

## TABLE OF CONTENTS

|                  |  |          |
|------------------|--|----------|
| <b>SECTION 8</b> | <b>EXHIBIT A—SPECIAL REQUIREMENTS.....</b>           | <b>2</b> |
| 8.01             | CHART HOLDERS .....                                  | 2        |
| 8.02             | APPROVED ANSI EYEWASH STATION.....                   | 2        |
| 8.03             | VIDEO TELECONFERENCING SYSTEM (VTEL) .....           | 3        |
| 8.04             | NURSE CALL SYSTEM .....                              | 3        |
| 8.05             | AUTOMATIC DOORS .....                                | 3        |
| 8.06             | WAYFINDING .....                                     | 3        |
| 8.07             | HANDRAILS AND WALL GUARDS.....                       | 3        |
| 8.08             | CORNER GUARDS.....                                   | 3        |
| 8.09             | INTERIOR AND EXTERIOR SIGNAGE.....                   | 3        |
| 8.10             | CASEWORK AND COUNTERTOPS .....                       | 4        |
| 8.11             | PORTABLE FIRE EXTINGUISHERS.....                     | 4        |
| 8.12             | WINDOW TREATMENTS.....                               | 4        |
| 8.13             | COMPUTER AND TELECOMMUNICATIONS ROOM .....           | 4        |
| 8.14             | TELECOMMUNICATIONS CABLING EXPANSION.....            | 6        |
| 8.15             | SPACE DESIGN REQUIREMENTS .....                      | 10       |
| 8.16             | BUILDING CONSTRUCTION .....                          | 11       |
| 8.17             | OCCUPANCY TYPE .....                                 | 12       |
| 8.18             | ASBESTOS .....                                       | 12       |
| 8.19             | SPECIAL ENVIRONMENTAL REQUIREMENTS.....              | 12       |
| 8.20             | ACCESSIBILITY STANDARDS .....                        | 12       |
| 8.21             | OSHA REQUIREMENTS.....                               | 12       |
| 8.22             | VENDING FACILITIES .....                             | 12       |
| 8.23             | PUBLIC RESTROOMS.....                                | 12       |
| 8.24             | STRUCTURAL .....                                     | 13       |
| 8.25             | ROOF LOAD .....                                      | 13       |
| 8.26             | EXTERIOR WALLS .....                                 | 13       |
| 8.27             | INTERIOR DESIGN CRITERIA GOAL.....                   | 13       |
| 8.28             | INTERIOR FINISHES.....                               | 13       |
| 8.29             | OPERATION OF BUILDING EQUIPMENT .....                | 14       |
| 8.30             | CIRCULATION SYSTEMS .....                            | 14       |
| 8.31             | MECHANICAL.....                                      | 14       |
| 8.32             | PLUMBING.....  | 16       |
| 8.33             | ELECTRICAL .....                                     | 16       |
| 8.34             | ELECTRICAL SERVICE.....                              | 16       |
| 8.35             | ELECTRICAL – GENERAL.....                            | 16       |
| 8.36             | ELECTRICAL CALCULATIONS .....                        | 17       |
| 8.37             | ELECTRICAL DISTRIBUTION EQUIPMENT.....               | 17       |
| 8.38             | ELECTRICAL ROOMS .....                               | 17       |
| 8.39             | BRANCH CIRCUIT DISTRIBUTION AND WIRING DEVICES ..... | 17       |
| 8.40             | GROUNDING .....                                      | 18       |
| 8.41             | CONDUITS AND BOXES .....                             | 18       |
| 8.42             | UTILITIES, PERMITS AND CODE ISSUES.....              | 18       |
| 8.43             | JANITORIAL.....                                      | 18       |
| 8.44             | PEST CONTROL.....                                    | 22       |

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## SECTION 8 EXHIBIT A—SPECIAL REQUIREMENTS

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### 8.01 CHART HOLDERS

Furnish and install Chart holders as shown on the drawings. Chart Holders shall comply with the following, or be an equal approved by the DVA Contracting Officer:

- A. Manufacturer:  
Carstens, Inc.  
7310 West Wilson Avenue  
Chicago, Illinois 60706
- B. Product: Half-A-Roo 2000
- C. Cabinet Color: Gray.
- D. End Cap Finish: Light Oak.
- E. Trim Color: Gray.
- F. Closing Style: Automatic with Electronic Keyless Slam Lock.
- G. Accessories:
  - 1. Chart Retainer Bar
  - 2. Slide Alert.
- H. Quantity: As indicated on drawings.

### 8.02 APPROVED ANSI EYEWASH STATION

- A. Emergency Eyewash Stations shall comply with the following:
  - 1. Controlled, low velocity flow completely rinses eyes and face and is not injurious to user.
  - 2. Emergency eyewashes and showers will be installed in accordance with manufacturer's specifications and ANSI installation standards.
  - 3. Unit must deliver at least 3.0 gallons (11.4 liters) of water per minute for 15 continuous minutes.
  - 4. Connect unit to uninterrupted water supply delivering at least 3.0 gallons per minute.
  - 5. Valve actuator shall be easy to locate and readily accessible to user, and located 33"-45" from the floor, "Hands-free" one motion stay-open valve shall activate in one second or less.
  - 6. Protect spray heads from airborne contaminants, each spray head shall be protected against dust and dirt by a "flip top" cover; 3.25" (83mm) 1.25" (32mm) eye washes outlet heads shall be positioned between 33" (83.8 cm) and 45" (114.3 cm) from the floor and at least 6" (15.3 cm) from the wall or nearest obstruction.
  - 7. Identify eye wash with highly visible sign in a well-lighted area
  - 8. Install eye wash unit within 10 seconds of hazard, on the same level as hazard and with unobstructed travel path.
  - 9. Water delivered by eye wash shall be tepid (lukewarm) 60-100 Fahrenheit; if needed install mixing valve (Note: Temperature recording must be documented semi-annually).
  - 10. ANSI-approved eyewashes are installed and maintained in accordance with the manufacturer's recommendations. The eyewash station shall have a catch basin and be drained properly.
  - 11. The Lessor shall provide the VA Engineering Safety with the unit and location for approval prior to installation. Counter- or sink-mounted eyewash stations are approved for use.
- B. The <http://www.eyewash.com> link has multiple models to choose from (see attached photos below). The links below came from under product index.

<http://www.gesafety.com/downloads/G1774.pdf>

<http://www.gesafety.com/downloads/G1778.pdf>

G1805



G1849



### 8.03 VIDEO TELECONFERENCING SYSTEM (VTEL)

Provide cabling and outlets for the Telehealth/V-TEL system. The Telehealth/V-TEL will be installed in the telemedicine rooms and other spaces as indicated in the DIDs. The VA shall provide equipment required for the Telehealth/V-TEL system. Install a CAT 6 enhanced cable from a data outlet in designated room(s) to Computer/Telephone Equipment Room. Cable from each room shall terminate in center of Computer/Telephone Equipment room with thirty (30) feet of excess cable and shall be tagged to indicate room that cable serves.

### 8.04 NURSE CALL SYSTEM

Provide a nurse call system with a localized audible and visible alarm for each restroom accessible by the general public or patients and at the procedure room.

- A. Furnish and install a complete and fully functional and operable Nurse Call System for each location noted in the DIDs.
- B. Equipment: Active electronic type shall use solid-state components, fully rated for continuous duty unless otherwise indicated. Select equipment for normal operation on input power usually supplied between 110 to 130 VAC, 60 Hz.
  - 1. Meet all FCC requirements regarding equipment listing, low radiation and/or interference of RF signal(s). The system shall be designed to prevent direct pickup of signals from within and outside the building structure.
- C. All equipment face plates utilized in the system shall be stainless steel or anodized aluminum.
- D. Call Initiation, Annunciation and Response:
  - 1. Light and Tones:
    - a. Calls may be initiated through:
      - i. Emergency Station pull cord / push button.
    - b. Once a call is initiated, it must be annunciated at the following locations:
      - i. The Corridor dome light associated with the initiating device.
      - ii. A local master control station indicating the call location.
      - iii. All calls must be displayed until they are cleared by the nursing staff ONLY from the initiating device location.
  - 2. Emergency Pull with Audio:
    - a. Rauland Model 354000 or equal.
    - b. Pull cord station with call pushbutton, cancel button and audio speaker.
  - 3. Corridor Lights
    - a. Rauland Model 352000 or equal
    - b. LED corridor light.

### 8.05 AUTOMATIC DOORS

Automatic doors and operators shall be in accordance with VA Master Construction Specifications ([HTTP://WWW.CFM.VA.GOV/TIL/SPEC.ASP](http://www.cfm.va.gov/til/spec.asp)). 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. Design automatic doors to open from both sides and with the use of a touch pad or VA PIV proximity card. At a minimum, there will be automatic door operators on all entrance and vestibule doors and on corridor doors leading to the clinic exam/treatment core. Other automatic door openers may be required depending upon individual building layouts and issues. A touch pad shall be provided at the reception desk which will allow staff to open the corridor door between the waiting room and the clinic space beyond in order to allow other staff or patients through the door. This door shall also be opened with a VA PIV card by nursing staff on the waiting room side of the door through the use of a card reader near the door.

### 8.06 WAYFINDING

A "way finding" process needs to be designed into every project. Visitors and staff need to know where they are, what their destination is, how to get there and have the ability to return. Identification, personalization of occupied spaces and orientation are all to be addressed in the design. Way finding is to be thought of broadly as building elements, color, texture and pattern cues, as well as a coordinated set-up for signage and artwork.

### 8.07 HANDRAILS AND WALL GUARDS

Provide handrails and wall guards on both sides of all corridors. Provide chair rail at locations indicated for seating. Materials and installation shall comply with VA Master Construction Specifications. Provide continuous reinforcing in the wall attachment of handrails and bumper guards. The wheelchair storage area near the front entrance/waiting room shall be provided with wall protection placed from the floor/base cove level up to 48" high.

### 8.08 CORNER 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. Materials and installation shall comply with VA Master Construction Specifications.

Use flush-mounted (full height from finished floor to a minimum of 8'-0" AFF) resilient-type corner guards on walls.

### 8.09 INTERIOR AND EXTERIOR SIGNAGE

Interior signage shall conform to VA's "Environmental Graphics Design" Program Guide (Signage Manual) and accessibility standards listed in this solicitation. (Refer to VA's Internet site for a copy of the signage manual at <http://www.cfm.va.gov/til/criteria.asp#special>) and VA Master Construction Specifications.

Building owner will develop and submit a signage plan for review and approval by the Contracting Officer during design development. The building owner will furnish and install interior signs for all rooms, areas, conditions or features in the facility.

**INTERIOR SIGNAGE:**

- A. Signs complete with lettering, framing and related components for a complete installation.
- B. Sign panels and frames of dark bronze Cocoa Gloss-24B plastic equal to color manufactured by Scott Plastics Co., except where special colors are specified.
- C. Signs shall be ABAAS compliant, and shall be provided with plastic frames with square corners. Provide for room numbers and function, rest room identification and any other code required signage.
- D. Frames:
  - 1. Construct, one piece molded plastic.
  - 2. Frame wall thickness: 1/8-inch.
  - 3. Frames approximately 1/2-inch deep providing approximately a 1/8-inch border around sign panels.
  - 4. Corners of frames to be square.
- E. Letters or Numbers and Symbols:
  - 1. Helvetica Medium type face; non-beveled edges 1/32-inch thick unless specified otherwise.
  - 2. Standard White, equal to color manufactured by Scott Plastics.
  - 3. Photographically reproduced graphic symbols.
  - 4. Acid-welded to the sign panel.
- F. Sign Panels:
  - 1. One piece within frame size unless specified otherwise.
  - 2. Sign panels: Minimum 1/8-inch thick solid or laminated acrylic plastic.
    - a. Braille: Grade 2, rounded or domed .019" to .025" to allow smooth tactile sweep of fingers from left to right. Locate 3/8" below corresponding text.
  - 3. Restroom Door Signs:
    - a. Numbers and letters mounted on top of 3-1/4 inch high by 9-1/4 inch wide framed panel.
    - b. Raised numbers and letters: Minimum 5/8" – maximum 2" high; 1/32 inch thick. "Restroom"; include room designation number.
    - c. Project panel minimum of 1/4 inch in front of face of frame.
    - d. Braille: Grade 2, rounded or domed .019" to .025" to allow smooth tactile sweep of fingers from left to right. Locate 3/8" below corresponding text.
  - 4. Fire Extinguisher Sign:
    - a. Provide sign at fire extinguisher cabinets.

**NOTE: The Fargo VA is willing to consider signage options that match other existing building signage, if any, that the building owner may already be using. Submit a request to match existing signage and documentation or signage specification cut sheets for VA review and approval.**

**EXTERIOR SIGNAGE:**

- A. Provide a highly visible exterior signage.
  - 1. Signage shall be VA blue and sized per the VA signage guide at the VA website noted earlier in the specifications.
  - 2. Signage font type and size shall comply with the VA Signage Design Guide.
  - 3. Sign shall be electrically illuminated for full visibility at night.
- B. Signage shall be mounted on the building and an additional sign shall be mounted in any building marquee system that advertises building occupants along the main roadways.

**NOTE: The Fargo VA is willing to consider signage options that match other existing building signage, if any, that the building owner may already be using. Submit a request to match existing signage and documentation or signage specification cut sheets for VA review and approval.**

**8.10 CASEWORK AND COUNTERTOPS**

Plastic laminate casework and countertops shall be in accordance with the requirements in VA Master Construction Specifications. Type(s), quantities and locations shall be as shown or required on conceptual plans or DIDs.

**8.11 PORTABLE FIRE EXTINGUISHERS**

Portable fire extinguishers recessed in cabinets shall be provided, inspected, and maintained by the building owner in accordance with National Fire Protection Association (NFPA) 10, Standard for Portable Fire Extinguishers. Recessed cabinets shall be conspicuously marked. Documentation shall be provided to the Fargo VA regarding all required Joint Commission, Life Safety Code and city/county maintenance and testing of the fire extinguishers.

**8.12 WINDOW TREATMENTS**

All exterior windows shall be equipped with 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. Materials and installation shall comply with VA Program Guide PG-18-1 Master Construction Specifications and Physical Security requirements of the solicitation.

**8.13 COMPUTER AND TELECOMMUNICATIONS ROOM**

General Requirements: Provide a climate-controlled, secure (electronic access control system with control cabinet contained within this room must work with Fargo VA PIV cards) and protected room in an area dictated by System Design. Only approved VA personnel will have access to the rack and to the room. Security of computerized information shall be strictly maintained at all times. An access control system shall be provided for all exterior doors and selected interior doors. The computer head-end equipment system room shall be protected by the access control system and the access control system cabinet shall be located within the computer room. The system shall be compatible with Fargo VA issued PIV proximity cards. In addition, the

lockset installed shall be capable of being opened (overridden) with only one key which shall be retained by the Fargo VA OI&T staff. A deadbolt lock independent of other door access hardware shall be provided, with key set retained by the Fargo VA OI&T Staff.

A. Minimum Room Construction Requirements:

1. The Lessor shall provide a secure, double-locked (lockable access hardware and separate independent deadbolt lock) communications closet to house the computer networking equipment and network patch panel to service the clinic space.
  2. 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.
  3. The room must be designed with adequate space (100 square feet minimum) to accommodate all provided and planned Special Systems, Head-end Cabinets, and Uninterruptible Power Supply (UPS) Systems.
  4. See VA Electrical Design Manual, Chapter 8 Information Technology Room Requirements, to include subchapters or paragraphs, for Equipment Room requirements in addition to the information provided in this document. Contact the Fargo VA OI&T staff for resolution of any conflicting information issues.
  5. A minimum of 3 ft. shall be provided around each cabinet unless the cabinets are installed joined or side-by-side where the 3 ft. rule applies around the entire assembly.
  6. Minimum ceiling height shall be 8 ft. above finished floor.
  7. The room shall have a finished floor of material consisting of antistatic properties.
  8. Ventilation grills or air ducts that serve the rooms shall not exceed 100 square inches in size.
  9. No pipe or duct system foreign to the OI&T Closet shall enter or pass through the computer/telecom room. The Design Engineer shall ensure that foreign piping such as water pipes, steam pipes, medical gas pipes, soil pipes, sanitary drains, storm drains, A/C ducts and other unrelated systems are not installed in or pass through the IT/telecom room. Only HVAC ducting and sprinkler piping serving only the room shall not be considered foreign to the installation; and they shall not pass through the room and serve other areas.
  10. The room must have lighting controlled by a wall switch directly inside the closet by the entry. Lighting fixtures shall be flush-mounted, and shall ensure a lighting level of 100 foot-candles on working surfaces with a near (natural) light color rendition.
  11. Provide a 4 foot by 8 foot by ¾ inch thick plywood board around the interior perimeter of the room for mounting telecommunications and OI&T equipment.
  12. Provide a quadruple receptacle with its centerline located 18 inches above the finished floor at the center of rear wall below plywood backboard. Provide a quadruple receptacle with its centerline located 40 inches above the floor near a wall corner. Provide a minimum of five additional duplex outlets within the room each on individual 20 amp circuits at 40 inches above the floor and spread around the room.
  13. Provide Telecommunication Ducts/Cellular Floors when required by system design.
  14. The door to the room **must**:
    - a. Open inward, provide at least five feet of clearance between the door and any network equipment.
      - i. Be at least 45mm (1-3/4 in thick) steel or solid core wood, set in a steel frame, access control system with a uniquely keyed override mortis lock with deadlock pin feature. This key shall be retained by VA OI&T staff only. No grills or glass shall be allowed.
      - ii. Have hinge pins hidden, retained with lock-pins or spot welded to prevent their removal.
      - iii. Have a jimmy-proof electronic locking mechanism to restrict unauthorized access. See earlier requirements noted in the specification as well for this lock and hardware.
      - iv. The door must have a separate and uniquely keyed deadbolt lock as a secondary lock. This key shall be different than the override key for the access control hardware. VA OI&T staff shall determine who retains this deadbolt key.
- B. Room Location: When selecting the site, avoid locations restricted by building infrastructure. Room should be located near the clinic rooms and **shall not** be labeled with any IT identifiable placard. No windows shall be allowed.
- C. Climate: The room shall be provided with stand-alone heating and/or cooling equipment, and that system shall be backed up by the general HVAC system provided for the remainder of the leased space. The HVAC system shall be capable of maintaining the internal space between 68 degrees and 80 degrees Fahrenheit, with humidity control. The relative humidity shall not exceed 50 percent. Heating and cooling requirements shall include router, switch, back-up batteries and associated rectifiers. Heat load requirements shall be determined by the Lessor and shall not be provided by VAMC OI&T staff.

## 8.14 TELECOMMUNICATIONS CABLING EXPANSION

### SEE ALSO PARAGRAPHS 5.15 THROUGH 5.18.

Furnish and install Telecommunications Cabling, equipment, and accessories

#### A. GENERAL:

1. RELATED DOCUMENTS
  - a. Drawings and General Provisions of the contract, including General and Supplementary Conditions.
2. SUMMARY
  - a. This section includes installation, testing, documentation and training for a fully functional local area network cabling infrastructure.
  - b. Furnish and install Horizontal UTP Copper cabling, patch panels, patch cords, termination units, horizontal cross-connects, information outlets, respective cable termination connections, and other items necessary to "terminate" selected information outlets (IO) as shown on the Drawings.
  - c. Existing Telecommunication Demolition – Existing cables and jacks scheduled to be removed shall be documented with telecommunication closet location and identification of the termination location in the telecommunication closet.
3. WORK PROVIDED UNDER OTHER SECTIONS
  - a. Data cabling pathways, power wiring devices, lighting, cooling and other work related to the Local Area Network infrastructure will be provided by the Electrical Lessor unless noted otherwise.
4. WORK FURNISHED, INSTALLED, AND CONNECTED BY OTHER
  - a. Electronic data communication equipment is not specified under this contract.
5. SUBMITTALS
  - a. Submit a complete list of all proposed equipment and materials, including manufacturer's specifications and product cut sheets prior to purchase.
  - b. Submit a labeling scheme approved by the owner and the Government.
  - c. Telecommunications Maintenance Manual: Furnish one (1) complete Telecommunications Maintenance Manual containing the following:
    - i. Descriptions of network cabling equipment and normal operating procedures.
    - ii. Riser Diagrams showing complete installed UTP and Fiber cabling.
    - iii. Proof of Performance Report outlining the operating parameters tested, complete test results, and a summary of industry standards used for each parameter.
    - iv. Warranty information.
    - v. Lessor shall perform and document all conductor tests of wiring. All Category 6e or better conductors and fiber optic cables shall be tested and certified for ANSI/EIA/TIA, 568A, TSB-67 standards and ANSI/TIA/EIA-TSB-9S. The Lessor must supply a report documenting the test results. Any cable failing the test shall be corrected at Lessor expense. The report should be submitted in electronic format to the FCIO (Facility Chief Information Officer). All station runs must be tested after final installation and termination. The report must be submitted to FCIO and approved prior to acceptance of space.
6. APPLICABLE PUBLICATIONS, STANDARDS, CODES, TESTING LABORATORIES, GUIDELINES
  - a. ANSI/EIA/TIA Standard 568B.1, 568B.2, AND 568B.3
  - b. ANSI/EIA/TIA Standard 569
  - c. ANSI/EIA/TIA Standard 606
  - d. ANSI/EIA/TIA Standard 607
  - e. Technical Service Bulletins TSB-36, TSB-40, TSB 67
  - f. NFPA 70e National Electrical Code.
  - g. Provide products specified in this section that are listed and labeled.
  - h. The terms "listed" and "labeled": As defined in the "National Electrical Code", Article 10G0.
7. GUARANTEES AND WARRANTIES
  - a. Guarantee system, in writing, against defects in workmanship and associated material not covered by cabling infrastructure warranty, for one year after final acceptance. During this time, the entire infrastructure shall be kept in proper operating condition at no additional labor or material cost to the Owner or Government.
8. QUALITY ASSURANCE
  - a. Lessor shall provide evidence of successful completion of other operational systems of similar scope and complexity with the bid. Indicate the following:
  - b. Names and locations of two previously installed systems and two most recently installed systems
  - c. Area of coverage for each system
  - d. Building engineering and telephone number at each installation
  - e. Previous installation experiences
  - f. At least two professional references for similar UTP and fiber installations
  - g. Lessor shall provide training documentation of assigned staff corresponding to the type of cabling and equipment specified.
  - h. Lessor shall be currently licensed to install low-voltage cabling infrastructures in the state where the facility is located.
  - i. Lessor shall meet manufacturer's requirements for the provision and installation of specified equipment.
  - j. Lessor shall provide proof of certification as a structured cabling infrastructure installer for the system provided under this bid.
  - k. Lessor shall utilize the following test equipment, or better, and shall have operators trained for use of such equipment:
    - i. Copper Cable Test Equipment:
      1. Fluke / MicroTest (level 3 tester)
      2. Agilent WireScope 350 (level 3 tester).
      3. Prior approved equal.
    - ii. Fiber Optic Cable Test Equipment: (if fiber is included in the installation)
      1. Approved OTDR.
      2. Approved OLS/OPM.

9. PROJECT/SITE CONDITIONS
    - a. Examine areas and conditions under which the system is to be installed, and notify COR in writing of conditions detrimental to proper completion of the work. Do not proceed with that portion of the work affected until unsatisfactory conditions have been corrected in an acceptable manner.
  10. MANUFACTURER
    - a. Subject to compliance with specified requirements, provide specified materials, or prior approved equal to the referenced products included for the design of the Local Area Network Cabling infrastructure.
  11. UPGRADED PRODUCTS
    - a. Due to the fast-changing technology, products shall be the most current and up-to-date quality and labor-saving versions available for the application, unless otherwise restricted.
    - b. Prior to bidding, provide written notification of any discrepancies in model or part numbers specified. Corrections will be clarified by addendum.
    - c. Prior to bidding, provide written notification to COR of announced discontinuation or upgrade replacements of specified materials.
    - d. Provide necessary supplies, mounting hardware and accessories required to install specified materials.
  12. PRODUCT SUBSTITUTION
    - a. No manufacturer substitutions will be allowed for the structured cabling infrastructure without prior approval from the Government.
  13. MANUFACTURER'S CERTIFICATION
    - a. Manufacturer of cabling products shall be ISO9001 Certified.
  14. UTP COPPER CABLE LENGTHS, TERMINATIONS, MARKINGS
    - a. Copper Cable runs shall be compliant with EIA/TIA recommended lengths: Horizontal cables shall not exceed 295 feet. Cable runs shall be continuous with no allowance for splicing.
    - b. Copper cable Eight-Position Jack Pin/Pair Assignments shall match the Fargo VA Health Care Systems existing facilities. Coordinate with the Contracting Officer's Representative (COR) prior to installation.
- B. PRODUCTS
1. MANUFACTURERS
    - a. Manufacturers: Subject to compliance with requirements, provide a certified structured cabling infrastructure by: General Cable or approved equal.
    - b. Data Cable: Part Number 6P4P24BLSGCCPP, Cat 6e, blue.
  2. EQUIPMENT RACK:
    - a. The Lessor shall provide a rack to house VA-owned equipment. VA OI&T staff will be responsible for the purchase and installation of network electronics and uninterruptible power supplies. The requirements for the rack are:
    - b. Hoffman Engineering Co, Open 4 Post Rack, Catalog Number: E4DR19FM38U, or equivalent. The rack must be bolted to the floor for stability and oriented for easy access from front and back (ideally this would be at least 4-foot clearance, front and back). It must also be connected by grounding strip to the building ground.
    - c. Chatsworth Products Incorporated, Horizontal wire management system, Catalog Number: 30S30-719, HORZ MGR DBL UNN 2U 19 IN., or equivalent.
    - d. Panduit Corporation, Vertical wire management system, Catalog Number: WMPV22E, VTR CBL MGT 4X FRT/REAR 22RU, or equivalent,
    - e. Panduit Corporation, 48-port Patch panels, Catalog Number: DP 48688TGY, CAT 6 PATCH PANEL, 48 PORT, or equivalent
    - f. Rack position in room- to be agreed on at Design Intent Drawing (DID) workshop.
  3. CABLE SUPPORT
    - a. Supply velcro straps, length and strength as required to properly organize and bundle cables. Vinyl/plastic tie wraps are prohibited throughout except where allowed in section 2.6.
    - b. Install cables in conduit and wireway systems provided by the Lessor's Electrical Contractor. Coordinate with the Lessor's Electrical Contractor for specific requirements. Conduit and wireway systems can only contain low voltage cable for VA connections.
  4. CATEGORY 6 CHANNEL
    - a. The Category 6 - 4 pair UTP channel consists of all cable and components with up to four connections that comprise the full 100 meter circuit from the LAN Electronics to the work station device. The channel shall support applications such as 10Base-T, 100Base-T, 155 Mbs ATM, 77 channel broadband video, 1.0 Gbps Ethernet, 1.2 Gbps, and proposed 2.4 Gbps ATM technologies.
    - b. The channel shall include the patch panels, horizontal cabling, and the station cord, and shall have a positive PSACR across the full frequency range of 1MHz - 250MHz.
    - c. All components shall be backward compatible with existing Category 3, 4 and 5 networks.
    - d. The cabling channel with specified manufacturers above shall exceed Category 6 requirements.
  5. INFORMATION OUTLETS
    - a. Activations: 4 outlets will be required at each location shown on the plans with tabs down.
    - b. Modular Faceplates: Ivory, smooth nylon, UL rated 94V-O high impact, flame-retardant, thermoplastic, integral label card and cover, sized as follows:
      - i. Data information outlets: Devices shown on plans as data information outlets shall be four position faceplates. Panduit 4 position face plate Part Number CFPSE4EI.
      - ii. Telephone information outlets: same as data.
    - c. Modular Information outlets: Modular single information outlet designed for high-performance networking applications. Panduit gigaspeed information outlet:
      - iii. Data outlet Cat 6 Blue 568B: Panduit
    - d. Minimum electrical requirements:
      - i. Insulation resistance: 500 MΩ minimum
      - ii. Dielectric withstand voltage 1,000 VAC RMS, 60 Hz, minimum contact-to-contact and 1,500 VAC RMS, 60 Hz minimum from any contact to exposed conductive surface.
      - iii. Contact resistance: 20 MΩ maximum
      - iv. Current rating: 1.5A at 68 degrees F per IEC Publication 512-3, Test 5b
    - e. Dust Cover/Blank: Lessor shall provide dust covers for each outlet as required to close all faceplate openings.

6. CONNECTOR MODULES

- a. Connector modules shall be minimally equal to Panduit CJ6X88TGEI to match existing Fargo VAMC standard. ANSI/TIA/EIA-T568B wiring configuration.

7. MODULAR PATCH PANELS

- a. Furnish and install Modular Patch Panels, Panduit Corporation, 48-port Patch panels, Catalog Number: DP 48688TGY, CAT 6 PATCH PANEL, 48 PORT, or equivalent. The panels shall be 19-in. wide for rack mounting. The panels shall have Panduit outlets wired to 110 IDC terminal via a printed wiring board on the rear of the distribution modules. The front distribution module shall be equipped with 8pin/8-conductor outlets providing continuous interconnection to the 110 IDC terminals. Provide labeling strip above each jack. shall be responsible for sizing the modular patch panels according to the following specifications:
- i. Number of Modular Patch Panel Ports shall be 125 percent of the total number of terminated information outlets required for the project.
  - ii. Patch panels shall be 48 port.
  - iii. Proper cable management panel shall be installed on rack. Connector modules shall be minimally equal to Panduit CJ6X88TGEI to match existing Fargo VAMC standard. ANSI/TIA/EIA-T568B wiring configuration.

8. HORIZONTAL UTP CABLE

- a. Furnish and install copper Unshielded Twisted-Pair (UTP) horizontal cable as follows:
- i. General Cable Gigaspeed Part No. 6P4P24BLSGCCPP, plenum rated, 24 AWG bare solid copper conductor. The cable shall conform to UL Type CMP listing for plenum and riser applications.
  - ii. Each cable sheath shall contain 4 pairs of unshielded copper twisted-pairs with each pair having a different twist ratio of 12 to 24 twists per foot. Each pair shall be separated by a pair isolator.
  - iii. The cables shall exceed the requirements of:
  - iv. EIA/TIA 568B Commercial Building Wiring Standard Horizontal Cable Section for category 6e.
  - v. Plenum - UL 910, CMP.
  - vi. The cables shall meet the following representative electrical and transmission characteristics:
  - vii. Mutual Capacitance - nom. = 14 nF/1000 ft.
  - viii. DC Resistance - max. = 29 ohms/1000 ft. (9.4 ohms/100m).
  - ix. Gbps 4 Pair Cable Performance Characteristics as follows:

| Frequency<br>MHz | Attenuation<br>DB/100m | Power Sum<br>NEXT dB | Attenuation to<br>Crosstalk<br>Ratio dB/90m | Structural<br>Return Loss DB |
|------------------|------------------------|----------------------|---|------------------------------|
| 1                | 2                      | 75.3                 | 75.3  | 23                           |
| 4                | 3.8                    | 66.3                 | 64.5  | 23.6                         |
| 8                | 5.3                    | 61.8                 | 54.5  | 25.4                         |
| 10               | 5.9                    | 60.3                 | 58.5  | 26                           |
| 16               | 7.5                    | 57.3                 | 51.7  | 26                           |
| 20               | 8.4                    | 55.8                 | 49.4  | 26                           |
| 25               | 9.4                    | 54.3                 | 46.9  | 25.5                         |
| 31.25            | 10.6                   | 52.9                 | 44.3  | 25                           |
| 62.5             | 15.3                   | 48.4                 | 35.1  | 23.5                         |
| 100              | 19.7                   | 45.3                 | 27.6  | 23                           |
| 200              | 28.8                   | 40.8                 | 14  | 21                           |
| 250              | 32.6                   | 39.3                 | 8.7   | 20.5                         |

- x. Provide colors for each defined system as follows: Blue

9. FIBER OPTIC CABLE:

- a. Fiber optic cable shall be Avaya LazrSPEED ABC-0012D-ZHX or equal. The cable shall have (2) strands of multi-mode fiber. Provide fiber with the following optical characteristics:
- Multi-Mode:
- |         |                     |             |
|---------|---------------------|-------------|
| 850nm:  | Maximum Attenuation | 3.5 dB/km   |
| 1300nm: | Maximum Attenuation | 1.5 dB/km   |
| 850 nm  | Minimum Bandwidth:  | 1500 MHz/km |
| 1300 nm | Minimum Bandwidth:  | 500 MHz/km  |
- b. Supports 10Gb/s Ethernet using 850nm VCSEL to 300m.
  - c. Fiber tension rating - 600 lbs.
  - d. Fiber minimum bending radius during installation - 20 x diameter.
  - e. The fiber cable shall meet the following technical specifications:
  - f. Multi-Mode Fiber Dimensions:
    - 62.5 micron core
    - 125 micron cladding
    - 250 micron coating
    - 900 micron buffering
  - g. Fiber Identification: Individually color-coated PVC buffer.



- h. Buffer Material: Plenum PVC
- i. Jacket Material: Plenum PVC (color as selected by owner).
- j. Strength Material: Aramid Yarn
- k. Operating Temperature: 0 to + 50 deg. C
- l. Storage Temperature: -40 to +70 deg. C
- m. EIA Fiber Cable tests:
 

| TEST                | REFERENCE                       |
|---------------------|---------------------------------|
| Impact              | EIA-RS-455, FOTP-25             |
| Compression         | EIA-RS-455, FOTP-41             |
| Flexure             | EIA-RS-455, FOTP-104            |
| Tensile Bending     | EIA-RS-455, FOTP-33             |
| Temperature Bending | EIA-RS-455, FOTP-37             |
| Twist Testing       | EIA-RS-455, FOTP-85             |
| Flame Test (OFNP)   | UL 910 (NEC) [CSA OFN-FT4, FT6] |

10. FIBER TERMINATION UNITS:

- a. Furnish and install Avaya 600 BLS front access sliding shelf connector panel equipped with SC couplings and cover plate for all Data racks. Units shall provide top or bottom cable entry, fiber termination, cross connection, interconnection, routing, fiber identification labels, fiber storage and radius organizers.

C. EXECUTION

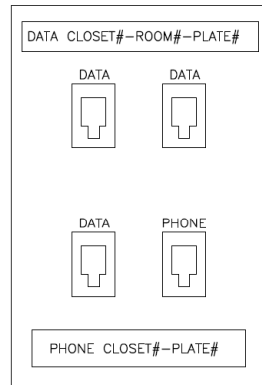
1. GENERAL

- a. Install equipment and components in accordance with manufacturer's written instructions, in compliance with NEC, and with recognized industry practices. Ensure that all work complies with specifications and serves the intent of the construction documents. Cabling and equipment shall be installed in accordance with good engineering practices as established by the EIA/TIA and the NEC.

2. INSTALLATION

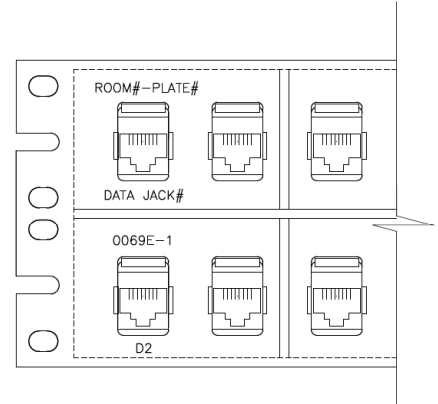
- a. Cabling - General:
  - i. Provide dedicated horizontal cable runs from data closets to all "terminated" information outlets as described above and indicated on the Drawings.
  - ii. Provide faceplates for all data and voice information outlets.
  - iii. Where data or voice outlets are shown on plans, this Lessor shall provide jack termination, faceplate, and cabling.
  - iv. Provide Modular Information Outlets in outlet boxes for all "terminated" data information outlets.
  - v. Excess cable behind faceplate connections shall be pulled back into ceiling spaces and secured in such a manner as to prevent damage to cabling or connections.
  - vi. A minimum 10-foot loop of extra horizontal cable shall be secured in the accessible ceiling space.
  - vii. Tighten connectors and terminals, including screws and bolts, in accordance with equipment manufacturer's published torque tightening values for equipment connectors.
  - viii. Avoid excessive and sharp bends that may damage cabling. Do not exceed manufacturer's recommended pulling tensions for backbone and horizontal cables.
  - ix. Allow sufficient slack (10 feet) in cable to prevent premature deterioration of cable system components and to assist in the maintenance and servicing of cable and/or other building systems and components.
  - x. Provide Cable Trays as necessary to route and support cables to just above the lockable cabinets. All cables shall be properly supported.
  - xi. Provide Velcro straps to bundle and organize cabling for a quality and professional installation. Vinyl/plastic tie wraps are prohibited except where allowed in section 2.6.
  - xii. Fittings or connections are allowed only at the input and output of devices. Splicing shall not be accepted in cable runs. Spliced cable runs shall be rejected and replaced with continuous cables, prior to acceptance.
  - xiii. Separation of Wires: Comply with EIA/TIA-568 rules for separation of UTP cables from potential EMI sources.
  - xiv. All cabling outside the data closet shall be routed in conduit or cable tray, installed by the Lessor's electrical contractor.
  - xv. Conduit fill shall not exceed 40%. This applies to both raceways and sleeves. Each conduit end not terminated in a box shall be equipped with a protective insulator or sleeve to cover the conduit end to protect the wire or cable during installation and remaining in the conduit.
  - xvi. Sleeving: All cabling penetrating a wall or floor and not in a raceway shall be sleeved. A penetrator sleeve system and method for using same provides an encasement for wires and cables passing through a wall or floor. The system should include appropriate securing devices for tightly retaining the penetrant in place. This will also create a space between the penetrant and surrounding structure, which must be fire stopped in order to restore the fire-resistance rating of the parent assembly. The penetrant shall be one of the following:
    - 1. EMT conduit with bushed ends.
    - 2. Prefabricated fire-rated pathway. Recommend the following or approved equivalent. Follow manufacturer's conduit fill recommendations.
    - 3. EZ-PATH Fire Rated Pathway
    - 4. Spec Seal Ready Sleeve
- b. Firestopping: Provide fire stopping after cabling installation at all fire wall/floor penetrations.
- c. Grounding: The Lessor shall be responsible for installing a ground bus adjacent to the cabinets. Ground all cabinets and cable runway to this ground bus. The Lessor shall provide a #6 copper conductor from each rack/runway to the ground bus. Ground equipment per manufacturers' instructions and NEC requirements.
- d. Demarc room and extended demarc cable:
  - i. Backboards for the demarc room and the low voltage room(s) shall be 20 mm (3/4 inch) thick, type ACX fire retardant plywood, covered with two coats of fire retardant white paint with a minimum area of 1.2 x 2.4 m (4 x 8 ft).
  - ii. If space allows, backboard should be positioned with long side horizontal and vertically centered on the wall.

- iii. Backboard in the demarc room should be as close as possible to the external teleco entry point and separated as much as possible from the electrical boxes.
- iv. In existing facilities where the demarc room is shared with other occupants a minimum area of approximately 6 sq ft will be needed on wall mounted plywood.
- v. One 25-pair cable will be installed from the building demarc to the Government low voltage closet. Adequate service loops will be included on both ends to allow termination and potential moves. If the cable passes through spaces not controlled by the Government, it will be in continuous conduit. The maximum length of this cable is 295 feet.
- vi. Two Cat 6 cables with RJ45 connectors will be installed from the building demarc to the low voltage closet with 10 foot service loops at each end.
- vii. Exact placement of backboards and low voltage cabinet will be agreed on by Lessor and Government prior to installation.
- e. Labeling, in accordance with VA Standards:
  - i. Use Owner's room numbers for labeling. Confirm room numbers with Owner's Representative prior to labeling. See attached graphical information for labeling of face plates.
  - ii. Utilize the following labeling scheme:



**NOTES:**

1.  $\nabla$  = (3) DATA, (1) PHONE JACK.
2. SEE SECTION 27 1005 FOR PLATE AND JACK REQUIREMENTS.
3. DATA JACKS TO BE ORANGE COLOR, PHONE JACKS TO BE IVORY.
4. PLATES ARE LABELED AS SHOWN, NUMBER PLATES ARE CLOCKWISE FROM THE DOOR.
5. LABEL ALL VOICE AND DATA CABLES AT BOTH ENDS WITH "DATA CLOSET# - ROOM# - PLATE# - JACK#"
6. ALL (4) JACKS TO BE CATEGORY 6e CABLES.
7. DATA JACKS ARE NUMBERED LEFT TO RIGHT, TOP TO BOTTOM



**3** **TYPICAL COMMUNICATIONS DETAIL**  
**E4** NO SCALE

**4** **PATCH PANEL SAMPLE LABELS**  
**E4** NO SCALE

- iii. Utilize manufacturer designed labeling method at Outlet and Patch Panels. Labeling method shall be permanent and minimally susceptible to vandalism. Labels shall be permanent, and Lessor shall replace fallen labels as part of the warranty.
  - iv. Label Faceplates for outlet locations.
  - v. Label patch panel terminations with the identical numbers used at the outlets.
  - vi. Label both ends of each cabling run within 6 inches of termination points with Panduit Pan-Ty marker and flag ties, a label machine, or approved equal. Whenever possible, cross connect riser pairs shall be run sequentially.
3. **COPPER CABLE TESTING**
- a. Testing of all copper wiring shall be performed prior to system cutover.
  - b. Cables shall be tested for all Category 6 100% Channel parameters using the specified level 3 tester. Test all Category 6 Channel parameters, including attenuation, NEXT, PS NEXT, FEXT, ELFEXT, return loss, and delay skew.
  - c. Patch cord, workstation cord, and cable lengths shall be recorded as part of the testing.
  - d. Faults shall be corrected and retested.
  - e. Test information along with manufacturer and model number of test equipment shall be recorded and provided to Owner as part of the project Telecommunications Manual.
  - f. Provide proof of factory calibration of test meter within 6 months of the beginning of testing.
  - g. The "\*\* pass" option on the test meter must be set to the "on" state. The "\*\* pass" symbol indicates a channel that is within 1 db of failing.
  - h. Provide test data in electronic format with corresponding software for viewing of testing documentation on CD-ROM provided from the test meter. Lessor shall provide one CD-ROM to Owner and one to Engineer.

## 8.15 SPACE DESIGN REQUIREMENTS

- A. The area requirements for each space, found in the SUPPLEMENTAL SPACE REQUIRMENTS document shall be closely followed. The Lessor shall be responsible for obtaining, reading and utilizing the VA A/E NRM Submission Instructions, VA Master Specifications, VA Signage Design Manual, VA Design Guides, VA Security Guide, VA Design Manuals and other applicable documents found on the VA web site at [HTTP://WWW.CFM.VA.GOV/TTL/](http://www.cfm.va.gov/ttl/) for the minimum quality standards required. Failure by the Lessor to read and utilize these items shall not be the basis for any change order requests.
- B. **CODES, STANDARDS, AND EXECUTIVE ORDERS:** The Lessor shall design and construct the building and site work in accordance with the 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 construction. Where there is a conflict between the various codes or standards, the most stringent shall apply.

1. If no accepted codes or standards are enforced by the local authority, the following national codes and standards shall apply:
  2. International Building Code (IBC)
  3. International Plumbing Code (IPC)
  4. International Mechanical Code (IMC)
  5. The following codes and standards shall apply to all projects:
  6. National Fire Protection Association (NFPA)
  7. Uniform Federal Accessibility Standards (UFAS)
  8. VA Barrier Free Design Guide, PG-18-13
  9. Architectural Barriers Act Accessibility Standard (ABAAS), Appendices C and D to 36 CFR Part 1191 (ABA Chapters 1 and 2, and Chapters 3 through 10).
  10. ASC-7-02 Minimum Design Loads for Buildings and Other Structures, published by American Society of Civil Engineers (ASCE)
- C. 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 the Solicitation. Any substitutions must be approved by the Contracting Officer or his/her designee.
- D. GOVERNMENT REVIEW: To the extent that the plans or any revised plans show 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 approvals.
- E. SAMPLES AND SHOP DRAWINGS: The Lessor shall provide submittals to the Government for comments and 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.
- SITE PLAN(S): Minimum scale 1"=40'. Provide a revised site plan if it is modified after Lease award. Clearly indicate any changes. 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
- F. FLOOR PLAN(S): Provide a revised floor plan if it is modified after lease award. Clearly indicate any changes. 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, furnishings, corridors, basic column grid, column sizes, expansion and seismic joint locations, electrical closets and equipment rooms, telecommunications closets, mechanical shafts and space, and (if applicable) all vertical circulation, *i.e.*, stairs and elevators.
- Submit interior details, elevations, and sections. Submit a complete and coordinated finish schedule and samples on a finish board. Submit completed building sections, wall sections, and exterior elevations that show finish floor elevations and indicate all building systems, materials, and future expansion, if applicable. Submit completed, coordinated reflected ceiling plans for entire building, indicating all ceiling mounted equipment, lighting fixtures, air diffusers, registers, tracks, etc. Submit completed 1/4-inch scale equipment and furnishing plans, plus equipment elevations and details. Submit all necessary and coordinated details and specifications. Submit drawing(s) for all graphics and signage that are part of the solicitation.
- Identify each room or space with its space identification from the VA Space Program, name, and the program net area over the designed net area. Names on drawings shall be the same as those used in the space program.
- Show the overall exterior dimensions for determining the total building gross area.
- G. EQUIPMENT PLANS: On 1/4" scale or larger architectural floor plans show all fixed items of equipment, furnishings, shelving, casework, etc., which occupy floor space (and any items which require utilities). Use symbols that correspond to the item designations contained on the plan legend. Place symbols on or immediately adjacent to each unit of shelving, casework, etc.
- H. FIRE PROTECTION / LIFE SAFETY PLANS: Submit complete fire protection/life safety code compliance drawings and specifications, including the following: details of the stairwell design indicating stairwell number, floor number, and upper and lower floor terminus of stairwell; interconnection of elevator controls with fire alarm system; zoning of each fire alarm initiating device; single line riser diagram for the fire alarm system; detail of annunciator panel.

## 8.16 BUILDING CONSTRUCTION

TYPES OF CONSTRUCTION: Design the type of construction to comply with requirements of NFPA 101 for the most restrictive occupancy in the building. For each construction type, design fire resistive ratings of structural members in accordance with NFPA 220. For occupancies with no construction requirements in NFPA 101, type of construction and height and area restrictions shall comply with the IBC. The construction shall be in accordance with The Public Buildings Amendment Act (PL 100-678) which requires all Federal agencies to follow the latest editions of nationally

recognized fire and life safety codes. Where conflicts exist between these standards and local codes, the designer shall satisfy the most stringent requirement.

Building separation and requirements for rated exterior walls and openings for protection from exposure by adjacent buildings or hazards shall comply with the IBC.

#### **8.17 OCCUPANCY TYPE**

Occupancy classifications are defined in NFPA 101.

#### **8.18 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. This certification shall be submitted prior to occupancy by the Government. The Contracting Officer shall review the certification provided by the Lessor.

#### **8.19 SPECIAL ENVIRONMENTAL REQUIREMENTS**

All project planning and development shall comply with the National Environmental Policy Act of 1969. No hazardous materials shall be allowed. There shall be no lead-based paint within the leased Space.

#### **8.20 ACCESSIBILITY STANDARDS**

The design, construction, and alteration of facilities shall comply with local codes and ordinances, and the requirements contained in the Architectural Barriers Act Accessibility Standard (ABAAS), Appendices C and D to 36 CFR Part 1191 (ABA Chapters 1 and 2, and Chapters 3 through 10).and VA Program Guide PG-18-13, "Barrier Free Design Guide".

The Lessor shall comply with the stricter of these standards for each requirement as determined by the Government. Lessors are cautioned that, in most cases, the requirements in the "Barrier Free Design Guide" are more stringent.

#### **8.21 OSHA REQUIREMENTS**

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

The guarding of openings and holes in floors and walls must comply with 29 CFR 1910.23.

The design and construction of fixed stairs for use in other than fire exits must comply with 29 CFR 1910.24.

The design and construction of fixed ladders must comply with 29 CFR 1910.27 or must be clearly marked or secured to prevent Government employee use.

Physical hazards must be color-coded according to 29 CFR 1910.144 and, where applicable, identified by signs according to 29 CFR 1910.145.

If the Lessor finds it necessary to bring flammable/combustible liquids onto the premises, the provisions of 29 CFR 1910.106 shall govern the handling, use and storage of same.

Construction, repair, and alteration work done for/by the Lessor shall comply with the current edition of the OSHA Safety and Health Standards for Construction Industry, 29 CFR 1926, and applicable portions of 29 CFR 1910.

#### **8.22 VENDING FACILITIES**

The Lessor will have no right to control or receive income from automatic vending machines located within the leased premises. VA will ensure that the facility does not compete with other facilities having exclusive rights in the building. Lessor must advise VA if such rights exist.

#### **8.23 PUBLIC RESTROOMS**

Space for public toilets, not identified in this document as being within the VA leased CBOC space, must be provided in addition to the net usable square footage requirement contained in this document. VA will pay no rental for this public restroom facility space.

Quantity of public restrooms, including the number of fixtures shall be in compliance with Federal, State and Local code requirements.

All public and other required 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 which comply with criteria in PG-18-13 (Barrier Free Design Guide) or ABAAS, whichever is more stringent. Accessible toilet rooms shall be identified with the international symbol of accessibility located on the latch side of the door at a height of 63 inches. 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.

Each toilet room shall have sufficient water closets enclosed with stall partitions and doors, urinals (in men's rooms), and lavatories with hot (set at 105 degrees Fahrenheit, if practical) and cold water in the number required by local Building Code and ordinances.

Each toilet space used by patients and visitors within the VA leased CBOC space shall be provided with a Lessor-provided baby changing station. Women's toilet space within the VA leased CBOC space shall be provided with appropriate feminine product dispensers and disposal units.

#### **8.24 STRUCTURAL**

Structural design of VA facilities shall comply with the latest editions of the following:

- A. Reinforced concrete design -Building Code Requirements for Reinforced Concrete (ACI Standard 318-02) and Commentary (ACI-318R-02), American Concrete Institute.
- B. Structural steel design -Manual of Steel Construction, Load and Resistance Factor Design,
- C. Specifications for Structural Steel Buildings, American Institute of Steel Construction, Second Edition.
- D. International Building Code (IBC 2003), International Conference of Building Officials.

Where applicable, a licensed structural engineer shall verify the load-bearing capability of the existing structural elements to support the new design loads.

#### **8.25 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.

#### **8.26 EXTERIOR WALLS**

Exterior wall systems shall be of durable and permanent materials as acceptable to the Contracting Officer. Materials and colors shall be consistent with the overall design concept, structural requirements, and provide the level of physical security required by the solicitation.

- A. Walls shall be designed to prevent moisture penetration.
- B. Fire resistance shall be as required by applicable codes for construction type and exposure.

#### **8.27 INTERIOR DESIGN CRITERIA GOAL**

To provide a supportive interior environment that is conducive to the required occupancy or use, is respectful of the public monies, promotes staff performance, and expresses progressive high quality design.

- A. CONCEPT: The design is to pivot from the facility's mission and its profile. This includes a working knowledge of the profile and characteristics of the users of said facility and said project.
- B. 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.
- C. Design attention will 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 is required for the corridors, staff areas, and all other 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.
- D. Designs that use "life-time-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.

#### **8.28 INTERIOR FINISHES**

Interior finishes are prescribed in "Room Finishes, Door and Hardware Schedule" and within VA Master Specifications. 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. See also Sections 3 and 5 for sustainability requirements of finish materials.

Unless specified otherwise for particular rooms or areas, finish materials, including vinyl wall covering, vinyl composition tile flooring, sheet vinyl, carpet, and ceramic wall and floor tile finish, as specified herein, shall meet the general requirements noted in this document similar to those noted below.

- A. VINYL WALLCOVERING: Vinyl wall covering shall comply with VA Master Construction Specifications. Provide Type II wall coverings with factory applied, clear, de-lustered poly-vinyl fluoride coatings. Wall coverings shall be mildew and fungi resistant with Class A fire hazard classification.
- B. WALL TILE: Ceramic wall tile shall be glazed tile. Tile materials and installation shall be in accordance with VA Master Construction Specifications. Ceramic tile at wet locations shall be installed over cement backer board or Portland cement mortar on metal lath.
- C. PAINTING: 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. Wall surfaces shall be painted throughout, except where wall coverings are called for in "Room Finish Schedule". Materials and application of paints and coating shall comply with VA Master Construction Specifications. Provide coating types as scheduled in the specifications and as appropriate for the substrate and exposure.

- D. FLOORING, RESILIENT BASE, STAIR TREADS AND ACCESSORIES: Perimeter base shall be rubber or vinyl base except where ceramic tile or sheet vinyl self-cove is specified. Resilient base and accessories shall comply with VA Master Construction Specifications. Base shall be 1/8 inch thick, 4 inches high with molded top. Style B (cove) shall be used throughout; except, where carpet occurs, use Style A (straight).
- E. FLOORING, CERAMIC TILE: Unglazed ceramic mosaic tile shall be used in all toilets and other areas specified unless another covering is approved by the Contracting Officer. Materials and installation shall be in accordance with VA Master Construction Specifications.
- F. FLOORING, VINYL TILE AND SHEET VINYL: Flooring shall be installed and finished according to the manufacturer's requirements and recommendations.
- G. FLOORING, VINYL COMPOSITION TILE: Vinyl composition floor tile (VCT) complying with VA Program Guide PG-18-1 Master Construction Specifications shall be provided at locations required. VCT shall be non-asbestos, 1/8 inch thick, uniform color throughout.
- H. CEILINGS: Except for specific areas requiring special treatment, all suspended acoustic tile ceilings shall be 2 foot by 2 foot lay-in panels in a standard 15/16-inch grid. Color shall be white. Acoustical ceiling system components and installation shall comply with VA Master Construction Specifications. Ceiling suspension system shall be heavy duty. 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. Ceiling units shall have a flame-spread of 25 or less and a smoke development rating of 50 or less (ASTM E-84).

## 8.29 OPERATION OF BUILDING EQUIPMENT

The Lessor shall furnish, operate, and maintain all building equipment and systems in accordance with applicable technical publications, manuals, and standard procedures. Mains, lines, (electricity, gas, water, and sewer utilities), and meters for utilities shall be provided by the Lessor. Exposed ducts, piping, and conduits are not permitted in occupied spaces.

## 8.30 CIRCULATION SYSTEMS

The Lessor is responsible for the final design of horizontal and vertical circulation systems within the building. Lessor shall integrate the design of circulation systems with building entrances, functional elements, way finding systems and signage.

Circulation system components include entrances, lobbies, major corridors, vertical circulation, waiting areas, and departmental corridors. Within this hierarchy, departmental corridors are defined as the spaces necessary for circulation between rooms or functional areas within a single department. Major corridors serve multiple departments or functional groupings, providing circulation to and from building entries and lobby.

## 8.31 MECHANICAL

Provide complete and final engineering calculations of all systems. In addition to specifications, provide complete selection data, including catalogue 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 complete HVAC floor plans for all areas showing all ductwork, heating zones, controls and piping at 1/8 inch scale or larger. Submit complete HVAC floor plans for all required mechanical equipment rooms with at least two cross-sections taken at right angles to each other at 1/4 inch scale. Show all equipment located on roof and/or grade.

The Lessor and design engineer, as general guidance, shall use the technical information and standards contained in this document. In order to provide the latitude needed for design, new concepts, etc., deviations may be made from the technical requirements provided that a professional judgment is made that a safe, adequate, quality design will result, and approval is obtained from the Contracting Officer. Deviations from those requirements included in Public Laws, Federal Regulations, Executive Orders, and similar regulations and user's special requirements are not permitted. This solicitation contains VA criteria pertinent to the design of HVAC systems for VA Facilities. Where VA Criteria is lacking or missing, follow industry standards such as ASHRAE, ARI, NFPA, etc.

- A. DESIGN FEATURES: Air conditioning systems shall be designed to operate below 40 degrees F outdoor temperature without refrigeration, unless such refrigeration is used effectively as a heat pump with overall energy savings.
- B. INDOOR DESIGN CONDITIONS: The following table lists summer and winter indoor dry bulb and relative humidity design conditions. The design shall comply with the VA HVAC Design Guide. Utilize this general HVAC design information for all rooms and spaces not specifically provided with HVAC criteria requirements in this document.

|                             |            |
|-----------------------------|------------|
| Dry Bulb Temp Cooling:      | 78 degrees |
| Dry Bulb Temp Heating:      | 72 degrees |
| Minimum % Outside Air:      | 15%        |
| Noise Criteria:             | NC-40      |
| Relative Humidity/ Cooling: | 50%        |
| Relative Humidity/ Heating: | 30%        |
| Minimum Air Changes/hour:   | 6          |
| Room Pressure:              | 0          |
| AC Load-Equipment:          | 2.9 W/SF   |
| AC Load-Lighting:           | 2.0 W/SF   |
| Number of People:           | 2          |

- C. SUPPLY AIR REQUIREMENTS: The supply air volume shall be established to meet the cooling load requirements of the occupied space adjusted for special exhaust airflow requirements, outdoor air requirements, and space pressurization relationships.

- D. OUTSIDE AIR REQUIREMENT: The minimum outside air shall be as per latest ASHRAE Standard 62, but not less than 15% of the supply air.
- E. VIBRATION CRITERIA: Equipment vibration provisions shall comply with the latest ASHRAE Handbook Applications.
- F. REFRIGERATION EQUIPMENT SIZING: The capacity of the refrigeration system including accessories shall be based on the sum of the total cooling requirements of all connected air handling units. No additional safety factors should be required.
- G. PIPE SIZING CRITERIA: Pipe sizing shall be based on "Cameron Hydraulic Data" with C=100 for open systems and C=150 for closed systems. For closed systems, the limited maximum pressure drop shall be 4.0 feet of water per 100 equivalent feet of piping. Additionally, the pipe velocity is limited to 4.0 feet per second in occupied areas and 8.0 feet per second in piping over 1-1/4 inches in diameter. For open systems, the maximum pressure drop is limited to 4.0 feet of water per 100 feet of installed pipe. The maximum velocity for an open system is 10 feet per second.
- H. ROOM TEMPERATURE CONTROL: All private offices and individual rooms shall have independent and individual temperature control. Open office areas may be zoned control, with zones no larger than 500 square feet. Except for small HVAC systems or factory-packaged systems, the automatic control systems shall be Direct Digital Controls (DDC) type with electric or electronic operators. Final selection of the type of controls shall be confirmed with VA before proceeding with complete design of automatic temperature control system. The building owner shall provide complete flow and control diagrams for air, water, glycol, and steam systems and the sequence of operation for all HVAC systems and sub-systems. The diagrams shall show complete operating description including starting, interlocks, part load operation, smoke control features, volumetric controls, alarms, and emergency or power failure associated with operation of HVAC systems. Temperature and humidity controls shall be electronic. Control wiring and tubing shall be concealed. Use of wire mold will not be acceptable. Mount room thermostats at 5 feet above the finished floor.
- I. AIR SYSTEMS: Use only all air VAV systems except for spaces requiring constant air changes/hour, and/or critical pressure differentials with respect to the adjoining spaces. Use constant volume system for such spaces. The leakage of the air through the supply air distribution ductwork shall be computed on the basis of the method described in the SMACNA Air Duct Leakage Test Manual. The maximum leakage amount shall not exceed 4% of the adjusted supply air volume at 2 inches water gauge pressure.
- J. DUCT SIZING CRITERIA: Duct systems shall be designed in accordance with the general rules outlined in the latest ASHRAE Guide and Data Books, SMACNA Manuals and Design Guide Section of the Associated Air Balance Council Manual. Supply duct system, with total external static pressure 2 inches and larger, shall be designed for a maximum duct velocity of 2500 fpm for duct mains and a maximum static pressure of 0.25 inch of water gauge per 100 ft. Static pressure loss and regain shall be considered in calculating the duct sizes. Size supply branch ducts for a maximum duct velocity of 1500 fpm. All other duct systems such as return and exhaust, including branch ducts, shall be designed for a maximum velocity of 1500 fpm for the duct mains and a maximum static pressure of 0.10 inch of water gauge per 100 ft, with the minimum duct area of 48 sq in, that is, 8 in x 6 in size. Flexible duct connections at air terminal units, if used, shall be in accordance with VA standard details.
- K. RETURN AIR FANS: Air-handling units using return air shall be furnished with return air fans for economizer cycle capability and pressure relationship and to facilitate positive control of air balance.
- L. DUCTED SUPPLY/RETURN/EXHAUST REQUIREMENTS: Return and exhaust air shall be ducted for all spaces, i.e., air shall not be taken through ceiling plenums, mechanical equipment rooms, corridors or furred spaces. Circulation of air directly between functional areas is not permitted.
- M. AIR HANDLING UNITS: Provide draw-through type air handling units. Air-handling units comprised of coils, fans, filters, etc. shall be of double wall construction. These units shall be factory-fabricated. Fully weatherized roof top units constructed in standard section of modules would be acceptable.
- N. AIR FILTERS: Filter Efficiencies shall comply with test method specified by ASHRAE standard 52.1 and MERV values based on ASHRAE standard 52.2.
- O. VARIABLE AIR VOLUME (VAV) SYSTEMS: VAV systems shall be single duct with hot water terminal reheat. The terminal units shall be pressure-independent with factory set, but field adjustable, maximum and minimum air volumes settings.
- P. GENERAL EXHAUST SYSTEMS: The exhaust systems shall be conventional, low pressure, low velocity type serving toilets, janitor closets, trash rooms, etc. In general, each supply air system shall have a corresponding general exhaust system to comply with outdoor air requirements. The exhaust system may or may not be interlocked with supply air system. It shall shut down when supply air system shuts down during unoccupied hours to conserve energy, except exhaust fans shall continue to run when smoke is detected in the areas served by these fans.
- Q. SMOKE AND FIRE CONTROL: The HVAC systems shall be designed to meet the requirements of the National Fire Protection Association codes, NFPA 45, 72, 90A, 99, and 101, and the additional provisions outlined in this section. The Lessor shall comply with local building codes that contain provisions in excess of these requirements. The subdivision of the building spaces into smoke zones shall conform to NFPA 101.
- R. BALANCING: Ventilation and air conditioning balancing must be accomplished by an independent third party hired by the Lessor and a report furnished before the building is occupied. Balancing companies must meet certification requirements of Associates Air Balance Council (AABC) or the National Environmental Balancing Bureau (NEBB).

### 8.32 PLUMBING

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

- A. WATER DISTRIBUTION SYSTEM: Design and construct system to provide adequate water service for maximum domestic and fire protection requirements.
- B. Size the piping for the hot and cold water systems not to exceed the maximum velocity allowed by the National Standard Plumbing Code. Provide necessary water hammer arrestors in accordance with ASSE 1010 for sealed wall installations without an access panel. Size and locate arrestors per Plumbing Drainage Institute (PDI) requirements. Maintain a minimum pressure of 50 psi at the plumbing fixtures on top floor.
- C. DOMESTIC HOT WATER SYSTEMS--Entire Building: Provide gas or electric storage type water heaters with the capacity of generating the flow demand at 140 degrees F with each heater sized to supply 75% of demand. However, the heater discharge temperature shall be set at 120 degrees F. Provide a recirculation system.
- D. SANITARY AND STORM DRAINAGE SYSTEM: Design sanitary waste and vent systems in accordance with Plumbing Code. Design storm drainage from roofs based on local storm duration in accordance with the Plumbing Code.
- E. INTERIOR FUEL GAS SYSTEM: Design in accordance with NFPA 54.
- F. PLUMBING FIXTURE SCHEDULES: Water supply fixture units and minimum fixture outlet pipe sizes shall be per UPC Table 6.4, latest edition. Drainage fixture unit values and minimum size trap and trap arm shall be derived by referring to UPC Table 7.3 for Drainage Fixture Unit.

### 8.33 ELECTRICAL

Show all required new services to building, transformers, street lighting, grounds lighting, and the utility service point and meter location on the electrical plot plan. Complete the one-line riser diagram including all conduit, cable, ground wire, and equipment sizes. Indicate nominal transformer impedance. Show transformers, panel boards and feeders in relative positions. Tabulate all panel board schedules. Provide signal, telephone, security, and fire alarm risers; identify all devices and locations. Complete the building electrical floor plans based upon the VA layout and requirements indicated. Indicate all lighting and power circuit systems. Show motor protective devices, and controller and feeder sizes. Locate all panels, transformers, and other major electrical components. Provide specifications and final calculations.

### 8.34 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, 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.

### 8.35 ELECTRICAL – GENERAL

The Lessor shall provide all the necessary electrical facilities for the project. The work will include, but is not limited to, new electric utility source connections, secondary power distribution, essential electrical systems, lighting systems, receptacles and power connections for all equipment, telephone, data, fire alarm, other required signal systems, and lightning protection.

The Lessor shall be responsible for meeting the applicable requirements of applicable codes and standards. All codes, regulations and standards used as a basis of design shall be the latest editions, including amendments. This solicitation contains some, but not all, of the criteria pertinent to the design of electrical systems for VA occupied spaces. Unless otherwise indicated, the standards and codes of the following organizations shall be followed:

- National Fire Protection Association (NFPA).
- Underwriters' Laboratories, Inc. (UL).
- Institute of Electrical and Electronic Engineers (IEEE).
- National Electrical Manufacturers Association (NEMA).
- American National Standards Institute (ANSI).
- American Society for Testing Materials (ASTM).
- Illuminating Engineering Society of North America (IESNA).
- Joint Commission on Accreditation of Healthcare Organizations (JCAHO), Manual of Hospital Accreditation Environment of Care Guidelines and Standards
- Society of Cable Telecommunications Engineers (SCTE),
- Telecommunications Industry Association and Electronic Alliance Standards Association (EIA/TIA) 568 and/or 569A, Communications Cabling Circuits and Equipment



The building shall be inspected for compliance with the NEC and local codes by the local authority having jurisdiction. A certificate of compliance shall be furnished to VA.

All electrical equipment shall be U.L. approved.

All wiring shall be solid copper, not stranded, minimum conductor size #12 AWG, except that fire alarm and control systems shall be sized per manufacturer's recommendations and requirements. Install all wiring for all building electrical and signal systems in conduit/raceway systems.

The rules and regulations of the local electric company shall be followed where applicable.

### **8.36 ELECTRICAL CALCULATIONS**

The Engineer shall perform the following calculations: short circuit calculations, load calculations, voltage drop calculations and lighting calculations.

### **8.37 ELECTRICAL DISTRIBUTION EQUIPMENT**

Provide electrical distribution equipment sized to accommodate the NEC calculated load. The service entrance bus and main device shall be sized to accommodate 25% future load, and shall contain associated fully-bussed overcurrent device mounting space.

### **8.38 ELECTRICAL ROOMS**

An electrical room is an area located within a building or structure which contains secondary distribution equipment with related panel boards or any combination of these. (See also VA PG-18-3, Topic 8, "ELECTRICAL AND TELECOMMUNICATIONS CLOSETS AND COMPUTER ROOMS.")

- A. Construction: Any pipe or duct system foreign to the electrical installation shall not enter or pass through an Electrical Room. The Engineer shall ensure that foreign piping such as water pipes, steam pipes, medical gas pipes, soil pipes, sanitary drains, storm drains, A/C ducts and other unrelated systems are not installed in or pass through the Electrical Room. Only HVAC ducting and sprinkler piping serving only the Electrical Room shall not be considered foreign to the electrical installation; it shall not pass thru the room and serve other areas.
- B. Transformer and Switchboard: The utility transformer shall be located outdoors, as close as possible to the electrical room containing the service entrance switchboard.
- C. The service entrance switchboard, and other associated electrical equipment, shall be located in a main electrical room.

### **8.39 BRANCH CIRCUIT DISTRIBUTION AND WIRING DEVICES**

Receptacle Types: shall generally be NEMA 5-20 polarized type which shall accept attachment plugs having separate grounding prongs. Safety receptacles, isolated ground receptacles, weatherproof receptacles, ground fault interrupter receptacles or other special purpose receptacles shall be provided as required. All receptacles shall be Underwriters Laboratories listed in the size, type and configuration required.

- A. Receptacle Locations (General): Duplex floor or wall electrical receptacles shall be provided in a ratio of one (1) for every 50 net usable square feet of space or one (1) per wall, whichever is greater. Duplex floor receptacles in rooms over 400 sq. ft. shall be provided on the basis of one (1) per twelve (12) linear feet of wall surface. Dedicated duplex or special receptacles, 20 amp or larger, are to be provided for selected pieces of equipment such as refrigerators and vending machines. Workstations and offices with personal computers are to be provided with at least one quadruple (double duplex) receptacles and two individual duplex outlets; or the equivalent or greater amount of duplex outlets; for the personal computer (PC), monitor and printer. Where laser printers are used, provide a separate receptacle on a separate circuit for these units. Duplex receptacles shall be provided in toilets, corridors, and dispensing areas for maintenance purposes. Receptacles are to be circuited separately from the lighting.
  - 1. Receptacles shall be circuited based upon the load on expected equipment items, in addition to the NEC requirements for the maximum quantity of receptacles on a single circuit. In no case shall more than nine (9) receptacles be connected to a single circuit. Receptacle circuits serving computer equipment shall contain dedicated neutral conductors. General-use receptacle circuits may share a neutral between no more than three (3) circuits.
- B. Corridors: Provide receptacles on a dedicated circuit for cleaning machines. The receptacles shall be no more than 75 feet apart.
- C. Offices and Administrative Areas: Provide receptacles with spacing not to exceed 6 linear feet as measured around the floor line, including doorways. All linear wall space 5 feet and longer shall have at least one receptacle. A 120-volt quadruple receptacle or two receptacles shall be provided for each desk.
- D. TV and Message Board Power Receptacles: Provide in areas such as waiting rooms where televisions are indicated on the drawings. Coordinate the height with the mounting height of the televisions.
- E. Electrical Closets: Provide a receptacle with its centerline located 40 inches above the finished floor adjacent to the room door. Provide a minimum of five duplex outlets within the room each on individual 20 amp circuits and double duplex as noted in the space plan.
- F. Computer and Telecommunication (HUB) Closets: Provide a quadruple (double duplex) receptacle with its centerline located 18 inches above the finished floor at the center of rear wall below plywood backboard. Provide a quadruple receptacle with its centerline located 40 inches above the floor near a wall corner. Provide a minimum of five duplex outlets within the room each on individual 20 amp circuits.

- G. Ground Fault Interrupter Receptacles: Ground fault interrupter type receptacles shall be installed where required by NFPA 70 (National Electrical Code).
- H. Emergency Power Receptacles: If there is emergency power supplied to the leased space, the bodies of all receptacles connected to an emergency circuit shall be red in color. Wall plates for these receptacles shall also be red with the word "emergency" engraved in 1/4-inch white letters on the plate.
- I. KITCHENS AND BREAK ROOMS: Provide a separate locking type attachment plug and receptacle for each piece of equipment. Each piece of equipment, such as refrigerators and microwaves, shall be supplied with an individual duplex outlet on a dedicated circuit. This also applies to other refrigerators or freezers installed in other rooms such as the laboratory and the medication room.
- J. FACEPLATES: All faceplates shall be 302 stainless steel and shall not be oversized.

#### **8.40 GROUNDING**

Provide an equipment-grounding conductor with each circuit.

#### **8.41 CONDUITS AND BOXES**

All conduit runs shall contain no more than two 45-degree (or one 90-degree bend with access before and after bend) bends (no LB/conduits) between pull and junction boxes, manholes or telecommunications closets.

#### **8.42 UTILITIES, PERMITS AND CODE ISSUES**

- A. 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.).
- B. OCCUPANCY PERMIT: Space offered must have a current occupancy permit issued by the local jurisdiction.
- C. 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. Building owner shall submit documentation as acceptable to the Contracting Officer of tests, report and maintenance logs.
- D. 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.

#### **8.43 JANITORIAL**

The Lessor shall provide the managerial, supervisory, administrative, direct, and overhead personnel necessary to perform the work specified in the contract, including the provision of all labor, transportation, equipment, and materials, except as specified herein as Government furnished, to ensure that custodial services are performed at the VA leased space in a manner that will maintain a satisfactory facility condition and present a clean, neat and professional appearance. Performance shall be conducted in accordance with the Janitorial Services paragraph in the Lease and the standards contained herein. Unless indicated otherwise, perform all Basic Cleaning Services and Basic Restroom Cleaning Services on a daily basis.

- A. **Description of Service.** The Lessor shall provide all management tools, equipment, and labor necessary to ensure that custodial services are performed at the leased space, in a manner that will maintain a satisfactory facility condition and present a safe, sanitary, and enhanced (healing) environment.
- B. **Basic Cleaning Services.** The Lessor shall accomplish all cleaning tasks to meet the requirements of the Janitorial Services paragraph in the Lease.
  - 1. **Maintain floors.** All floors, except carpeted areas, shall be swept, dust mopped, damp mopped, wet mopped, dry buffed, and spray buffed, as needed, to ensure they have a uniform, glossy appearance and are free from dirt, debris, dust, grease, scuff marks, heel marks, other stains and discoloration, and other foreign matter. Baseboards, corners, and wall/floor edges shall also be clean. All floor maintenance solutions shall be removed from baseboards, furniture, trash receptacles, etc. Chairs, trash receptacles, and other moveable items shall be moved to maintain floors underneath these items. All moved items shall be returned to their original and proper position.
  - 2. **Remove Trash.** All trash containers shall be emptied and returned to their initial location. Boxes, cans, and paper placed near a trash receptacle shall be removed. All plastic trash receptacle liners shall be replaced. The trash shall be collected by the Lessor and delivered to the designated trash storage area. Trash receptacles shall be left clean, free of foreign matter, and free of odors.
  - 3. **Clean Interior Glass/Mirrors.** Clean all interior glass, including glass in doors, partitions, walls, display cases, directory boards, etc. After glass cleaning, there shall be no traces of film, dirt, smudges, water, or other foreign matter.
  - 4. **Clean Drinking Fountains.** Clean and disinfect all porcelain and polished metal surfaces, including the orifices and drain, as well as exterior surfaces of fountain. Drinking fountains shall be free of streaks, stains, spots, smudges, scale, and other obvious soil.

5. **Vacuum Carpets. Vacuum carpeted areas.** After vacuuming, the carpeted area shall be free of all visible dirt, debris, litter, and other foreign matter. Spots shall be removed by carpet manufacturer's approved methods as soon as noticed. All tears, burns, and ravels shall be brought to the attention of the Government representative.
  6. **Vacuum and Clean Floor Mats.** Vacuum and clean interior and exterior floor mats. After vacuuming or cleaning, mats shall be free of all visible lint, litter, soil, and other foreign matter. Soil and moisture underneath mats shall be removed and mats returned to their normal location.
  7. **General Spot Cleaning.** Perform spot cleaning on a conditional basis. Spot cleaning includes, but is not limited to, removing, or cleaning smudges, fingerprints, marks, streaks, spills, etc., from washable surfaces of all walls, partitions, vents, doors, door guards, door handles, push bars, kick plates, light switches, temperature controls, and fixtures. After spot cleaning, the surface shall have a clean, uniform appearance, free of streaks, spots, and other evidence of soil.
  8. **General Dusting.** All horizontal and vertical surfaces must be dusted or cleaned to eliminate dust collection.
- C. Basic Restroom Room Cleaning Services.** The Lessor shall accomplish all cleaning tasks to meet the requirements of this Lease.
1. **Clean and Disinfect.** Completely clean and disinfect all surfaces of sinks, toilet bowls, urinals, lavatories, dispensers, plumbing fixtures, partitions, doors, walls, and other surfaces, using a germicidal detergent. After cleaning, receptacles will be free of deposits, dirt, streaks, and odors. Disinfect all surfaces of partitions, stalls, stall doors, entry doors, (including handles, kick plates, ventilation grates, metal guards, etc.), and wall areas adjacent to wall mounted lavatories, urinals, and toilets.
  2. **Descale Toilet Bowls, and Urinals.** Descaling shall be performed monthly, at a minimum, and as often as needed to keep areas free of scale, soap films, and other deposits. After descaling, surfaces shall be free from streaks, stains, scale, scum, urine deposits, and rust stains.
  3. **Damp Mop Floor.** After damp mopping, the entire floor surface, including grout, shall be free from litter, dirt, dust, and debris. Grout on wall and floor tiles shall be free of dirt, scum, mildew, residue, etc. Floors shall have a uniform appearance without streaks, swirl marks, detergent residue, or any evidence of soil, stain, film, or standing water. Moveable items shall be tilted or moved to sweep and damp mop underneath. Floors shall be stripped, scrubbed, refinished, etc., as necessary to maintain sanitary conditions and a clean, uniform appearance.
  4. **Stock Restroom Supplies.** Lessor shall ensure restrooms are stocked sufficiently so that supplies, including soap dispensers, do not run out. Supplies shall be stored in designated areas. No overstocking shall be allowed. If supplies run out before the next service date, Lessor shall resupply within 24 hours.
  5. **Patient Equipment Cleaning.** All patient equipment will be cleaned as part of regular cleaning and or scheduled cleaning. Patient equipment is designated as exam tables, nurse carts, cabinets, lights and folding screens. Equipment cleaning will be accomplished with the following goals and objectives in mind.
    - a. Equipment is free from soil, smudges, dust, fingerprints, grease and spillages.
    - b. Equipment is free of tapes/plastic, etc., which may compromise cleaning.
    - c. Equipment legs, wheels and casters are free from mop strings, soil, film, dust and cobwebs.
    - d. Equipment has no odor which is distasteful or unpleasant.
    - e. Equipment is free from signs if non-use.
- D. Emergency or Special Event Cleaning Services.** Upon notification, the Lessor shall perform emergency or special event cleaning required in any area or room covered under this contract. The Contracting Officer shall order cleaning services through issuance of a delivery order for the appropriate and required work task(s). Lessor shall begin emergency work, as determined by the Contracting Officer, within one hour of notification, which may be verbal. The Contracting Officer or designated representative will notify the Lessor as soon as a special event requirement is known, but not less than 24 hours prior to the event. Completion schedule shall be determined for each delivery order.
- E. Performance standards:** The Government will monitor the Lessor's performance under this contract utilizing customer complaints, re-performance requirements and random quality assurance inspections.
- F. Abrasives.** Steel wool, abrasive metal cleaners, or any other cleaning supplies or equipment which could cause damage to Government property, shall not be used.
- G. Sanitation.** All original and replacement equipment introduced into the VA shall be in proper working order, as specified by the equipment manufacturer, and shall be cleaned with a disinfectant detergent and free of soil prior to introduction into the VA. All equipment removed from a designated use area shall be cleaned with a disinfectant detergent prior to its removal from and reintroduction into the area. Equipment must be kept clean and in good working order throughout the term of the contract.
- H. Safety and Inspections.** The Lessor's equipment shall be in good repair and shall comply with all Government safety standards and all The Joint Commission (TJC) standards for clinical electrical equipment. Any equipment which the Contracting Officer's Technical Representative (COR) considers in disrepair or unsafe shall be removed from the VA and replaced with equivalent equipment that is in good repair and meets the specifications contained herein.
- I. Bumper Guards.** All wheeled and movable equipment shall be equipped with protective, non-marking wheels and rubber bumpers or guards around the entire perimeter, except for fiberglass trash receptacles. No part of the equipment, except handles, shall protrude beyond the rubber

bumpers. Bumpers and guards shall be maintained in good repair at all times. Equipment with improper bumpers or guards shall be removed from service immediately and shall not be used until repaired. Any repairs to Government property required as a result of improperly protected equipment shall be made at the Lessor's expense.

- J. Disinfectant and Detergent.** Disinfectant and detergents used shall be currently registered with the Environmental Protection Agency (EPA) as a pseudomonicidal, fungicidal, and viricidal at the manufacturer's recommended use dilution, even in hard water of 400 PPM (CaCO<sub>3</sub>), and shall be UL approved. The detergent shall be a quaternary ammonium germicidal detergent, Hypochlorite, ethyl or Isopropyl alcohol, or phenolic germicidal detergent.
- K. Liquid Floor Finish.** Liquid floor finish shall be a synthetic copolymer plastic (not a wax), water emulsion with solid content of at least 16 percent, removable by detergent scrubbing, and safe for use on all synthetic floors, such as rubber, asphalt, vinyl, and linoleum. It shall dry to a high gloss shine, be slip resistant, and resist scuffing and water penetration. The Government may accept alternate floor finishes if the Lessor demonstrates to the Contracting Officer or COR in a designated test area that the alternate floor finish is superior to the above specifications.
- L. Stripping Compound.** Stripping compound shall be purely synthetic, non-ionic, biodegradable, and contain no animal or vegetable soaps, abrasive, bleach, alcohol, ammonia, or other ingredients, which could produce harsh, harmful, or noxious odors or fumes, either in use or in storage. It shall be capable of completely removing all soap build-up and floor finish film, with the exception of perm acrylic epoxy poured type finishes. It shall not change the conductivity of conductive flooring when tested according to current requirements of National Fire Prevention Association (NFPA) Pamphlet No. 56. It shall contain approximately 12 percent or more active ingredients, exclusive of water, in its concentrated form. When mixed in a 10 percent use dilution, it shall have a pH of not less than 7 nor more than 11. It is permissible to use a special high-speed, low-foaming detergent stripper specially designed for use in automatic floor scrubber equipment, so long as it meets the above specifications except for pH and percentage of active ingredients standards.
- M. Shampoo Carpet, Wet.** Shampoo shall incorporate a current EPA registered sanitizer and a soil retardant. The pH of the wet shampoo shall be between 9 and 10.5 for use on synthetic fibers and shall be no higher than nine for use on natural fibers. Phenolic-based disinfectants shall not be used as a carpet shampoo. The dilution rate used shall be that recommended by the manufacturer.
- N. Bowl Cleaner Liquid-Type, Triple Action.** The bowl cleaner shall clean, deodorize, disinfect, not be noxious or cause irritating fumes in use as determined by the Food and Drug Administration, of S Typhosa, and be suitable for use in toilet bowls and urinals only. It shall be fully inhibited to protect pipes and metal against corrosion. Products requiring a "Poison" label, as defined in CFR, Title 49, shall not be permitted.
- O. Liners for Trash Receptacles.** Lessor shall furnish acceptable liners for non-hazardous medical waste trash receptacles throughout facility.
- P. Material Safety Data Sheets (MSDS).** The Lessor will be required to furnish the VA with MSDS sheets for all chemicals that are used in the clinic. This list will be kept current at all times. This information is required by the VA for emergency treatment in the event of ingestion of and/or contact with the material by humans, and is required by OSHA regulations. Lessor must maintain a binder of all MSDS sheets on site for use and inspection at all times.
- Q. Roster.** The Lessor shall provide in writing to the COR, at least 15 calendar days prior to the employee starting date, the name, telephone number and address of the Lessor's on-site representative. The term "on-site representative" means a person designated in writing by the Lessor who has the authority to act for the Lessor on a day-to-day basis at the work site and to accept and sign for inspection reports and all other correspondence on behalf of the Lessor. The on-site representative must be available at all times when the contract work is in progress. The Lessor must provide the name of qualified substitute on-site representatives that will fill in when the primary on-site representative is not available. The Lessor shall establish a roster of Lessor employees or Lessor's subcontractors within 30 calendar days after the start of this contract. The roster shall list the name and job title of each Lessor employee. The Lessor shall provide a copy of the personnel roster and changes thereto to the COR.
- R. Discipline.** The Lessor shall take prompt, appropriate action in all instances of employee misbehavior that may reflect adversely upon the Government. The Lessor shall furnish to the Contracting Officer or COR, for review, a written report of disciplinary action taken in those instances where an infraction of a Government regulation has been reported and substantiated.
- S. Employee Schedules.** The Lessor shall prepare and maintain employee or subcontractor schedules for all Lessor employees or subcontractors to ensure that VA internal security is maintained (*i.e.*, determine if personnel are scheduled to work). A copy of each schedule shall be furnished to the COR for review one week prior to the beginning of the period covered by the schedule. Changes to employee schedules shall be provided to the COR as they occur.
- T. Communication.** All Lessor employees or subcontractors, who must communicate with the COR, must be able to read, write, speak, and understand the English language, to ensure the effective administration of this contract and accurate ordering of work.
- U. Standards of Conduct.** While on duty and executing the specifications of this contract, Lessor employees or subcontractors are prohibited from using and/or possessing alcohol, non-prescription drugs, and firearms. Non-compliance with this requirement, confirmed by the COR, shall be grounds for immediate removal of the Lessor employee or subcontractor from the VA and barring the individual from performing further work under this contract. All Lessor employees or subcontractors will be required to provide customer service consistent with that of the VA's mission.
- V. Training.** The Lessor shall develop an employee training plan and be responsible for the cost and provision of initial and developmental training programs for Lessor employees or subcontractors. The Lessor shall maintain and update the plan throughout the life of this contract and shall submit the plan to the COR for review when requested.
- W. Initial Intensive Training.** All Lessor employees or subcontractors shall receive initial, intensive training in health care facility housekeeping. Employees or subcontractors who have never received initial intensive training in health care facility housekeeping, including infection control, shall not be assigned to work until this training requirement is completed. Training shall include, at a minimum, the following topics:

1. Familiarization with all written Lessor technical and quality control procedures and instructions
  2. Basic bacteriological concepts, including how disease is caused, transmitted, and prevented, reduced, or contained through proper housekeeping methods
  3. Infection control & blood borne pathogen standards relating to duty functions to all requirements of this contract. (OSHA, JC, etc.)
  4. Proper use and handling of germicidal detergents, supplies, and equipment
  5. Care and maintenance of Lessor- and Government-furnished property
  6. Procedures for replenishing cleaning supplies and obtaining equipment repairs
  7. Familiarization with the Government's fire prevention, safety, and security procedures
  8. Familiarization with applicable VA regulations and policies, including fire prevention, safety, and current disaster plans
  9. Role of housekeeping in the health care facility and its effect on the health and well-being of patients
  10. Employee developmental topics (*i.e.*, communications and individual and group behavior)
  11. Employee personal hygiene
  12. Adherence to all Lessor work schedules and how completed scheduled work assignments shall be documented to support the Lessor's Quality Control Program
  13. Lessor employees and subcontractors shall be provided sexual harassment training within the first 30 days and annually thereafter.
- X. Training Records.** Records of all employee and subcontractor training, including attendance rosters, shall be maintained by the Lessor and shall be furnished upon request to the Contracting Officer or COR for review.
- Y. Identification Badges.** All personnel shall display identification badges, except for protective clothing, which shall include the employee's full name and Lessor's full name.
- Z. Personal Hygiene.** Lessor and subcontractor personnel shall be clean and wear a clean uniform at all times when in patient care and public areas. Fingernails shall be clean and free of dirt, and hair shall be neatly trimmed and combed.
- AA. Reporting Requirements.** The Lessor shall report to the COR all occupational health and preventive medicine information required by the Government and for complying with current TJC health records documentation requirements.
- BB. Eating and Smoking.** Eating or smoking by Lessor and subcontractor personnel are not permitted.
- CC. Keys.** The Lessor will be provided keys or allowed access to all rooms requiring housekeeping services. The Government may choose to accompany Lessor or subcontractor personnel when in certain secured areas. Keys provided to the Lessor shall not be duplicated, or removed from the VA premises. The Government, at the Lessor's expense, shall replace any keys lost by Lessor or subcontractor personnel. In the event a master key is lost or duplicated, all locks and keys on that lock system will be replaced by the Government, and the total replacement cost will be deducted from the monthly payment due to the Lessor. If a key to a single area is lost, the Government will replace the lock for that area, and the total replacement cost shall be deducted from the monthly payment due to the Lessor. Written procedures covering key control will be included in the Lessor's instructions and procedures manual. The Lessor shall immediately report the occurrence of a lost key to the COR.
- DD. Securing Spaces.** Lessor employees or subcontractors shall not allow anyone to use any key in their possession. They shall not open locked areas to permit entrance by persons other than Lessor employees or subcontractors performing assigned duties. All areas that are to be locked shall not be left unattended during the cleaning process and shall be relocked by Lessor personnel or subcontractors after completion of housekeeping duties. Lessor personnel or subcontractors shall turn off all lights in all unoccupied areas.
- EE. General Security.** The Lessor shall comply with all Government security requirements. Upon written request by the COR, the Lessor shall submit a list of the names and addresses of all employees or subcontractors hired to perform the work specified in this contract.
- FF. Consequences of Illegal Activities.** Lessor employees or subcontractors who are found in violation of Government security regulations will be immediately removed from the clinic and barred from performing further work under this contract.
- GG. Loitering.** Lessor employees or subcontractors shall not loiter on the grounds when in a non-duty status. After completing assigned work shifts, all Lessor personnel or subcontractors shall promptly depart the station.
- HH. Work Methods.** All work performed in delivering the services specified in this contract shall comply with applicable Federal, State, and local safety regulations. The Lessor and subcontractors shall have a working knowledge of the following codes, standards, recommended practices, and manuals:
1. Accreditation Manual for Hospitals developed by the TJC, current edition
  2. Law 91-596, Occupational Safety and Health (OSHA) Act of 1970 and current amendments

3. National Fire Codes and Standards pertaining to the health care field developed by the National Fire Protection Association, current listings
4. National Safety Council Accident Prevention Manuals pertaining to the health care field, current edition
5. American National Standards Institute standards pertaining to the health care field
6. VA Disaster Control Plan
7. Material Safety Data Sheets (MSDS)

**II.** In addition, Lessor employees or subcontractors shall:

1. Receive instruction in appropriate safety measures and cleaning methods to be used for portable blood pressure monitors, exam tables, geriatric chairs, etc.
2. Not place mops, brooms, electrical cords, hoses, machines, and other equipment in traffic lanes or other locations in a manner that creates a safety hazard.
3. Display warning signs in all areas where housekeeping operations may cause traffic obstruction or hazard to patients, staff personnel, or visitors.
4. Interrupt their work at any time to allow the passage of patients, staff personnel, visitors, equipment, or carts.
5. Use parallel wet mopping or cleaning procedures when the cleaning of public traffic areas (e.g., lobbies and corridors) may result in a temporarily wet or slippery floor surface. Lessor employees or subcontractors shall accomplish floor cleaning such that at no time will it be necessary for patients, staff personnel, or visitors to cross a wet floor to gain access to other areas of the VA. Lessor employees or subcontractors shall accomplish cleaning of high traffic areas before or after regular working hours, including passageways and outpatient clinic waiting areas. Whenever this is not possible only half of the corridor will be mopped at a time. Lessor employees or subcontractors shall display warning signs, as required in paragraph 14 above.
6. Wear personal protective clothing and/or equipment when handling, pouring, or working with substances, which may expose the employee to injury and/or occupational illness.

**JJ.** Cleaning of mop heads shall not be accomplished on the VA premises. All mop heads shall be treated as if contaminated.

**KK.** No supplies shall be left unattended and should be kept locked up when not in use.

**LL.** Inspections. The Lessor or his representative shall, on a daily basis when work is performed, tour all areas for which the Lessor is assigned responsibility under this contract and shall carefully inspect the quality of housekeeping operations, the status of Government furnished, and Lessor-furnished equipment. The Lessor shall initiate prompt action to correct identified discrepancies. The Lessor shall promptly report to the COR those deficiencies resulting from poor or non-performance. When facilities defects are found, these defects shall be reported to the COR.

**MM.** Documentation. On a monthly basis, the Lessor shall document an assessment of compliance with the Quality Control Plan. Monthly documentation shall include, at a minimum, a statement of the degree of compliance with pre-established criteria, recommendations for changes in work methods, and plans of action and milestones to correct identified discrepancies.

**NN.** Review of Documents. The Lessor shall provide copies of documents required in paragraphs 11.5.47 and 11.5.48 above to the COR when requested.

#### **8.44 PEST CONTROL**

The Lessor shall provide all management, licenses/certifications, laboratory testing, tools, supplies, equipment, transportation and labor to develop and implement an Integrated Pest Management (IPM) plan for pest control services at the VA leased Space. Service shall be performed in a manner that will ensure the health and general well-being of installation personnel, and effectively control pests. Area of service shall include Leased space, adjoining spaces and parking lot. Pest control services shall be performed in accordance with (IAW) commercial and GSA Environmental Management Integrated Pest Management Technique Guide (E402-1001). All pest control service requests shall be submitted via Lessor supplied toll-free telephone number or Government-approved electronic communication. The Lessor's technician shall contact the COR and Contracting Officer upon arrival and before departure from the installation.

**A. INTEGRATED PEST MANAGEMENT (IPM) PLAN.** The Lessor shall develop and submit an IPM plan within 30 days of after occupancy start date and as changes to chemicals or strategies are made for approval. The IPM Plan shall be written in accordance with the outline prescribed in the Integrated Pest Management techniques, as specified in the GSA Environmental Management Integrated Pest Management Technique Guide (E402-1001). In addition, the IPM plan shall comply with all applicable Environmental Protection Agency (EPA), Occupational Safety and Health Administration (OSHA), federal and state/local regulatory guidance on pesticide usage, disposal and applications.

1. The Lessor's IPM plan shall establish the strategy and methods for conducting a safe, effective, and environmentally sound pest management program. In developing the IPM plan, the Lessor shall address continuous monitoring, pest response and removal procedures, record keeping, warranties, pest education and communication to prevent pests and disease vectors. The IPM approach shall use targeted (effective and environmentally sound) methods including habitat/facility modification, biological/genetic/cultural control, mechanical/physical control, and where necessary with the judicious use of the least hazardous pesticides using all Federal, State, County and local requirements.

2. A list of all pesticides to be used for pest control services at Leased Space shall be included in the IPM plan. The Lessor shall only use pesticides from Federal listings approved by the GSA Environmental Management Integrated Pest Management Technique Guide (E402-1001). **All pesticides shall be approved by the State of North Dakota, Contracting Officer, and VA Pest Management, prior to use.** The Lessor shall supply electronic copies of Material Safety Data Sheets (MSDS) and Chemical Labels to the COR and LCO within 10 days after contract award and 30 days prior to the start of each contract year.
3. The IPM plan requires approval by the Contracting Officer prior to implementation. The Lessor shall review and update the plan annually and as strategies or chemicals change for all pest control categories. The updated IPM plan shall be submitted to the LCO and COR within 10 days after contract award and 30 days prior to the start of each contract year.

**A. BASIC SERVICES**

1. Common Pests. Common pests are described as any insect, invertebrate, arachnid, rodent, mammal, bird, or snake that causes an economic loss, or presents a hazard to VA Leased property, personal health or morale. These pests include mice, rats, squirrels, gophers, birds, bats, ants, bees, snakes, mosquitoes, gnats, beetles, bed bugs, weeds, and spiders. This list is not all inclusive and shall not be considered to be a complete list of the pests the Lessor shall be responsible to control. Lessor shall insure applicators are trained in the proper and safe handling of snakes.
2. Pest Control for Facility. The Lessor shall complete all pest control requests within 8 business hours from receipt of request. Lessor shall coordinate with the COR on pest management practices to keep pests under control using the least amount of pesticides. At the VA leased Building, the Lessor shall contact COR or alternate prior to any pest control actions.

**B. EMERGENCY SERVICES.** Upon notification by the Contracting Officer, or duly authorized representative such as the COR, the Lessor shall perform emergency services within 2 hours from time of notification. Lessor shall provide an after-hour emergency contact number to the **COR. The definition for emergency service is the control of medically important pests, including venomous arthropods, venomous snakes which could affect human health and pests which could cause damage to Government property.** Note: Lessor may have to perform work at times other than the normal duty hours for emergencies.

**C. PESTICIDE MIXING AND STORAGE.** All pesticides shall be stored off-base. All unused pesticides, empty pesticide containers and residue shall be disposed of properly at an approved off-base disposal area. In the event the Lessor or subcontractor spills or releases any hazardous substances (example, **substances listed in 40 CFR 302**), the Lessor shall immediately notify the COR or Contracting Officer. **Chemical mixing for immediate application may be accomplished at the site of application/treatment and only state certified applicators may mix or apply pesticides.**

**D. SAFETY.** All persons shall wear all safety items while mixing and applying chemicals. When the label states that an eye irritation may occur, or lists flushing eyes, face and eye protection shall be worn as part of the required safety items. Lessor shall provide a spill container at mixing areas to ensure that no chemicals impact an area that is not being treated. The Lessor shall have an operational emergency eyewash kit available at each mixing location.

**E. PEST CONTROL RECORDS AND REPORTS.**

1. Records. The Lessor shall maintain a complete pest control record and reports. The Lessor must provide record all information required by VA, Federal, State and Local Regulations. All reports shall have the Percentage of Active Ingredient used and for each chemical used.
2. Annual Report. Annual reports are to be turned in to the Contracting Officer by the fifth of October each year.

**F. LESSOR EMPLOYEES OR SUBCONTRACTORS.** The Lessor's employee or subcontractor shall have a State of North Dakota certified pest control manager specifically assigned to support this contract available within one hour to meet with Government personnel (telephonically or in person) during duty hours. All contract employees that apply or mix pesticides shall have a current North Dakota Structural Pesticide Applicator Certificate. The Lessor shall be responsible to ensure that the licenses and certificates and training of Lessor personnel or subcontractors are kept current and copies provided to the IPCS.

**G. HOURS OF OPERATION.** The Lessor shall provide sufficient personnel to cover all required services during normal hours of operation which are 7:00 am to 5:00 pm, Monday through Friday.

**H. SERVICES SUMMARY.** The Lessor's service requirements are summarized into performance objectives that relate to mission essential items. The performance thresholds briefly describe the minimum acceptable levels of service required for each requirement. These thresholds are critical to mission success.

**I. QUALITY CONTROL PLAN.** The Lessor shall develop and maintain a quality control plan (QCP) to ensure systematic inspection of facilities for pests, a customer service call/emergency response system for pest removal, and a continuous pest prevention education program for facility managers and occupants, food handling managers, and housing occupants. The Lessor shall develop and implement a quality control plan (QCP) to identify and prevent defective services from recurring on all services required by this Lease. The Lessor's QCP shall be written and submitted to the LCO and COR within 10 calendar days from the date of award or as changes occur. The Lessor shall identify their quality control representative in writing to the LCO and COR for notification and resolution of valid customer complaints or Quality Control issues.

**J. QUALITY ASSURANCE.** The Government will evaluate the Lessor's performance by appointing COR to monitor performance to ensure services are received. The COR will evaluate the Lessor's performance through intermittent on-site inspections of the Lessor's quality control program and receipt of complaints from base personnel. The Government may inspect periodic tasks as completed or increase the number of inspections if deemed appropriate because of repeated failures discovered during inspections or because of repeated customer complaints. Likewise, the Government may decrease the number of inspections if performance dictates. The Government will also receive and investigate complaints from

various customers located throughout the installation. All customer complaints will be submitted to the COR and LCO. However, the LCO shall make final determination of the validity of customer complaint(s) in cases of disagreement.