |
| Energy & Atmosphere: | EAp1, Fundamental Commissioning of Building Energy Systems; EAp2, Minimum Energy Performance; and PR3, Fundamental Refrigerant Management |
| Materials and Resources: | MRp1, Storage and Collection of Recyclables |
| Indoor Environmental Quality: | EQp1, Minimum Indoor Air Quality Performance; EQp2, Environmental Tobacco Smoke (ETS) Control |
| Innovation & Design | Integrative Project Planning Design |

### 4.8.2 STRATEGIES

Design and construction of facilities must meet Federal Mandates for sustainability and energy efficiency.

The Lessor shall employ the following strategies.

**A. Employ Integrated Design Principles**

*(1) Integrated Design*

Use a collaborative, integrated planning and design process that initiates and maintains an integrated project team in all stages of a project's planning and delivery.

Establish performance goals for siting, energy, water, materials, and indoor environmental quality along with other comprehensive design goals and ensure incorporation of these goals throughout the design and lifecycle of the building. Consider all stages of the building's lifecycle, including deconstruction.

*(2) Commissioning*

Employ commissioning practices tailored to the size and complexity of the building and its system components in order to verify performance of building components and systems and help ensure that design requirements are met. This should include an experienced commissioning provider, inclusion of commissioning requirements in construction documents, a commissioning plan, verification of the installation and performance of systems to be commissioned, and a commissioning report. The systems to be commissioned include active and passive HVAC equipment and controls, plumbing systems, lighting and daylighting controls, domestic hot water systems, and onsite renewable energy systems.

Plumbing systems shall also be integrated into the commissioning plan. The commissioning plan shall define pressure test procedures for all pipe systems, shower or bathroom basin leakage tests, plumbing fixture carrier installation, plumbing fixture flow rate adjustment, system chlorination and flush, *Legionella* disinfection, booster pump package, backflow prevention devices tested by a third party and reports included in the final commissioning

report, thermostatic mixing valves, oral evacuation system, dental compressed air system, natural gas and fuel system, and special water systems.

**B. Optimize Energy Performance**

*(1) Energy Efficiency*

Establish a whole building performance target that takes into account the intended use, occupancy, operations, plug loads, other energy demands, and design to earn the Energy Star® targets for new construction and major renovation where applicable. For new construction, reduce the energy use by 30% compared to the baseline building performance rating per the American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc., (ASHRAE) and the Illuminating Engineering Society of North America (IESNA) Standard 90.1-2007, Energy Standard for Buildings Except Low-Rise Residential. If available, use Energy Star and FEMP-designated Energy Efficient Products.

Per the Energy Independence and Security Act (EISA) Section 523, meet at least 30% of the hot water demand through the installation of solar hot water heaters, when life-cycle cost-effective.

*(2) Measurement and Verification*

Per the Energy Policy Act of 2005 (EPAct) Section 103, install building level utility meters in new major construction and renovation projects to track and continuously optimize performance. Per EISA Section 434, include meters for natural gas and steam, where appropriate.

Compare actual performance data from the first year of operation with the energy design target. After one year of occupancy, measure all new major installations using the Energy Star® Portfolio Manager for building and space types covered by Energy Star®.

Annually provide data to VA.

**C. Protect and Conserve Water**

*(1) Indoor Water*

Employ strategies that in aggregate use a minimum of 20% less potable water than the indoor water use baseline calculated for the building, after meeting the EPAct 1992, Uniform Plumbing Codes 2006, and the International Plumbing Codes 2006 fixture performance requirements. The installation of water meters is encouraged to allow for the management of water use during occupancy.

*(2) Outdoor Water*

Use water efficient landscape and irrigation strategies, including water reuse and recycling, to reduce outdoor potable water consumption by a minimum of 50% over that consumed by conventional means (plant species and plant densities). The installation of water meters for locations with significant outdoor water use is encouraged.

Employ design and construction strategies that reduce storm water runoff and polluted site water runoff. Per EISA Section 438, to the maximum extent feasible, maintain or restore the predevelopment hydrology of the site with regard to temperature, rate, volume, and duration of flow, using site planning, design, construction, and maintenance strategies.

*(3) Process Water*
Per the Energy Policy Act of 2005 Section 109, when potable water is used to improve a building's energy efficiency, deploy life-cycle cost-effective water conservation measures.

*(4) Water-Efficient Products*
Use EPA's WaterSense-labeled products or other water conserving products. Choose irrigation contractors who are certified through a WaterSense-labeled program.

**D. Enhance Indoor Environmental Quality**
*(1) Ventilation and Thermal Comfort*
Meet ASHRAE Standard 55-2004, Thermal Environmental Conditions for Human Occupancy, including continuous humidity control within established ranges per climate zone, and ASHRAE Standard 62.1-2007, Ventilation for Acceptable Indoor Air Quality.

*(2) Moisture Control*
Establish and implement a moisture control strategy for controlling moisture flows and condensation to prevent building damage and mold contamination.

*(3) Daylighting*
Achieve a minimum of daylight factor of 2% (excluding all direct sunlight penetration) in 75% of all space occupied for critical visual tasks. Provide automatic dimming controls or accessible manual lighting controls, and appropriate glare control.

*(4) Low-Emitting Materials*
Specify materials and products with low pollutant emissions, including adhesives, sealants, paints, carpet systems, and furnishings.

*(5) Protect Indoor Air Quality During Construction*
Follow the recommended approach of the Sheet Metal and Air Conditioning Contractor's National Association Indoor Air Quality Guidelines for Occupied Buildings under Construction, 1995. After construction and prior to occupancy, conduct a minimum 72-hour flush-out with maximum outdoor air consistent with achieving relative humidity no greater than 60%. After occupancy, continue flush-out as necessary to minimize exposure to contaminants from new building materials. Prohibit smoking within the building and within 25 feet [7.62 m] of all building main entrances and building ventilation intakes during building occupancy.

**E. Reduce Environmental Impact of Materials**
*(1) Recycled Content*
For EPA-designated products, use products meeting or exceeding EPA's recycled content recommendations. For other products, use materials with recycled content such that the sum of postconsumer recycled content plus one-half of the pre-consumer content constitutes at least 10% (based on cost) of the total value of the materials in the project. If EPA-designated products meet performance requirements and are available at a reasonable cost, a preference for purchasing them should be included in all solicitations relevant to construction, operation, maintenance of, or use in the building.

*(2) Biobased Content*
For USDA-designated products, use products meeting or exceeding USDA's biobased content recommendations. For other products, use biobased products made from rapidly renewable resources and certified sustainable wood products. If these designated products meet

performance requirements and are available at a reasonable cost, a preference for purchasing them should be included in all solicitations relevant to construction, operation, maintenance of, or use in the building.

*(3) Environmentally Preferable Products*
Use products, such as low-emitting materials or products containing no toxic metals, that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose.

*(4) Construction Waste and Materials Management*
During a project's planning stage, identify local recycling and salvage operations that could process site-related construction and demolition materials. Program the design to recycle or salvage at least 50% of the non-hazardous construction, demolition, and land clearing materials, excluding soil, where markets or onsite recycling opportunities exist. Provide salvage, reuse, and recycling services for waste generated from major renovations, where markets or onsite recycling opportunities exist.

*(5) Ozone Depleting Compounds*
Eliminate the use of ozone depleting compounds during and after construction where alternative environmentally preferable products are available, consistent with either the Montreal Protocol and Title VI of the Clean Air Act Amendments of 1990, or equivalent overall air quality benefits that take into account life-cycle impacts.

## 4.9 ENERGY INDEPENDENCE AND SECURITY ACT (SEP 2011)

A. The Energy Independence and Security Act (EISA) establishes requirements for Government leases relating to energy efficiency standards and potential cost effective energy efficiency and conservation improvements.

B. Unless one of the statutory exceptions listed in sub-paragraph C below applies, GSA may award a Lease for a Building only if the Building has earned the ENERGY STAR® label conferred by the U.S. Environmental Protection Agency (EPA) within the most recent year prior to the due date for final proposal revisions. The term “most recent year” means that the date of award of the ENERGY STAR® label by EPA must not be more than 1 year prior to the due date of final proposal revisions. For example, an ENERGY STAR® label awarded by EPA on October 1, 2010, is valid for all lease procurements where final proposal revisions are due on or before September 30, 2011. In lieu of the above, all new Buildings being specifically constructed for the Government must achieve an ENERGY STAR® label within 18 months after occupancy by the Government. In addition, Offerors of the following Buildings shall also have up to 18 months after occupancy by the Government, or as soon thereafter as the Building is eligible for Energy Star consideration, to achieve an Energy Star label: 1) All existing Buildings that have had an Energy Star label but are unable to obtain a label in the most recent year (i.e., within 12 months prior to the due date for final proposal revisions) because of insufficient occupancy; 2) Newly built Buildings that have used Energy Star’s Target Finder tool and either achieved a “Designed to Earn the Energy Star” certification or received an unofficial score (in strict adherence to Target Finder’s usage instructions, including the use of required energy modeling) of 75 or higher prior to the due date for final proposal revisions and who are unable to obtain a label in the most recent year because of insufficient occupancy; 3) An existing Building that is unable to obtain a label because of

insufficient occupancy but that can produce an indication, through the use of energy modeling or past utility and occupancy data input into Energy Star's Portfolio Manager tool or Target Finder, that it can receive an unofficial score of 75 or higher using all other requirements of Target Finder or Portfolio Manager, except for actual data from the most recent year. ENERGY STAR tools and resources can be found at www.energystar.gov.

C. EISA allows a Federal agency to lease Space in a Building that does not have an ENERGY STAR® Label if:

1. No Space is offered in a Building with an ENERGY STAR® Label that meets RLP requirements, including locational needs;
2. The agency will remain in a Building it currently occupies;
3. The Lease will be in a Building of historical, architectural, or cultural significance listed or eligible to be listed on the National Register of Historic Places; or
4. The Lease is for 10,000 RSF or less.

D. If one or more of the statutory exceptions applies, and the offered Space is not in a Building that has earned the ENERGY STAR® Label within one year prior to the due date for final proposal revisions, Offerors are required to include in their lease proposal an agreement to renovate the Building for all energy efficiency and conservation improvements that it has determined would be cost effective over the Firm Term of the Lease, if any, prior to acceptance of the Space (or not later than one year after the Lease Award Date of a succeeding or superseding Lease). Such improvements may consist of, but are not limited to, the following:

1. Heating, ventilating, and air conditioning (HVAC) upgrades, including boilers, chillers, and Building Automation System (BAS)/Monitoring/Control System (EMCS).
2. Lighting Improvements.
3. Building Envelope Modifications.

Note: Additional information can be found on http://www.gsa.gov/leasing under "Green Leasing."

E. The term "cost effective" means an improvement that will result in substantial operational cost savings to the landlord by reducing electricity or fossil fuel consumption, water, or other utility costs. The term "operational cost savings" means a reduction in operational costs to the landlord through the application of Building improvements that achieve cost savings over the Firm Term of the Lease sufficient to pay the incremental additional costs of making the Building improvements.

F. Instructions for obtaining an ENERGY STAR® Label are provided at http://www.energystar.gov/eslabel (use "Portfolio Manager" to apply). ENERGY STAR® tools and resources can be found at www.energystar.gov. The ENERGY STAR® Building Upgrade Manual (http://www.energystar.gov/) and Building Upgrade Value Calculator (http://www.energystar.gov/financialevaluation) are tools which can be useful in considering energy efficiency and conservation improvements to Buildings.

G. If one or more of the statutory exceptions applies, and the offered Space is not in a Building that has earned the ENERGY STAR® Label within one year prior to the due date for final proposal revisions, the successful Offeror will be excused from performing any agreed-to

energy efficiency and conservation renovations if it obtains the Energy Star Label prior to the Government's acceptance of the Space (or not later than one year after the Lease Award Date for succeeding and superseding leases).

H. If no improvements are proposed, the Offeror must demonstrate to the Government using the ENERGY STAR® Online Tools why no energy efficiency and conservation improvements are cost effective. If such explanation is unreasonable, the offer may be rejected.

I. All new Buildings being specifically constructed for the Government must achieve the ENERGY STAR® Label within 18 months after occupancy by the Government.

# SECTION 5 SITE DESIGN CRITERIA

## 5.1 GENERAL

A licensed Landscape Architect or Civil Engineer shall develop the site design. A Landscape Architect, licensed if state registration exists, shall develop the landscape planting plans.

Design of site elements shall comply with Uniform Federal Accessibility Standards (UFAS), with VA Supplement, Barrier Free Design Guide. See Paragraph 4.6 of this solicitation for additional information.

The Lessor shall obtain Topographic/Landscape, Electrical, and Telecommunications to include telephone, data, cable television and special systems, Civil/Mechanical, and Soil Surveys and geotechnical reports. The survey limits shall include a sufficient area to cover the complete project including sufficient offsite locations of existing utilities, i.e., water, sewer, gas, electric and telecommunications. Refer all vertical elevations to permanent benchmarks based on actual geodetic datum (not assumed datum).

Comply with applicable Federal, State, and municipal laws, regulations, and permits concerning design and construction controls for environmental protection of aesthetics, air, water, and land. All the following regulatory categories apply:

- Storm water permits, e.g., National Pollutant Discharge Elimination System (NPDES) permit program
- Pollution control and solid waste disposal
- Erosion control and protection of land resources
- Protection of landscape
- Protection of water resources, wetlands, and areas preserved for wildlife

**ONE STEP** process:

VA must complete the following due diligence (1) NEPA, (2) SHPO if NEPA is not required, The Lessor is responsible for providing proof of ownership and a clean buildable site.

**GENERAL NOTE**: Geotechnical reports, surveys and appraisals should be completed by local specialists.

Ensure that the design mitigates any adverse environmental impacts. Ensure all the following:

- Surface water, during and after construction, will not adversely impact the site or areas downstream from the site.
- Grading, seeding, erosion control measures, and storm sewers are used to avoid the above.
- Air and noise pollution is minimized.

- Destruction of land resources is minimized.
- Interference with the normal function of the surrounding community during construction is minimized.

## 5.2 SITE DEVELOPMENT

Use originality and imaginative design between site and structures, vehicular and pedestrian circulation, visual elements, and open and screened area. Produce a plan that has both functional and aesthetic relationships.

Develop the Site based on an American Land Title Association (A.L.T.A) Survey using a title report current within 90 days. Consider impacts to site encumbrances such as drainage, rock outcroppings, existing utilities, utility easements, abrupt changes in topography, and protected or mature salvageable vegetation.

### 5.2.1 STORM WATER

Consider impacts on existing natural and man-made storm water drainage patterns and systems. VA is committed to the control of storm water by the Federal Water Pollution Control Act, the Federal Flood Disaster Protection Act, and other Environmental Protection Agency (EPA) regulations that are implemented by Federal, State, and municipal jurisdictions. Provide a Hydrology and Hydraulics analysis and report in support of the proposed design.

### 5.2.2 CIRCULATION

Provide separate circulation systems for vehicular service and patient/visitor traffic.

Provide a circular driveway to the building drop-off with access to the parking areas. The drop-off shall have canopy cover designed to accommodate public bus and shuttle services.

Design patient exterior areas that are conveniently accessible from the building without vehicular crossings and are oriented to the most favorable site climatic conditions.

### 5.2.3 LOCATION OF BUILDING AND EQUIPMENT

Ensure that the building property line setbacks are consistent with adjacent structures and local codes.

When locating the proposed building, structures, and equipment, consider topography, adjacent facilities, utility access requirements, environmental impacts, and future development to produce a design that is functional and aesthetically successful.

Provide landscape planting, grading, architectural screening, or fencing of exterior utility, mechanical, and electrical equipment for patient and personnel protection.

### 5.2.4 PATIENT USE AREAS

Design patient exterior areas that are conveniently accessible from the building without vehicular crossings and are oriented to the most favorable site climatic conditions.

### 5.2.5 GRADING DESIGN

Coordinate surface grades with architectural, structural, and mechanical design to provide proper surface drainage.

Consult soil classification data in the subsurface investigation (geotechnical report) in support of drainage concepts proposed as part of the Hydraulics and Hydrology analysis.

Use contours at a maximum interval of 1 foot [0.3 m] to show grading of the entire project site. Utilize spot elevations as control points.

Show any temporary (construction period) or permanent erosion control.

| Condition | Maximum Slope | | Minimum Slope | | Preferred |
|---|---|---|---|---|---|
| Lawns | 25% | 4:1**a** | 2% | 50:1 | 2- 10% |
| Turf athletic area | 2% | 50:1 | 0.5% | 200:1 | 1% |
| Berms and mounds | 20% | 5:1 | 5% | 20:1 | |
| Mowed slopes | 25% | 4:1**a** | | | 20% |
| Planted slopes and beds | 10% | 10:1 | 0.5% | 200:1 | 3-5%**b** |
| Road crown | 3% | 33.3:1 | 2% | 50:1 | 2.5% |
| Roads, longitudinal* | 20% | 5:1 | 0.5% | 200:1 | 1-10% |
| Walks, longitudinal | 10% | 10:1 | 0.5% | 200:1 | 1-5% |
| Parking, longitudinal | 5% | 20:1 | 0.25% | 400:1 | 2-3% |

a. The maximum slope for mowing machinery is 25%.
b. Slopes over 6% should have erosion protection.
c. Accessible routes used by people with disabilities shall conform to the criteria of Paragraph 2.6 of this SFO.

* Payload is drastically reduced on heavy trucks sustaining grades over 3%. Ideal maximum sustained grade for safe operation of trucks and automobiles is 6%. On roads subject to frequent icing and winter conditions, the maximum sustained grade is 5%.

**General**: Provide complete dimensioned layouts for vehicular and pedestrian pavement, structures, and other components of the site and landscape design. Establish control for the layout by a base control line with dimensions from this line. Small scope projects may use property lines for control. Larger projects require coordinates on a grid system.

### 5.2.6 DESIGN OF VEHICULAR AND PEDESTRIAN PAVEMENT

Design the pavement to reflect topography, soils, climate, local materials, function, and other requirements and specific situations. The Geotechnical Report shall address and recommend ground preparation and pavement section design for the site.

When motorcycle parking is provided, construct designated area of non-reinforced concrete.

**A. Pavement Construction**
Design pavement sections of all roads, service areas, fire apparatus vehicle accessibility areas, and parking areas for the maximum anticipated traffic loads and existing soil conditions.

Construct service areas for truck dock, bulk oxygen storage, loading docks, utility buildings, and similar facilities of reinforced concrete.

Principal roads and primary service roads shall include 12’-0" travel lanes for two-way traffic (24'-0" wide between faces of curbs). Secondary service roads shall be 12'-0" between faces of curbs. Consider two-way traffic lanes where possible. One-way traffic plans shall have a minimum width of 12’-0".

**B. Curbs and Gutter**
Design all roads with integral concrete curbs and gutters per local standards and specifications. Substitute free-standing or extruded curbs only when justified.

*(1) Curb Radii*
The radii of curbs at road intersections should be 30'-0" preferred, 25'-0" minimum.

*(2) Curb Access Ramps (Curb Cuts)*
Provide curb ramps to accommodate people with disabilities as well as lawnmowers.

**C. Pavement Marking and Signing**
Provide locations and details of pavement striping and signing for parking, roadways, crosswalks, accessible parking and routes, and other special areas.

**D. Pedestrian Pavement Construction**
Design walkways to provide clearly-defined, unobstructed, direct routes through the site, interconnecting site and building entryways, curb ramps, parking areas, pedestrian landscaped features, such as open area plazas, courts, atriums, and other site elements.

Construct walks of concrete. Reinforce the concrete pavement if subbase conditions warrant. Where pedestrian and vehicular pavements meet, thicken the subbase material.

Pedestrian wearing course material may be rigid unit pavers (bricks, stone sets, concrete units, large paving slabs, etc.). To facilitate use by people with disabilities, design a rigid base of concrete or asphaltic concrete beneath pavers.

Walks should be at least 60" wide, except 96" minimum where abutting parking stalls.

Design walks to accommodate people with disabilities. Eliminate steps unless unavoidable.

### 5.2.7 ENTRANCES TO BUILDING

Coordinate work at entrances to buildings based on the requirements in the Architectural Criteria. Particular reference is made to complying with vertical clearances of buildings and

canopies over roadways and vehicular access areas and snow melting requirements at specific entrances.

Provide access for ambulance entry.

**5.2.8 TRUCK DOCK**

Design adequate space for truck maneuverability and parking of facility equipment, including trash dumpsters. Provide wheel path diagram to support turning movements of facility parking equipment, delivery, and waste removal vehicles.

**5.2.9 PARKING FACILITIES**

Develop sufficient new parking so that the total number of facility spaces will be the greater of 360 spaces, or as required by local codes. Provide 36 parking spaces for physically disabled people (handicapped) based on 10% of total provided spaces of which 6 are van accessible spaces based on every 6 or fraction of 6 of provided accessible parking spaces. Locate these parking spaces convenient to an entrance accessible by physically disabled people.

Provide a parking tabulation on the contract drawings indicating the total number of VA facility parking spaces with subtotals for standard spaces, accessible spaces, motorcycle spaces, and van accessible spaces. Locate accessible parking spaces convenient to an accessible building entrance.

Provide parking tabulations for motorcycle parking on the contract drawings. Indicate the total number of spaces provided, using a ratio of one parking space for every 60 auto spaces. Motorcycle parking spaces shall be 4.5 feet [1.37 m] wide x 8 feet [2.44 m] long and located on concrete.

Reference Paragraph 4.3.1 for Parking Site Security Considerations.

Parking at angles other than 90 degrees may be used only when justifiable. Contracting Officer approval is required for deviation. Acceptable dimensions for 90 degrees parking angle are as follows.

| | MINIMUM BAY WIDTH | MINIMUM STALL WIDTH |
|---|---|---|
| If cars overhang curbs on both sides | 60'-0"<br>59'-0"<br>58'-0" | 8'-6"<br>8'-9"<br>9'-0" |
| If cars overhang curbs on one side | 62'-6"<br>61'-6"<br>60'-6" | 8'-6"<br>8'-9"<br>9'-0" |
| If cars will not overhang either curb or will be parked in the center bumper to bumper | 65'-0"<br>64'-0"<br>63'-0" | 8'-6"<br>8'-9"<br>9'-0" |
| Accessible Spaces | | 8'-0" x 20'-0" w/ 5'-0" access aisle on both sides |

| | MINIMUM BAY WIDTH | MINIMUM STALL WIDTH |
|---|---|---|
| Accessible Van Spaces | | 8'-0" x 20'-0" w/ 8'-0" access aisle |

Patient and Visitor spaces shall be 9'-0" minimum width, unless the Contracting Officer approves deviation.

### 5.2.10 EQUIPMENT PADS

Locate utility transformers, cooling towers, generators, generator fuel tanks, gaseous tank storage, and other equipment pads away from patient and visitor entries and outdoor activity areas, preferably adjacent to service area. To prevent injury to patients and personnel, enclose pad area with walls as indicated on plan. Barriers and fencing shall comply with the requirements of the serving electric utility, where applicable.

## 5.3 LANDSCAPING DESIGN

Integrate the landscape planting design with the overall design of the site. The landscape planting shall compliment the architecture, preserve designated site features, facilitate water harvesting, facilitate vehicular and pedestrian access, create open areas and vegetative screens, and consist of plant material that promotes sustainable designs.

Select plants that are indigenous to the area, require little maintenance, and are disease and insect resistant. Select plant material that is nursery propagated from sources as close as practicable to the project area, that are indigenous to the area, locally available, low maintenance, and disease and insect resistant. Plant materials shall conform to the standardized system of the American Association of Nurserymen, Inc. current American Standards for Nursery Stock, ANSI Z60.1.

Do not select plants that are poisonous, highly aromatic, irritating, or thorny. In parking and pedestrian areas avoid plants that drop fruit or sap. Locate plants so they do not interfere with driver or pedestrian visibility, circulation, and safety.

Plant bed outlines curvature shall have minimum radii of 3 feet [0.92 m]. Design lawn areas to facilitate maintenance.

Provide metallic edging or concrete curbs around shrub beds (essential where Bermuda or similar grasses are grown).

Utilize ground cover on slopes steeper than 3:1, i.e., 3 feet to 1 foot.

## 5.4 SITE AMENITIES

### 5.4.1 FLAGPOLE

The Lessor shall provide three flagpoles as indicated to be approved by the Contracting Officer. Flagpoles must extend at least 30 feet above the ground and shall be equipped with

rope and hardware three flags each. The Government will provide the flags. This requirement will be waived if determined inappropriate by the Government. Exterior lighting (two each light fixtures spaced a minimum of 20 feet apart, mounted on the building or at grade) shall be provided to illuminate the flags at night. Automatic switching for light fixtures shall be provided.

### 5.4.2 SMOKING SHELTERS (NO SMOKING SHELTERS)

### 5.4.3 CANOPIES AND COVERED WALKWAYS

The main public entrance shall have a covered solid roof structure or canopy. Provide covered walk from patient/visitor parking as indicated on plans. Design of the covered walk shall be integrated with the building structure and architecture. Coordinate site lighting with walkways. Provide fixtures below canopies and covered walks where necessary to maintain illumination levels for exterior walkways.

The Lessor shall be responsible for constructing and carrying the cost of the canopies and covered walkways as listed above. Upon space acceptance by VA, all cost associated with the canopies and covered walkways outlined above will be paid by the VA in a lump sum payment to the Lessor. **Offerors shall list the lump sum cost associated with canopies and covered walkways on GSA Form 1364.**

### 5.4.4 EXTERIOR ACTIVITY AREAS AND YARDS

Provide exterior patio or yard areas for outdoor activities and dining as shown on the conceptual plans. Outdoor areas shall be designed with a diversity of landscape and hardscape elements to create an environment capable of accommodating a variety of activities.

The Lessor shall be responsible for constructing and carrying the cost of the exterior activity areas and yards as listed above. Upon space acceptance by VA, all cost associated with the exterior activity areas and yards outlined above will be paid by the VA in a lump sum payment to the Lessor. **Offerors shall list the lump sum cost associated with exterior area and yards on GSA Form 1364.**

## 5.5 UTILITIES

### 5.5.1 WATER DISTRIBUTION SYSTEM

Design and construct system to provide adequate water service for maximum domestic and fire protection requirements.

Place isolation valves to provide control over reasonably sized area. In addition, designate valves in fire hydrant branches and building service lines, near their connection to feeder mains.

Where reduced pressure backflow preventers are required, provide positive drainage.

Connection fees, meter, and system impact fees, as required by the water provider to connect to the existing water distribution system, are the responsibility of the Lessor.

**A. Domestic Water Pumping System**

If onsite pumping for domestic water is required, use a three-pump system. Size one pump for approximately one-third of the total water demand. Each of the other pumps shall be sized for approximately two-thirds of the total demand. The smaller will operate until water demand exceeds the pump's capacity, at which point it will stop and one of the other larger pumps shall start. When the demand exceeds the capacity of this larger pump, the smaller pump will restart and both pumps will operate together. The other large pump will be a standby and alternate with the first large pump. Provide a pneumatic tank and "NO-FLOW" shut-down controls.

### 5.5.2 WATER SUPPLY FOR FIRE PROTECTION

Assess adequacy of the water supply. The Lessor must verify the locations involved as well as the quality and accuracy of the data. Perform water supply flow testing.

Fire flows shall be available as required by NFPA 13 for the required occupancy classification. However, duration for Ambulatory Health Care occupancies shall not be less than 60 minutes. The Lessor shall verify and submit documentation of the fire department's capability of handling the manual fire fighting requirements to the Contracting Officer prior to occupancy by the Government.

Fire Pumps:
When a fire pump is necessary to supplement fire flow and pressure, size it to comply with NFPA 13 and 14.

### 5.5.3 LAWN IRRIGATION SYSTEM – INTENTIONALLY DELETED

### 5.5.4 SANITARY SEWERAGE SYSTEM

Design separate underground sanitary sewerage system, including building connections, manholes, clean-outs, cooling tower waste lines, and all appurtenances.

Provide an adequate number of sanitary connections from each building.

Discharge cooling tower drains, overflows, and blow-down piping systems to the sanitary sewerage system. Provide air gaps to prevent cross connections between sewerage and water systems.

To the extent feasible, do not locate sewer pipes and manholes under pavement. Provide manholes at junctions, changes in direction, changes in slope, and changes in invert elevations of sewers 8 inch and above. Clean-outs are required for 4 and 6 inch sewers. Spacing between manholes shall be a minimum of 300 feet [91.44 m], except 500 foot [152.4 m] spacing is permitted in straight runs of long out-fall sewers unless otherwise required by local jurisdictional standards.

Limit sanitary trunk sewers to not less than 8 inch diameter and sanitary sewer building connections to not less than 4 inch diameter. Establish sanitary sewer slopes to provide minimum velocity of 2 ft/s [0.6 mm/s] when pipe is flowing full; maximum slope shall be 9%.

Do not connect storm drainage system to sanitary sewerage systems.

Connection fees and system impact fees as required by the municipality to connect to the existing sewerage system are the responsibility of the Lessor.

### 5.5.5 STORM DRAINAGE SYSTEM

Design separate underground sanitary and storm sewerage systems, including drainage inlets (yard and curb), junction structures, manholes, open drainage channels and basins, dry wells, etc.

Design all components of storm sewerage system on basis of not less than 10-year storm frequency for one hour.

Comply with the requirements of off-site receptor of storm water. Retention may be required; however; roof storage of storm water is not allowed.

Limit storm sewers serving drainage inlets to not less than 8 in [200 mm] diameter and building connections to not less than 4 in [100 mm] diameter. Establish storm sewer slopes to provide minimum velocity of 2 ft/s [0.6 mm/s] when pipe is flowing full. Maximum storm sewer design velocity shall be in non-erosive range for specified pipe material.

Use State or local standard details for manholes, inlets, endwalls, and pipe cradles. Adjust master specifications as necessary.

Provide an adequate number of storm connections from each building.

Storm drainage system shall serve all areas under construction or affected by construction. Design storm drainage system and components based on storm frequency from local codes and methodologies. Comply with the requirements of off-site receptor of storm water. Retention/detention may be required and should be designed on the percolation results stated in the geotechnical report and the design volumes calculated in the Hydrology and Hydraulics analysis. Roof storage of storm water is not allowed. Do not connect storm drainage system to sanitary sewerage systems.

### 5.5.6 GAS DISTRIBUTION SYSTEM

Coordinate with gas company concerning housing and/or fencing for gas metering and regulating equipment. Provide gas filter upstream of meter.

### 5.5.7 ELECTRICAL SERVICE

Provide underground secondary-voltage electrical service from the serving electric utility. All requirements of the electric utility shall be met, including location of service source, above-

ground and underground equipment locations, required easements and/or rights-of-access, above-ground equipment protection and screening requirements, location of required service disconnecting means and/or remote operation for service disconnecting means, as required by the local Authority Having Jurisdiction or utility, meter location and provisions for meter-reading access, co-location of service conductors in common trench with other utility services, and all other applicable requirements of the electric utility.

### 5.5.8 TELECOMMUNICATIONS SERVICES

Provide underground telephone service from the serving telephone provider. Sufficient capacity shall be provided at the Point of Presence (POP) for all telephone outlets identified in this SFO, plus 50% spare capacity. Comply with all requirements of the telephone provider for cable installation, POP space and security requirements, and POP equipment and access provisions. All low-voltage underground cabling shall be installed in a partitioned 4 inch conduit with innerduct or approved equivalent and shall not share joint trenches with other incoming utilities.

Provide underground cable television service from the serving provider. Sufficient capacity shall be provided at the Point of Presence (POP) for all CATV outlets identified in this SFO, plus 50% spare capacity. Comply with all requirements of the cable service provider for cable installation, POP space and security requirements, and POP equipment and access provisions. All CATV underground cabling shall be installed in a 4 inch conduit with innerduct or approved equivalent and shall not share joint trenches with other incoming utilities.

Provide cable television service, subject to identical requirements as defined for telephone service.

## 5.6 EXTERIOR SIGNAGE

Lessor shall develop and provide a complete exterior signage program to include identification, directional, informational, and regulatory signage. Signage must comply with local municipality's codes and specifications. Careful consideration of the location of monument signs shall be taken to avoid sight triangle encroachment.

Lessor shall provide ground mounted, illuminated, horizontal monument sign to identify the Outpatient Clinic main entrance. Lessor shall provide foundations and electrical power as necessary. Base shall be concrete or masonry and shall be compatible with building design and landscaping scheme. Monument sign shall meet VA Design Guidelines. VA will furnish message layout, content, and colors for the monument sign. Graphic process shall be routed out copy backed with white, translucent acrylic.

Lessor shall provide illuminated wall mounted building identification signs of dimensional anodized aluminum letters and numerals with VA logo. Letters and numerals shall be minimum 24 min inches high. Logo shall be of design provided by VA and shall meet VA Design Guidelines. Sign messages shall be as follows:

Facility Name: *VA Connecticut Healthcare System Annex*. VA logo shall precede facility name.

Address sign shall consist of numerals for the building street address.

Wall mounted building signs shall be prominently located to be visible from street approach in accordance with VA-approved building elevations.

The cost of signage and installation of exterior signage shall be paid to Lessor by the VA in a lump sum amount upon commencement of the lease. **Offerors shall list the lump sum cost associated with exterior signage on GSA Form 1364.**

# SECTION 6 BUILDING DESIGN CRITERIA

## 6.1 STRUCTURAL

Structural design shall comply with the locally adopted codes, latest edition of VA Design Manal PG-18-10, and VA Seismic Design Requirements H-18-8 (http://www.cfm.va.gov/TIL/seismic.asp). Structural members shall be of concrete, masonry, or steel. Wood may be used as permitted by building and life safety codes for the Occupancy Group (Business or Ambulatory Care) and size (floor area) and height of structure required by the clinic program.

### 6.1.1 FOUNDATIONS

The building foundation system shall be designed in accordance with the recommendations of the geotechnical report.

### 6.1.2 FLOOR LOADS

Minimum uniform basic design live loads shall conform to the locally adopted codes and as follows.

In order to provide a flexible design for occupancy changes in the future, generalized live load categories should be applied to large areas of the floor plate.

Where actual occupancy load requirements or concentrated equipment loads exceed the minimum uniform live loads, the areas in question shall be designed to meet the specific load conditions.

### 6.1.3 ROOF LOAD

Roof live loads shall be based on geographical location and local governing building code requirements; however, they shall not be less than 20 psf [0.96 kPa].

VA may install a rooftop mounted satellite system or other rooftop antennas for the building. The Lessor shall provide a roof structure, which accommodates VA's system, and shall coordinate with VA to provide the required structural mounting devices.

### 6.1.4 LATERAL FORCES

VA classifies Outpatient Clinics as "essential" facilities. Design structures for lateral forces in accordance with local building code requirements for wind and seismic forces using importance factors for essential structures.

In addition to local code requirements, all new facilities shall be designed in accordance with VA Seismic Design Requirements H-18-8.

### 6.1.5 SPECIAL INSPECTIONS

Lessor shall comply with all special inspection requirements of the local Authority Having Jurisdiction. Lessor shall obtain services of qualified, independent entities to provide special inspection services during construction. Lessor shall provide copies of the inspectors' reports to the Contracting Officer as evidence of compliance with Codes and the requirements of this solicitation.

### 6.1.6 BLAST LOADS

Design structural systems for overpressures and dynamic loadings for threat category as established by VA Physical Security Design Manual for Life Safety Protected facility.

## 6.2 ARCHITECTURAL

### 6.2.1 FOUNDATION DRAINAGE

Subsoil (foundation) drainage provides a means of removing water that may percolate to the footing level of a building foundation system. Reference the geotechnical report for specific percolation results. Provide a subsoil drainage system in accordance with site Hydrology and Hydraulics studies. Subsoil drains shall maintain a pitch as uniform as possible and shall drain to suitable outfall. No subsoil drainage piping shall traverse a building area to reach an outfall.

### 6.2.2 PATIENT ENTRANCES

Provide canopies over patient entrances to outpatient clinic. The canopies shall extend 2 feet [0.6 m] beyond the curb lines to protect patients from inclement weather. To reduce the size and cost of canopies, locate the curb line near the entrance if compatible with other design considerations.

### 6.2.3 AMBULANCE ENTRANCES (NO AMBULANCE ENTRANCE)

### 6.2.4 LOADING DOCKS DOCK IS AN AT-GRADE SERVICE ENTRANCE – NOT ELEVATED

### 6.2.5 CANOPIES OR COVERED WALKS

Provide canopies or covered walkways from the outpatient clinic building to locations as shown in the conceptual plans. If canopies or covered walks extend over truck or bus traffic areas, provide 14 feet minimum vertical clearance for vehicular traffic.

### 6.2.6 ENCLOSURE SYSTEMS

Building envelope systems shall be designed with consideration for performance under local climactic conditions, appearance, durability, security, efficiency in construction, and maintenance and operating costs. Comply with the requirements of this SFO for Sustainable Design and Energy Efficiency, Paragraph 4.8.

Design for heat loss or gain in accordance with energy criteria in this solicitation. Provide vapor barriers at appropriate side of construction based on local climatic conditions.

Fire resistance of building envelope systems shall be as required by applicable codes for construction type and exposure.

**A. Exterior Walls**

Materials and colors shall be consistent with the overall design concept and structural requirements, and provide the level of physical security required by this solicitation. Walls shall be designed to prevent moisture penetration. Detail and construct moisture barriers, wall cavities and weeps, flashings, and other features as necessary to prevent damage to wall components or entry of moisture into building. Masonry parapet walls are potential sources of water penetration, unequal thermal expansion, additional structural loads, and increased costs.

Structural design of walls shall comply with Paragraph 6.1. The weight of masonry curtain walls or veneer shall be supported by the structural frame at each floor.

Design walls for sound transmission control from external sources at sites near airports, freeways, or heavy city traffic.

**B. Fenestration**

Lessor shall provide fenestration (windows) consisting of fixed windows, or glazed storefront or curtain wall, including glazed entrance systems, consistent with the overall design concept. Size windows and select glazing and frame materials to meet the overall building envelope performance and sustainability requirements of this SFO.

Window sills/stools shall be a minimum of 18 inches [457.2 mm] above the finished floor.

Windows in examination and treatment rooms shall be designed to maintain patient privacy. Use clerestory windows, patterned or obscured glazing, or other methods as appropriate.

Windows shall comply with Security requirements in SECTION 4 of this solicitation. Provide security screens where required by SECTION 4.

*(1) Safety Glazing*

Glaze windows occurring in security exam rooms or security holding room with 7/16" thick laminated glass. Provide laminated glass only for interior panes of double-glazed windows.

**C. Louvers and Screens**

Provide louvers in wall openings where required for ventilation. Design louvers and anchorage for wind loads in accordance with building codes. Louvers shall bear AMCA certified rating seals for air performance and water penetration ratings. Provide bird screens on mechanical ventilation supply and exhaust openings in exterior walls. Provide insect screens on the inside of louvered openings in exterior walls where there are no duct connections.

Comply with security requirements in SECTION 4 of this solicitation.

**D. Exterior Doors**

Entrance doors shall be swinging anodized aluminum construction with safety glazing and shall comply with energy and sustainability requirements.

Swinging exterior doors and frames, except entrance doors, shall be heavy duty, insulated, full flush, hollow steel construction. Exterior doors shall be weather-stripped, self-closing, and open outward. Door hardware shall comply with applicable portions of SECTION 7 of this solicitation. Provide latch guards and hinges with non-removable pins to deter tampering or unauthorized entry.

*(1) Automatic Doors*

Design automatic doors to operate manually in event of power failure. Equip controls with safety devices for pedestrian protection. Provide door operator controls and equipment that are easily accessible for maintenance. Design automatic doors to open from both sides.

**E. Roofs**

Provide roofing systems to comply with building codes and fire resistance requirements. Design all roofs with slope to roof drains or gutters. Roofs shall not slope to level valleys, but may have one-way slopes to gutters at gravel stop edges.

Size roof drains and overflow drains, scuppers, or gutters; and leaders or downspouts to comply with plumbing codes. Locate drains at points of maximum deck deflection where possible. Coordinate roof drainage with site (storm) drainage. Where roof drain leaders do not connect directly to storm drains, provide scuppers under all sidewalks and flatwork to convey storm flow to site drainage system.

Design roofing systems (including anchorage of roof insulation to decks) for wind force resistance in accordance with Factory Mutual Global (FM-Global) Criteria:

- Loss Prevention Data 1-7, "Wind Forces on Buildings and Other Structures"
- Loss Prevention Data 1-28, "Insulated Steel Deck"
- Loss Prevention Data Technical Advisory Bulletin 1-29, "Loose-Laid Ballasted Roof Coverings"
- Loss Prevention Data 1-49, "Perimeter Flashing"

Use minimum 8-inch high base flashing at walls and penetrations. Do not use pitch pockets or similar penetration seals.

VA may require a rooftop mounted satellite system or other roof top antennas for the building. The roof shall be maintained in a watertight condition at all such mounting locations. Provide appropriate sized conduit sleeving and weatherproof box at roof end of conduit sleeve.

Shield roof-mounted equipment from view. Roof structures, such as penthouses and architectural screens, shall be compatible in appearance with the material, texture, color, and shape of the building.

Whenever mechanical equipment requiring periodic maintenance is installed on a roof, provide access to roof areas by industrial stair. Provide roof walkways with nonslip surfaces on access routes over roofs to mechanical equipment requiring recurrent maintenance. If the stair (or fixed ladder) is exterior to the building, provide means to prohibit unauthorized access to roof.

Design low slope roof systems in accordance with the recommendations of the National Roofing Contractors Association (NRCA) Roofing and Waterproofing Manual and this manual. Acceptable low slope roof systems include but are not limited to the following roofing membranes with roof insulation:

- Bituminous built-up roofing systems
- Modified bituminous roofing systems
- Single-ply sheet roofing systems
- Fluid-applied roofing systems

Design low-slope roof systems with a positive slope a minimum of 1:50 (0.25 inch per foot) up to a maximum of 1:12 (1.0 inch per foot) to drains. Use tapered insulation, sloped structural systems, or level structural system with sloped fill to achieve the required slope.

**F. Clerestory**

Lessor shall provide clerestory-type skylights at locations indicated in conceptual plan. Where indicated on the conceptual plans, provide clerestory windows on four (4) sides of a raised roof area. Vertical dimension of the glazed area (at non-tapered locations) shall be a minimum of 20". Clerestory units shall be self-supporting, aluminum framed window units, open on 3 sides similar to the concept documents. Submit panel color samples for selection by the Government. Lessor shall design, engineer, fabricate, and install clerestory units following loads and stresses under conditions indicated without material failure or permanent deformation of structural members.

Uniform live load of 30 psf plus dead load.

Concentrated load of 250 lb applied to any framing member at a location that will produce the most severe stress or deflection.

Wind load requirements per local codes.
A one-third increase in the allowable stress for wind is acceptable where permitted by code but not in combination with any reduction applied to combined loads. Allowable values shall not exceed the yield stress.

Assume that compression flanges of flexural members receive effective lateral bracing only from anchors to the building structure and horizontal glazing bars or interior trim in contact at least 50 percent of the member's total depth.

Thermal Movement: Provide for expansion and contraction of metal skylight components resulting from an ambient temperature differential of 120 deg F, which may result in a metal surface temperature range of 180 deg F within the skylight framing without causing buckling, excessive stresses or structural elements of fasteners, stresses on glazing, failure of seals, reduction of performance or other detrimental effects. Impact Resistance per local codes.

## 6.3 EQUIPMENT

### 6.3.1 GENERAL

PART III of this Solicitation (Schedule B) lists special equipment items to be furnished by either the Lessor or VA for installation in the Outpatient Clinic. As part of the rental consideration, the Offeror must include supporting construction, HVAC systems, utilities, and electrical distribution systems for both Offeror-furnished equipment and VA-furnished equipment to be installed in the Outpatient Clinic.

Offeror shall include provisions for necessary support and attachment of equipment items including, but not limited to, structural reinforcement of wall, floor or roof construction, and blocking or backing in walls and ceilings.

Offeror shall provide HVAC systems necessary to supply and exhaust the clinical spaces, laboratories, and other areas that contain special equipment, including provisions for supply or exhaust connections directly to special equipment items when required for installation and/or operation of the equipment, as part of the rental consideration.

Offeror shall provide building equipment and utility systems including but not limited to piping, water treatment equipment, sanitary or laboratory waste systems, as required for the installation and operation of the special equipment items as part of the rental consideration.

Offeror shall provide electrical service necessary for special equipment items, including service from emergency source for designated items or locations, as part of the rental consideration.

The prices and costs relating to Schedule B Special Requirement items shall include only the direct installation of equipment to support and distribution systems already included in the basic rent. Therefore, no additional costs relating to the distribution of utilities or supporting construction may be ascribed to the special equipment costs in Schedule B.

Items not listed in Schedule B are to be provided by the Lessor as part of the rental consideration.

### 6.3.2 LESSOR FURNISHED SPECIAL EQUIPMENT

The Offeror shall submit lump-sum pricing for the purchase and installation of special equipment items specified in Schedule B for clinic areas. The price for each item in Schedule B shall include only the direct costs of obtaining and installing the item.

Special equipment items are listed by room type for each functional area within the Outpatient Clinic.

Special systems and equipment (including special electronic safety and security systems) applicable to the entire clinic are listed separately in Schedule B.

All property placed in, upon, or attached to the premises to be leased, and for which the Government pays by means of lump-sum, shall be and remain the property of the Government, and may be removed or otherwise disposed of by the Government.

The Lessor shall be responsible for constructing and carrying the cost of installing the Schedule B items, including all Specialty Items, as listed above. Upon space acceptance by VA, all cost associated with the installation of this equipment as outlined above will be paid by the VA in a lump sum payment to the Lessor. **Offerors shall list the lump sum cost associated with installation on GSA Form 1364.**

### 6.3.3 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 Outpatient Clinic.

**A. VA-Furnished/Lessor Installed**

Equipment may include items that are furnished by VA but installed by the Lessor. As part of the rental consideration, the Offeror shall include supporting construction, HVAC systems, utilities, and electrical distribution as required for VA-furnished equipment to be installed by the Lessor.

For equipment designated as installed by the Lessor, the Offeror shall also include installation as part of the rental consideration. Installation shall be defined to include all labor, tools, equipment, and incidental parts (including, but not limited to, screws or bolts for anchoring equipment to substrates, pipe fittings or unions, solder, Teflon tape, pipe joint compound, wire nuts or electrical connectors, electrical wire, etc.) necessary for the equipment to be placed in its final location and to be completely functional.

- Include activities (nodes) in the network analysis schedule for installation by Lessor of VA-furnished equipment.
- Advise Contracting Officer of date(s) work will be ready for installation of equipment.
- Accept delivery of VA-furnished equipment on established dates.
- Jointly with Contracting Officer, inspect the equipment upon delivery to check for damage and confirm quantities.
- Once VA-furnished equipment is accepted by Lessor, the Lessor shall be responsible for protecting and storing the equipment.
- Provide any additional transportation to move equipment to final location.
- Uncrate, assemble, and install equipment.
- Demonstrate proper operation of equipment to the Contracting Officer.

The Lessor shall be responsible for constructing and carrying the cost of installing the VA-Furnished Lessor Installed equipment as listed above. Upon space acceptance by VA, all cost associated with the installation of this equipment as outlined above will be paid by the VA in a lump sum payment to the Lessor. **Offerors shall list the lump sum cost associated with installation on GSA Form 1364.**

## 6.4 MECHANICAL

### 6.4.1 INTRODUCTION

**A. General**
The Offeror and the Project Design Engineer (henceforth known as the Engineer) shall use the contents of this document to design, install, test, adjust, balance, and commission the HVAC systems in a trouble-free working manner to provide comfort and safety to the veterans, staff, and visitors. The systems shall operate within the specified parameters.

**B. Equipment Location**
Equipment (examples: Air-Handling Units, Cooling Towers, Chillers, DX Condensing Units, and Fans) can be located on the roof if permitted by the local authorities. Provide supports, bracings, and other mounting devices to withstand wind forces as required by the local authorities. If there are no local codes, use wind forces indicated in American Society of Civil Engineers (ASCE) 7-98 or later version if available. For the seismic zones, the design of the bracing and supports shall be certified by a registered professional structural engineer. See Paragraph 6.2.6E for additional safety and access requirements.

### 6.4.2 MANDATORY PROVISIONS

See Paragraph 4.1 CODES and 4.2.1 VA ADOPTED CODES, STANDARDS, AND EXECUTIVE ORDERS.

### 6.4.3 APPLICABLE CODES AND CRITERIA

See Paragraph 4.1 CODES.

### 6.4.4 HVAC DESIGN CALCULATIONS

The HVAC design calculations shall be based on the following parameters:

**A. Outdoor Design Conditions**
Reference: Latest Edition of ASHRAE Handbook of Fundamentals.

*(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.

*(4) Cooling Tower Selection*
1%, Monthly Design Wet bulb Temperature.

**B. Indoor Design Conditions**
*(1) Health Care Functions*
- Surgery and Post Anesthesia Recovery Areas
- Radiology

- Diagnostic and Treatment
- Sterilizing
- Central Medical and Surgical Supply

**Reference**: Latest Edition of ASHRAE Standard 170 (Ventilation of Health Care Facilities)

Base the design on the following parameters listed for each unique specialty function:

- Inside Design Temperature (Dry bulb)
- Inside Design Humidity (Percentage Relative Humidity)
- Pressure Relationship to Adjacent Areas (Measured as Volumetric Air Difference)
- Minimum Total and Outdoor Air Changes per Hour
- Return Air or Exhaust to Outdoors

*(2) Support Functions*

- Offices
- Classrooms
- Conference Rooms
- Entrance Lobby
- Waiting Area
- Lounge
- Circulation Spaces

- 70 ˚F @ 30% Relative Humidity (Heating Mode)
- 75 ˚F @ 50% Relative Humidity (Cooling Mode)
- (RH in cooling mode is uncontrolled)

*(3) Food Service*

- Kitchen
- 70 ˚F to 74 ˚F (Heating Mode)
- 82 ˚F to 84 ˚F (Cooling Mode)

- Dining Areas
- 70 ˚F @ 30% Relative Humidity (Heating Mode)
- 75 ˚F @ 50% Relative Humidity (Cooling Mode)
- (RH in cooling mode is uncontrolled)

*(4) Miscellaneous Spaces*

See Paragraph 6.5 for specific applications.

*(5) Unoccupied Mode*

Non-sensitive areas shall be provided with a night setback, 55 to 88 F.

**C. Heating and Cooling Capacities**

*(1) General*

Using the methodology given in the latest edition of ASHRAE Handbook of Fundamentals, the Engineer shall provide computerized calculations showing computation of the cooling and heating capacities of the occupied spaces. The Engineer shall coordinate with the project-

specific ancillaries – Latest Edition of ASHRAE Handbook of Applications (Health Care Facilities) and obtain such data as equipment load, exhaust air volume, pressurization requirements, and the required hours of the system operation per day to establish the cooling and heating capacities and system zoning.

*(2) Calculation Details*
The computerized calculations shall show such entities as:

- Room-By-Room Peak Cooling and Heating Loads
- Room-By-Room Air Balance Sheets, showing supply, return, exhaust, make-up, and relief air volumes
- Zone cooling and heating loads (a zone is defined as a central cooling and heating apparatus serving a group of rooms)
- Psychometric Analysis

*(3) System Losses*
The calculations shall include minimum 12% to the calculated load to account for:

- Fan Motor Heat
- Duct Heat Pick-Up
- Duct Leakage
- Assumed Safety Factor
- Reference: ASHRAE Handbook of Applications

**6.4.5 HVAC SYSTEM SELECTION CRITERIA – AIR SIDE**

**A. General**
Selection of the airside of the HVAC systems shall be based on the following:

- All-Air Systems
- Fan Coil Units
- Use of PTAC (Packaged Terminal Air Conditioners) and Terminal Heat Pumps is NOT permitted

**6.4.6 ALL-AIR SYSTEMS**

**A. General**
Provide all-air system, where the space criteria require:

- Minimum Fixed Air Changes per Hour
- 100% Exhaust to Outdoors
- Positive (+) or Negative (-) Pressure Relationship with Adjoining Spaces

The AHU shall be:

- ARI Certified
- Factory-Fabricated and Tested

- Modular Design with Solid Double-Wall Construction

Provide IAQ (Indoor Air Quality), double-slopping drain pan to ensure immediate removal of condensate. Provide a variable air volume system (VAV), where variation in air volume is permitted.

**B. Zoning**

Provide multiple air-handling units to ensure flexibility and energy efficiency. Capacity of a single air-handling unit shall not exceed 50,000 CFM. Provide dedicated air-handling units for spaces, such as:

- Emergency Care Unit
- Surgery and Post Anesthesia Recovery Areas
- Supply Process and Distribution (SPD) also referred to as Central Medical and Surgical Supply
- Cafeteria and Kitchen
- Entrance Lobby, Admission, and Waiting
- Ancillaries (as defined in ASHRAE Application Handbook – Health Care Facilities)

The above functions and activities shall vary with the size and space program of the OPC (Outpatient Clinic).

**C. AHU Components and Specifications**

*(1) General*

All components may not be required at each location and for each application.

*(2) Filtration*

The following filtration requirements shall apply:

- Pre-filters = 2-inch thick disposable (MERV 8)
- After-Filters = 12-inch thick disposable (MERV 14)
- Locate pre and after filters back-to-back, on the upstream side of the supply air fan.
- Provide HEPA filters (MERV 17) as the terminal final filters for Operating Rooms, and BMT (Bone Marrow Transplant).

Contaminated exhaust of the special systems serving hoods or biological safety cabinets or protective environment rooms (e.g., TB Isolation Rooms) shall pass through the HEPA filters (MERV 17) equipped with pre-filters (MERV 8).

*(3) Humidification*

Humidification shall be provided to ensure a minimum of 30% RH. Where the campus steam is available, use an unfired steam-to-steam generator to produce low-pressure clean steam for serving the unit-mounted or main supply air duct-mounted steam humidifiers. Use RO (Reverse Osmosis) water to produce clean steam. Provide a gas-fired, stand-alone steam generator for the steam humidifier in the absence of the campus steam. Use of the electric, stand-alone steam generator should be considered as a last option.

*(4) Blenders*
Include blenders where blending of cold air and return would be helpful in preventing nuisance tripping activated by the Freeze stat.

**D. Air Terminal Units**
Provide pressure-independent, DDC-controlled, variable air volume (VAV) and constant volume (CV) terminal units. Provide integral reheat coils for the terminal units serving perimeter and roof-exposed spaces. Full shutdown of the interior spaces is permitted provided provision is made in the design sequence to prevent overcooling. Provide modulating control with hot water as the heating medium. Provide SCR control where electric coils are used for reheat. Provide capability to adjust the air volume between the high and low limits either locally or by the DDC controls. Provide acoustic internal lining for the terminal units.

Capacity of a single terminal unit shall not exceed 1,500 CFM [708 L/s].

**E. Room Temperature Control**
*(1) General*
A space is defined as individually-controlled when it is equipped with a dedicated air terminal unit controlled by a dedicated room temperature sensor. The temperature sensor shall be wall-mounted with adjustable setpoint.

*(2) Individual Room Temperature Control*
Provide individual room temperature control for the following spaces:

- Occupied Corner Spaces with two or more exposed perimeter walls
- Spaces listed below (Interior or Perimeter)
    - Conference Room
    - Laboratory
    - Special Procedure Room
    - Diagnostic and Treatment Room
    - Classroom
    - Entrance Lobby
    - Lounge
    - Dining Room
    - Kitchen
    - Clean Preparation and Storage Room
    - Soiled or Decontamination Room

*(3) Zone Temperature Control – Perimeter Spaces*
A single terminal box can serve as many as three perimeter spaces if these spaces are located on the same exposure and have identical load characteristics, such as offices or examination rooms.

*(4) Zone Temperature Control – Interior Spaces*
A single terminal box can serve as many as four interior spaces if these spaces have identical load characteristics, such as offices or examination rooms.

*(5) Temperature Control – Interior and Perimeter Spaces*
A single terminal unit cannot serve perimeter and interior spaces, including circulation spaces.

*(6) Temperature Control – Open Spaces*
Open spaces with exposed perimeter and interior spaces shall be divided into two sub-zones, perimeter and interior. Each sub-zone shall be served by a dedicated air terminal unit. Open spaces are defined as the spaces without floor to ceiling partitions.

**F. Air Distribution Arrangement**
Provide fully ducted supply, return, and exhaust air systems between the fans and inlets/outlets. Use of partial or common ducted return air arrangement is not acceptable. To avoid contamination and other shortcomings cited below, do not use ceiling space between the structural ceiling and suspended ceiling space as the supply or return air plenum.

In the ASHRAE Application Handbook (2007 Edition), drawbacks of plenum return system are cited as reproduced below:

> "Suspended ceiling return air plenums eliminate sheet metal return air ductwork to reduce floor-to-floor height requirements. However, suspended ceiling plenums may increase the difficulty of proper air balancing throughout the building. Problems often connected with suspended ceiling return plenums are as follows:
>
> - Air leakage throughout cracks, with resulting smudges.
> - Tendency of return air openings nearest to a shaft opening or collector duct to pull too much air, thus creating uneven air motion and possible noise.
> - Noise transmission between office spaces."

**G. AHU Controls**
*(1) General*
Provide a fully functional automatic control system to ensure comfort and energy efficiency from full load to part load conditions, with integral safety features to protect the occupants and equipment.

*(2) System Components and Minimum Sequences*
Provide motorized control valves, automatic dampers, airflow measuring devices, a static pressure sensor, chilled-water flow meters, temperature, pressure, and humidity sensors, humidifiers, smoke detectors and smoke dampers, as required, to address such sequences as:

- Supply Air Temperature Control
- Fan Speed Control
- Provision of Minimum Outside Air from Full Load to Part Load
- System Start-Up
- Morning Warm-Up and Night Setback Cycles
- Smoke Detection
- Alarms

**6.4.7 REFRIGERATION SYSTEMS – CHILLED WATER AND DIRECT-EXPANSION (DX) SYSTEMS**

- Provide ARI certified, air-cooled or water-cooled refrigeration units.

- Use EPA approved refrigerants (HFC-134a, HFC-410a, or HCFC-123).
- Use of HCFC-22 refrigerant is not permitted.

Provide multiple units (minimum two) to ensure flexibility and efficient part load operation. Use of reciprocating compressors is NOT permitted. Equipment efficiencies shall be in compliance with the DOE, FEMP program.

**Redundancy of N+1 is not a requirement of this lease.**

### 6.4.8 CHILLED WATER SYSTEMS

**A. General**

Capacity of a single air-cooled chiller shall not exceed 200 tons. Capacity of a single water-cooled chiller (Centrifugal or Rotary Screw) shall not exceed 1,250 tons. Provide multiple chillers (at least two) to ensure reliability and efficient part load operation. A chilled water system shall be provided for all 100% OSA units.

**B. Chiller Controls**

Each chiller shall be equipped with a factory-installed and tested microprocessor for the safety and operating controls. The microprocessor shall be able to interface with the building DDC (Direct Digital Controls) controls with a BACNET open protocol arrangement.

**C. Chilled Water Piping/Pumping System**

Provide a fully functional chilled-water piping and pumping system complete with accessories and devices, such as variable-speed drives, flowmeter, and temperature and pressure sensors. Selection of the piping and pumping arrangement shall be project-specific. Provide variable flow chilled-water pumping (variable primary or primary-secondary) system to ensure energy efficient operation from full load to part load conditions.

**D. Cooling Tower**

*(1) General*

Provide CTI-certified, corrosion-resistant, gravity-flow cooling tower in induced-draft configuration to cool the condenser water. The tower shall be in compliance with OSHA safety requirements and Physical Security provisions.

*(2) Cooling Tower Location*

Locate cooling tower to ensure that:

- Tower installation and noise is not objectionable and in compliance with the local ordinance. Provide low noise level fans and attenuators as required to meet the noise levels.

- Discharge from the cooling tower does not find its way into outside air intakes and open windows of the adjoining spaces to create a potential for the Legionellosis disease.

*(3) Tower Accessories and Controls*

The cooling tower installation shall be accessible and complete with a walking platform and a ladder safety cage.

*(4) Water Treatment*
Provide a complete and fully functional water treatment system using non-toxic chemicals approved by EPA and local authorities.

**Redundancy of N+1 is not a requirement of this lease.**

### 6.4.9 DIRECT-EXPANSION (DX) SYSTEMS

Use of DX systems, packaged or split-system, is permitted, provided the occupants comfort is not compromised due to lack dehumidification at part load conditions. The minimum size unit is 20 tons. The Engineer shall address this issue by including the required control strategy and system configuration, such as:

- Multiple Compressors (single compressor units are NOT acceptable)
- Low-Ambient Operation
- Hot Gas Bypass
- Customized Refrigerant Piping Design (if required to avoid stratification)

### 6.4.10 HEATING SYSTEMS

**A. General**
Provide heating hot water or steam boilers to meet the space heating and domestic hot water heating demand. Provide at least two boilers each of 50% capacity to ensure flexibility. Provide 100% back-up for the circulating pumps.

**B. Selection Criteria**
Selection hot water boilers shall be based on the following:

- Total heating load
- Total demand for winter humidification, sterilizers, kitchen equipment
- Domestic hot water load
- Location of heating equipment according to the OPC

**C. Boiler Fuel Selection and Choice**
- Use natural gas where uninterrupted supply is available.
- Use No. 2 oil where natural gas is not available.
- Use natural gas and No. 2 oil where supply of natural gas is interruptible.
- Provide complete fuel oil and/or gas piping with a gas meter.

**D. Hot Water Heating Piping/Pumping System**
- Provide a fully functional heating system complete with circulating pumps and insulated piping.
- Provide two-way modulating control valves to vary flow at part-load conditions.
- Provide variable speed drives for the hot water circulating pumps for sizes larger than 5.0 HP.

**E. Miscellaneous Terminal Heating Devices**
Provide thermostatically-controlled terminal heating devices, such as unit heaters, cabinet heaters, convectors, and finned tube radiation to heat the miscellaneous spaces, such as:

- Vestibules
- Crawl space
- Exit doors leading to outdoors
- Mechanical Equipment Rooms (MERs)
- Toilets with exposed perimeter

### 6.4.11 PIPING SYSTEMS – BASIC REQUIREMENTS

**A. Pipe Material**
Steel, ASTM A53, Grade B, seamless or ERW, schedule 40 for condenser water, chilled-water, hot water, and vent pipes.

**Copper Water Tube (Option)**: ASTM B88, Type K or L, hard drawn. Soft drawn tubing, ¾-inch and larger may be used for run outs to for fan coil units.

Use pre-fabricated, insulated, chilled water piping for the underground applications or in the tunnels, or pipe basements or tunnels.

**Chemical Feed Water for Condenser Water Treatment**: Chlorinated polyvinyl chloride (CPVC), Schedule 80.

**B. Minimum Pipe Size**
Minimum pipe size shall not be less than ¾-inch [19 mm].

**C. Minimum Water Flow**
Minimum water flow shall not be less than 0.5 GPM [1.89 L/m].

**D. Pipe Sizing**
Select pipe sizes based on the ASHRAE recommendations and the need to provide an energy-efficient design.

**E. Piping Connections**
*(1) Shutoff Valves*
Provide shutoff valves to isolate each piece of equipment, such as chillers, boilers, cooling tower, pumps, coils, air terminal units, and terminal heating units requiring isolation, service, and/or replacement.

Provide drain lines at low points and air vents at high points.

*(2) Strainers*
Provide in-line strainers to protect equipment, such as cooling and heating coils and control valves.

*(3) Check Valves*
Provide check valves on the pump discharge side with two pumps operating in parallel.

*(4) Flexible Connectors*
Provide flexible connectors at the pump inlet and outlet connections.

*(5) Filters*
Provide cartridge-type of filters for the closed-loop chilled water and hot water systems. Provide solid separators for cleaning condenser water.

*(6) Water Treatment – Closed-Loop Systems*
Provide chemical shot feeder for the closed-loop chilled water and hot water systems.

*(7) Piping Specialties*
Provide expansion tanks and air separators for the chilled water and hot water closed-loop systems.

*(8) Make-Up Water Connections*
Provide make-up water connections with reduced pressure backflow preventer for the expansion tanks.

*(9) Instruments*
Provide pressure gauges and thermometers at the pumps and coils and at the equipment requiring measurements of the pressures and temperatures.

## 6.4.12 AIR DISTRIBUTION SYSTEM

**A. Compliance**
All air distribution systems (supply, return, exhaust, relief, and outdoor air) shall be fabricated in accordance with SMACNA Standards.

**B. Duct Material**

Ductwork, casings, and accessories (e.g., volume dampers, turning vanes, elbows) shall be fabricated from galvanized sheet steel, ASTM A527, coating G90. As an optional material, aluminum sheets complying with ASTM B209, alloy 1100, 3003, 5052 can be used.

Use 18-gauge welded stainless steel ducts with liquid-tight continuous welds for all seams and joints for the "wet exhaust" systems. Wet exhaust systems are meant for dishwashers, cage washers, cart washers, scullery hoods, steam sterilizers, and ethylene oxide sterilizers.

For special exhaust systems serving fume hoods and biological safety cabinets, use welded stainless steel (ASTM A167, Class 302 or 304).

Use duct material in compliance with NFPA 96 and UL labeled for grease exhaust.

Use of fiberglass ducts, concrete ducts, and underground ducts is not permitted.

**C. Design Parameters**
*(1) Minimum Duct Sizes*
- 8 inches x 6 inches for rectangular ducts
- 6 inches for round ducts

*(2) Recommended Duct Velocities*

Select the duct velocities and limiting static pressure drops in accordance with ASHRAE and SMACNA requirements. The selection shall address such issues as the noise levels, energy conservation, and the prescribed limits on the total fan static pressure as specified in ASHRAE 90.1.

**D. Ductwork Accessories**

Provide a manual volume damper at each low-pressure branch duct takeoff. Show all fire and smoke dampers and smoke detectors on the floor plans.

**E. Air Outlets**

Provide supply, return, and exhaust air outlets and inlets to ensure uniform distribution of air and avoid spot cooling and dead-end spaces without circulation. The air outlets shall not result in a drafty and noisy environment. Capacity of a single air outlet shall be based on and limited to meet the noise levels and uniform air distribution.

## 6.4.13 INSULATION

Provide duct and piping insulation in accordance with the ASHRAE Standard 90.1. External and internal insulation for the equipment shall be in compliance with the manufacturer's standard practice.

## 6.4.14 APPLICATIONS

**A. Isolation Exam Room Requirements**

Provide at least two (2) treatment rooms to isolate potential TB patients until they are diagnosed and moved to an appropriate treatment facility. Each treatment room shall be designed to meet the following HVAC requirements:

- Constant Volume Supply and Exhaust Air
- Individual Room Temperature Control
- Minimum 12 Air Changes per Hour
- Negative Air Balance (Exhaust Air = 120% of Supply Air)
- Dedicated Exhaust Fan (a common fan can be sued to serve two rooms)
- Comply with Centers for Disease Control (CDC) requirements for Tuberculosis

Maintain entire exhaust duct under negative air balance and allow the air to pass through the HEPA filters (MERV 17) and pre-filters (MERV 8). Discharge air from the roof level from a 10-foot [3-meter] high stack at the discharge velocity of 3,500 FPM [17.8 m/s] discharge velocity. Care shall be taken to ensure that the exhaust air does not find its way into any outside air intakes and open windows. The minimum recommended distance between the air inlet and exhaust is 25 feet [7.62 m]. Increase this distance as required based on the outcome of the dispersion analysis to be performed by the Engineer.

The Engineer shall provide a certificate showing compliance with the negative air balance or negative air pressure by installing required controls and instruments.

**B. Air-Conditioning Systems – Miscellaneous Areas**

Provide dedicated and thermostatically-controlled air-conditioning systems for the critical spaces identified below:

- **Telephone Equipment Room:** refer to 6.8.2.J, Telephone Equipment Room
- **Main Computer Room:** refer to 6.8.2.K, Main Computer Room

*(1) General*
Obtain project-specific scope of work and provide a HVAC system to serve the MRI Suite. Coordination with the MRI vendor is critical, as the mechanical system requirements shall depend upon the actual make and model number. HVAC system shall be dedicated unless it can be connected to any other system without compromising the design parameters.

*(2) Dedicated AC Systems*
Closed-loop chilled water unit may be required for the process cooling. Refer also to 6.8.2.J, Telephone Equipment Room and 6.8.2.K, Main Computer Room.

**C. Storage Rooms and Flammable and Combustible Storage Room**
Provide dedicated exhaust ventilation system to maintain the space under negative air balance. Select fan, motor, and ductwork to handle the stored chemicals. Ensure compliance with NFPA 30. Exhaust fan shall run continuously and shall be served from the emergency power circuit.

**D. Laboratories**
Design HVAC systems to comply with NFPA 45 with 100% exhaust and negative air balance.

Provide dedicated exhaust systems for the fume hoods and Biological Safety Cabinets (BSC). Ductwork, fans, and motors shall be suitable to handle the chemicals. Exhaust from the hoods and BSC shall be discharged from the roof at appropriate velocity to ensure that contaminated air does not enter into outside air intakes and open windows.

**E. Pump Rooms**
Provide heating and ventilation as required to be in compliance with NFPA 20. Provide dedicated and controlled equipment.

**F. Enclosed Entrances**
Refer to Paragraph 6.2.3 for the enclosed entrances. Provide independent heating device to activate and maintain 60 °F [16 ˚C] when the entrance doors are closed in heating season. Use devices such as overhead heating lamps.

**G. General Exhaust Systems**
Ventilate spaces, such as toilets, janitor's closet, soiled utility rooms, and bathrooms, at the rate specified in ASHRAE Standard 62.1. Maintain negative air balance in the spaces.

**H. Wet Exhaust System**
Provide dedicated wet exhaust system for washers in the kitchen and SPD (Supply Processing and Distribution) areas. Provide welded stainless steel ductwork. Coordinate exhaust air volume with the equipment data. Maintain negative air balance in the spaces.

**I. Vestibules**
Provide a dedicated terminal heating unit to heat the vestibule. Ventilate vestibule by maintaining positive air balance, i.e., supplying air without taking return air back.

**J. External (Perimeter Stairs)**
Provide a thermostatically-controlled heating terminal unit to heat the stairs leading to outdoors.

**K. General Waiting Areas (Admission and Radiology)**
Per CDC and ASHRAE requirements, all waiting areas shall be maintained under negative air balance and exhausted outdoors at the rate of 12 air changes per hour. General exhaust system can be used to ventilate these spaces.

## 6.5 FIRE PROTECTION

### 6.5.1 FIRE EXTINGUISHERS

Portable fire extinguishers recessed in cabinets shall be provided, inspected, and maintained by the Lessor in accordance with National Fire Protection Association (NFPA) 10, Standard for Portable Fire Extinguishers.

Recessed cabinets shall be provided in occupied areas. Size fire extinguisher cabinets to accommodate a 2.5 gallon [9.5 liters] pressurized water extinguisher. Recessed cabinets shall be conspicuously marked.

### 6.5.2 FIXED FIRE EXTINGUISHING SYSTEMS

Provide fixed fire extinguishing systems in accordance with NFPA 96 for cooking operations producing grease laden vapors or smoke.

Fixed fire extinguishing systems shall be wet chemical and shall comply with UL300 in accordance with NFPA 17A. Activation of the fixed fire extinguishing system shall shut down the power/fuel source to the cooking equipment and shall be connected to the fire alarm system.

### 6.5.3 AUTOMATIC SPRINKLER SYSTEMS

Automatic sprinkler systems shall be installed in the outpatient clinic building and any accessory buildings. Installation shall comply with NFPA 13. Sprinklers shall be installed throughout the building(s), including telecommunications rooms, loading docks, electrical rooms and closets.

Provide a standpipe system as required by locally adopted codes and standards, NFPA 45, NFPA 1, or NFPA 101.

**A. Design**
The design shall comply with the requirements of NFPA 13. The automatic sprinkler system shall be hydraulically designed by any design approach allowed by NFPA 13. A minimum safety factor of 10% shall be provided in the hydraulic calculations. Pipe schedule systems may be used for extension of existing pipe schedule systems where water supply is adequate. Sprinkler systems shall be designed based on available water supply without fire pump operating, where possible.

**B. Installation**

The installation shall comply with the requirements of NFPA 13. Sprinklers shall be provided throughout the building

Where necessary, provide a fire pump to supplement the fire flow and pressure. The installation of the fire pump shall comply with the requirements of NFPA 20. The fire pump shall be an electric motor driven, horizontal split case centrifugal type. The fire pump shall be provided with both a test header and flowmeter. Relief valves, if provided, shall be recirculated back to the suction side of the pump. Jockey pumps shall be rated for no less than 60 GPM [3.79 L/s]. Fire pumps shall start automatically at 10 ppsi below the jockey pump start pressure. Fire pumps shall be manually shut down.

Design wet pipe sprinkler systems, unless installed in areas subject to freezing. Dry pendant or sidewall sprinklers are preferred in lieu of dry pipe or antifreeze systems. Propylene glycol shall be used should antifreeze systems need to be installed when permitted by local authorities. Do not use pre-action type systems.

Sprinkler densities shall comply with NFPA 13, except in rooms containing movable/mobile shelving (high density storage) where the density shall be Ordinary Hazard (Group 2).

Rooms containing bulk supply storage shall be classified as defined by NFPA 13. Do not use shelving which obstructs sprinkler water from penetrating down through racks.

Install quick response sprinklers (QRS) in all areas, except where specifically prohibited (e.g., high temperature areas as defined in NFPA 13).

The installation of flow control (on/off) sprinkler heads is not permitted.

Coordinate with architectural, mechanical and electrical work and show smoke zone boundaries, hazard classification, density, and other special requirements on drawings.

Coordinate sprinkler zones with fire or smoke (compartments) and fire alarm evacuation zones. Provide a flow switch, isolation valve, tamper switch, and pressure gauge for each zone. Notification shall comply with NFPA 72.

Determine and identify on drawings the location of fire pump, risers, all valves, fire department connections, drains, and points of connection with underground fire service main.

Provide seismic protection in areas of Moderate High, High, and Very High Seismicities (See VA Seismic Design Requirements (H-18-8), Table 4).

**C. Commissioning**

For the leased facilities, commissioning of the fire protection systems shall be implemented to verify the intent of the design by inspecting and testing the systems.

## 6.6 PLUMBING

### 6.6.1 GENERAL

The Lessor and the Lessor's Design Engineer (henceforth known as the A/E or Engineer) shall use the contents of this document to design, install, test, adjust, balance, and commission the Plumbing systems in a trouble-free working manner to provide comfort and safety to the veterans, staff, and visitors.

### 6.6.2 MANDATORY PROVISIONS

See Paragraphs 4.1 CODES and 4.2.1 VA ADOPTED CODES, STANDARDS, AND EXECUTIVE ORDERS.

### 6.6.3 APPLICABLE CODES AND CRITERIA

See Paragraph 4.1 CODES, for applicable codes and standards.

### 6.6.4 PLUMBING DESIGN SCOPE

The plumbing design scope includes the following systems, which are detailed following this list.

A. Water Distribution System
B. Potable Water Treatment Systems (includes softening, reverse osmosis, de-alkalizing, deionization, and reagent grade water production)
C. Domestic Hot Water System, including Recirculation
D. Sewer/Vent/Waste System inside buildings
E. Roof Drainage System
F. Interior Fuel Gas System
G. Seismic Restraint System
H. *Legionella* Mitigation

**A. Water Distribution System**

Size the piping for the hot and cold water systems per criteria specified in the IPC including backflow preventers, water hammer arrestors, and trap primers. Minimum pipe size shall be ¾".

Provide wall hydrants (a maximum of 200 feet [60.96 m] apart at the building exterior perimeter) at loading docks and at building entrances, with a minimum of one wall hydrant on each exterior wall.

Maintain a minimum pressure of 35 PSI [240 kPa] at the plumbing fixtures on the top floor. In minimum pressure calculations, use residual pressure at design flow. Monitor for diurnal pressure fluctuations experienced by the building water supply and modify starting pressures accordingly. Provide a pressure gauge on the top floor branch adjacent to the riser.

Where required, provide a domestic water booster system. Use a three-pump system with each pump handling half of the design flow rate. An inlet and discharge potable water bladder type buffer tank shall be provided to absorb pressure fluctuations and minimize pump cycling. Discharge pressure shall be controlled using variable frequency drives through a packaged booster pump controller. Provide spring loaded swing check valves on the pump discharge.

Provide a solenoid valve on the cold water supply to the dental Utility Junction Centers (UJC) with a control switch located in the reception area. A UJC is a grouping of specific utilities brought to a designated location in each dental operatory to provide convenient points of connection to the dental operating unit equipment.

The electrical supply shall be coordinated with the electrical engineer for all electronic faucets and flush valves, trap primers, solenoid valves, pumps, alarm panels, hot water heaters, and other appliances and equipment requiring electrical power.

**B. Potable and Special Water Treatment Systems**

Potable water provided to VA shall meet minimal EPA and/or state standards for contaminants. If potable water does not meet EPA and/or state standards, Lessor shall take action necessary to reduce contamination to acceptable levels. Lessor shall test potable water periodically to ensure that it continues to meet EPA and state standards.

Provide water treatment as required to meet EPA and/or state drinking water standards, and to meet special water use needs.

*(1) Water Softener*

Provide vertical, pressure type, sodium cycle water softeners from a single vendor. Regeneration shall occur no more than once per day. Provide bypass. A water softener system is required under the following conditions:

**Entire Clinic**: Provide 100% duplex softening equipment (with hard water bypass) when total hardness exceeds 170 ppm (mg/L) as CaCO3. Blend equipment effluent to a hardness of approximately 50 ppm [mg/L]. Provide a ventilated salt storage room to store a 30 day supply of salt.

**Steam Cooking Equipment**: Provide a simplex softener system when total hardness exceeds 5 ppm [mg/L].

**Pretreatment**: Provide 100% duplex softening equipment (with hard water bypass) for Reverse Osmosis and Hemodialysis water treatment packages.

**Boiler Feed-water Make-up Use**: Design duplex softeners, each furnishing 100% of the maximum flow rate, at an exchange capacity required for peak boiler feed-water make-up.

*(2) Reverse Osmosis*

Provide a stand-alone reverse osmosis system, comprised of a factory assembled package, complete with dual alternating carbon filters with automatic backwash, a 20 and 5 micron pre-filter, a reverse osmosis membrane, pressure pump, and all valves and controls necessary for complete automatic operation. All parts and components to be compatible with EPA drinking water standards, and the entire package shall be UL listed.

*(3) Dealkalizing System*

As facility needs dictate, provide a single chloride-anion pressure-type water-dealkalizing system for boiler feed-water make-up to follow water softening equipment. Reduce alkalinity to 20 ppm [mg/L]. Provide soft water bypass.

Design a separate measuring tank of sufficient size to furnish amount of saturated salt and caustic soda solution required for one regeneration. Caustic soda shall be approximately 10% by weight of total solution. Designate interior floor space for caustic storage.

*(4) Deionization System*
As facility needs dictate, provide a three-bed deionizer (cation, anion, mixed bed) of the tank exchange type, providing de-ionized water to meet the requirements of the facility. Feedwater to the deionizer system shall be fed through a 5 micron filter, provided as a component of the deionization system. The system shall be factory assembled, full duplex, and designed for automatic production of water with a conductivity of less than 10 micro-ohms.

*(5) Reagent Grade System*
As facility needs dictate, provide a complete packaged reagent grade water system. Confirm if users require grade 1, 2, or 3 quality, and estimate consumption amounts. Evaluate if it is cost-effective to provide reagent grade water system, or to have the users purchase water from an ISO3696: 1987-listed firm.

**C. Domestic Hot Water System**
Evaluate whether a central hot water system or stand-alone hot water heaters are better suited to the project. Analyze the various options in providing domestic hot water, and comply with pertinent sections of ASHRAE 90.1-2007 for water heating equipment efficiencies and pipe insulation.

*(1) Stand-Alone Hot Water*
Provide gas (or electric if gas not available) storage tank type water heater(s), sized per ASPE. Provide drain pan, pressure/temperature relief valve, flue, and combustion air per IPC and local codes.

*(2) Central Storage Tank System*
Provide gas (or electric if gas not available) central storage tank hot water system, sized per ASPE. Water heater discharge temperature shall be set at 130 ˚F [54 ˚C]. Provide temperature limiting valve set at 105 ˚F [41 ˚C] at all shower heads. Provide pressure/temperature relief valve, flue, and combustion air per IPC and local codes.

**D. Sewer/Vent/Waste Systems Inside Building**
Design sewer/vent/waste systems in accordance with IPC and ASPE. "Sovent" combination waste and vent systems are not allowed.

Unless required by local codes, floor drains shall not be installed in private or individual toilet rooms with a single water closet. Provide floor drains with trap primers in public toilet rooms containing two or more water closets, or a combination of one or more water closets and one or more urinals. Floor drains are required in bathrooms with showers.

Provide cleanouts according to the IPC. Identify all cleanouts on plans and riser diagrams. Do not locate cleanouts above ceilings or crawl spaces, and provide additional cleanout at the "end of run" of all groups of fixtures. Wherever possible, extend cleanout to outside the building perimeter.

**E. Roof Drainage System**

Roof drains shall be sized per IPC with applicable local amendments. In locations where the ASHRAE winter 1% dry bulb temperature is below 32 °F [0 ˚C], insulate roof drain leaders located under the roof and above lay-in or hard ceilings. Coordinate connection of roof drainage piping to storm drain site piping. Point of connection of building roof drain piping to site piping is at 5'-0" outside the building perimeter.

**F. Interior Fuel Gas System**

Design in accordance with NFPA 54 or IFGC, as required and as modified by local codes.

Provide natural gas earthquake valve downstream of and adjacent to the main gas meter at all locations within a seismicity rating of moderate-high, high, or very high, as indicated within VA Seismic Design Requirements Publication No. H-18-8.

**G. Seismic Restraint Systems**

Earthquake-resistive design for plumbing equipment and piping shall comply with the requirements of VA Seismic Design Requirements Publication No. H-18-8 and the International Building Code (IBC).

**Exceptions**: When allowed by local code, seismic restraint may be omitted for the following installations:

- Piping in boiler and mechanical equipment rooms less than 1¼ inch [32 mm].
- All other piping less than 2½ inch [64 mm].
- Equipment weighing less than 400 pounds [180 kg] support and attached directly on the floor.
- Equipment weighing less than 50 pounds [9 kg] suspended from the roof or floor or hung/supported from the wall.

**H. Legionella Mitigation**

There are currently no EPA enforceable regulations governing the levels of *Legionella* bacteria in potable water systems; however, EPA has issued a Maximum Contaminant Level Goal (MCLG) of 0 ppm [mg/L]. Municipal water supplies and wells can carry *Legionella*, so it is a given that the bacteria will be introduced into the facility potable water system at some time. The challenge is to limit the amplification of the bacteria to less than lethal levels.

*Legionella* bacterial amplification occurs when bio-films exist in water storage tanks and dead-end piping legs which allow for growth sites, and when temperature and pH levels are optimum for growth. Infection can occur when patients inhale atomized droplets while showering, drinking or receiving respiratory treatment.

*(1) Piping Design*

Provide means to easily remove and disinfect all outlet devices such as showerheads and faucets, etc. Utilize self-draining showerheads.

Provide a ¾" ball valve at the end of each piping section as a means to drain heated (above 140 °F [60 ˚C]) flushing hot water that will be used for initial and supplemental disinfection. Ball valve shall be within 50 feet [15.24 meters] of a floor sink, floor drain, sink, or lavatory.

Mix hot/cold water as near the showerhead as possible.

Eliminate all dead legs in the piping system.

Design domestic water piping system to facilitate future installation of a copper-silver ion generator system.

*(2) Disinfection Methods*
Subsequent to piping disinfection required per IPC, and as part of the commissioning process, disinfect the potable water systems against *Legionella* by one of the following methods:

- **Thermal Eradication:** Flush 145°F water through all outlets for a period of at least 30 minutes.
- **Chlorine:** Flush free chlorine at a level of 2 parts per million (PPM) or greater for a period of at least 2 hours.

Further information can be found in ASHRAE paper CH-03-3-2.

**I. Plumbing System Commissioning**
Refer to 4.8 SUSTAINABLE DESIGN AND ENERGY EFFICIENCY.

### 6.6.5 PLUMBING FIXTURES, TRIM AND EQUIPMENT

Provide plumbing fixtures, trim and equipment as required by the IPC.

**A. Plumbing Fixtures**
Water closets, urinals, sinks and lavatories shall be vitreous china or stainless steel. Bariatric water closets shall be rated at 1,000 pound [454 kg] capacity. Waterless urinals are not permitted. Service sinks (mop sink/basin) shall be floor-mounted cast terrazzo, (a combination of Portland cement and grey marble chips).

**B. Plumbing Trim**
Faucets and showerheads shall be of chromed brass, monel, or stainless steel; plastic trim is not permitted. Faucets shall be laminar flow; aerators are not permitted. Electronic hands-free controls shall be provided at all hand washing sinks and lavatories.

**C. Plumbing Equipment**
Provide wall-hung, self-contained, electric wheelchair accessible water cooler.

Hot water re-circulation pump shall be all bronze, with timer based controls.

## 6.7 ELECTRICAL

### 6.7.1 GENERAL

The Lessor shall provide all the necessary electrical facilities for the project. It is expected that electrical systems will meet their primary objective of providing appropriate and reliable interior and exterior electrical, lighting, and auxiliary systems and services necessary to the safety and

comfort to the veterans, employees, and visitors. In addition, the systems shall be safe, easily accessible for repairs and maintenance, and energy-efficient.

### 6.7.2 CALCULATIONS

Prepare and submit calculations as required by the type of design work performed. Calculations shall justify lighting designs; size of each branch circuit and feeder conductor, overcurrent protective device, equipment bus, generator, transformer, etc., at all voltage levels; setting of each overcurrent protective device with adjustable characteristic; required PPE to meet arc flash energy levels; etc. The Lessor shall submit the following calculations to VA: fault current calculations, protective device coordination study, arc flash calculations, load calculations, generator-set sizing calculations, voltage drop calculations, lightning protection system risk analysis, and lighting calculations.

### 6.7.3 LIGHTING CALCULATIONS

Perform all lighting calculations based on illumination criteria per the IESNA Lighting Handbook, latest edition. Calculations shall include room name, room number, fixture type chosen for the room, number and type of lamps to be used in the room, required illumination level, calculated illumination level, and all assumptions used.

Calculations for most interior spaces may be performed using the zonal cavity method. Perform and submit point-by-point calculations for areas of greater architectural or luminous sophistication. Calculations for exterior spaces, including parking structures, shall be point by point. Calculations shall demonstrate compliance with energy requirements per Paragraph 4.8 SUSTAINABLE DESIGN AND ENERGY EFFICIENCY.

### 6.7.4 FIRE ALARM SYSTEMS

Fire alarm systems shall be provided as required by NFPA 101 or the locally adopted codes.

The fire alarm system shall be designed to meet the requirements of NFPA 72 and the local codes.

For new installations, locate the fire alarm control panel at the main entrance or at a 24-hour constantly attended location.

New fire alarm systems shall be analog addressable.

Fire alarm systems shall not be combined with other systems such as building automation, energy management, security, etc.

Wiring for fire alarm systems shall be as follows: Initiating Device Circuits – Style B (Class B), Signaling Line Circuits – Style 4.0 (Class B), Notification Appliance Circuits – Style Y (Class B), and Communications between fire alarm control units – Style 7 (Class A). Where there are conflicts with local codes, the most stringent requirements shall be enforced.

Initiation devices shall be provided in accordance with NFPA 101, NFPA 72, NFPA 90A, and ASME 17.1 or ASME 17.3, as applicable.

Audible fire alarm notification appliances shall be provided in accordance with NFPA 72 and NFPA 101.

Visual fire alarm notification appliances shall be provided in mechanical rooms, public restrooms, public accessible areas such as corridors, auditoriums, cafeterias, assembly rooms, canteens, retail stores, and other publically accessible rooms of more than 750 square feet [228.6 square meters] of area.

Coordinate fire alarm zones with the location of smoke compartments and sprinkler zones.

The fire alarm system shall be monitored by a listed remote central station.

**6.7.5 RACEWAYS AND WIRING**

Install all wiring in raceways. All wiring shall be copper. All circuits and branch circuits shall have a separate equipment grounding conductor of appropriate size per the NEC. No more than 3 branch circuits are allowed to run in one homerun.

**6.7.6 LIGHTNING PROTECTION SYSTEM**

Perform risk analysis per NFPA 780, Annex L and provide a lightning protection system, where Nd>Nc. Submit calculations, including all assumptions. The Lessor shall use the following fixed factors in the calculation: $C_3$ = 2.0, $C_4$ = 1.0, $C_5$ = 5.0. All other factors shall be project-specific.

**6.7.7 RECEPTACLE CIRCUITS**

No more than 6 receptacles shall be installed on a single circuit.

**6.7.8 ESSENTIAL ELECTRICAL SYSTEM FOR CLINICS**

The Essential Electrical System (EES) for other health care facilities shall comply with the Type 3 system as defined in NFPA 99, shall supply loads as defined in NFPA 70 and 99, and shall comply with the Joint Commission testing and reporting requirements. The Type 3 Essential Electrical System shall supply power for the task illumination and limited power service that is related to the safety of life, and that is necessary for the safe cessation of procedures in progress. The alternate source of power shall be per NFPA 70 and 99.

**6.7.9 ESSENTIAL ELECTRICAL SYSTEMS FOR CLINICS WITH ELECTRICAL LIFE SUPPORT EQUIPMENT OR WHERE CRITICAL AREAS ARE PRESENT**

**N/A**

**6.7.10 POWER MONITORING AND METERING**

Power monitoring and metering are required to support energy use and conservations goals.

### 6.7.11 ELECTRICAL ROOMS AND CLOSETS:

No telecommunications equipment, other than telecommunications outlets, shall be placed within electrical rooms. Provide appropriate construction for the type of transformer(s) installed. Electrical closets shall stack vertically, and shall not be further than 150 feet [45.72 m] apart, to limit maximum 120V circuit length to approximately 75 feet [22.86 m].

Rooms that contain freestanding electrical equipment shall be sized so that sufficient space is provided to add one additional section to each unit of freestanding equipment. Provide extended pad space and spare conduits that will facilitate future installation of equipment and conductors. Spare space shall be indicated on drawings.

### 6.7.12 ELECTRICAL EQUIPMENT

Electrical distribution components shall have copper bussing. Each panelboard shall contain 25% spare breakers.

### 6.7.13 LIGHTING FIXTURES

Standardize lamp types across fixture types to limit the number of different lamp types and wattages used. Select the number of lamps and the fixture type according to the recommended finishes specified in each area to ensure the intended lighting levels.

Linear 2-foot and 4-foot T8 fluorescent lamps with CRI>70 and rated lifespan of 20,000 hours are the preferred interior lighting source. T5 2-foot and 4-foot double-ended linear sources are allowed for indoor locations. Compact fluorescent lamps in twin-, tri-, and quad-tube T4 configurations are allowed.

Color-corrected lamps, having a CRI of 85 or above and correlated color temperature between 5000 degrees K and 6000 degrees K, are required in recovery rooms, operating rooms (color shall match that of the surgical light), and dental rooms (examination, oral hygiene, oral surgery, recovery, labs, treatment, and x-ray).

Select fixtures and light sources with long operating lives; which utilize controlling elements (lenses, louvers, reflectors, etc.) designed to provide the best utilization of emitted light at the task location; that are appropriate for the ambient temperature; and that are not prone to dirt accumulation. In high ceiling areas, locate fixtures for maintenance access or provide access for maintenance equipment.

Exterior lighting shall comply with energy requirements, and should comply with Dark Sky principles. When required by VA, exterior lighting designs are to meet the requirements of local outdoor lighting codes. Criteria recommended in the IESNA Guideline for Security Lighting for People, Property, and Public Spaces (latest edition) shall govern the lighting design. Exterior lighting shall be coordinated with physical security, SSTV, and landscaping requirements.

### 6.7.14 BALLASTS

Electronic high-frequency type ballasts shall be used for all linear fluorescent lamps, unless special environmental and/or sensitive equipment concerns require the use of low-frequency hybrid electronic-electromagnetic ballasts that operate lamps at 60Hz. Hybrid electronic-

electromagnetic ballasts are allowed for surgical rooms and critical care units, as deemed appropriate by the design A/E. For metal halide, use pulse-start ballasts, and pulse-start lamps with glass or ceramic arc tubes. Probe-start ballasts and lamps are not acceptable.

### 6.7.15 LIGHTING CONTROL

Energy consumption constraints dictate the installation of automatic lighting controls for both interior and exterior lighting. Select and design master and room-specific lighting control systems that comply with energy codes and requirements; that respond to daylight harvesting; that utilize the correct sensor and sensor location for the controlled space; that are compatible with the controlled ballasts and lamps; and that are responsive to the occupant's desire not to feel "over-controlled."

## 6.8 TELECOMMUNICATIONS

### 6.8.1 TELECOMMUNICATIONS: CABLE PATHWAYS, WIRING, CABLES, AND INFRASTRUCTURE PLANT; AND SPECIAL TELECOMMUNICATIONS SYSTEMS

**A. Scope**

This section covers requirements for cable pathways and raceways, fiber optic and copper wiring and cables, and special telecommunications systems (hereinafter referred to as "Special Systems"). Special Systems are identified as those telecommunications systems that are not telephone, data, or fire alarm (or related functions).

Cable pathways, wiring, and cables (both copper and fiber optic) make up the Telecommunications Infrastructure Plant (TIP) for the telephone, data, and Special Systems.

**B. General Requirements**

All TIP wire and cabling shall be installed in drop ceiling using cable hangers and a wire basket cable tray. In hard ceiling areas, a raceway system, which may consist of a mixture of conduits and enclosed cable trays, is required.

TIP wires or cables may be provided inside gypboard walls in flexible conduit, or without conduit, as specifically approved by VA in writing for each specific location.

The term "provide," where used herein, shall mean the same as "designed, engineered, furnished, installed, tested, guaranteed, and certified."

A complete and functional telecommunications infrastructure plant (TIP) is required. In renovation projects, the TIP shall be compatible with the facility's existing TIP. The TIP shall at a minimum incorporate all telephone, data, and Special Systems cables.

**C. Conduits and Boxes**

*(1) General*

For system conduits, junction boxes, routing, termination, risers, horizontal runs, sizing, etc., follow industry-standard requirements.

*(2) Minimum Size*

Conduit from outlet to above ceiling should be a minimum of one (1) inch.

Conduit runs outside buildings will be equipped with a pull box (inside) or manhole (outside) after two 90-degree bends or an accumulation of 120-degrees of total pathway deviations from a straight line between each point of access.

Conduits outside of buildings shall be waterproof and shall not exceed 400 feet [122 meters] between manholes or pull boxes (not counting bend or traverse loss).

*(3) Interconnecting Conduit Requirements*
The following table identifies the minimum conduit requirements for the telecommunications and special systems infrastructure (not all conduits may be required, depending on rooms provided):

**Conduit Requirements**

| Location A | Location B | Conduit Type | Quantity | Size |
|---|---|---|---|---|
| Entrance from street | TER | Direct burial PVC or PE | 4 | 4 inch [100 mm] |
| TER | MCR | EMT | 4 | |
| Stacked Telecommunications Rooms (TR) | Next Stacked TR | Sleeve | 4-6 | 4 inch [100 mm] |
| MCR (Optional) | Each TR Vertical Riser Stack | EMT | 4 | 4 inch [100 mm] |
| Between TRs on same floor | Between TRs on same floor | EMT | Cable Tray | 12 inch [305 mm] |
| MCR (Optional) | PCR | EMT | 1 | 4 inch [100 mm] |
| HE Room (Optional) | Roof or access to antennas | EMT | 2 | 3 inch [75 mm] |

*(4) Horizontal Conduits*
Basket type cable tray may be installed above suspended ceilings in corridors for station wiring in non-critical areas. Minimum size shall be 12 in [305 mm] wide with 2 in [50 mm] sidewalls.

Surface metal raceways are not acceptable and will not be approved for wire or cable on the outside of walls.

Provide cable radius drop fittings (aka waterfalls) where cables exit basket type cable tray.

*(5) Vertical Risers*
Provide conduits of the size and counts depicted in the Conduit Requirements table in each TR as shown. Also, ensure each floor and ceiling penetration is sleeved and the corresponding conduit ends secured AFF and BFC, as described herein. Seal each conduit and associated cable with fire-proofing compound. Also, ensure each empty conduit penetration is like sealed.

*(6) Telecommunications Cable Ducts Under Cellular Floors*
Underfloor ducts and/or cellular floors shall be considered as air plenum areas. Therefore, all system wires and cables provided in these areas shall be plenum-rated and installed accordingly.

Each underfloor cable duct and/or cellular floor installation shall be provided with appropriate wire management system(s).

**D. Telecommunications Outlets**
Outlet boxes shall be the same minimum size as NEC standard quadraplex (or dual duplex) electrical outlet boxes.

Outlet boxes shall be equipped with full covered wall faceplates and two (2) each modular Category Six RJ-45 jacks and contain enough space for two (2) each additional modular Category Six RJ-45 jacks, one additional modular (1) stainless steel fiber-optic, and one (1) BNC (A/E note: an "F" type may be substituted "depending on system design) with analog coax cable jacks (for a total of six available modular jack positions). For cable installed in systems furniture route cables through raceways internal to the furniture frame to the outlet at each workstation.

Unless otherwise specified, mounting heights for telecommunication outlets shall be:

**Telecommunications Outlets Mounting Height**

| AREA/FUNCTION | MOUNTING REQUIREMENTS |
|---|---|
| Pay station | 4 ft [1,200 mm] above finished floor (AFF) |
| | |
| Desk outlet | 1.5 ft [450 mm] AFF |
| | |
| Special Use Areas | As required by design |

**Patient Bed Prefabricated Wall Units (PBPU):** Use the provided receptacle box, conduit and connections. The PBPU UL listing shall not be violated. The Lessor is responsible to restore each unit's violated UL to the OEM standard at the Lessor's expense.

**Special Systems:** Provide each outlet minimum 18 in [450 mm] AFF unless otherwise specified by system design or indicated on the drawings.

Outlets shall not be located within 48 in [1200 mm] of the "swing open" side of inward opening doors or within 18 in [450 mm] of light switches, thermostats, or other electrical receptacles.

Elevator voice cables providing voice service to the elevator car shall be extended to the elevator equipment room.

**E. Drawings**
The A/E shall clearly show the locations of telecommunications outlets, conduit runs, cable trays or wireways, equipment cabinets and/or racks, telecommunications rooms/backboards, terminal, junction, and/or pull boxes on the drawings.

The A/E shall clearly show the exterior and/or underground raceway system, including distances between buildings, manholes, and in-ground pullboxes.

All raceways sizes shall be indicated on the drawings.

Drawings must include a detailed riser diagram for all distribution systems, and the interfaces between systems.

**F. Wires and Cables**

The design of the raceway system in existing buildings shall incorporate the existing facility TIP raceway systems. All unused existing distribution wires, cables, and pathway equipment not incorporated in the new or replacement pathway system shall be removed.

For new construction, the voice and data structured cabling system shall be Category 6 cable and Category 6 termination hardware. Additionally, the system should be installed by a structured cabling contractor certified by the manufacturer to install the system and capable of offering the manufacturer's system warranty. Such warranty should be a minimum of 20 years.

Plenum/CMP-rated wire or cable shall be provided in all areas' air-handling plenum locations. Non-plenum/CM wire or cable may be provided in all other areas.

**G. Special Systems Specific Requirements**

*(1) General*

Provide systems as determined by project requirements. Not all systems may be required, and not all required systems may be listed below.

*(2) Nurse Call*

Provide nurse call system(s) as required. System(s) shall be as manufactured by Rauland Borg, General Electric, Simplex, or approved equivalent, as updated to most current technology or manufacturer.

Provide emergency nurse call stations in nonpatient ward toilet areas only at the following locations:

- Drug Dependency Treatment Clinic

*(3) Public Address (PA)*

Provide public address and mass notification (PA) system(s) as required. System(s) shall be as manufactured by Bogen, JBL, Dukane, or approved equivalent, as updated to most current technology or manufacturer.

*(4) Intercommunication System*

Provide intercommunications system(s) as required. System(s) shall be as manufactured by Bogen, Aiphone, Leviton, or approved equivalent, as updated to most current technology or manufacturer.

Provide appropriate intercommunication systems at designated facility ingress and egress points connected to the Security Service Control Room.

*(5) Radio Entertainment Distribution (RED)*
Provide radio entertainment distribution (RED) systems as required. System(s) shall be as manufactured by Bogen, JBL, Dukane, or approved equivalent, as updated to most current technology or manufacturer.

All loudspeakers shall be of the recessed or ceiling type in lieu of surface-mounted type, wherever possible.

Loudspeakers in each day room, TV lounge, waiting room, and other designated areas that also contain PA speakers may be combined within the same speaker back box and grille, and use the same speaker cone, as long as each speaker function contains a separate matching transformer and voice coil for each service (i.e., one transformer and associated voice coil for RED and one transformer and associated voice coil for PA). This consolidation practice is an acceptable alternate to two individual speakers, back boxes, grilles, and mounts in these locations. Also, provide volume and selector controls in each of the aforementioned RED only areas at their Reception Room desk.

*(6) Master Antenna Television (MATV)*
Provide Master Antenna Television (MATV) systems as required. System(s) shall be as manufactured by Blonder Tongue, Scientific Atlanta, Olson Technologies, or approved equivalent, as updated to most current technology or manufacturer.

Master Antenna system antennas shall be mounted on hinged poles (or equivalent) where subjected to salt-spray atmosphere.

*(7) Security Surveillance Television (SSTV)*
Provide SSTV systems as required. System(s) shall be as manufactured by Panasonic, Video Tek, Pelco, or approved equivalent, as updated to most current technology or manufacturer.

*(8) Security Management and Control, and Centralized Police Security Management Systems (aka Security Management Telecommunications System SMTS)*
Provide SMTS systems as required. System(s) shall be as manufactured by Lockheed, Viper, Access Gold, Casi-Rusco, or approved equivalent, as updated to most current technology or manufacturer. LAN/WAN based systems must be on a separate and standalone system and NOT connected to the Facility's LAN/WAN.

- *Electronic Access and Door Control – Dyna Lock, Locknetics, Sentrol, or approved equivalent, as updated to most current technology or manufacturer.*
- *Motion Intrusion Detection – Security Metrics, Ademco, Honeywell, or approved equivalent, as updated to most current technology or manufacturer.*
- *Patient (also Staff) Annunciator/Locator System – Viking, Radiance, Secur Trak, Patient Central, or approved equivalent, as updated to most current technology or manufacturer.*
- *Duress Alarm and Emergency Notification System – Code Blue Pole Systems or approved equivalent, as updated to most current technology or manufacturer. Under no circumstance shall the telephone system be used to provide duress alarm functions.*

*(9) Radio Paging System*
Provide radio paging system (identified as Public Safety Operation and upgraded to Life Safety when interfaced to Code One (Blue)) as required. System(s) shall be as manufactured by Motorola, Johnson, Kenwood, or approved equivalent, as updated to most current technology or manufacturer.

*(10) Two-Way Radio System*
Provide two-way radio systems as required. System(s) shall be as manufactured by Motorola, Johnson, Vertex Standard, or approved equivalent, as updated to most current technology or manufacturer.

*(11) Video Teleconferencing System (VTS)*
Provide VTS systems as required. System(s) shall be as manufactured by Polycom, Tandberg, HP, or approved equivalent, as updated to most current technology or manufacturer.

*(12) Satellite System*
Provide VTS systems as required. System(s) shall be as manufactured by Scientific Atlanta, Blonder Tongue, Pico Macom, or approved equivalent, as updated to most current technology or manufacturer.

**6.8.2 TELECOMMUNICATIONS/SPECIAL SYSTEMS ROOMS AND SPACE REQUIREMENTS**

**A. Scope**
This chapter covers the requirements for telecommunications, data, and special systems rooms and spaces.

**B. Room Types and Definitions**
*(1) General*
Provide rooms as determined by project requirements. Not all room types may be required, and not all required room types may be listed below.

*(2) Telephone Console Room (TCR) (Optional)*
The Telephone Console Room is where telephone operators are located. Operators provide service to the entire building. The Telephone Console Room is in many cases, but not all, continuously staffed. At many locations the operators also have the responsibility of monitoring critical alarms for equipment throughout the facility.

*(3) Head End Equipment (HE) Room (Optional)*
The Head End (HE) Equipment Room will be located in the general mechanical penthouse or other area dictated by system design. The room will accommodate all provided and planned Special Systems, Head-end Cabinets (i.e., MATV, SSTV, SSTV, RED, Satellite TV, PA, Two-Way Radio, Radio Paging, and M/W Radio, etc.). The room will be sized for a minimum of (5) each separate systems.

*(4) Telecommunications Room (TR)*
The Telecommunications Room is a room designed to centrally deliver data, telephone, and special systems services to users and equipment on that floor. There may be multiple rooms on a floor.

The design "Telecommunications Room" replaces the term "Signal Closet," which is no longer used. The new designation indicates the current construction practice of combining telephone, data, special systems, and fire alarm functions into one terminus, control, and distribution point. If security requirements require separation of systems, this will be accomplished by a chain link or other barrier that will provide physical security while allowing common lighting, heating and cooling, and power protection systems.

*(5) Remote or Secondary Telecommunications Room (TR) (Optional)*
These rooms are typically provided for Special Systems that are allowed in patient or other designated areas that exceed the 300 foot [90 meters] maximum wire distance to Telecommunications Rooms, and the installation area is small enough so as to not warrant the larger and more costly stacked Telecommunications Rooms.

*(6) Entrance Room (ER OR DMARC) (Optional)*
The Entrance Room (ER) is a room or rooms designed to be the initial termination point for services being brought to the building by outside providers, such as telephone companies, data providers, CATV providers, etc.

*(7) Telephone Equipment Room (TER)*
The Telephone Equipment Room will be designed to house equipment to provide telephone, voice, and video teleconferencing services to the facility. It shall be interconnected with the DEMARC, MCR, and TRs via the facility's TIP system.

*(8) Main Computer Room (MCR) (Optional)*
The Main Computer Room (MCR) will be designed to house equipment to provide data services to the entire building or facility. In addition to the Main Computer Room, there may be a standby computer room that will provide backup services in the event of a catastrophic failure at the Main Computer Room.

*(9) Police, Emergency, and Designated Control Rooms*
Police Control Room (PCR), Engineering Control Room (ECR), and other designated control rooms are other rooms throughout the facility that house specialized functions.

**C. General Environmental, Power and Space Requirements**
*(1) General*
The following is a list of minimal environmental, power, and space requirements that apply to all telephone, data, and special system rooms and spaces (hereinafter 'rooms' in this article) that contain electronic equipment. The list is not all inclusive and additional information or requirements may be found in this chapter.

*(2) Location, Protection, and Access*
Rooms shall be rectangular in shape and free of obstructions, such as columns and braces, if possible. If columns or braces are present, they shall not impede the installation or operation of individual system equipment and access to each equipment cabinet's front, side, or rear. The floor area occupied by the column shall not be counted as a part of the room's minimum useable square foot requirements.

Rooms shall be located above the Base Flood Elevation. Rooms shall not be located beneath toilets, showers, laboratories, kitchens, sinks, open courtyards, planters, roof drain leaders, or other areas where water service is provided. Active telephone, data, and special systems

equipment is not allowed to be installed in elevator penthouses or mechanical rooms; dedicated rooms are required.

Rooms shall be designed to allow maintenance equipment access, and to facilitate equipment replacement without significant demolition and reconstruction.

Rooms shall not be located in patient care areas.

Any pipe or duct system foreign to the telecommunications installation shall not enter or pass through a room. The A/E shall ensure that foreign piping such as water pipes, steam pipes, soil pipes, sanitary drains, storm drains, A/C ducts, and other unrelated systems utilized for or containing liquids, or gases are not installed or pass through rooms. Sprinkler piping serving only telecommunications spaces shall not be considered foreign to the telecommunications installation, and shall not pass through the space to serve other areas.

Rooms shall be located away from or protected from sources of EMI at a distance which will reduce the interference to less than 3.0V/M through the frequency spectrum. Pay special attention to EMI from electrical power supplies, transformers, motors, generators, x-ray equipment, radio transmitters, and induction heating devices.

Rooms shall be located to minimize effects of lightning strikes and sunlight radiant heating. Rooms shall not have windows.

Rooms that are considered computer rooms should not be located on exterior walls.

Rooms shall have a controlled access door with card reader to control access to authorized personnel.

*(3) Room Envelope*

Finish flooring shall be anti-static plastic laminate or vinyl tile. The acceptable resistance range is from 0.5 megohm minimum to 20,000 megohm maximum.

Floors, walls and ceilings shall be sealed to prevent dust, and all walls shall be painted a light color.

Backboards shall be ¾" fire-retardant plywood.

*(4) Heating, Ventilation, and Air Conditioning*

Design conditions shall be 75 ˚F [24 ˚C] dry bulb temperature (cooling), 65 ˚F [18 ˚C] dry bulb temperature (heating), with individual room temperature control.

*(5) Power*

Power for all rooms and equipment shall be connected to the appropriate branch of the Essential Electrical System. Equipment shall be backed by an uninterruptible power supply (UPS), except HVAC equipment. Provide 120V 20A and 30A capacity, and 220/208V 20/30A capability as required. Match receptacles types with equipment provided and installed by VA Office of Information and Technology (OI&T).

*(6) Grounding*

Telecommunications systems grounding and bonding will consist, at a minimum, of an equipotential grounding system (Telecommunications Bonding Backbone (TBB)) that originates from the Telecommunications Main Ground Bar (TMGB). The TMGB (typically located in the Telephone Equipment Room) is then connected to other telecommunications spaces (independently from other building grounding systems such as electrical or lightning protection) via the TBB. The TMGB is connected to the building electrical service ground point via a mechanically and electrically protected minimum #1/0 copper equipotential grounding conductor, and to building steel. The TBB helps ensure that all equipment in the telecommunications spaces is referenced at the same equipotential earth ground level, and reduces high frequency electrical noise resulting from high speed digital switching, RFI, and EMI. Cabinet, rack and fixed structures bonding conductor(s) shall be minimum #6 AWG-insulated stranded copper wire (or equal copper braid). All frames and cabinets shall be grounded in accordance with ANSI/TIA/EIA-607.

The telecommunications grounding system will comply with ANSI/TIA/EIA-607 requirements and follow BICSI – Telecommunications Distribution Methods Manual (Latest Edition) guidelines.

*(7) Security*

Comply with Physical Security Criteria in Paragraph 4.2.4 PHYSICAL SECURITY AND NATURAL DISASTERS RESISTIVE DESIGN and as follows. Provide electronic security system that is connected to and fully functional with the PCR SMTS and a cipher lock with numeric keypad, associated electronic card access device, and electric strike. Each room security system shall be powered from either the building or a local UPS system.

Each programmable door control shall be fully functional with the SMTS in a stand-alone status if its connection to the controller is cut. Once the connection is restored, the local door control system shall update the SMTS on all operations that occurred after the connection was interrupted, and the SMTS shall update the local door control units to current operational function.

*(8) Wire Management*

Refer to Paragraph 6.8.1 for requirements.

**D. Telephone Console Room (Optional)**

*(1) Configuration*

Space shall be per the following table:

**Telephone Console Room Size Requirements**

| NUMBER OF CONSOLES | SPACE REQUIRED SQ M (SQ FT) |
|---|---|
| 1 | 100 [9] |
| 2 | 150 [14] |
| 3 | 200 [19] |

Provide a restroom and break room, separate from the operations area.

*(2) Heating, Ventilation, and Air Conditioning*
Refer to Paragraph 6.8.2C General Environmental, Power and Space Requirements-Heating, Ventilation, and Air Conditioning.

*(3) Power*
Refer to Paragraph 6.8.2C General Environmental, Power and Space Requirements.

Provide sufficient 120V receptacles at each operator position.

*(4) Alarm Panels*
Provide adequate space, heating and cooling, power, lighting, and telecommunications raceways for alarm panels as required for each project. At a minimum, provide for nurse call Code One (Blue), public address, emergency notification, duress alarm, fire alarm, and emergency and standby generator alarm annunciator panels.

**E. Head End Equipment (HE) Room (Optional)**
*(1) General*
This section covers the requirements for the Head End Equipment (HE) Room. The HE Room may include, but is not limited to, head end cabinets for MATV, SSTV, SSTV, RED, satellite TV, PA, two-way radio, and radio paging systems.

*(2) Location*
A dedicated room is required. This room may be located in the mechanical penthouse (as close as possible to a roof entrance) or attic, or an area as dictated by system design. It shall not be located in the elevator equipment room, or in the basement, or below the Base Flood Elevation.

The HE Room shall not be located further than 300 feet [91.44 meters] from the nearest vertically stacked Telecommunications Room.

If located in the mechanical penthouse or attic, the room may be separated from the rest of the area by floor-to-ceiling metal chain-link security fence with a minimum 40" x 84" inch locking gate with two sets of keys. If located in the HE Room, telephone or data equipment shall not use fencing of any type except to partition area within the secure HE Room.

*(3) Configuration*
The HE Room shall be a minimum of 10 foot x 12 foot [3.0 m x 3.7 m], or as large as the sum of the provided and future systems require, including space for UPS equipment. The HE Room shall be sized for the head end equipment of a minimum of five (5) each separate systems, four (4) each future systems, one (1) each overhead, and wall wire management system, four (4) each 4" ID weatherproof wall/ceiling cable feedthroughs, and two (2) each 4" ID conduits to the nearest vertically stacked telecommunications room. The space for future systems shall be clearly indicated on the contract documents. Space shall be per the following table:

**Head End Equipment Room Size**

| NUMBER OF EQUIPMENT CABINET/RACKS | ROOM SIZE SQ M (SQ FT) |
|---|---|
| 4 minimum | 224 [22] |
| Add 2 UPS | 224 [22] |

| NUMBER OF EQUIPMENT CABINET/RACKS | ROOM SIZE SQ M (SQ FT) |
|---|---|
| Add 1 for System Grounding Block/Main TIP Distribution Panel (MTDP) | 256 [24] |
| 5 minimum | 256 [24] |
| Add 2 for UPS | 256 [24] |
| Add 1 for System Grounding Block/MTDP | 289 [27] |

Cabinets are installed joined or side by side, in which case where the 3 foot [900 mm] rule applies around the entire assembly. Minimum ceiling height shall be 8 feet [2.4 m] above finished floor.

The HE Room may be sized to use an Environmental Equipment Protection Cabinet in lieu of an air-handled space, if previously approved by VA. Add three (3) each sf with 3 ft clear floor area circumference per environmental cabinet.

*(4) Tip Wire/Cable Interface Area*
Provide a wall area, minimum size of 8 feet x 8 feet [2.4 m x 2.4m] (plywood covered, to provide a common termination point for all the cabling entering and leaving the HE Room).

*(5) Heating, Ventilation, and Air Conditioning*
Refer to Paragraph 6.8.2C General Environmental, Power and Space Requirements.

A fully climate-controlled, standalone equipment cabinet is acceptable for each special system in lieu of fully acclimatizing the HE Room.

*(6) Power*
Refer to Paragraph 6.8.2C General Environmental, Power and Space Requirements.

*(7) Grounding*
Provide a copper bus plate minimum 6 in [150 mm] w x 18in [470 mm] L x 0.5 in [13 mm], with a connection point located on the inside wall within the immediate area of the antenna coaxial cable(s) entrance conduit sleeves. Connect this plate to the lightning protection system with a minimum #1/0 (AWG) stranded copper wire, or increased sized connection device (i.e., strap, buss, etc.), as approved by the RE, to maintain the integrity of the lightning protection system so each of the system antenna cables' coaxial cable lightning protector can be installed and connected to the plate.

Refer to Paragraph 6.8.2C General Environmental, Power and Space Requirements for additional requirements.

*(8) Wire Management*
Refer to Paragraph 6.8.1 for additional requirements.

The HE Room shall be provided with waterproof wall entrance sleeves to allow connecting of each outside antenna coaxial cable to the HE Room equipment. Add extra like sleeves for

additional outside-mounted antennas as required by system design. One of these sleeves shall contain only the lightning protection connection.

The HE Room shall be provided with a minimum separate 6 in [150 mm] x 6 in [150 mm] cable duct/ladder/wireway from the designated TIP interface point to the dedicated waterproof locking 24" x 24" x 12" [600 mm x 600 mm x 300 mm] TIP connection enclosure. A minimum 12" cable ladder may be used for this purpose. A minimum of five (5) each 3" conduits may be provided in lieu the cable duct/ladder/wireway; additional cable duct/ladder/wireway shall be provided based on overall system design.

The mixing of coaxial cables and STP/UTP/fiber optic/AC and DC power wiring within the cable duct/ladder/wireway and/or conduits is not allowed.

Each wire/cable connection point shall be provided with a connection MDF capability and routes to connect the room's internal wire management system to the facility's TIP system.

**F. Telecommunications Room (TR)**

Rooms shall be provided in the quantities and locations that will limit telephone/data/special systems TIP cable/wire runs from the Telecommunications Room to the outlets to a maximum of 300 feet [90 m]. Splicing of cables is not allowed. Terminal cabinets shall not be used in lieu of Telecommunications Rooms.

*(1) Configuration*
Refer to Table 8-4. Minimum room size shall be 10 feet [3 m] deep x 10 feet [3.6 m] wide. Minimum door size shall be 50 in [1,000 mm] wide x 84 in [2,100 mm] high. For every additional 10,000 sq ft [930 sq m] of floor space served, there shall be 10 linear feet [3 linear m] of wall space required.

Rooms shall be vertically stacked.

The back wall of all rooms shall be lined with backboards, 8 feet [2.44 m] high, with the bottom 1 foot [0.30 m] above the finished floor.

Room height shall be a minimum of 9 feet [2.74 m] above finished floor. Rooms shall not have a suspended ceiling.

Entrance must have a minimum unobstructed area of 48 in [1200 mm] directly in front of the room door.

The Telecommunications Rooms shall be a minimum of 10 feet x 12 feet [3 m x 3.6 m], or as large as the sum of the provided and future systems require, including space for UPS equipment. The TR Room will have a minimum of 4-19 inch racks with vertical wire management. The TR Room shall be sized for the building head end equipment requirements.

*(2) Heating, Ventilation, and Air Conditioning*
Refer to Paragraph 6.8.2C General Environmental, Power and Space Requirements.

Cooling shall be provided according to the actual expected equipment installation and use. Supplemental cooling shall be provided and shall have independent HVAC provisions.

*(3) Power*
Refer to Paragraph 6.8.2C General Environmental, Power and Space Requirements.

Provide a separate 120V, dedicated 20A circuit with two (2) quadraplex receptacles centered in each side backboard, two (2) quadraplex receptacles centered in each front backboard either side of the room door, and three (3) quadraplex receptacles centered in the rear backboard. All receptacles shall be 18 in [457.2 mm] above finished floor. Allow 3 quadraplex receptacles on each 20 A circuit. Provide one (1) 3 phase, 208V, 30A receptacle and two (2) 1 phase, 208V, 20A receptacles on dedicated circuits, located as directed by the owner.

*(4) Grounding*
Refer to Paragraph 6.8.2C General Environmental, Power and Space Requirements.

*(5) Wire Management*
Refer to Paragraph 6.8.1.

Each room shall be provided with lateral and vertical risers from the TER and MCR to each room to support a separate TIP distribution system for telephone, data and special systems.

**G. Remote or Secondary Telecommunications Rooms (Optional)**
*(1) Location*
Provide these rooms as required by each system design.

These rooms are typically provided for Special Systems that are allowed in patient or other designated areas that exceed the 300 foot [90 m] maximum wire distance to Telecommunications Rooms, and have a small enough installation area so as to not warrant the larger and more costly stacked Telecommunications Rooms.

*(2) Configuration*
Each room shall be a minimum of 6 feet x 8 feet x 8 feet [1.58 m x 2.4 m x 2.4 m] or according to BICSI Wiring Standards for the areas, whichever is greater. The minimum door size shall be 36 in [900 mm] wide by 84 in [2,100 mm] high.

Each wall shall be provided floor to ceiling with backboards and two (2) 19 inch racks with vertical wire management.

*(3) Heating, Ventilation, and Air Conditioning*
Refer to Paragraph 6.8.2F Telecommunications Room (TR).

*(4) Power*
Refer to Paragraph 6.8.2F Telecommunications Room (TR).

*(5) Grounding*
Refer to Paragraph 6.8.2F Telecommunications Room (TR).

*(6) Wire Management*
Refer to Paragraph 6.8.2F Telecommunications Room (TR).

**H. Terminal Cabinets (Optional)**

Terminal cabinets may be used where the number of outlets served is minimal, the distance of the run is in excess of 300 feet [90 m] from the otherwise nearest vertically stacked Telecommunications Room, and/or the cost of providing a Telecommunication Room is prohibitive. The use of terminal cabinets as a substitute for Telecommunications Rooms will not be approved.

Where required, each cabinet shall be not less than 16-gauge steel with doors and concealed hinges attached by welding.

Doors must be secured by a lock with a minimum of two keys.

Shall be thoroughly cleaned and painted at the factory with primer and the OEM's standard finish.

Each cabinet shall have a backboard covering the entire interior surface of the back of each cabinet if equipment-mounting rails are not required.

Cabinets shall have a minimum inside depth of 16 in [400 mm] from the inside of the door to the face of the backboard.

For Special Systems, provide equipment-mounting rails, guides, and shelves in lieu of the backboard. However, a backboard is acceptable if the cabinet is used solely for the interconnection and distribution of systems wires or cables where active or electronic equipment is not provided.

**I. Entrance Room (ER Or DMARC) (Optional)**

*(1) Location*

Refer to Paragraph 6.8.2C General Environmental, Power and Space Requirements.

*(2) Configuration*

The Entrance Room shall be a minimum of 12 feet x 8 feet x 8 feet [3.7 m x 2.4 m x 2.4 m], and shall be equipped with backboards as required by system design.

*(3) Other Requirements*

All other requirements of Paragraph 6.8.2C General Environmental, Power and Space Requirements apply to the Entrance Room.

**J. Telephone Equipment Room (TER)**

*(1) Location*

The TER shall be located within a cable distance of 100 feet [30 m] of the Telephone Console Room (if provided). It should be located close to the DEMARC and MCR rooms (if provided).

A floor drain, evacuating and/or sump water pump, etc., shall be provided within the room if risk of water ingress exists. A high water level alarm annunciating system shall be provided in addition to intrusion alarm(s) that connects to the facility's ECR, PCR, SMS Console, and one other continuously-manned location.

*(2) Configuration*
Space shall be per the following table:

**Minimum Telephone Equipment Room Size**

| NUMBER OF LINES | ROOM SIZE SQ FT [SQ M] (GEN SIZE) | |
|---|---|---|
| 200 to 300 | 168 [11] | (12' X 14') |
| 301 to 600 | 250 [23.5] | (12' X 20') |
| 601 to 900 | 500 [47] | (20' X 25') |
| 901 to 1,600 | 700 [65] | (20' X 35') |
| 1,601 to 2,000 | 900 [84] | (20' X 45') |
| 2,001 to 2,400 | 1,100 [102] | (20' X 55') |
| 2,401 to 2,800 | 1,300 [121] | (25' X 44') |
| 2,801 to 3,200 | 1,500 [140] | (34' X 45') |
| 3,201 to 4,000 | 1,700 [158] | (34' X 50') |

A minimum of 3 feet [910 mm] shall be provided around each cabinet unless the cabinets are installed joined or side by side where the 3-foot [910-mm] rule applies around the entire assembly. Minimum suspended ceiling height shall be 8 feet [2.4 m] above finish floor. The TER shall be a minimum of 12 feet x 14 feet [3.7 m x 4.3 m].

Provide a metal insulated door equipped with a deadbolt key lock and/or electronic lock. Also, each door shall be provided with an intrusion alarm to be annunciated locally, at the Facility's Engineering Control Room, Security Police Control Console, and one other continuously-manned location (i.e., Telephone Operator or MAS Emergency Room Desk).

Sufficient backboards shall be provided to limit interconnection wire and cable length from backboard to the room wire management system and planned cabinets. Backboards shall be located so as to allow unobstructed access to entrance and exit cable ducts, internal room wire management system, cabinets and doors.

Room height shall be a minimum of 9 feet [2.74 m] above finished floor. Rooms shall not have a suspended ceiling.

Sufficient space should be provided for UPS equipment.

*(3) Room Envelope*
Room shall be enclosed with fire-rated construction in accordance with NFPA 75.

*(4) TIP Wire/Cable Interface Area*
Within the TER there will be an area designated that houses and locates all TIP conduit and cable pathway terminations coming into the room from TRs, HE room, MCR, and either the single or duplicated Entrance Rooms (DEMARC). This area will house the distribution cable management system.

This area shall be a minimum of 12 feet x 8 feet x 8 feet [3.7 m x 2.4 m x 2.4 m] in addition to the minimum area required by the Telephone Equipment Room.

*(5) Heating, Ventilation, and Air Conditioning*
Design Conditions: 64 ˚F [18 ˚C] to 75 ˚F [24 ˚C] dry bulb temperature, 30 to 55% relative humidity.

HVAC load calculations shall include the rectifiers and associated batteries. Cooling requirements shall be based on system design with 30% reserve capacity. Cooling equipment shall be dedicated to the room, and an N+1 configuration shall be provided for reliability.

*(6) Power*
Refer to Paragraph 6.8.2C General Environmental, Power and Space Requirements.

UPS system must provide power for a period of 4 hours. Power shall be distributed by Power Distribution Units (PDUs).

UPS equipment shall be sized based on the equipment requirements, plus future anticipated growth. The initial design load shall not be less than 30% and not more than 70% of the UPS capacity.

The UPS shall be monitored by the PCR SMS for power, alarms, and alarm history. The UPS shall have dry contacts or external alarm and control from the PCR SMS and one "C" contact for local computer signaling. The UPS shall be provided with computer system shutdown software and hardware connectivity as required.

The sharing of the TER's UPS is NOT allowed.

The room shall be equipped with dedicated electrical panel(s) capable of providing 208/120V, 3-phase, 4-wire power, with capacity designed for the equipment load plus future capacity. Each panel shall contain 20% spare electrical capacity and spare circuit breaker space.

Provide a minimum of one quadraplex receptacle (two duplex) for each 8 linear feet [2.4 linear meters] of wall space.

Emergency Power Off (EPO) push buttons shall be installed according to NFPA 75.

*(7) Lighting*
In addition to room lighting, provide battery-powered lighting in accordance with NFPA 75 and 101.

*(8) Grounding*
Refer to Paragraph 6.8.2C General Environmental, Power and Space Requirements.

The Telephone Equipment Room shall be provided with a building earth ground connection by a clearly marked copper equipotential bus bar (Telecommunications Main Ground Bar (TMGB)).

The TMGB shall be directly connected to the facility's electrical ground via a mechanically and electrically protected minimum #1/0 AWG stranded copper equipotential grounding conductor. An AC electrical equipment grounding conductor is not acceptable for this function and will not be approved.

*(9) Security*
Refer to Paragraph 6.8.2C General Environmental, Power and Space Requirements.

Each door shall have a color security surveillance camera that connects to a color monitor in the IT Chief's Office and is routed to the PCR.

A MID system shall be installed within the TER. The system shall be controlled and monitored by the PCR SMS.

An emergency voice-operated sound system shall be installed within the TER, terminated in the PCR SMS and the IT Chief's Office.

A duress alarm button shall be placed every 10 linear feet [3 linear meters] within the TER, annunciating to the PCR SMS and ECR, in addition to the Telephone Console Room and one additional continuously-manned location.

*(10) Wire Management*
Refer to Paragraph 6.8.1 for requirements.

**K. Main Computer Room (MCR) (Optional)**
*(1) Reliability*
The Uptime Institute has developed a system for classifying the expected reliability of data centers and computer rooms based on how the rooms were constructed, types of equipment used, and how services were delivered. Four tier levels were designated, and high level characteristics along with expected reliability for each tier are listed below:

| | |
|---|---|
| Tier I | Tier I is composed of a single path for power and cooling distribution, without redundant components, providing 99.671% availability. |
| Tier II | Tier II is composed of a single path for power and cooling distribution, with redundant components, providing 99.741% availability. |
| Tier III | Tier III is composed of multiple active power and cooling distribution paths, but only one path active, has redundant components, and is concurrently maintainable, providing 99.982% availability. |
| Tier IV | Tier IV is composed of multiple active power and cooling distribution paths, has redundant components, and is fault-tolerant, providing 99.995% availability. |

Designers should be familiar with the concepts involved and incorporate as many of the specific Tier III requirements into their design as practical.

*(2) Location*
Refer to Paragraph 6.8.2C General Environmental, Power and Space Requirements.

Provide moisture sensors and water alarm annunciating system to signal an alarm condition within the MCR and the control room. Annunciate at the Police Control Room (PCR), Security Management Telecommunications System (SMTS) Console, and one other continuously-manned location (i.e., Telephone Operator or MAS Emergency Room Desk). Provide sump and pump for under floor area of raised floor systems where risk of water ingress exists.

*(3) Configuration*
The MCR useable floor area square footage (sf) requirements shall be minimum 1,200 sq feet (10 feet x 12 feet) [3 m x 3.7 m] and shall be increased on a case-by-case basis in minimum of 150 sq feet (10 feet x 15 feet) [3 m x 4.57 m] increments for:

- Each additional 8,500 sq feet [2591 sq meters] of facility floor space above the initial facility designed floor space.
- Unique equipment footprint(s), configuration of new systems, ramps, doors, and aisle ways, maintenance access to equipment, ceiling and floor furnishings.
- UPS equipment and main and emergency batteries, power distribution units (PDUs), etc.
- Main and intermediate telecommunication interface/distribution room(s) and corridors.

Provide office(s) required for MCR function and operation (i.e., Chief's, data storage, maintenance/service, etc.).

Provide one (1) each additional space to encompass projected expansion, to be included separately after each of the aforementioned added space requirements have been incorporated into the MCR design.

A minimum of 3 feet [0.91 m] shall be provided in front and back of each rack or cabinet. Minimum suspended ceiling height shall be 9 feet [2.7 m] above finish floor. The MCR shall be a minimum of 10 feet x 12 feet [3 m x 3.7 m] or as large as the sum of the planned systems, two spare systems, and access requirements.

Sufficient backboards shall be provided to limit interconnection wire and cable length from backboard to the room wire management system and planned cabinets. Backboards shall be located so as to allow unobstructed access to entrance and exit cable ducts, internal room wire management system, cabinets, and doors.

*(4) Envelope*
Room shall be enclosed with fire-rated construction in accordance with NFPA 75.

*(5) Tip Wire/Cable Interface Area*
Within the Main Computer Room, there will be an area designated that houses and locates all TIP conduit and cable pathway terminations coming into the room from Telecommunication Rooms, HE room, MCR, and either the single or duplicated Entrance Rooms. This area will house the distribution cable management system.

*(6) Walls*
Walls shall be reinforced on jamb side of Ballistic Resistant doors to BR Level 3, UL 752 to within 48 in [1200 mm] of each jamb from structural floor to MCR ceiling height.

*(7) Floor*
Provide flooring as determined by the OI&T Design Guide on the VA TIL.

**Doors**: The MCR shall have a minimum of two outward-swinging doors, 48 in [1200 mm] wide, on each end of the MCR. One door shall exit directly into a corridor.

Doors shall be Ballistic Resistant BR, Level 3 in accordance with U.L. Standard 752.

Panic exit hardware, closers, and facility SMTS functional control and operation shall be provided on each door.

**Ceiling**: Finished ceiling height shall be minimum 9 feet [2.7 m] clear above the finished floor. The suspended acoustical shall be clean-room mylar or ceramic type with a minimum noise reduction coefficient (NRC) of .55. Ceilings shall have a flame spread of less than 25 and a smoke development ratio of 50 or less, according to American Society of Testing and Materials (ASTM) Standard E-84.

*(8) Heating, Ventilation, and Air Conditioning*
Design Conditions: 64 ˚F [18 ˚C] to 75 ˚F [24 ˚C] dry bulb temperature, 30 to 55% relative humidity.

Two identical and independent dedicated MCR air conditioning units are required. Cooling requirements shall be based on system design with 30% reserve and in an N+1 configuration for reliability. The units shall be positioned at opposite ends of the MCR, diagonally opposite each other. The units shall have local and PCR SMTS monitoring and alarm annunciators. Air filters shall be MCR grade high efficiency. Both units shall operate at all times and share the load, unless one fails or is undergoing maintenance. The units shall be independently supported on OEM supplied stands of the same height as the raised floor.

The air conditioning units shall include refrigerant systems and glycol or DX cooling. Cooling capacity of each unit shall be able to remove all the sensible heat from the MCR. This heat is attributable only to the UPS loads and the heat loss due to the units and the UPS itself (typically 7 – 10%). Heat load from the air conditioning units shall be taken into account. Each unit capacity shall be allowed to remove 110% of the UPS load with both units operating.

A fresh air supply from the building's HVAC system shall be provided to the MCR with a fire damper where the ductwork passes through the MCR firewalls. This shall keep the room at a positive pressure and provide cooling for lighting and personnel load of the room. The minimum building air supply shall be 200 to 300 cubic feet per minute (CFM) [94 to 142 L/s].

*(9) Power*
Refer to Paragraph 6.8.2C General Environmental, Power and Space Requirements.

The room shall be equipped with dedicated electrical panel(s) capable of providing 208/120V, 3-phase, 4-wire and designed for the equipment load. Each panel shall contain 20% spare electrical capacity and spare circuit breaker space.

Provide a minimum of one quadraplex receptacle (two duplex) for each 8 linear foot [2.4 linear meter] of wall space.

Provide physical space and electrical capacity for an uninterruptible power supply (UPS) system that will provide power for four hours to Main Computer Room equipment. The UPS will be provided by the VA.

UPS equipment physical space and electrical capacity shall be sized based on the equipment requirements, plus future anticipated growth. The initial design load shall not be less than 30% and not more than 70% of the UPS capacity.

Each workstation within the Main Computer Room shall be provided with one UPS-backed duplex receptacle and two duplex normal power receptacles for desk lamps, fans, pencil sharpeners, etc.

Emergency Power Off (EPO) push buttons shall be installed according to NFPA 75 and 101.

*(10) Lighting*
Provide battery-powered lighting in accordance with NFPA 75 and 101.

*(11) Grounding*
Refer to Paragraph 6.8.2C General Environmental, Power and Space Requirements.

*(12) Security*
Each door shall have a color security surveillance camera that connects to a color monitor in the PCR.

A Motion Intrusion Detection (MID) system shall be installed within the TER. The system shall be controlled by the PCR SMTS.

A duress alarm button shall be placed every 10 linear feet [3 linear meters] within the TER, annunciating to the PCR, SMTS, ECR, and the Telephone Console Room, and one additional continuously-manned location.

*(13) Wire Management*
Refer to Paragraph 6.8.1.
Provide sleeves and conduit for initial and anticipated TIP access to the MCR.

**L. Police, Engineering and Other Designated Control Room(s)**

These rooms shall comply with Paragraph 6.8.2B(2) Telephone Console Room (TCR) (Optional).

Provide these rooms with adequate designated TIP connectivity between the TEP and MCR.

**6.8.3 VETERANS GUEST ACCESS INITIATIVE:**

**A. INTERNET HOTSPOTS**
Internet Hot-Spots to be provided to patients and family members of patients in the waiting areas and the Canteen areas.

The objectives of this proposal are to provide our patients and their families' internet access via a series of access points in canteen area, seating areas outside the building and all waiting area inside except Radiology's waiting area.

Provide an infrastructure that must be separate and distinct from the infrastructure being provided for the VA staff used to provide official business functions, applications and data necessary for the operation of the hospital and its clinics. It also must not interfere with wireless infrastructure to be installed which is used for both business functions and medical devices.

Provide a network filtering service and a network filtering device that prevents users from visiting inappropriate sites. The device must allow additional blocking as determined by VA policies and procedures. A filter list will be provided on a regular basis to the leaser as the need arises since websites may change addresses or new sites may appear from time to time.

Provide a toll-free telephone support function for users to report problems with the service and resolve those problems in a timely manner. Services must be available during all working hours of the HCC. Services will be paid by the leaser as identified under utilities.

**B. PERFORMANCE REQUIREMENTS:**

Survey facilities for determining locations for wireless access points.
Determine communication closet requirements (This is Leaser space and not to be combined with IT closet space).
Install equipment and test for functionality, system needs to be functional on day building is turned over.
Leaser will be responsible for installation and testing of all components, fiber and cabling for the Hot Spot infrastructure, in accordance with normal industry standards and practices.
Test system functionality to ensure that system provides access at all installed points and provides complete coverage of desired areas.
Provide instructions for use that can be given to patients and family members.
Maintain the system.
Provide a 24 hour/toll free telephone number that provides users a capability to report problems and have problems resolved quickly and efficiently.
Provide a maintenance team that has the capability to troubleshoot and repair system outages within 24 hours.
System Performance: Network devices should be compatible with industry standard wireless protocols (i.e. 802.11b, 802.11g, and 802.11n).
In each of the locations the contractor will provide commercial minimum 802.11 b/g wireless Internet connectivity to the areas and wired Internet network connection in areas specified.
Internet access will be a minimum of three (3) synchronous Mbps at each location.

Leaser is to provide all required labor and material and will be responsible for installation and maintenance of router, switches, wireless access points, and Category 6 wiring with connections to provide these capabilities. Installation will be coordinated with Department of Veteran Affairs OI&T staff to ensure an air-gapped connectivity separate from the medical center's network. All material used shall be UL approved and code compliant (NEC) as required for application. Installation shall be in accordance with NFPA and VA requirements.

# SECTION 7 INTERIOR CONSTRUCTION, FINISHES, AND INTERIOR DESIGN

## 7.1 GENERAL

### 7.1.1 SPACE PLANNING AND FUNCTIONAL LAYOUT

The conceptual floor plan (PART IX) provided in this solicitation shall be used as the basis for the planning and functional layout of the facility. The final layout, design development documents, and construction documents shall be in accordance with Paragraph "Design and Construction Documents After Award" in this solicitation. The completed building shall accommodate VA's space program and interior functional requirements. Offerors are advised that the conceptual plans have been developed using VA Space Planning Criteria and information from VA Outpatient Clinic (SOC/CBOC) Design Guide which may be found at http://www.cfm.va.gov/til/dGuide.asp#PC.

Lessor shall provide accurate space layout drawings (floor plans) with offer and during design and construction document phases. Plans shall include sufficient information for the Government to compute the net area of each function (room), and to compute Building Gross Area and Net Usable Area in order to determine compliance with solicitation requirements.

### 7.1.2 ROOM NUMBERING

The Lessor shall work closely with VA to establish the room numbering system to be used for the facility.

### 7.1.3 CIRCULATION SYSTEMS

The conceptual floor plan in this SFO defines the basic elements of the interior circulation systems and their relation to the functional plan within VA occupied space. The Lessor is responsible for the final design of horizontal and vertical circulation systems including building support space and common areas within the building during Design Development as defined in SECTION 3 MISCELLANEOUS above. Lessor shall integrate the design of circulation systems with building entrances, functional elements, wayfinding systems (refer to Paragraph 7.5.2 INTERIOR DESIGN CRITERIA) and signage (refer to Paragraph 7.11 INTERIOR SIGNAGE).

Circulation system components include entrances, lobbies, corridors, and vertical circulation (stairs and elevators).

Refer to Paragraph 3.14 for calculations involving circulation systems in the determination of Rentable and Net Usable Area.

### 7.1.4 FLOOR-TO-FLOOR HEIGHTS

Floor-to-floor heights shall be sufficient to maintain minimum ceiling heights required in this solicitation (see Schedule E) and to install mechanical and electrical systems above the ceiling. Lessor is responsible for coordinating ceiling heights, structural members, space to install mechanical and electrical systems, and floor-to-floor heights (see Paragraph "Submittal

Requirements for DD and CD Reviews" for drawings required during design development and construction document phases).

### 7.1.5 MATERIALS AND PRODUCTS FOR INTERIOR CONSTRUCTION AND FINISHES

**A. General**

The Lessor shall use materials and products for interior construction that comply with the minimum requirements specified in this solicitation. Materials not definitively specified in this solicitation shall be manufacturer's or supplier's regular production, first quality, and suitable for commercial use.

**B. Recycled Contents Products**

The Lessor shall comply to the extent feasible with the Resource Conservation and Recovery Act (RCRA), Section 6002, 1976. The Lessor shall use recycled content products as indicated in this SFO and as designated by the U.S. Environmental Protection Agency (EPA) in the Comprehensive Procurement Guidelines (CPG), 40 CFR Part 247, and its accompanying Recovered Materials Advisory Notice (RMAN). The CPG lists the designated recycled content products. EPA also provides recommended levels of recycled content for these products. The list of designated products, EPA's recommendations, and lists of manufacturers and suppliers of the products can be found at the www.epa.gov/cpg/products.htm website.

The Offeror, if unable to comply with both the CPG and RMAN lists, shall submit a request for waiver for each material to the Contracting Officer with the pricing submittal. The request for waiver shall be based on the following criteria:

- The cost of the recommended product is unreasonable.
- Inadequate competition exists.
- Items are not available within a reasonable period of time.
- Items do not meet the SFO's performance standards.

**C. Environmentally Preferable Building Products and Materials**

The Lessor shall use environmentally preferable products and materials. The Lessor shall consider the life-cycle analysis of the product in addition to the initial cost.

Refer to EPA's environmentally preferable purchasing website, www.epa.gov/epp and USDA BioPreferred products website, www.biobased.oce.usda.gov/fb4p/. In general, environmentally preferable products and materials do one or more of the following:

- Contain recycled material, are biobased, are rapidly renewable (10-year or shorter growth cycle), or have other positive environmental attributes.
- Minimize the consumption of resources, energy, and water.
- Prevent the creation of solid waste, air pollution, or water pollution.
- Promote the use of nontoxic substances and avoid toxic materials or processes.

The Lessor shall give preference to materials and products that are extracted and manufactured regionally.

### 7.1.6 MENTAL HEALTH

Design and construct areas to be used by outpatient mental health functions to incorporate the following features.

- Minimize dead ends or blind spots in corridors.
- Maximize visibility from staff stations.
- Place doors in offices where staff will consult with patients so that either patient or staff can exit the room without having to pass by the other to get out. Based on layout, this tends to put the door more in the center of the room.

Patient toilet doors that are in-swinging shall be equipped with hardware that allows them to open out in an emergency.

**Glazing**: Use laminated (preferred) or tempered glazing materials for all interior and exterior glazed openings in mental health areas.

### 7.1.7 SEISMIC DESIGN

Nonstructural elements of buildings shall be designed and constructed to resist damage caused by earthquakes as required by local code and VA *Seismic Design Requirements* H-18-8.

## 7.2 PARTITIONS

Non-bearing interior partitions shall be capable of supporting equipment and furnishings specified for the clinic. Refer to schedules for types and quantities of wall mounted equipment and furnishings to coordinate wall backing. For interior partition framing use minimum 3-5/8 inch, 20-gauge, galvanized metal studs ASTM C645 with fasteners and accessories complying with ASTM C 754. Stud spacing shall be 16-inches on center maximum. For special requirements, use other sizes or systems as appropriate. Where pipe spaces are required, size partition framing thickness to conceal piping. Installation of metal studs shall comply with ASTM C754. Provide support required for equipment, furnishings, and work of other trades.

Use 5/8-inch thick gypsum wallboard ASTM C1396, except for special conditions. Use fire resistant Type X or Type C wallboard ASTM C1396 in fire resistant rated assemblies. Use moisture resistant wallboard ASTM C620 at wet locations. Provide accessories, fasteners, and finishing materials in accordance with ASTM C1047, C1002, and C840. Install and finish gypsum wallboard in accordance with ASTM C840. Use Level 5 finish for all occupied areas with paint finish. Provide Level 4 finish for surfaces to receive Type I vinyl wall coverings or ceramic tile. Provide Level 3 finish for surfaces to receive Type II vinyl wall coverings. Provide Level 2 finish in rooms or spaces for which no decorative finish is specified in Schedule E.

Provide fire and/or smoke rated partitions that comply with published UL, FM Global, or IBC designs.

Extend all layers of gypsum board, on both sides of studs, from floor to underside of structure above on the following partitions:

- Fire rated partitions
- Security partitions (see Paragraph 4.2.4G)
- Smoke barriers
- Sound rated partitions
- Corridor partitions as required by building code

In other locations, extend gypsum board from floor to heights as follows:

- Not less than 4 inches [101.6 mm] above suspended acoustical ceilings
- At ceiling of suspended gypsum board

## 7.3 INTERIOR DOORS

### 7.3.1 GENERAL

Schedule E, "Room Finishes, Door and Hardware Schedule" indicates sizes and types of doors required. Doors shall be of flush design.

Fire rated door and frame assemblies shall comply with NFPA 80.

Acoustical door and frame assemblies shall provide STC rating specified. Submit certified test reports per ASTM E90.

All corridor-to-corridor doors shall have 100 sq. in. glass vision panels and shall swing in opposite directions from each other. Doors in fire partitions and smoke barriers shall have fire-rated glazing vision panels and be held open with electromagnetic holders, except doors which should remain closed for functional reasons.

### 7.3.2 WOOD DOORS

Interior wood doors shall be solid core, 1-3/4 inch thick, with WDMA grade A with custom selection of species b VA of face veneers for transparent finish.

Wood doors shall comply with Window and Door Manufacturer’s Association (WDMA) I.S.1-A, Heavy Duty with Type II adhesives.

### 7.3.3 HOLLOW METAL DOORS

Hollow metal doors shall be 1-3/4 inch thick and comply with Standard Duty Doors per Steel Door Institute (SDI) A250.8, Level 1, Model 2; except:

- Stairwell doors shall comply with Heavy Duty Doors: SDI A250.8, Level 2, Model 2.
- Security doors (Type 36) shall comply with Extra Heavy Duty Doors SDI A250.8, Level 3, Model 2.
- Detention Doors (Type 22) shall comply with Extra Heavy Duty Doors SDI A250.8, Level 3, Model 2 with core type 'd' or 'f.'

### 7.3.4 HOLLOW METAL DOOR FRAMES

**A. Frames for Hollow Metal Doors**

Hollow metal door frames shall comply with Steel Door Institute (SDI) 250 for type and grade of doors required (Standard, Heavy Duty, or Extra Heavy Duty) and as follows. Frames shall be welded construction; knockdown frames are not allowed. Frames for doors specified to have automatic operators shall be minimum 16-gauge.

**B. Frames for Wood Doors**

Hollow metal door frames shall be shop fabricated, pre-finished, site assembled steel frames. Provide fire rated assemblies where scheduled. Fabricate frames from cold rolled steel ASTM A1008, minimum 18-gauge; casings and trim minimum 20-gauge. Prepare frames for door hardware. Provide reinforcements for hardware specified.

Pre-finished frames shall not be used for sound rated doors. Provide frames complying with SDI 114.

Hollow metal door frames shall comply with Steel Door Institute (SDI) 250 for Standard Duty, minimum 18 gauge.

Frames for wood doors specified to have automatic operators shall comply with Steel Door Institute (SDI) 250; shall be welded construction; knockdown frames are not allowed; and shall be minimum 16 gauge.

### 7.3.5 VAULT DOOR (INTENTIONALLY DELETED)

### 7.3.6 AUTOMATIC DOORS

Provide operators which will move the doors from the fully closed to fully opened position in five seconds maximum time interval, when speed adjustment is at maximum setting. Provide key operated power disconnect wall switch for each door installation. Automatic door operators and hardware shall be selected and sized appropriately for the door and frame, and for the type and frequency of traffic anticipated for the opening. Provide controls to open automatic doors from both sides. Equip controls with safety devices for pedestrian protection. Provide door operator controls and equipment that are easily accessible for maintenance.

Swing door operators shall be of institutional type, door panel size 2'-0" to 5'-0" width, weight not to exceed 600 pounds, electric operated for overhead mounting. Furnish metal mounting supports, brackets, and other accessories necessary for the installation of operators at the head of the door frames. The motor on automatic door operator shall be provided with an interlock so that the motor will not operate when doors are locked. Operators shall have checking mechanism providing cushioning action at last part of door travel, in both opening

and closing cycle. Operators shall be capable of recycling doors instantaneously to fully open position from any point in the closing cycle when control switch is activated. Operators shall, when automatic power is interrupted or shut-off, permit doors to easily open manually without damage to automatic operator system.

Sliding doors shall have electric operators. Assembly shall be single or bi-parting sliding doors as shown on conceptual drawings. Doors shall be opened by electric motor pulling door from closed to open position and shall stop door by electrically reducing voltage and stalling door against mechanical stop. System shall permit manual control of door in event of power failure. Opening and closing speeds shall be adjustable. In compliance with NFPA-101, all door panels shall allow "breakout" to the fully open position to provide instant egress at any point in the door's movement.

Single use Public Restrooms indicated on the drawings shall have automatic door operators. Provide ON/OFF hold open switch. . Provide a separate F19 privacy lock with dead bolt.

For interior doors other than restrooms, automatic door operators shall be activated by two (2) each hard wired push plates or card readers with one located on each side of the door(s). Provide ON/OFF hold open switch. If doors are located in a rated wall, provide components and accessories to the automatic door operator as required to provide positive latching as required by the NFPA.

Automatic doors are required at locations indicated in the conceptual drawings and door schedule.

- Primary or Main Entrance Doors
- Vestibule Doors at Main Entry
- Rear Doors at Ambulance Transport Area

### 7.3.7 FINISH HARDWARE

Comply with requirements specified in "Room Finishes, Door and Hardware Schedule" in Schedule E for door hardware, hardware sets, and installation methods.

### 7.3.8 DOOR IDENTIFICATION

Special door identification for handicapped accessibility and hazard warning signs shall be installed at all necessary interior room doors. The forms and locations of door identification must comply with Paragraph 7.11 INTERIOR SIGNAGE. Doors leading into hazardous areas that might prove dangerous to a blind person shall be made quickly identifiable to the touch by knurling, roughening, or applying an abrasive coating to the surface of the knob, door handle, pull, or other hardware. Tactile warning indicators shall not be provided for emergency exit doors.

## 7.4 NOISE TRANSMISSION CONTROL

### 7.4.1 GENERAL

Provide sound-resistant construction at the rooms and areas listed in paragraphs below. Submit details of sound resistant construction with Second Design Development Submittal. Include test reports for designs or systems to be used. Construct partition, ceiling, and floor systems to provide necessary performance. Special attention shall be given to prevent possible flanking paths for noise transmission. Verification of noise transmission control shall be included in building commissioning.

Sound damping in meditation rooms, quiet rooms, and similar areas shall be provided by finish materials shown for these areas in Schedule E, "Room Finishes, Door, & Hardware Schedule."

Where an area generating unusual noise or vibration is located adjacent to occupied spaces, the Lessor's A/E shall obtain the services of a professional acoustical consultant to design the sound suppression measures required to produce a comfortable working environment in the adjacent spaces.

### 7.4.2 SOUND TRANSMISSION CLASS (STC) 45

The sound resistant enclosures (partitions, doors, duct system) of the spaces listed below shall be designed to suppress generated noise and provide a satisfactory degree of acoustical isolation for adjacent occupied spaces. A minimum Sound Transmission Class (STC) rating of 45 shall be achieved.

A/C and other mechanical equipment rooms
Emergency generator rooms
Multipurpose Rooms
Mental Health Group Therapy rooms

### 7.4.3 SOUND TRANSMISSION CLASS (STC) 40

The sound resistant enclosures of the following spaces shall be designed to assure speech privacy and achieve an STC rating of 40.

Conference rooms
Consultation offices
Examination and treatment rooms
Individual offices in Mental Health and Behavioral Sciences Service

As required by program and as indicated in conceptual plans and Schedule E

## 7.5 INTERIOR FINISHES

### 7.5.1 GENERAL

Interior finishes are prescribed in "Room Finishes, Door and Hardware Schedule" in Schedule E of this Solicitation. VA must review and approve any deviation from this document prior to start of final construction documents.

The Interior Design concept and materials, finishes, colors, patterns and textures must be approved by the Contracting Officer. Submit sample boards for review and approval by Contracting Officer with 75% construction documents (Paragraph 3.20.4).

Finish materials, including vinyl wall covering, vinyl composition tile flooring, sheet vinyl, carpet, and ceramic wall and floor tile finish, as specified herein, shall be included in the rental rate. An estimate of base quantities of finish material that should be included in the proposed rental rate is indicated on Schedule C in this solicitation. Adjustments will be made at the end of the construction based on actual measurement. Payment will be made per the pre-negotiated unit cost for these items.

### 7.5.2 INTERIOR DESIGN CRITERIA

**A. Goal**
To provide a supportive interior environment that is conducive to healing both the patient's mind and body, is respectful of the public monies, promotes staff performance, and expresses progressive high quality design.

**B. Concept**
The design is to pivot from the facility's mission and its patient profile. This includes a working knowledge of the profile and characteristics of the veteran as a patient population and the distinct profile of the users of said facility and said project. VA patients are often long-term, high repeaters with multi-medical problems. Each user group will reveal the degree of need for the design to address aging, physical and mental disabilities, abusiveness, loss of function and perceptual ability.

**C. Function**
Functional requirements dictate maintainable colors, textures, patterns, material selections, combination of materials, and installation techniques. Materials must be chosen for longevity and good appearance retention.

**D. Signage and Wayfinding**
A "wayfinding" process needs to be designed into every project. Patients, visitors, and staff need to know where they are, what their destination is, how to get there, and how to return to their origination point. Identification, personalization of occupied spaces, and orientation are all to be addressed in the design. Wayfinding is to be thought of broadly as building elements, color, texture, and pattern cues, as well as a coordinated set-up for separate contacted signage and artwork.

**E. Guidelines**
Design attention shall be given to all spaces. Areas which could initiate the design may be the lobby or administrative suite, but extensions of the same quality and variety are required for

the corridors, staff areas, and patient areas. The design must offer a distinctive and clear lead for the planning and selecting of interior furnishings. Designs that narrow choices of procurement furnishings are inappropriate. A working understanding of the limits of government sources is to be considered. This consideration will produce a good environment for the furnishings.

Designs that use "lifetime of the building" materials in colors, patterns, and designs that transcend time are endorsed. Trendy colors and patterns are to be restricted to cycle replacement materials, such as paint and wall coverings.

## 7.6 CEILINGS

### 7.6.1 ACOUSTICAL CEILINGS

Ceiling suspension system shall be intermediate-duty. Provide aluminum suspension system in kitchen.

Acoustical units shall be mineral fiber units that provide a noise reduction coefficient (NRC) of at least 0.55 and a ceiling attenuation class (CAC) rating of at least 33. Provide units with manufacturer's standard white painted finish, except provide membrane faced (mylar) units in kitchen and other locations scheduled for non-absorbent, scrubbable finish. Ceiling units shall have a flame-spread of 25 or less and a smoke development rating of 50 or less (ASTM E-84).

### 7.6.2 CUBICLE CURTAIN TRACKS

Provide cubicle curtain tracks with carriers and hooks in exam rooms and other locations indicated in Schedule B for privacy.

Provide surface-mounted tracks of extruded aluminum, ASTM B221, alloy 6063, temper T5 or T6, channel shaped, with smooth inside raceway for curtain carriers. End stop connectors, ceiling flanges and other accessories shall be fabricated from the same material with the same finish as the tracks or from nylon.

Curtain carriers shall be nylon or delrin, with either nylon or delrin wheels on metal, delrin, or nylon axles. Equip each carrier with either stainless steel, chromium-plated brass or steel hooks with swivel, or nickel chromium-plated brass or stainless steel bead chain and hook assembly. Alternatively, delrin carriers may have molded-on delrin hooks. Hook for bead chain may be the same material and finish as the bead chain or may be chromium-plated steel. Provide 2.2 carriers for every foot (or fraction thereof) of each section of each track length, plus one additional carrier.

At end of each section of track, make provision for insertion and removal of carriers. Design to prevent accidental removal of carrier. Any operating mechanism shall be removable with common tools.

VA will supply and maintain fabric cubicle curtains.

## 7.7 FLOORING

An estimate of base quantities of each type of flooring that should be included in the proposed rental rate is indicated in Schedule C. Adjustments will be made at the end of the construction based on actual measurement and payment will be made per the pre-negotiated unit cost for these items.

Flooring material specifications and installation methods shall conform to the requirements of this SFO and referenced national standards. Under floor concrete must be smooth and level. Patching and leveling compounds containing gypsum are prohibited. When floor coverings are newly installed or changed, samples must be approved in advance by the Contracting Officer.

Unless other material is scheduled for a room or area, perimeter base shall be rubber or vinyl complying with ASTM F1861. Base shall be 1/8-inch thick, 4 inches high with molded top. Style B (cove) shall be used throughout.

### 7.7.1 MEMBRANE WATERPROOFING AT INTERIOR FLOOR DRAINS

Provide membrane waterproofing under floor finishes surrounding floor drains in areas subject to wet conditions to prevent water and moisture from penetrating the underlying floor slabs and damaging the finishes and contents of the rooms or spaces below. Attach the membrane waterproofing to the floor drain by a clamp, extend outward from the floor drain under the entire area of the surrounding floor finish surface or concrete topping which slopes toward the floor drain or which is subject to surface water, and carry up abutting vertical surfaces at least 3 in [76.2 mm].

Do not provide membrane waterproofing if either:

- The floor slab is placed on grade.
- The floor finish itself is latex mastic with waterproofing membrane.

### 7.7.2 FLOOR SLAB DEPRESSIONS

Floor slab depressions are required in specific areas or rooms for the purpose of providing slopes in floors to:

- Direct water into drains.
- Provide for special floor finishes that require a setting bed.

It is the responsibility of the Lessor to ensure that depressions are provided to suit the actual finishes and equipment provided, and to satisfy the actual conditions required by the design.

Liquid applied water proofing shall be latex based water proofing membrane, ANSI A118.10; ready to use liquid latex compatible with Cement Backer Boards and tile setting mortars. Reinforcing fabric shall be alkali-resistant glass fiber. Final Performance shall be as follows in conformance with ANSI A118.10:

| | |
|---|---|
| Waterproofing ability (ASTM D 4068) | Conforms (no water penetration) |
| Seam strength and breaking strength (ASTM D751) | Conforms (no water penetration) |

| | |
|---|---|
| Seam strength and breaking strength (ASTM D751) | Conforms |
| Dimensional stability (ASTM D1204) | Conforms |
| Shear strength to ceramic tile (ASTM C482) | Conforms |
| Fungus and microorganism resistance (ASTM G21-96) | Conforms |

### 7.7.3 FLOORING, CERAMIC TILE

Unglazed ceramic mosaic tile shall be used in all toilets and other areas specified in Schedule E. Provide slab depressions, setting beds and waterproof membrane per Paragraph 7.7.2.

Comply with ANSI A137.1, Standard Grade, and as follows. Coefficient of friction, when tested in accordance with ASTM C1028, shall provide the following level of performance:

- Not less than 0.7 (wet condition) for bathing areas.
- Not less than 0.8 on ramps for wet and dry conditions.
- Not less than 0.6 for wet and dry conditions for other areas.

### 7.7.4 FLOORING, VINYL TILE AND SHEET VINYL

**A. Vinyl Composition Tile**
Vinyl composition floor tile (VCT) ASTM F1066, Composition 1, Class 2 (through pattern), 1/8-inch thick, 12 inches square, shall be provided at locations in Schedule E.

**B. Resilient Sheet Flooring**
Resilient Sheet Flooring (RSF) shall be provided at locations listed in Schedule E. Rooms to receive RSF shall have 6-inch integral cove base (flash coving). RSF shall conform to ASTM F1913 and material requirements specified in ASTM F1303 for sheet vinyl flooring, Type II, Grade 1, backing classification not applicable. Foam-backed sheet flooring is not acceptable. Use smooth face, minimum thickness nominal 0.08 inch. Provide maximum size sheet material produced by manufacturer to provide minimum number of joints; minimum width acceptable 48 inches. Each color and pattern of sheet flooring shall be of same production run.

**C. Welded Seam Sheet Flooring**
Welded Seam Sheet Flooring (WSF) shall be provided at locations listed in Schedule E. Rooms to receive WSF shall have 6-inch integral cove base (flash coving). WSF shall conform to ASTM F1303 for sheet vinyl flooring, Type II, Grade 1, except for backing requirements. Flooring shall be homogeneous through full thickness; backed sheet flooring is not acceptable. Minimum nominal thickness is 0.08 in [2 mm]; minimum width, 6 feet [18 m]. Each color and pattern of sheet flooring shall be of same production run. Welding rod shall be product of floor covering manufacturer; color of welding rod shall match field color of sheet vinyl.

### 7.7.5 FLOORING, RUBBER

Rubber tile shall conform to ASTM F1344, Class 1, homogenous rubber tile, through mottled, 24 inches square, thick; color and pattern uniformly distributed throughout tile. Molded pattern wearing surface base thickness shall be 1/8-inch thick. Where rubber tile is used, provide tiles with a minimum of 90% post consumer rubber.

Resilient treads shall conform to Fed. Spec. RR-T-650, Composition A, Type 2,-3/16 inch thick on wear surface tapering to 1/8-inch thick at riser end. Nosing shape shall to conform to sub-tread nosing shape.

Sheet rubber flooring shall conform to ASTM F1344, F1859 or F1860, 36 inches wide, 1/8-inch thick, patterned face. Provide rubber flooring made with a minimum of 90% consumer rubber where possible.

### 7.7.6 FLOORING, CARPET

**A. Carpet**

New broadloom carpet shall be used as floor covering areas indicated in Schedule E. The successful Offeror/Lessor shall submit carpet samples and specifications.

Provide new carpet tile as floor covering in those areas indicated in Schedule E of this Solicitation

*(1) Physical Characteristics*

Carpet shall be free of visual blemishes, streaks, poorly-dyed areas, fuzzing of pile yarn, spots or stains, and other physical and manufacturing defects.

Carpet shall be manufacturer's standard construction commercial carpet:

Broadloom; maximum width to minimum use
Modular Tile: 24 in [600 mm] square tile.

Provide static control to permanently control static build up to less than 2.0 kV when tested at 20% relative humidity and 70 ˚F [21 ˚C] in accordance with AATCC 134.

**Pile Height**: Maximum 0.10 in [3.25 mm].

**Pile Fiber**: Nylon with recycled content 25% minimum branded (federally registered trademark).

**Pile Type**: Level Loop.

**Backing materials**: Manufacturer's unitary backing designed for glue-down installation using recovered materials.

**Appearance Retention Rating (ARR**): Carpet shall be tested and have the minimum 3.5-4.0 Severe ARR when tested in accordance with either the ASTM D 5252 (Hexapod) or ASTM D 5417 (Vettermann) test methods using the number of cycles for short and long term tests as specified.

**Tuft Bind**: Minimum force of 40 N (10 lb) required to pull a tuft or loop free from carpet backing. Test per ASTM D1335.

**Colorfastness to Crocking**: Dry and wet crocking and water bleed, comply with AATCC 165 Color Transference Chart for colors, minimum class 4 rating.

**Colorfastness to Ozone**: Comply with AATCC 129, minimum rating of 4 on the AATCC color transfer chart.

**Delamination Strength**: Minimum of 440 N/m (2.5 lb/inch) between secondary backing.

**Flammability and Critical Radiant Flux Requirements**: Test Carpet in accordance with ASTM E 648: Class I: Not less than 0.45 watts per square centimeter.
Corridors, lobbies, entrances, common areas or multipurpose rooms, open offices, waiting areas and dining areas: Minimum APYD 6000.
Other areas: Minimum APYD 4000.

**VOC Limits**: Use carpet that complies with the testing and product requirements of the Carpet and Rug Institute's Green Label Program. Use carpet adhesives that comply with the product requirements of the South Coast Air Quality Management District (SCAQMD), rule #1168.

**B. Installation**
Carpet shall be a direct glue down installation following the manufacturer's instructions. All patterns and/or stripes shall match. A seam layout plan shall be provided for broadloom to assure that seams are located out of major traffic patterns.

**C. Replacement**
Carpet must be replaced at anytime during the lease when it cannot be satisfactorily cleaned, stains removed or when excessive wearing or tearing occurs or unsightly seaming is noticed. The determination will be made by the Contracting Officer. **At a minimum, the carpet will be replaced every eight (8) years.** All replacement work will be done after hours at the Lessor's expense, including moving and replacing furniture.

**D. Samples for Color Selection**
When carpet must be newly installed or be changed, the Lessor will provide the Government a minimum of four samples of carpeting which vary in color. The color selected shall have the ability to disguise soil in entrance areas and wax-track off in areas adjacent to vinyl composition. A small pattern, tweed, or heather effect is most desirable. The sample and color must be approved by the Contracting Officer prior to installation. No substitution will be made by the Lessor after sample selection.

### 7.7.7 FLOORING, LATEX MASTIC (INTENTIONALLY DELETED)

### 7.7.8 COMPUTER ROOM FLOORING (INTENTIONALLY DELETED)

## 7.8 WALL COVERINGS

Walls shall be covered in accordance with "Room Finish Schedule" in Schedule E, or other requirements of this Solicitation. An estimate of base quantities of each type of wall covering that should be included in the proposed rental rate is indicated in Schedule C. Adjustments will be made at the end of construction based on actual measurement and payment will be made per the pre-negotiated unit cost for these items. Colors and patterns shall be as selected or approved by the Contracting Officer.

### 7.8.1 CERAMIC WALL TILE

Ceramic wall tile shall be glazed tile. Ceramic tile at showers and wet locations shall be installed over cement backer board or Portland cement mortar on metal lath.

Comply with ANSI A137.1, Standard Grade; cushion edges; matte glazing. Trim shapes shall conform to applicable requirements of adjoining floor and wall tile. Provide cove and bullnose shapes where shown, and required to complete tile work.

Cementitious backer units shall comply with ANSI A118.9.

**A. Vinyl Wallcovering (W)**
Vinyl wall covering shall **c**omply with CFFA-2575. Fungi-resistance rating shall be 0 in accordance with ASTM G21. Provide factory-applied clear delustered polyvinyl-fluoride (PVF) coating minimum ½ mil [0.0125 mm] thickness. Do not include PVF coating weight in minimum total weight. Fire hazard classification with PVF coating shall be Class A.
Type II (Medium Duty)

Adhesive shall be vermin and mildew resistant.

**B. Wallpaper Borders**
Wallpaper borders shall be installed in spaces indicated in Schedule E. Borders shall be vinyl coated, 10 inches [254 mm] in width.

**C. Protective Wallcovering (WP)**

Wainscot of rigid PVC protective wall covering (WP) shall be installed on walls in corridors and other locations in accordance with Schedule E.

Provide rigid, embossed, impact-resistant protective wallcovering of PVC plastic sheets or roll stock. Material shall have following minimum properties: Thickness: 0.060 inch; Roll Width: 48 inches [1200 mm]; or Sheet Size: 48" x 96" [1200 mm x 2400 mm]; Flame/Smoke Ratings: ASTM E 84, Class A; Flame Spread 0-25; Smoke Developed 0-450. Provide accessories: color matched rigid vinyl moldings and trim; acrylic latex primer/sealer, and mildew-resistant adhesives and caulk. Materials shall be cadmium and mercury free.

### 7.8.2 MAINTENANCE AND REPLACEMENT

All wall covering is to be maintained in "like new" condition for the life of the lease. Wall covering must be replaced or repaired at the Lessor's expense, including moving and replacing furnishings (except where wall covering has been damaged due to the negligence of VA), anytime during the occupancy by VA if it is torn, peeling, or permanently stained. Ceramic tile must be replaced or repaired if it is loose, chipped, broken, or permanently discolored. All repair and replacement work is to be done after working hours.

## 7.9 PAINTING

### A. General

Painting shall include field application of paints, stains, epoxies, and other coatings for surfaces and materials not supplied with factory finish or otherwise pre-finished. Painting includes shellacs, stains, varnishes, coatings specified, striping or markers, and identity markings. Wall surfaces shall be painted throughout, except where wall coverings per Paragraph 7.8 above are called for in "Room Finish Schedule" in Schedule E.

Immediately prior to VA occupancy, all surfaces designated by VA for painting must be newly painted in colors acceptable to VA. At a minimum, all painted surfaces including public areas must be repainted after working hours at the Lessor's expense every three (3) years. This includes moving and replacement of furniture.

### B. Submittals

Before work is started, or sample panels are prepared, submit manufacturer's literature indicating brand label, product name, and product code as of the date of contract award. Each coating system is to be from a single manufacturer. All coats on a particular substrate must be from a single manufacturer.

**Sample Panels:** After painters' materials have been approved and before work is started, submit sample panels showing each type of finish and color specified. Panels to show color shall be composition board, 4 inch x 10 inch x 1/8 inch [101.6 mm x 254 mm x 3.175 mm]; Panels to show transparent finishes shall be wood of same species and grain pattern as wood approved for use, 4 inch x 10 inch face x 1/4 inch [101.6 mm x 254 mm x 6.35 mm] thick minimum.

### C. Products

Provide the best quality grade of the various types of painting materials and coatings as regularly manufactured by acceptable paint manufacturer. Materials not displaying the manufacturer’s identification as a standard, best-grade product will not be acceptable. Paint products of the following manufacturers are acceptable:

- Dunn-Edwards
- Frazee
- ICI
- Sherwin-Williams

Use primers with pigment and vehicle recommended by top coat manufacturer as compatible with substrate and finish coats specified. Use only thinners approved by the paint manufacture and use only within recommended limits.

Use ready-mixed (including colors), except two component epoxies, polyurethanes, polyesters, paints having metallic powders packaged separately, and paints requiring specified additives.

Paint materials shall conform to the restrictions of the local Environmental and Toxic Control jurisdiction. Volatile Organic Compounds (VOC) content of paint materials shall not exceed local, state or district requirements. Lead-base paints shall not be used. Materials shall not contain asbestos, zinc-chromate, strontium-chromate, cadmium, mercury or mercury

compounds, or free crystalline silica. Materials shall not contain any of the ACGIH-BKLT and ACGHI-DOC confirmed or suspected human carcinogens.

**D. Application**

Unless otherwise specified, apply paint in three coats: prime, body, and finish. When two coats applied to prime coat are the same, the first coat applied over primer is body coat and the second coat is the finish coat. Apply each coat evenly and cover substrate completely. Finish surfaces to show solid even color, free from runs, lumps, brushmarks, laps, holidays, or other defects.

**E. Paint Schedule**

Gypsum Wallboard, except where epoxy coating (SC) is required:

- 1 coat primer sealer applied prior to texturing
- 1 coat pigmented sealer/primer
- 2 coats acrylic latex enamel low luster

Gypsum Wallboard epoxy coating, (SC):

- 1 coat primer sealer
- 2 coats acrylic latex enamel low luster

Ferrous and Galvanized Metal:

- 1 coat vinyl acrylic primer or vinyl pre-wash primer (if not factory-primed)
- 2 coats acrylic latex enamel low luster

Wood – Transparent Finish:

- Provide hand-wiped stained finish, water-based, clear acrylic, premium grade gloss and color as selected
- Stain
- 2 coats clear finish

## 7.10 HANDRAILS, WALL GUARDS AND CORNER GUARDS

An estimate of base quantities of each type of handrail, wall guard, and corner guard that should be included in the proposed rental rate is indicated in Schedule C. Adjustments will be made at the end of the project based on actual measurement and payment will be made per the pre-negotiated unit cost for these items.

Stainless steel shall conform to ASTM A167, Type 302B. Extruded aluminum components shall conform to ASTM B221, Alloy 6063, Temper T5 or T6. Resilient materials shall be extruded and injection molded acrylic vinyl or extruded polyvinyl chloride meeting following requirements:

- Minimum impact resistance of 2150 ft-lbs [200 Nm] (when tested in accordance with ASTM D256 (Izod impact, ft-lbs per inch notch).

- Class 1 fire rating when tested in accordance with ASTM E84, having a maximum flame spread of 25 and a smoke developed rating of 450 or less.
- shall be rated self extinguishing when tested in accordance with ASTM D635
- Material shall be labeled and tested by Underwriters Laboratories or other approved independent testing laboratory.

Provide resilient materials with integral color with all colored components matched in accordance with SAE J 1545 to within plus or minus 1.0 on the CIE LCH scales.

### 7.10.1 HANDRAILS AND WALL GUARDS

Except in administrative areas, provide handrails and wall guards on both sides of all corridors. Provide chair rail at locations indicated in Schedule C. Provide continuous reinforcing in the wall attachment of handrails and bumper guards.

Handrail/Wall Guard Combination shall consist of snap-on covers of resilient material, minimum 0.078-inch thick, free-floated on a continuous, extruded aluminum retainer, minimum 0.072-inch thick, anchored to wall at maximum 32 inches on center.

Wall Guards (Crash Rails) shall consist of snap-on covers of resilient material, minimum 0.110-inch thick, free-floated over a continuous extruded aluminum retainer, minimum 0.090-inch thick anchored to wall at maximum 24 inches on center.

### 7.10.2 CORNER GUARDS

Resilient, shock-absorbing corner guards shall be surface mounted type of 1-1/4 inch [31.75 mm] radius ¼-inch [6.35 mm] corner. Snap-on corner guards shall be formed from resilient material, minimum 0.078-inch [1.98 mm] thick, free floating on a continuous 0.063-inch thick extruded aluminum retainer. Provide appropriate mounting hardware, cushions and base plates as required. Provide factory fabricated end closure caps at top and bottom of surface mounted corner guards.

Stainless steel corner guards shall be fabricated of 0.0625 inch [1.59 mm] thick stainless steel. Stainless steel corner guards shall be surface mounted, with 3-inch [76-mm] wings and 1-1/4 inch [31.75 mm] radius.

**A. Resilient and Corrosion Resisting Metal Guards**

Provide resilient or corrosion-resisting metal corner guards for the external corners of finished interior walls and columns in the paths of wheeled traffic as indicated below. Use surface applied 48 inch [1200 mm] high resilient-type corner guards on gypsum wallboard walls. Use corrosion-resisting-metal corner guards on masonry or ceramic tile walls. Corner guards are not required in corridors where continuous handrails and bumper guards are used around external corners.

Corridors of:

- Ambulatory Care and Clinical Areas
- Warehouse and Receiving Areas

Areas of:

- Warehouse and Receiving

**B. Structural Steel Angle Guards**
Provide structural steel angle guards, protected from corrosion by painting or galvanizing, for use in corridors and areas of:

- Warehouse and Receiving

Provide structural steel angle guards, protected from corrosion by painting or galvanizing, for exterior use in the paths of motor vehicle traffic to the receiving platform (loading dock) and at exposed corners on the platform.

## 7.11 INTERIOR SIGNAGE

Lessor shall develop and submit a signage plan for review and approval by the Contracting Officer during design development. Interior signage systems shall include identification, directional, informational, and code required signage. The Lessor shall furnish and install interior signs for all rooms, areas, conditions or features in the facility. Note: Additional interior signage, noting the Errera Center, will also be required (size & locations TBD). Comply with accessibility standards listed in Paragraph 4.6 of this solicitation. For informational purposes, Offerors are advised that VA has an established signage program, VA *Signage Design Guide,* which may be found at http://www.cfm.va.gov/til/spclRqmts.asp.

## 7.12 BUILT-IN WORK

### 7.12.1 CASEWORK AND COUNTERTOPS

Type(s), quantities and locations of plastic laminate casework and countertops shall be per Schedule B and as shown on conceptual plans.

Special counter tops (wood, stainless steel, chemical resistant laminate, or epoxy) shall be provided as indicated in Schedule B.

**A. Casework**
Casework shall be of the flush overlay design and, except as otherwise specified, be in conformance with AWI 1600, Modular Cabinets. Fabricate casework of plastic laminated covered particleboard.

- Plastic laminate shall conform to NEMA LD-3
- Exposed vertical surfaces including both sides of cabinet doors shall be high pressure laminate Type VGS (0.28)
- Cabinet interiors including shelving shall comply with NEMA, LD3.1 at a minimum: high pressure cabinet liner Type CLS (0.20), OR thermally fused melamine laminate.
- Backing (concealed surfaces) shall be high pressure backer Type BKH (0.28).

Core materials shall be as follows:

- Particleboard up to 7/8 inch [22.22 mm] thick shall be Industrial Grade average 47-pound density particleboard, ANSI A 208.1, M-3.
- Particleboard 1 inch [25.4 mm] thick and thicker shall be Industrial Grade average 45-pound density particle-board, ANSI A 208.1, M-2.
- Moisture Resistant Particleboard shall be average 47-pound density particleboard, ANSI A208.1, M-3.
- Medium Density Fiberboard 1/4 inch thick shall be average 54-pound density grade, ANSI A208.2.

Edging materials shall be 1 mm PVC banding, machine applied, and 3 mm PVC banding, machine applied and machine profiled to 1/8 inch radius.

Exposed hardware, except as otherwise specified, shall be satin-finished chromium-plated brass or nickel plated brass.

Hinges shall be fabricated of minimum 0.072-inch [1.83-mm] thick chromium-plated steel leaves, with minimum 0.139-inch [3.53-mm] diameter stainless steel pin. Hinges shall be five knuckle design with 2-1/2 inch [63.5 mm] high leaves and hospital type tips. Doors 36 inches [914.4 mm] and more in height shall have three hinges, and doors less than 36 inches [914.4 mm] in height shall have two hinges. Each door shall close against two rubber bumpers.

Door catches shall be friction or magnetic type, fabricated with metal housing. Provide one catch for cabinet doors 48 inches [1200 mm] high and under, and two for doors over 48 inches [1200 mm] high.

Locks shall be cylinder type, 5 pin tumbler, cam style lock with strike. Acceptable locks for ¾-inch [19 mm] thick doors include: National #M2-3708-157 lock and National #M2-3709-100 with strike. Provide two keys for each lock. The name of the manufacturer, or trademark by which manufacturer can readily be identified, shall be legibly marked on each lock, the key change number shall be marked on the exposed face of lock, and also stamped on each key. Key change numbers shall provide sufficient information for replacement of the key by the manufacturer.

Drawer and door pulls shall be flush pulls fabricated of ABS plastic.

Drawer slides shall be full extension, 150-pound [68-kg] load rated epoxy coated steel with nylon, ball bearing rollers, with positive stop both directions.

**B. Countertops**

Plastic Laminate (HPDL) shall conform to NEMA LD 3. Decorative surfaces shall be either:

- **Horizontal**: High-pressure decorative laminate type HGS (.048)
- **Post forming**: High-pressure decorative laminate type HGP (.039)

Concealed backing sheet shall be high-pressure backer BKH (.048) or (.039) to match exposed faces.

Chemical-resistant plastic laminate, NEMA LD3 types HGS or HGP.

**Test for resistance to reagents as follows:** Test with five 0.25 mil drops remaining on surface for 16 hours followed by washing off with tap water, then cleaned with liquid soap and water, dried with soft cotton cloth and then cleaned with naphtha. There shall be no change in color, surface texture, and original protectability remaining from test results of following reagents:

| | | |
|---|---|---|
| 98% Acetic Acid | Butyl Alcohol | Acetone |
| 90% Formic Acid | Benzine | Chloroform |
| 28% Ammonium Hydroxide | Xylene | Carbon Tetrachloride |
| Zinc Chloride (Sat.) | Toluene | Cresol |
| Sodium Carbonate (Sat.) | Gasoline | Ether |
| Calcium Hypochlorite (Sat.) | Kerosene | Cottonseed Oil |
| Sodium Chloride (Sat.) | Mineral Oil | 40% Formaldehyde |
| Methyl Alcohol | Ethyl Acetate | Trichlorethylene |
| Ethyl Alcohol | Amyl Acetate | Monochlorobenzine |

**Superficial effects only**: Slight color change, spot, or residue only with original protectability remaining from test results of following reagents:

| | | |
|---|---|---|
| 77% Sulfuric Acid | 37% Hydrochloric Acid | 85% Phenol |
| 33% Sulfuric Acid | 20% Nitric Acid | Furfural |
| 85% Phosphoric Acid | 30% Nitric Acid | Dioxane |

- Particleboard up to 7/8 inch [22.22 mm] thick shall be Industrial Grade average 47-pound density particleboard, ANSI A 208.1, M-3.
- Particleboard 1 inch [25.4 mm] thick and thicker shall be Industrial Grade average 45-pound density particle-board, ANSI A 208.1, M-2.
- Moisture Resistant Particleboard shall be average 47-pound density particleboard, ANSI A208.1, M-3.

**Solid Surface Material (SSM)**: Solid surface material shall be a homogenous filled solid polymer, not coated, laminated, or of a composite construction, and meeting ANSI Z124.3 and ANSI Z124.6 requirements.

**Flammability**: Flame Spread shall be 25 max. Smoke Developed shall be 25 max. Material thickness shall be as indicated on the drawings. Cast, 100 % acrylic solid polymer material shall be composed of acrylic polymer, mineral fillers, and pigments and shall meet the following minimum performance requirements:

| Property | Typical Result | Test |
|---|---|---|
| Tensile Strength | 6,000 PSI | ASTM D 638 |
| Tensile Modulus | $1.5 \times 10^{-6}$ PSI | ASTM D 638 |
| Tensile Elongation | 0.4% min. | ASTM D 638 |

| Property | Typical Result | Test |
|---|---|---|
| Flexural Strength | 10,000 PSI | ASTM D 790 |
| Flexural Modulus | $1.2 \times 10^{-6}$ PSI | ASTM D 790 |
| Hardness | >85 | Rockwell "M" Scale ASTM D 785 |
| Thermal Expansion | $3.02 \times 10^{-5}$ in./in./°C | ASTM D 696 ($1.80 \times 10^{-5}$ in./in./°F) |
| Gloss (60° Gardner) | 5–75 (matte—highly polished) | ANSI Z124 |
| Light Resistance | (Xenon Arc) No effect | NEMA LD 3 Method 3.3 |
| Wear and Cleanability | Passes | ANSI Z124.3 & Z124.6 |
| Stain Resistance: Sheets | Passes | ANSI Z124.3 & Z124.6 |
| Fungus and Bacteria Resistance | Does not support microbial growth | ASTM G21&G22 |
| Boiling Water Resistance | No visible change | NEMA LD 3 |
| High Temperature Resistance | No change | NEMA LD 3 |
| Water Absorption | Long-term<br>0.6% (1⁄2")<br>0.8% (1⁄4") | ASTM D 570 |

Molded Resin Tops shall be non-glare epoxy resin or furan resin compounded and cured for minimum physical properties specified. Material shall be of uniform mixture throughout.

| | |
|---|---|
| Compressive strength | 200 MPa (30,000 PSI) |
| Flexural strength | 70 MPa (10,000 PSI) |
| Rockwell hardness | 105 |
| Water absorption, 14 hours (weight) | .01% |

Stainless Steel shall conform to ASTM A167, Type 304.

Sheet Steel shall conform to ASTM A366, cold rolled, Class 1 finish, stretcher leveled.

Hardwood Countertop shall be solid maple, clear grade.

Adhesive for plastic laminate shall conform to FS A-A-1936. Adhesive for shop and field joints in Solid Surface Material (SSM) shall be a two-part adhesive kit to create permanent, inconspicuous, non-porous, hard seams and joints by chemical bond between solid polymer materials and components to create a monolithic appearance of the fabrication. Adhesive shall be approved by the solid polymer manufacturer. Adhesive shall be color-matched to the surfaces being bonded where solid-colored, solid polymer materials are being bonded together. The seam adhesive shall be clear or color-matched where particulate patterned, solid polymer materials are being bonded together.

Fasteners shall be studs, bolts, spaces, threaded rods with nuts, or screws suitable for materials being joined with metal splice plates, channels, or other supporting shapes.

### 7.12.2 COMPUTER WORKSTATIONS AND KEYBOARD TRAYS

Computer keyboard trays shall be provided at each sit down height and standing height knee space in casework and at each Radiology room control station countertop.

### 7.12.3 LOCKERS AND SHELVING

Type(s), quantities, and locations of lockers and shelving shall be per Schedule B and as shown on conceptual plans.

## 7.13 PLUMBING FIXTURES, TOILETS AND BATHS

### 7.13.1 TOILETS

Provide toilet partitions as indicated on conceptual plans. Room entrance screens that double as part of a toilet partition enclosure shall be of typical stud construction, from floor to ceiling. Do not use toilet stalls or divider partitions in single-user toilet rooms in which only a lavatory and water closet are provided.

Conform to Fed. CID A-A-60003, except as modified herein. Fabricate to dimensions shown or specified.

Toilet Enclosures shall be Type 1, C (overhead braced). Reinforce panels to receive toilet tissue holders, grab bars, or other accessories specified. Upper pivots and lower hinges shall be adjustable to hold doors open 30 degrees. Latching devices and hinges for handicap compartments shall comply with ADA requirements.

**Finish**: Baked enamel on steel doors, pilasters, and enclosure panels, except those adjacent to urinals, which shall be solid phenolic or solid polyethylene: water resistant, graffiti resistant, non-absorbent, contain a minimum 30% post consumer recycled plastic, Class C flame spread rating.

Urinal Screens shall be Type III, Style D (wall hung), solid phenolic or solid polyethylene, with integral flanges and continuous, full height wall anchor plate. Screens shall be 24 in' wide x 42 in high [600 mm wide x 1070 mm high].

### 7.13.2 SHOWERS

Use ceramic tile applied with thinset Portland cement to concrete-fiber reinforced backer board for shower enclosures and partitions of contiguous areas. Warp finished floors of adjoining drying rooms or toilet rooms toward showers to assure drainage to the shower drain. Floor slopes in and around a shower shall not exceed 5%.

Construct all patient showers without curbs. In non-patient shower rooms, provide at least one shower stall without a curb.

### 7.13.3 TOILET AND SHOWER ACCESSORIES

Types and locations of toilet accessories shall be as indicated in Schedule B of this solicitation. Multiple units of each type of accessory shall be furnished by the same manufacturer. Lessor shall provide suitable backing and other preparation as necessary for items indicated to be furnished by VA.

Toilet accessories shall be shop or factory assembled, free of dents and scratches and packaged complete with anchors and fittings, steel anchor plates, adapters, and anchor components for installation. Grind welded joints smooth. Fabricate units made of metal sheet of seamless sheets with flat surfaces.

Stainless steel sheet shall conform to ASTM A167, Type 304. Stainless steel tubing shall conform to ASTM A269. Galvanized sheet steel shall conform to ASTM A653, G60.

Mirror glass shall be float glass, Type I, Class 1, Quality q2 (ASTM C 1036), with silvering, copper coating, and suitable protective organic coating to copper backing in accordance with FS DD-M-411.

Adhesive shall be two component epoxy type or contact type and waterproof. Fasteners, screws, and bolts shall be stainless steel or hot dip galvanized. Exposed fasteners shall be tamper-proof. Expansion shields shall be fiber, lead, or rubber as recommended by accessory manufacturer for component and substrate.

Stainless steel shall have No. 4 satin brushed finish, unless otherwise noted. Chrome/Nickel Plating shall conform to ASTM B456, Type SC 2, satin finish, unless otherwise noted. Galvanizing for items other than sheet metal shall conform to ASTM A123, 1.25oz/sq yd.

## 7.14 WINDOW TREATMENTS

All exterior windows shall be equipped with window blinds or shades.

### 7.14.1 WINDOW BLINDS

Blinds may be aluminum or plastic vertical blinds, or horizontal blinds with aluminum slats of one inch width or less. The window blinds must have non-corroding mechanisms and synthetic tapes.

### 7.14.2 CLOTH WINDOW SHADES

Provide opaque cloth shades on windows of exterior conference rooms, and rooms containing image intensifiers.

## 7.15 HOLDING ROOM

Construct walls for holding room with 5/8-inch [15.88 mm] abuse-resistant GWB over security mesh on metal studs as specified for plaster finish. Metal lath or plaster base is unacceptable

as security mesh. Security mesh shall be flattened, expanded metal manufactured from high strength, low alloy steel and shall conform to ASTM F 1267, Type 11, Class 1, Mill finish.

- **Mesh designation**: 3/4 #13F
- **Mesh Design Size**: 0.923 x 2.10 inch
- **Mesh Opening Size**: 0.688 x 1.781 inch
- 13 meshes per foot, 74% open area
- **Mesh Strand Width**: 0.106 inch
- **Mesh Strand Thickness**: 0.078 inch
- **Weight**: 0.75 pounds per square foot

Provide one (1) each: motion detector, glass break module, and set of door contacts for holding room door. Locate alarm system keypad on the entrance side of the holding room door. Connect the alarm system for the holding room to the main building alarm system. Zone the alarm system so that the alarm for the holding room can be set and disarmed independent of the main building alarm system.

The Lessor shall be responsible for constructing and carrying the cost of the holding room as listed above. Upon space acceptance by VA, all cost associated with the holding room outlined above will be paid by the VA in a lump sum payment to the Lessor. **Offerors shall list the lump sum cost associated with the holding room on GSA Form 1364.**

# SECTION 8 SERVICES, UTILITIES AND MAINTENANCE

## 8.1 UTILITIES

The Lessor shall ensure that public utilities necessary for operation are available and operable at the site at the time of final inspection. The Lessor is required to pay any deposits and hook-up fees relative to utilities (water-tap fee, water connection fee, sewer connection fee, sewer tap fee, etc.).

The Lessor shall provide separate meters to measure VA usage versus Lessor usage. Pro-ration is not permissible. Prior to occupancy by VA, the Lessor shall furnish to the Contracting Officer written certification of the meter numbers and certification that these numbers measure VA usage only.

## 8.2 BUILDING MAINTENANCE AND CLEANING BY LESSOR

### 8.2.1 BUILDING MAINTENANCE BY LESSOR

**A. Lessor's Responsibilities**

The Lessor is responsible for total maintenance of the leased premises in accordance with Paragraph 14 of GSA Form 3517B; **including special equipment items specified in Schedule B to be maintained by the Lessor.** Replacement costs for Schedule B items due to normal wear and tear are the Lessor's responsibility. Maintenance of special equipment items identified in Schedule B to be maintained by VA is excluded from the Lessor's responsibility.

The Lessor must have a building superintendent or a local, designated representative available to promptly correct deficiencies or attempt to correct deficiencies upon written notice of such condition from VA. The Lessor's superintendent or designated representative shall correct or attempt to correct deficiencies within the timeframes specified in the O&M Plan (Paragraph 8.4 below) and agreed to by the Government. If no substantial attempt has been made to correct the deficiencies within the specified time, action will be taken by VA to correct such deficiencies and the cost of repairs will be deducted from the next month's rental payment.

The Lessor shall provide the labor, material, and supervision to adequately maintain the structure, the roof, the exterior walls, windows, doors, and any other necessary building appurtenances to provide watertight integrity, structural soundness, and acceptable appearance.

The Lessor's maintenance responsibility includes initial supplies of all items, materials, and equipment necessary for such maintenance. All maintenance work will be done in accordance with applicable local Building Codes and ordinances, and inspection certificates will be displayed as appropriate.

Maintenance by Lessor includes, but is not limited to, interior and exterior care of the building and the site; all sidewalks, parking areas, driveways, private access roads, lawns, and shrubbery; utilities; and building service equipment; including all repairs and replacements. All

equipment and systems shall be maintained to provide reliable service without unusual interruption, disturbing noises, exposure to fire or safety hazards, or unusual emissions of dirt.

Lessor shall maintain the Essential Electrical System as required by NFPA and JCAHO, including, but not limited to, weekly, monthly, annually, and triennial tests and activities.

**B. Frequency of Maintenance**
At a minimum, the Lessor shall perform the following at the frequency indicated:

*(1) Weekly*
Mow and edge lawns weekly during the growth season.

*(2) Monthly*
Remove weeds from around building, parking areas, all landscaped areas (including lawn), and fence borders (both sides of fence).

Mow and edge lawns at least once a month during the dormant season.

Trim and prune shrubbery and trees to maintain an attractive appearance. Shrubbery shall not be allowed to grow up and cover windows.

*(3) Quarterly*
Provide interior and exterior extermination of insects and rodents. Use of chemicals shall conform to EPA and State requirements. The Lessor shall provide additional service at the request of VA, if any signs of re-infestation appear.

Pest management is to be done using an integrated pest management approach that minimizes the use of toxic chemicals.

Pesticide shall only be applied by persons deemed qualified by EPA and state requirements.

Lessor shall coordinate application of pesticide with the Government and only apply pesticide in a manner that VA agrees is protective of the health of patients, employees, and visitors.

*(4) Semi-Annually*
Replace all filters in HVAC system. Replace on a more frequent basis if required by the manufacturer's recommendations.

*(5) Annually*
Clean interior of all double-walled HVAC units and drain pans. Cleaning shall be done at times when clinic is not in operation.

Re-mulch all planting beds.

*(6) As Required*
Lessor is responsible for the repair and replacement of all light fixture ballasts and starters (refer to GSA Form 1217). Lessor shall replace burned out bulbs and fluorescent tubes in interior light fixtures.

Lessor is responsible for replacement of worn floor or wall coverings (this includes the moving and returning of furnishings and equipment), unless caused by negligence on the part of VA. Provide interior extermination of insects and rodents upon any sign of infestation. Use of chemicals shall conform to EPA and State requirements.

Water the grass and plantings as necessary to maintain their health and attractive appearance.

Fertilize all lawn areas at least three times per year. Fertilizer application prior the start of the growth season shall contain weed killer per manufacturer's recommendations.

Fertilize plants and trees with type of fertilizer recommended by manufacturer. Fertilize with frequency recommended by manufacturer of type of fertilizer used.

Dead plantings or lawn shall be replaced with like kind immediately. Partially dead plantings may be trimmed if, after trimming, a good appearance is maintained.

Rake and remove leaves to ensure a good appearance of the site.

Clean HVAC units inside and out upon any signs of mildew or bacterial growth.

Pans in HVAC units shall be treated as required to prevent mildew or bacterial growth.

Before working hours **7:30 AM to 6:00 PM,** remove snow and ice from all entrances, sidewalks parking lots, and approaches. In the event of snow or freezing rain during working hours, removal must occur within one hour from receipt of notification by VA staff. Chemicals or sand may be used to reduce safety hazards.

### 8.2.2 EXTERIOR CLEANING BY LESSOR

**A. Lessor's Responsibilities**
The Lessor shall maintain the leased premises to provide a clean, neat, and attractive appearance by performing the functions described below.

**B. Waste and Recycling**
The Lessor shall have no responsibility for disposing of hazardous or pathological waste. The Lessor shall provide collection, disposal, and recycling for all other waste materials generated by VA. Recycling of paper, aluminum, plastic and cardboard is required.

Locate waste and recycling containers near the loading dock/service area in accordance with security requirements. The Lessor shall provide and maintain adequate quantity of trash container(s), including compacting equipment as required, based on volume of waste and frequency of collection. As a minimum, provide **one 40 cubic yard** covered container with weekly collection and removal from site for refuse, trash, and garbage. The Lessor shall provide the covered recycling receptacles, and shall collect and remove recycled materials weekly.

**C. Extermination**
Extermination of insects and rodents shall be provided on a regular basis (minimum of every three (3) months), and upon any sign of infestation. Use of chemicals shall conform to EPA

and state requirements. If any signs of re-infestation appear, additional service shall be provided by the Lessor at the request of VA.

**D. Frequency**
At a minimum, the Lessor shall perform the following at the frequency indicated:

*(1) Daily*
**Building entrances**: Pick up trash, litter, debris, and cigarette butts.

*(2) Three Times Weekly*
Sweep landings, steps, and sidewalks.

Police all sidewalks, parking areas, green areas, planting beds, driveways, lawns, shrubbery, outside loading dock areas, platforms, etc., to maintain a neat and attractive appearance. This shall include, but not be limited to, the removal of cigarette butts, debris, litter, trash, limbs, etc. (from both sides of fences).

*(3) Quarterly*
Lessor shall clean bugs from the interior of exterior light lenses.

Clean balconies, ledges, courts, areaways, gutters, and flat roofs.

Clean mildew from exterior of building, sidewalks, and roof areas, etc.

*(4) Semi-Annually*
Wash outside of all exterior windows, glass located over and in exterior and vestibule doors, and all exterior plate glass around entrances, lobbies, vestibules, and skylights.

*(5) Annually*
Clean exterior of building. Remove all spider webs, wasp nests, dirt dobber nests, stains, etc.

**8.2.3 INTERIOR CLEANING BY LESSOR**

**A. Lessor's Responsibilities**
The Lessor shall furnish all supplies, materials machinery, appliances, supervision, and labor necessary to provide complete janitorial services for the clinic. Services shall be provided in all interior areas of the leased premises to provide a clean, neat, and attractive appearance by performing the functions described below. The Lessor shall make careful selection of cleaning products and equipment to ensure they are packaged ecologically, environmentally beneficial and/or recycled products that are phosphate-free, non-corrosive, non-flammable, and fully biodegradable, and minimize the use of harsh chemicals and the release of irritating fumes. The Lessor shall select paper and paper products with recycled content conforming to EPA's CPG. Performance will be based on the Contracting Officer's evaluation of results, not the frequency or method of performance.

Cleaning crew shall turn off lights as necessary and check all doors on completion of the work to ensure that doors are locked. Ensure that security alarm is set before leaving if there are no VA personnel on the premises.

**B. Materials and Procedures**

*(1) Standards*

It is the Lessor's responsibility to maintain the clinic in a condition that meets all housekeeping and sanitation requirements of this solicitation and the current standards of the Joint Commission for the Accreditation of Hospitals and Outpatient Clinics (JCAHO).

The Lessor shall be responsible for providing a weekly certification in writing to the Government that all required cyclic cleaning has been completed.

*(2) Work Schedule*

Work will be accomplished at times indicated. Work schedule shall be from 6:30 AM to 11:00 PM, Monday through Friday. The Lessor shall ensure that sufficient employees are available to prepare the clinic to see patients at 8:00 AM, to be available to clean up spills, keep the public and specimen collection toilet rooms clean, and keep the toilet rooms stocked with sufficient paper products and soap. Mechanical equipment such as vacuum cleaners, burnishers, scrubbing machines, etc., will not be used during the hours of 7:30 AM to 5:00 PM.

*(3) Janitorial Staff and Supervision*

Janitorial staff will have access throughout the building; therefore, none of the janitorial staff may have a police record for anything more serious than traffic or parking violations.

There shall be a janitorial staff supervisor on duty at all times when janitorial staff is in the building. Any person whose work or conduct is found to be unacceptable by the Government shall be removed from the janitorial staff.

Smoking is permitted in designated areas only. Possession of weapons is prohibited. Enclosed containers, including tool kits, shall be subject to search.

Janitorial company's standard uniforms are acceptable, if they clearly identify the company and the occupation of the individual. Janitorial staff will be required to wear photo identification badges.

*(4) Safety and Special Procedures*

The Lessor shall consider the clinical environment and ensure that the janitorial staff is instructed on applicable safety precautions and special requirements. These requirements may include, but are not limited to, such conditions as cleaning of human secretions, blood, barium, etc. from both floors and walls. Lessor will be notified of isolation areas that need terminal cleaning. Terminal cleaning is defined as complete wipe down of all sinks, walls, countertops, casework, exam tables, etc., with germicide, and mopping of the floor with germicide. These areas require the use of gloves, gowns, masks, and shoe covers, which will be provided by the Government. The Lessor shall be responsible for collecting of sharps containers and hazardous materials. See "ALL AREAS" below under "Daily Cleaning Requirements" for method of handling sharps containers and hazardous waste.

The janitorial staff shall comply with applicable Federal, State, and Local safety and fire regulations and codes. The Lessor shall immediately bring to the attention of the Government any fire and safety deficiencies. The Lessor shall take such safety precautions as necessary to protect the lives and health of occupants of the building.

*(5) Equipment and Materials*

All equipment and materials used in the performance of this contract will be cleaned and stored properly at the end of the workday. Cleaning carts and/or equipment will not be left unattended for any reason while patients are in the clinic. Lessor shall ensure all equipment, tools, and supplies meet necessary safety requirements and janitorial staff have full working knowledge of their use.

An EPA-registered germicide will be used to clean all patient areas, floors, examination tables, and medical equipment. The Lessor shall provide all labor, materials, supplies, machinery, and appliances that may be necessary or appropriate in the performance of janitorial services. The Lessor shall provide supplies such as toilet tissue, multifold paper towels, toilet seat covers, and Medicated Vestal hand soap. The Lessor shall provide plastic linings for all trash receptacles. Provide clear plastic linings for non-hazardous waste trash receptacles and red plastic linings for hazardous waste trash receptacles. Housekeeping aide closets are located throughout the clinic for storage of supplies and equipment. The Lessor shall keep a minimum of two weeks stock of supplies on hand. All accumulated waste shall be removed and disposed of in the dumpster. Hazardous waste and sharps containers shall be picked up and stored in a designated storage area. Supplies to be used shall be approved by the Government. Specifications for supplies are as follows:

- **Toilet tissue**: Roll type, 4-1/2 inches wide, single ply
- **Paper towels**: Multi-fold, 10-1/8 inches wide
- **Hand soap**: Medicated Vestal
- **Trash receptacle liners**: (a) Polyethylene, flat type, 33 inches long, 52 inches wide, .66 millimeters thick; (b) Polyethylene, flat type, 24 inches long, 33 inches wide, .31 millimeters thick; (c) Polyethylene, red bags (biohazard) 33 inches long, 52 inches wide and 24 inches long, 33 inches wide
- **Carpet shampoo and soil resistant treatment**: Non-allergenic type
- **Furniture polish**: Spray type for use on wood and wood veneer
- **Window cleaner**: Ammonia type sufficient to remove smoke film and dust
- **Air freshener cartridges in bathrooms**: Johnson Wax Good Sense
- **Upholstery cleaners**: Dry or foam type recommended for fabric upholstery
- **Germicide**: EPA-registered
- **Resilient floor tile cleaner and maintainer**: As recommended by manufacturer of resilient flooring
- **Floor finish**: High-speed floor finish as recommended by manufacturer of resilient flooring

- **Floor sealer**: As recommended by manufacturer of resilient flooring
- **Floor stripper**: As recommended by manufacturer of resilient flooring
- **Toilet seat covers**: Paper, white

A copy of the MSDS sheets for all products used shall be maintained at the clinic and shall be available for review by VA upon request.

**C. Daily Cleaning Requirements**

*(1) Building Entrances*

- Pick up trash and cigarette butts around entrances and vestibules.
- Empty trash receptacles.

*(2) Primary Care Area*
*During the hours of 6:30 AM to 8:00 AM, Monday through Friday:*

- All primary care area floors shall be wet mopped using a germicide before patients are seen.
- Wipe down all exam tables with a clean cloth dampened with germicide.
- Clean and disinfect sinks and countertops.
- Clean and refill soap dispensers.
- Clean mirrors.

*(3) Specialty Care Area*
*During the hours of 4:00 PM to 11:00 PM*

- Treatment rooms shall be cleaned and disinfected after each patient procedure.
- All floors shall be wet mopped using a germicide.
- Wipe down all exam tables with a clean cloth dampened with germicide.
- Clean and disinfect sinks, countertops, equipment, etc.
- Wipe down all walls with a clean cloth dampened with germicide.
- Clean and refill soap dispensers.
- Clean mirrors.

*(4) All Areas*
*During the hours of 8:00 AM to 4:00 PM*

- Trash receptacles shall be emptied and liners changed.
- Trash shall be removed from the building and placed in appropriate containers.
- Boxes and other empty containers, to be disposed of, shall be removed from the building and placed in appropriate containers.
- Hazardous waste and full sharps containers shall be collected in red plastic bags and placed in cardboard boxes provided.
- Cardboard boxes shall be sealed with tape and placed in hazardous collection room for removal and disposal off site by others.

- Spills, body fluids, etc. shall be cleaned from floors and walls immediately upon notification.
- Remove black scuff marks from corridor floors as necessary.

*(5) All Areas*
*During the hours of 4:00 PM to 11:00 PM*

- Complete other required janitorial services.
- Dust furniture, desks (do not disturb papers on desks), machines, phones, file cabinets, window ledges, etc.
- All resilient tile floor areas shall be swept and wet mopped with germicide.
- Electrical equipment shall only be used during these hours.
- Carpeted areas and mats shall be vacuumed. Carpet sweeper is not acceptable.
- Spot clean any carpet stains.
- Spot clean walls and doors.

*(6) Direct Patient Care Areas*
*During the hours of 4:00 PM to 11:00 PM*

- Janitorial services in direct patient care areas such as clinics, x-ray, dental, laboratory, rehab medicine, etc.
- Sweep and wet mop with germicide.
- Wipe down all exam tables with a clean cloth dampened with germicide.
- Clean and disinfect sinks and countertops.
- Clean and refill soap dispensers.
- Clean mirrors.

*(7) All Restrooms*
*During the hours of 8:00 AM to 4:00 PM*

- All restrooms shall be swept and wet mopped at least twice each day.
- All paper products and hand soap shall be replenished.
- All surfaces, including commodes, urinals, walls, mirrors, counters and sinks, shall be cleaned and disinfected.

Sponges and cloths shall not be used to clean commodes and urinals. Commodes and urinals shall be cleaned with disposable items that are disposed of after cleaning commode and/or urinal in each toilet room. Items used to clean commodes and urinals shall not be used in turn for cleaning other items or wiping down other surfaces. Clean exterior of commodes and urinals first, followed by cleaning of the interior.

*(8) Ceramic Tile Areas (Other than restrooms)*
*During the hours of 4:00 PM to 11:00 PM*

- Ceramic tile floors shall be swept and damp mopped. If dirt build-up occurs, ceramic tile floors shall be scrubbed when determined that it is required by COTR.

*(9) Corridors, Waiting Areas, Administrative Areas, Mental Health*
*During the hours of 4:00 PM to 11:00 PM*

- The areas shall be swept, wet mopped with a neutral cleaner, and burnished.
- Carpeted areas shall be vacuumed.

*(10) Pharmacy, Warehouse, SPD, Biomedical Engineering, Telephone Room, Conference Rooms (if unoccupied)*
*During the hours of 8:00 AM to 4:00 PM*

- The areas shall be swept, wet mopped with a neutral cleaner, and burnished.
- Areas with cushioned flooring shall be maintained in accordance with manufacturer's recommendations.
- Carpeted areas shall be vacuumed.
- Restrooms shall be swept and wet mopped once each day and all paper products and hand soap replenished.
- All restroom surfaces, including commodes, urinals, walls, mirrors, counters and sinks, shall be cleaned and disinfected.

*(11) Shower Areas*
*During the hours of 4:00 PM to 11:00 PM*

- Clean walls and floors with disinfectant.

*(12) Waiting Room Tables, Doors, Walls and Trim*

- Dust tables, ledges, sills, moldings, and baseboards.

*(13) Mirrors and Glass Cleaning*

- Clean all mirrors and glass at entrances (fingerprints and smudges).

*(14) Housekeeping Aide Closets*

- Clean daily including sinks, floors, and shelves.

*(15) Isolation Rooms*

- Any room where patients with suspected infectious disease have been examined will be thoroughly cleaned with germicide (terminal cleaning).

*(16) Water Coolers*

- Clean water coolers.
- Housing shall be wiped down. Particular attention shall be given to top surface and spout to prevent lime build-up, bacterial growth, etc.

*(17) Canteen and Vending Areas*

- Spot clean floors, walls, counters, cabinets, sink, microwave, etc. twice daily to eliminate spills, food items, trash, etc.

**D. Three Times Weekly**

- Collect, remove, and dispose of refuse, trash, and garbage from trash collection area.
- Apply resilient floor tile cleaner and maintainer to all resilient tile floors and burnish.

**E. Weekly Cleaning Requirements**

*(1) Furniture*

- Clean as necessary, but no less than weekly. Vacuum upholstered furniture.

*(2) Carpeted Areas and Mats*

- Spot clean as necessary.

*(3) All Restrooms*

- Scrub floors and ceramic tile base and wipe down with germicide.
- Clean ceramic tile walls and wipe down with germicide.
- Spot wash painted walls as necessary.
- Damp wipe toilet stall partitions and waste receptacles with germicide.

*(4) Shower Areas*

- Scrub ceramic tile floors and walls and wipe down with germicide.
- Clean grout between tiles in patient and employee showers.

*(5) Doors, Walls and Trim*

- Spot wash (for fingerprints, smudges, etc.) as necessary but no less than once weekly.

*(6) Glass Cleaning*

- Clean interior and exterior of door and entrance glass in waiting areas, laboratories, exam rooms, offices, and treatment rooms.
- Spot clean walls as necessary, but not less than weekly.

**F. Monthly Cleaning Requirements**

*(1) Furniture*

- Polish all furniture as necessary, but not less than monthly.

*(2) Air Conditioning Grilles and Registers*

- Vacuum all grilles and registers.

*(3) Waiting Areas, Labs, Exam Rooms, Offices, Treatment Rooms*

- Wash waste receptacles with germicide.

*(4) Floor Maintenance of Resilient Tile Areas*

- Apply cleaning soap, as recommended by resilient tile manufacturer, scrub and re-wax hallways, waiting rooms, and lobbies.
- Apply cleaning soap, as recommended by resilient tile manufacturer, scrub and re-wax other resilient tiled areas as required.

**G. Quarterly**

*(1) Building Interior*

- Dust window coverings/blinds.
- Dust handrails and handrail brackets.

*(2) Grounds*

- Trim/maintain onsite landscaping as required.

**H. Semi-Annual Cleaning Requirements**

*(1) Furniture*

- Shampoo upholstered furniture during January and July.

*(2) Carpeted Areas and Mats*

- Have carpets professionally steam cleaned and soil resistant treatment applied during January and July.
- Spot clean as needed.

*(3) Floor Maintenance of Resilient Tile Areas*

- Strip floors, apply sealer, apply wax and refinish all resilient tile floors.

*(4) Glass*

- Wash inside glass and clean interior of all window frames and window stools.

*(5) Drainage Systems*

- Inspect and clean all onsite catch basins and storm drain inlets of trash, leaves, and other deleterious materials.
- Detention/retention and silting basins shall be inspected and cleaned of weeds and overgrowth to ensure proper drainage is maintained.
- Basin bottoms should be scarified to maintain the integrity of the drainage design.

## 8.3 NORMAL HOURS

Normal working hours are **7:30 AM to 6:00 PM,** except Saturdays, Sundays and Federal holidays.

## 8.4 BUILDING OPERATING PLAN

Offerors shall submit a building operating plan with the offer. The plan shall include a schedule of startup and shutdown times for operation of each building system, such as lighting, cooling, ventilation, and plumbing, necessary for the operation of the building. The plan shall be in operation on the effective date of the lease.

The Lessor shall submit an Operations and Maintenance Plan narrative as required in PART II Schedule A.

## 8.5 OVERTIME USAGE

Government shall have access to air-cooled or heated leased space at all times, including the use of elevators, toilets, and lights without additional payment.

## 8.6 FLAG DISPLAY

The Government will be responsible for flag display.

## 8.7 SECURITY

The Government shall provide security personnel to prevent illegal entry or loitering in the leased space and to prevent unauthorized entry during duty hours.

The Lessor shall be responsible for providing security to prevent unauthorized entry after normal working hours.

## 8.8 VA CLEANING RESPONSIBILITY

VA shall have no cleaning responsibility for the interior or exterior of the leased premises. The Lessor shall have responsibility for interior janitorial services and shall maintain the interior of the leased premises as described in Paragraph 8.2.3. The Lessor shall provide all cleaning supplies and equipment.

The Government will be responsible for the disposal of hazardous or pathological waste which has been properly stored in the designated store room. See Paragraph 8.2.3C(4).

# SECTION 9 SAFETY, FIRE PROTECTION, AND ENVIRONMENTAL MANAGEMENT

## 9.1 GENERAL

### 9.1.1 PERMITS

Space must have a current occupancy permit issued by the local jurisdiction. Lessor shall obtain and maintain in force all necessary permits for operation of building services and equipment, including but not limited to fuel-fired mechanical equipment, emergency and stand-by generators, equipment to treat or exhaust toxic or hazardous gases, and solid or liquid wastes.

### 9.1.2 INSPECTIONS BY LESSOR

Lessor shall inspect, test and maintain building systems, fire and life safety systems and equipment, as required by the more stringent of NFPA guidelines or local codes. Lessor shall submit documentation as acceptable to the Contracting Officer of tests, report, and maintenance logs.

At a minimum, systems and equipment for which inspections and reports are required include, but are not limited to, those systems as enumerated in NFPA 99, other applicable NFPA guidelines, and the following:

- Essential Electrical System
- Environmental Systems
- Fire Doors and Shutters
- Portable Fire Extinguishers
- Fire Suppression Systems
- Standpipe Systems
- Fire Detection and Alarm Systems

### 9.1.3 INSPECTIONS BY GOVERNMENT

The government reserves the right to conduct independent inspections, testing, assessments, and detailed studies in space it occupies, as well as in space serving the VA leased space (e.g., common use areas, mechanical rooms, HVAC systems, etc.). The Lessor shall assist VA in its assessments and detailed studies by making available information on building operations and Lessor activities, and providing access to space for assessment and testing, if required. These may include, but are not limited to, noise and vibration testing, water and air quality sampling, water, and air sampling for pathogens, *Legionella* cultures and copper/silver analysis, radon testing, mold testing, Facility Condition Assessments of building systems and equipment, etc. Work may be performed by independent consultants, or VA personnel.

Lessor shall implement corrective measures required by the Contracting Officer.

## 9.2 CODE VIOLATIONS

Equipment, services, or utilities furnished, and activities of other occupants, shall be free of safety, health, and fire hazards. When hazards or code violations are detected, they must be promptly corrected at the Lessor's expense. Where requirements conflict, the decision of the Contracting Officer shall be final.

## 9.3 SPECIAL ENVIRONMENTAL REQUIREMENTS

### 9.3.1 INDOOR ENVIRONMENT

Lessor shall maintain building envelope and building systems in good repair in accordance with Section 8 and Part II, Appendix A of this solicitation. Excess or uncontrolled water can damage interior finishes, furnishings, or equipment, and can contribute to growth of mold and other pathogens. Lessor shall take precautions in design, construction, operation, and maintenance of the facility to control the entry of water from outside sources or leaks from building systems.

Lessor shall promptly repair any leaks and replace damaged materials or finishes. If mold or other pathogens are discovered, Lessor shall be responsible for remediation.

### 9.3.2 SPECIAL BUILDING EQUIPMENT

Special building equipment required to treat and exhaust to the atmosphere toxic gases produced by the agency program equipment shall be maintained in proper operating condition. Maintain all such installations in compliance with appropriate OSHA, EPA, or related regulations of the local community.

Offeror shall obtain operating permits as required by EPA and local Authorities Having Jurisdiction for the operation of exhaust-producing generators and building air and water heating equipment.

# SECTION 10 INSTRUCTIONS AND PREPARATION

## 10.1 NOTICE TO OFFERORS

Offerors must read all parts of this Solicitation. All forms required for offer are included in this Solicitation. Any additional information must be requested in writing. **Oral instructions are not binding.**

When there is a discrepancy between this Basic Solicitation and GSA forms, the Basic Solicitation will prevail.

**NOTE: Current GSA forms are available electronically from the GSA web page at the following address:**
**http://www.gsa.gov/Portal/gsa/ep/formsWelcome.do?pageTypeId=8199&channelPage=/ep/channel/gsaOverview.jsp&channelId=-25201.**

Offerors may utilize these current electronic versions of GSA forms to fill in the appropriate information in lieu of using hardcopy versions provided elsewhere in this Solicitation and filling in the information by hand.

## 10.2 DEVIATIONS

Offers will be construed to be in full and complete compliance with this Solicitation unless the Offeror describes any deviation in the offer. The Contracting Officer shall make decisions regarding deviations that cause the offer to be non-responsive.

## 10.3 ERASURES OR CHANGES

The person signing the offer must initial erasures on, or changes to, the offer forms.

**NOTE: Agents must submit a valid copy of a notarized agreement authorizing him/her to submit offer and negotiate on behalf of owner/developer.**

## 10.4 COMPLETION OF GSA FORM 3518

The Offeror must submit with the offer a signed copy of GSA Form 3518, Representations and Certifications, with all information completed as requested.
SECTION K – REPRESENTATIONS, CERTIFICATIONS, AND OTHER STATEMENTS OF OFFERORS OR RESPONDENTS

K.1 FAR 52.204-8 Annual Representations and Certifications. (May 2014)

(a)(1) The North American Industry Classification System (NAICS) code for this acquisition is in the below table.

(2) The small business size standard is:

| Functional Category | NAICS Code | Description | Size Standard |
|---|---|---|---|
| Sector 53 – Real Estate and Rental and Leasing | 531190 | Leasing of Building Space to Federal Government by Owners | $38.5 Million |

## 10.5 PREPARATION OF GSA FORM 1217

The Offeror must submit a signed copy of GSA Form 1217, Lessor's Annual Cost Statement, with the offer. Directions for completion of the form are on the back of the form.

## 10.6 PREPARATION OF GSA FORM 1364A (REVISED 12/04)

The following instructions will assist you in completing GSA Form 1364A, Proposal to Lease Space. **Offered rates must be submitted in Net Usable Square Feet (NUSF).**

**Note: Refer to Part 8 of the SFO (Forms) for the GSA Form 1364A – Proposal to Lease Space Guidance Form for detailed instructions.**

**Section I – Description of Premises**
Blocks 1 – 7: Enter the general information about the site/building, including address and number of floors. Enter total amount of Net Usable Square Feet of space offered. Do not break out the space by type. Enter floor load, type of construction, and building age. If not applicable, place N/A in appropriate block(s).

**Section II – Space Offered and Rates**
Blocks 8 – 13: Indicate whether space is Full or Partial Floor, enter the number of Net Usable Square Feet of space offered. If not applicable, place N/A in appropriate block(s).

Enter the Net Usable Square Foot rate per year for the Initial Term, **including** costs of special requirements as described in Schedule B and as specified in this Solicitation (refer to Paragraph 1.8 PROPOSALS) to be provided by the Lessor.

Enter the Net Usable Square Foot rate per year for the Renewal Option **including** costs of special requirements as described in Schedule B and as specified in this Solicitation (refer to Paragraph 1.8 PROPOSALS) to be provided by the Lessor. Alternate Proposals may be submitted on plain bond paper, attached to the form, and signed by the Offeror.

Proposals excluding cost of special requirements may be submitted on plain bond paper, attached to the form, and signed and dated by the Offeror.

Enter the number of parking spaces offered (inside and outside) and indicate any cost to the Government, if applicable.

**Section III – Lease Terms**
Blocks 14 – 19: Enter information regarding Initial Lease Terms and Renewal Options of any Alternate Proposals, Schedule B lump sum costs, Rentable Square Foot Rate and Square Footage, Lists of Attachments, and any Additional Remarks, List of Attachments, Alternates, and any Additional Remarks.

**Section IV – Owner Identification and Certifications**
Blocks 20 – 23: Indicate the Offeror's interest in the offered property. Specify if other than owner or agent. Agents must submit a valid copy of a notarized agreement authorizing him/her to submit and negotiate on behalf of the owner/developer. If the Offeror is a partnership, VA must receive written evidence, by agreement or otherwise, that the person signing this offer has been authorized to do so by all partners. If the Offeror is a corporation, VA must receive a corporate resolution, signed by the Secretary of the corporation under corporate seal that sets forth all officers of the corporation and indicates which are authorized to bind the corporation.

Complete, sign, and date offer.

**NOTE: OFFER MUST BE RECEIVED BY 4:00 PM (ET) ON THE DATE SPECIFIED IN PARAGRAPH 1.5, AT THE ADDRESS CONTAINED IN PARAGRAPH 1.7 OF THIS SOLICITATION. ENVELOPE SHOULD BE IDENTIFIED IN THE LOWER LEFTHAND CORNER WITH THE WORDS:**

**"WEST HAVEN, CT CCC – SFO NO. VA101-15-R-0082"**

## 10.7 DRAWINGS AND SPECIFICATIONS – SUBMISSION WITH OFFER

Offeror shall submit drawings and specifications on six discs (CD-Rom as specified in Paragraph 1.7.1) and two hard copy sets of drawings and specifications with the following minimum information. Format and for hard copy submittal shall be as follows:

*(1) Drawings*
Hard copies shall be black line prints on bond paper, full size (30" x 42"). Each set shall contain all sheets for all disciplines.

*(2) Specifications*
Hard copies shall be printed on 8½" x 11" bond paper. Materials may be one-sided or double sided copies. Each copy shall contain all sections. Organize and tab materials by discipline.

***NOTE 1*:** Failure to provide drawings and specifications in accordance with the requirements above may cause the offer to be deemed unacceptable and rejected accordingly.

***NOTE2:*** The conceptual floor diagram provided by VA as a part of this Solicitation is intended to convey desired floor locations and adjacency relationships of the main components of the program. The interior layout and footprint of the building may vary as a result of actual site conditions and building design development. The number and location of doors will vary as the Offeror develops detailed plans. The conceptual diagram also shows rooms dedicated to building services. The size and location of these rooms will vary as the Offeror develops detailed plans. It is the Offeror's responsibility to design the building to comply with applicable Building Codes and ordinances. ***Offerors are advised that rent payment will not be made for delivered space that is in excess of the maximum NUSF solicited.***

***NOTE 3*:** All drawings shall be prepared per VHA National CAD Standard Application Guide, available on the VA Technical Information Library (TIL) website at

http://www.cfm.va.gov/til/projReq.asp. Drawings shall be on Architectural E-size sheets (30x42 inches). Title blocks shall identify the Offeror and shall include Solicitation Number, Clinic Name, and Location. Drawings shall be organized by discipline and shall include the following minimum information.

**10.7.2 SITE PLAN(S)**

Minimum scale 1"=40' or per local jurisdictions standard requirements, whichever is greater. Plan(s) shall show all site and building demolition, and all site improvements including grading, exterior equipment location, parking, vehicle and pedestrian circulation, storm water retention, and landscaping. Indicate any relationship to flood plains, adjacent uses, and current zoning status.

Lessor shall identify potential issues as they pertain to the site complying with all Federal standards when applicable, i.e., National Environmental Policy Act (NEPA), The Department of Veterans Affairs Environmental Compliance Manual, Jurisdictional waters of the United States (404 & 401b) individual or nationwide permits, etc.

**10.7.3 FLOOR PLAN(S)**

Submit, as a minimum, a double line layout for all floors, penthouses, and roof areas with double line exterior walls at a scale not less than 1/8 inch. Show all rooms, doors, corridors, basic column grid, assumed column sizes, expansion and seismic joint locations, mechanical, electrical, and telecommunications rooms, shafts, and (if applicable) all vertical circulation, i.e., stairs and elevators.

Identify each room or space with its space identification number from the VA conceptual plan or Room Finish and Door Schedule. Names on drawings shall be the same as those used in the SFO.

Show the overall exterior dimensions, dimensions for building wings or offsets, and dimensions for column grids.

**10.7.4 ELEVATIONS**

Submit preliminary elevations of all facades showing massing, proposed fenestration, and the building relationship to finish grades. Show all significant building materials, any proposed roof top mechanical equipment, and architectural screens on the elevation drawings.

Provide a schematic section to define building configuration.

**10.7.5 COLOR RENDERINGS**

Submit a minimum of two color renderings of perspective views to communicate the design concept and materials. Submit at least one exterior view illustrating building massing, exterior materials and colors, fenestration, and relationship to context. Submit at least one interior view to illustrate approach to the interior design concept, materials, colors, and integration with wayfinding.

Renderings may be prepared using the A/E's preferred media. Renderings shall be minimum 15" x 20". Submit renderings or prints mounted on mat board, foam core, or similar lightweight material. Do not frame renderings.

### 10.7.6 SPECIFICATIONS

Submit outline specifications for foundations, superstructure, exterior closure and building envelope systems, plumbing, fire protection, HVAC, electrical, and telecommunications systems.

## 10.8 DESIGN CONCEPT: SUBMISSION WITH OFFER

Offeror shall submit design concept materials with other technical submittals on six discs (CD Rom as specified in Paragraph 1.7.1) and two hard copy sets of drawings and specifications with the following minimum information. Materials shall be organized and tabbed to follow the outline in paragraphs 10.8.1 through 10.8.12 below.

Hard copies shall be printed on 8½" x 11" bond paper. Materials may be one-sided or double-sided at Offeror's option. Bind in one or more volumes as necessary. Identify each volume with Offeror's information, solicitation number, clinic name, and location. Each set shall contain all volumes.

### 10.8.1 ARCHITECTURE/STRUCTURAL

Submit a narrative explaining the design concept including exterior design, interior finishes, and interior design concept. Describe overall design concept and relationship to site and context. Describe any changes from VA-supplied concept plan for organization of spaces, departments, building entrances, and major circulation routes. Discuss preliminary concept for interiors and finishes.

Submit a narrative that clearly explains the engineering criteria and rationale used in selecting the proposed structural system. Describe proposed materials and approach to be used in design of foundations, vertical members, floor and roof systems, and lateral force resisting system. Indicate typical structural bay size.

### 10.8.2 SUSTAINABLE DESIGN AND ENERGY EFFICIENCY

Submit a checklist identifying targeted solutions to meet energy reduction goals and LEED® Silver for Healthcare Certification. Along with the checklist, the Offeror shall submit a brief statement outlining how each of the LEED® credits proposed will be achieved.

### 10.8.3 FIRE PROTECTION

Submit a narrative explaining building construction type, building fire/smoke separation, fire sprinkler/standpipe systems, water supply available fire flow/maximum demand, and hazard rating and fire alarm systems. Indicate NFPA 220 and IBC fire-resistive ratings of the building.

**10.8.4 MECHANICAL**

Submit a narrative that clearly states the engineering criteria and rationale used for selecting the type of HVAC system(s) and tentative zoning of the systems. State clearly all assumptions and parameters used in calculating heating and cooling loads. If the calculations are performed on a computer, provide the name of the program. Provide a list of the energy conservation measures proposed to be used in the HVAC system design. State clearly the logic and criteria used in selecting each conservation measure. Investigate the availability of utilities, such as natural or propane gas, electricity, etc., for the HVAC equipment and provide description of their status.

Provide a single-line schematic plan of HVAC zoning.

**10.8.5 ELECTRICAL**

Submit a narrative that clearly states the electrical power and lighting design approach, including basic assumptions and information regarding the local electrical utility company. Describe extent of utility company work if any is required.

**10.8.6 STRUCTURED CABLING**

Submit a narrative that clearly states the structured cabling design approach, including basic assumptions and information regarding the data, telephone and CATV/SATV backbone, and horizontal cabling within the guidelines. Describe the extent of outside plant connections, either to service provider connections, or if required, as extensions of existing systems.

**10.8.7 SECURITY**

Submit a narrative that clearly states the security intent and cabling design for access control, intrusion detection, and video surveillance, including basic assumptions and information regarding the topology and connectivity within the guidelines. Describe the extent of monitoring, recording, control, and retention of all equipment.

**10.8.8 AUDIO VISUAL**

Submit a narrative that clearly states the audio visual intent and cabling design for the facility, including basic assumptions and information regarding the topology and connectivity within the guidelines. Describe the extent of digital signage, video projection, and sound.

**10.8.9 SPECIAL SYSTEMS**

Special systems may include but are not limited to the following:

- Nurse Call
- Public Address (PA)
- Intercommunication System
- Radio Entertainment Distribution (RED)
- Master Antenna Television (MATV)
- Radio Paging System
- Patient Annunciator/Locator System
- Two-Way Radio System

- Duress Alarm and Emergency Notification System
- Security Management and Control, and Centralized Police Security Management Systems

Submit a narrative that clearly states the special systems cabling design approach, including basic assumptions and information regarding the special systems backbone and horizontal cabling within the guidelines. Describe the extent of the special systems and connections for new installed equipment, or if required, for extension of existing systems.

### 10.8.10 PHYSICAL SECURITY MEASURES

VA Outpatient facilities must comply with the requirements for Life Safety Protected (LSP) as defined in VA Physical Security Design Manual (PSDM). Submit a narrative describing physical security measures incorporated into the design. Include features related to both man-made and natural events. See Paragraph 4.2.4.

### 10.8.11 WATER DISTRIBUTION

Submit a narrative that clearly states the water distribution design approach, including basic assumptions and information regarding the local water utility. Describe the required demand including the fire flow, the availability to connect to the existing water distributions system, whether the existing system can meet the proposed demand, and the ability to provide a looped system. If the water utility cannot provide modeling information that substantiates that the existing system can support the new structure(s), the Lessor shall be responsible for providing modeling information that supports the new structure(s).

### 10.8.12 SANITARY SEWERAGE SYSTEM

Submit a narrative that discusses the sanitary sewer design approach. Discuss existing capacity in the downstream sewer system and proposed points of connection. Provide calculations substantiating the proposed flows to be generated from this site.

## 10.9 CALCULATIONS: SUBMISSION WITH OFFER

This information will be used to evaluate the "Quality of Building and Design Concept" factor as referenced in Paragraph 2.2.

Offeror shall submit calculations with other technical submittals on six discs (CD Rom as specified in Paragraph 1.7.1) and in two hard copy sets. Materials shall be organized and tabbed to follow the outline in Paragraphs 10.9.1 through 10.9.3 below.

Hard copies shall be printed on 8½" x 11" bond paper. Materials may be one-sided or double-sided at Offeror's option. Bind in one or more volumes as necessary. Identify each volume with Offeror's information, solicitation number, clinic name, and location. Each set shall contain all volumes.

### 10.9.1 AREA COMPUTATIONS

Submit key plans or diagrams to indicate methodology used to compute total gross area of the building and the total inside gross area minus the deductions as specified in Paragraph 3.14

RENTABLE AND NET USABLE SQUARE FEET of this Solicitation to arrive at the total net usable square foot calculation.

**10.9.2 HVAC CALCULATIONS**

Submit preliminary HVAC block load calculations for estimated heating and cooling requirements of the building (BTUH's per gross square foot per year).

**10.9.3 ELECTRICAL CALCULATIONS**

Submit preliminary electrical square foot load calculations for both normal and emergency use. Separate calculations into lighting, receptacles, and equipment power (medical and mechanical).