

## **Supplement B to SF252**

### **Scope Of Work Architectural/Engineering Services**

#### **Project Number 526-15-113**

#### **Renovate ICU**

#### **GENERAL SCOPE**

Supplement B defines the minimum requirements of completion for each phase of the project design. This document involves several disciplines. A/E will supply all labor, materials and services to include but is not limited to Architectural Specifications, electrical, plumbing, mechanical, clinical, structural, Value Engineering, progress phasing scheduling and estimating as well as other design considerations, to design for a complete and fully functional ICU. Design will include but is not limited to the following:

##### **A) Modify ICU**

- 1) Modify 8C ICU ward as necessary inclusive of ICU entrance, staff lounges, staff locker rooms, on call rooms, sleeping quarters, 20 patient beds rooms, offices, conference rooms, nurses station, storage rooms, linen rooms, medical supply, defibrillator crash carts, computer stations, clinical monitors, ABG rooms, etc.
- 2) This project is not a total renovation. Design for as minimal renovation and utilize existing walls, layouts as much as necessary to minimize downtimes and keep costs down. ICU has a lot of portions in reusable shape.
- 3) Renovate existing Waiting room. Modify space for efficient waiting room and corresponding offices. Look into possibility of interconnecting corridor between offices. Include all television and furniture layout.
- 4) Install intercom in waiting room for staff to communicate with family/visitors from ICU nurses station or reception area.
- 5) All office area to be as per VA design guide space criteria. Utilize as minimum criteria.
- 6) Replace existing nurse call system with hospital standard and tie into existing centralization network. Install most up to date Nurse Call system. Turn over of each area to service for each phase is to have functioning nurse call system and staff trained.
- 7) Ceiling tiles to be reused as possible except for patient rooms.
- 8) Patient rooms are to have more of a comfortable home environment as possible.
- 9) Sky Factory or equal digital scenery changing panels to be installed in each patient room, waiting room, ICU hallways and bereavement room. To be installed on patient walls or appropriate open equivalent space.
- 10) All sliding doors to be completely removed and replaced. No curtains to be used. Look into concept of E-glass, black out glass, or similar for privacy.
- 11) Add new bathrooms for patient rooms 10 and 11.
- 12) Negative pressure rooms 8, 9, 12 & 13 will remain negative pressure rooms but the replacement doors must have proper seals to properly maintain negative pressure while doors are closed.
- 13) Make rooms 10 and 11 isolation rooms with anteroom before going into the patient room. Patient room to be negative pressure. Install all required mixing boxes.

- 14) Utilize x-ray spaces before patients' rooms of 10 & 11 for anterooms.
- 15) Connect to existing exhaust fan and duct for room 10 & 11 if possible. If this is not adequate, look into designing extra exhaust fan for 10 & 11 and making new exhaust duct to roof. If duct has to be installed, use path which such as MER rooms which will not inconvenience office or equivalent spaces.
- 16) Install ball and tube indicator for four existing negative pressure rooms and 2 new isolation rooms.
- 17) All existing bathrooms to be completely renovated.
- 18) Bathroom in Physicians suite to have another entrance door built leading to oncall room. Exiting entrance door to remain. Shower to be built in bathroom as well.
- 19) Installation of regular walls instead of glass inside the patient rooms. Reduce exiting glass between rooms to smaller glass panel.
- 20) Replace all glove boxes with new more appealing boxes.
- 21) Look into the possibility of installing bed pan washers in each patient rooms or as much as technically possible in the area.
- 22) Design for space of label maker in each room.
- 23) Allocate efficient space for garbage cans using methods such alcoves, recessed walls, etc.
- 24) Change all flooring with infectious control ratings. Look into concept of Epoxy or Stonehard floor or equal for patient care areas. Waiting rooms, Bereavement rooms can be wood vinyl tile.
- 25) Appealing and space efficient storage cabinets by sinks. Cabinets and storage bins to have locks.
- 26) All countertops for the entire area to be replaced with Corian.
- 27) Sink countertops to be changed.
- 28) Nurses station countertops to be changed. Reinstall all outlets, IT connections as necessary.
- 29) Sinks to have sensors and to eliminate touching sink for better infection control.
- 30) Lights to have dimming capabilities and other lighting methods for better comfort for patients.
- 31) Look into options for lights to turn off upon staff, family leaving, etc. leaving patient room.
- 32) Look into reusing Arjo lifts in patient rooms as they were just installed.
- 33) Look into reusing cameras to Nurses Station for clinical monitoring. Replace and/or modify as necessary.
- 34) Linen closets to be accessed from inside patient rooms and outside corridors. With as much storage space as possible. Top half to be used for linen and bottom half to have drawers for isolation PPE. Drawers are to be opened from the corridor.
- 35) Un-utilized sinks in computer bays by patient rooms to be removed.
- 36) Install eye wash stations and water fountains as necessary. Look into concept of dual stations with eye wash and water fountains.
- 37) Phones to have minimal noise as possible. (Coordinate with inhouse IT as they may have to provide phones)
- 38) All rooms to have new flat screen TVs. Flat screen monitors to be furnished by VA. Specify type flat screen monitor for VA to purchase.
- 39) Provide all necessary connections for the TVs to properly function. Show all electrics, cable TV, nurse call wiring hook up configurations as necessary for new flat screen monitors to fully function.
- 40) Contractor to install the electrics for all TVs in each patient room and provide conduit, cable, tray , etc from nearest cable splice box to each television.
- 41) Design or note for contractor to determine with existing Nurse Call provider for specific wiring adapter for the existing nurse call system which the TV will need for pillow speaker to properly operate TV volume, channels, etc.
- 42) Ohio panels to be removed and replaced with booms with gas connections, outlets, all other utilities currently existing, etc. Booms to have exterior cover that is not prone to deterioration or rusting. Booms must not corrode due to use of cleaning chemicals.

- 43) Look into installing new dialysis connections made of a new durable material other than plastic to prevent possible breaks when the machine is moved.
- 44) Methods to prevent sewage backups from bathrooms and sinks into ICU.
- 45) Modify AHU as necessary to meet HVAC air exchanges and requirements for an ICU.
- 46) Utilize existing four negative pressure rooms. Install ball and tube indicator for these four rooms.
- 47) Install new temperature regulators in each room.
- 48) Design for more patient bathrooms as possible.
- 49) Replace all locker rooms for men, women, nurses, residents, etc. Make utilization of space and benches more efficient.
- 50) Replace staff lounge and dining rooms and make it more functional. Install new kitchenette and new countertops. No Formica.
- 51) Replace staff shower rooms for male and female.
- 52) For staff lounge, dining area, locker room, shower room install door with pre-installed electric wiring for electric locks and keypads with no batteries to be utilized for easier maintenance.
- 53) Supply room by staff lounge has lead lined walls. Walls are to be reutilized.
- 54) Central nurse's core to be renovated and overall concept utilized inclusive of linen rooms, ABG rooms, medical supply, X Ray if necessary, housekeeping room, etc.
- 55) Eliminate X Ray rooms space as much as possible to make room for fellows and grievance rooms.
- 56) Space for charts, assignment boards, binders, manuals, logs, etc at core area. Assignment boards to be electronic.
- 57) New hand rails and cove bases.
- 58) Current Sleep lab will remain. Adjacent office will be made to be apart of the main sleep lab space for storage of sleep lab materials, equipment, etc.
- 59) Make current on call space into 3 on call rooms. Currently it is split into 2 rooms. One large section and one small section. The small section will stay as is and the larger one will be split into 2 sections. Renovate this entire space inclusive of bathroom.
- 60) Install intercom system from nurse's core to visitor waiting area.
- 61) Modify clinical alarms as necessary. Look to utilize present concept and system as much as possible.
- 62) Allocate defibrillator crash cart spaces in common core area for both sides of ICU.
- 63) New offices for all staff (Only within ICU core).
- 64) Design for phasing to minimize impact to ICU. Half of ICU to operate at all times.
- 65) Minimize visitor waiting room space as present one is too large. Utilize space for possible offices.
- 66) Install glass doors for ICU entrance.
- 67) ABG room with space for associated equipment and personnel to comfortably work.
- 68) Existing room 8C-27 specific use to be determined by user and overall design team during design.
- 69) Efficient space for computer bays for nurse use by patient rooms as existing layout.
- 70) Minimize lighting from Nurses station and core area to patient rooms as much as possible.
- 71) Dedicated room for housekeeping to clean specialized equipment.
- 72) Consolidate offices in one area as much as possible to make room for ICU functions and needs.
- 73) Renovate for new conference room. Install Sharp Aquos Board Interactive Display System or equal in conference room. Install all necessary IT Cat 5 or 6 and electrical needs.
  - A. Interactive Display System must have the following:
    - a. 60" in diagonal measurement.
    - b. Be a "Smartboard" screen display with multi-touch abilities
    - c. LED backlit flat panel
    - d. 1080p display

e. Include at least one HDMI input, one DVI input, one VGA input

B. The wall mount for Interactive Display system must have the following:

- a. Be ultra-slim design
- b. Able to mount a display with a measurement of 46"
- c. Able to support a max load of 250 lbs.

- 74) Efficient space for oxygen tanks and standing machines not to take spaces.
- 75) Dedicated room for SPD supply, specialty items, IV supply. Medication, and supplies sensitive to specific temperatures to be put into specific temperature rooms with thermostats and temperature alarms.
- 76) All supply rooms to be installed with more efficient cabinets, shelving, etc.
- 77) Make existing medication rooms more efficient for storage of medical supplies. Room dimensions will remain the same.
- 78) Design for new furniture layout in offices, conference rooms, bereavement rooms. Furniture to be provided by VA.
- 79) Non-movable furniture such as cabinets, storage, nurses stations, countertops, etc will be furnished by contractor.
- 80) Any steel beams found to be fireproofed with spray on fireproofing utilizing Hilti or approved equal. Designer to verify this as much as possible in an active ICU.
- 81) Reinstall PA system speakers and all other equipment not being removed in this project.
- 82) Repaint entire area. Utilize hospital standard of Benjamin Moore.
- 83) Change all doors with fire rated doors as per NFPA 101.
- 84) All locks to be Stanley best locks. All offices to have storeroom functions. Supply, staff areas to have electric keypad locks with preinstalled electric wiring.
- 85) Look into the concept of possibly using copper hardware or hardware that has an infection control consideration.
- 86) Reinstall Johnson Control system as necessary unless determined to remove completely in ICU area.
- 87) Utilize existing electrical panels for life safety, essential equipment, critical and normal loads.
- 88) Include notes and methods as possible to reduce noise and vibration as ICU will still be around construction site.
- 89) Include notes for PPE equipment and OSHA certification requirements for all workers on construction site.
- 90) Utility shutdowns to be isolated to area of work only. Medical Center and/or other areas not to be affected.
- 91) Notes to coordinate with project engineer and in-house trades shops for sprinkler shutdowns, electrical, water, sanitary, HVAC, welding and cutting etc a week prior to shutdowns.
- 92) Create drawing for and notes for rigging in new equipment and old equipment away.
- 93) Provide common, path of egress, dead ends, smoke barriers walls, fire ratings, etc drawings for life safety.
- 94) Provide infection control drawing as per VA and in-house policies. Label group and risk. Clearly state requirements of contractor on drawing. Provide clear path for removal of debris.
- 95) If any work has to be done in an active location contractor is to use mobile enclosed tent or plastic enclosure to prevent and/or minimize the spread of dust and other germs by opening the ceiling tiles to install system.
- 96) Include training for any possible new equipment for medical staff and maintenance staff.

B) All design to be done as per VA specifications, NFPA 99, 101, NEC, VA design manuals,

ANSI/TIA and BICSI standards.

C) Coordinate all construction with Project Engineer prior to start of work.

D) All penetrations made during installation around wiring, conduits, junction boxes, pull boxes, pipes, etc must be sealed with Fire Sealant Caulking and/or materials. Hilti fire sealant is hospital standard.

E) Provide patchwork, paint, replacement of ceiling tiles, etc to any area destroyed during construction. All materials must match existing type.

F) Any drawings provided by the Government are for reference only and it is the responsibility of the contractor to field verifies all drawings, installation methods and dimensions for accuracy.

G) Must clean construction site on a daily basis.

H) Contractor is to furnish all warranties, operation and service manuals for the job and new equipment prior to final payment. All warranties begin when approved and accepted by Bronx VA.

I) Contractor is responsible for securing the construction site, while maintaining the integrity of the Medical Center security.

J) Contractor must comply with all necessary James J. Peters Bronx VA Medical Center policies in regards to Security issues, Parking, Safety Procedures, Infection Control Measures, Construction Waste Management, Ethical Conduct, etc.

B. The A/E shall address the need for special protective construction (Pre-construction risk assessments) and methods of work to assure the continued operation of medical center.

C. The A/E shall develop an appropriate phasing and coordination plan for the construction of the project so as to continue the normal operation of the medical center and assure the safety of patients, visitors, and employees during all construction.

D. As-built drawings will be verified by the A/E prior to using information contained in these drawings for design. A/E design shall also include requirements contained in VA standards. Drawings shall be on standard VA drawing sheets in accordance with VA Construction Standards and VA Standard Details. Construction drawings shall be provided on AutoCAD 2014. VA Master Construction Specifications will be furnished in MS Word format. All final construction documents will be submitted to the VA on a CD provided by the A/E. The A/E will edit the specification specific to this project. All cost estimates shall be on VA Form 10-6238. Cost estimates shall be quantitative based on drawings and specifications, indicating labor and materials for each branch of work and reflecting estimated cost for each item. Cost estimates shall include 10% for overhead and 10% for profit and an allowance for General Conditions. The A/E shall develop bid alternates to keep the final construction cost within the approved budget. In order to accomplish this, the final construction documents shall have bid alternates so that the lowest bid alternate is 10% less than the approved construction budget, based on the A/E's final cost estimate.

## II. Method of Procedure

A. The A/E shall make an on-site inspection of all areas within the scope of the project to familiarize themselves with existing conditions. The A/E shall verify all dimensions including verification of drawings and information furnished the A/E by the VA.

B. Upon appointment by the Director, Facility Management Service Center, the A/E will be assisted by VA Facility Management staff in confirming existing conditions. The VA makes no guarantee as to the accuracy of any as-built drawings furnished or information provided. The A/E

must verify all conditions.

C. The A/E shall meet with all necessary staff and medical center management in order to determine the Medical Centers requirements. The A/E shall use this information and provide several planning options to address these requirements.

### **III Review Requirements**

The following are minimum requirements for review purposes only. This does not relieve the Engineering Firm of responsibility to produce a complete set of construction documents and estimates in accordance with industry standard practice and VA criteria.

- A. The Engineering Firm shall prepare and coordinate all engineering and site drawings, calculations, specifications and cost estimates. The degree of completion and the stages of submission shall be as specified.
- B. For each submission, the Engineering Firm shall incorporate the corrections, adjustments, and changes made by the VA at the previous review. The Engineering Firm shall date all reports, studies, and other submission material.
- C. Provide computations and sizing calculations for mechanical, plumbing, and electrical designs. For computerized calculations, submit complete and clear documentation of computer programs, interpretations of input/output and description of program procedures.
- D. If subsurface investigation is necessary, submit the criteria for the subsurface investigation and the qualifications of consultants being considered for the investigation. Start subsurface investigation upon approval of the proposal by the COTR.
- E. The Engineering Firm shall submit a construction cost estimate with the drawings at each project submission. This estimate shall show the cost of construction which would be expected to be reflected by the construction contractors' bids, if the bids were submitted on the same day as the estimate. The level of detail for this estimate shall be consistent with the degree of completeness of the drawings being submitted. For detailed elements, "lump sum" or "allowance" figures will not be accepted.
- F. Must address all comments for each submission 100% prior to proceeding with next design submission.
- G. Cannot request any additional funds if multiple revisions have to be done based on not addressing our comments, specifications, budget and design guides.

### **Preliminary Design and Analysis**

#### **A. Conceptual Study and Drawing**

- 1. Provide a design analysis that will evaluate for the Bronx VAMC:
  - a. 1/4" and / or 1/2" scale schematics drawings of renovated floor(s). (Elec./Mech./HVAC)
  - b. Preliminary phasing analysis
  - c. Preliminary impact analysis
  - d. Preliminary recommendations/solutions
  - e. Review of applicable codes
  - f. Special requirements/considerations/aggregations (i.e. existing/proposed finishes)
- 2. Drawings shall be completed to the extent the following is shown:

- a. Demolition work required for each area.
- b. Infection Control requirements.
- c. New structures and finishes.
3. Provide a preliminary cost estimate based on drawings, specifications, and design analysis. Provide appropriate adjustments for phasing and local or market conditions.
4. Provide five (5) copies of design analysis, drawings, and preliminary cost estimate.
5. The A/E shall attend a design review meeting at the Bronx VAMC.
6. Provide rendering drawings for all aspects of the area for staff review. Provide display boards and software.

## **B. Compliance of Preliminaries-35% Design Review**

This review shall include the following:

1. Drawings shall be completed to the extent the following is shown:
  - a. Demolition work required for each area.
2. Provide a design analysis that will evaluate for the Bronx VAMC:
  - a. Phasing Analysis.
  - b. Impact Analysis
  - c. Recommendations/Solutions.
  - d. Review of applicable Codes.
  - e. 1/4 or 1/2-inch scale drawings (typical).
3. Specifications: provide a listing of all applicable VA Master Specification sections to be used for this project.
4. Provide a cost estimate based on drawings, specifications, and design analysis. Provide appropriate adjustments for phasing and local or market conditions.
5. Provide five (5) copies of design analysis, drawings and cost estimates.
6. The A/E shall attend a design review meeting at James J. Peter's /VAMC Bronx, New York.
7. Provide design via PDF and AutoCAD on CD.

### **C. Preparation of contract drawings and specifications I - 65% Design Review -**

The submission shall include materials proposed for use on the project for selection by the VA. This submission should incorporate all comments from 35% Design Review.

1. Drawings shall be completed to the extent the following is shown:
  - a. Demolition work required for each area.
  - b. All preliminary drawings shall be not less than 1/8" scale.
  - c. Area finishes (existing versus proposed)
  - d. Structural, electrical, and mechanical modifications required.
  - e. All new work to be added to existing work shall be shown and identified. All existing items requiring removal to provide for installation of new work shall be shown and identified.
2. Provide a design analysis describing proposed construction and phasing. Provide information as to how Life Safety and other applicable codes are being met.
3. Specifications: Provide a marked-up copy of all applicable VA Master Specifications, edited for the Scope of this project.
4. Provide a cost estimate based on drawings, specifications, and design analysis. Cost estimate shall include quantitative take-off for labor and material. Provide appropriate adjustments for phasing and local or market conditions.
5. All floor plans are to be presented on VA standard size drawings. The Engineering Firm must submit three (3) options of the floor plans at this submittal. The floor plans should be drawn at a scale which will permit an entire floor plan on one drawing. The plans must show the overall exterior dimensions of the building.
6. Primary horizontal and vertical circulation, entrances to buildings, main entrances to departments and major mechanical spaces shall be shown on the drawings. New construction, renovation and existing construction to remain as, shall be clearly distinguished from each other. Construction phasing will be carefully considered to permit continuous operation of the facilities services without disruption.
7. Provide five (5) copies of all review material.
8. The A/E shall attend a design review meeting at James J. Peters/VAMC, Bronx, New York.
9. Provide design via PDF and AutoCAD on CD.
10. Provide rendering drawings for all aspects of the area for staff review. Provide display boards and software.



#### **D. Preparation of contract drawings and specifications II - 95% Design Review-**

The A/E shall incorporate all comments from 65% reviews.

1. Drawings shall be complete and checked for errors, ready for use as final contract documents including special requirements (i.e. mechanical, electrical, structural, etc.).
2. Construction phasing schedule
3. Construction specifications shall be prepared in final draft; incorporating bid alternates as required (if applicable).
4. Updated construction cost estimate. Cost estimate shall reflect labor and material for each category of work based on quantitative take-off, including overhead and profit. The cost for each bid alternate shall be identified in the cost estimate, if applicable.
5. A/E shall incorporate any comments from VA Legal and Technical Review and any bidder questions into Final Documents in direct preparation of amendments to the solicitations as required.
6. Provide five (5) copies of all review material.
7. Provide design via PDF and AutoCAD on CD.

#### **E. Final Project Review - 100% Completed Design-**

1. The 100% phase involves the production of complete drawings, specifications, and other documents necessary for the bidding and construction of the project. Also included at this phase are the final detailed cost estimate, the final phasing plan and the construction schedule.
2. It is the A/E Firm's responsibility to provide a quality set of documents. Related documents shall be complete, fully coordinated and ready for reproduction for contract.
3. Prior to reproduction for issue for construction bids, the Engineering Firm shall make any changes to the documents identified as necessary.
4. The A/E Firm shall deliver the original contract drawings to the Project Manager for signature, after the previous review comments are incorporated and the contract drawings have been approved. The contract drawings shall bear the seal of the Registered Architect and Professional Engineer responsible for the design.
5. Submit a complete set of applicable VA Master Specifications edited to reflect the scope of work of the project. Also, submit copies of any architectural specifications prepared by the Engineering Firm from any source other than VA Master Specifications. Ensure the specifications have been edited and tailored in their application to represent accurate coordination between the drawings and specifications.
6. Provide rendering drawings for all aspects of the area for staff review. Provide display boards and software.

#### **A. ARCHITECTURAL**

1. Submit a 100% complete and coordinated set of construction drawings and specifications.
2. Submit fully dimensioned floor plans showing all revisions required by comments from the previous review meetings.
3. Submit interior details.
4. Submit drafting symbols, and abbreviations, general notes and schedules that are complete and coordinated with all contract documents.
5. Submit a complete and coordinated finish schedule.
6. Submit demolition plans, existing finish schedule and notes, on demolition plans.
7. Submit completed building sections, wall sections and exterior elevations that show finish floor elevations, and indicate all building systems and materials.
8. Submit completed reflected ceiling plans for entire buildings, indicating all ceiling mounted equipment, lighting fixtures, air diffusers, registers, etc.
9. Submit equipment plans and details with all revisions from comments on previous submittal.

#### B. INTERIOR DESIGN

1. Provided 100% completed finish schedule and specifications for all rooms and areas. These shall be fully coordinated between the drawings and specifications.

#### C. ARCHITECTURAL SPECIFICATIONS

1. Assure the original specification drafts have been edited and tailored in their application to represent accurate coordination between the drawings and specifications.
2. Submit one full set of drawings of all disciplines, fully coordinate.
3. Submit a brief description of work for inclusion in the Pre-Solicitation Notice.
4. Final Bid Document Submittal:
  - a. Revise draft specifications to incorporate:
    1. All changes, resolution of conflicts and modifications noted in previous reviews.
    2. Results of any drawing changes not shown on the drawings that affect the specifications.
  - b. Type the specifications in final format and content including any desk copy changes made by the VA staff at the previous reviews. Submit a complete set of the typed architectural specifications including one full set of final drawings of all disciplines, fully coordinate.

#### D. EQUIPMENT SPECIFICATIONS

1. Submit typed master specifications in final format and content.
2. Include a set of equipment drawings fully coordinate.

#### E. STRUCTURAL

1. Include all completed structural drawings if needed. All drawings shall be checked and coordinated with other disciplines prior to submission for review.

#### F. SANITARY

1. Submit 100% complete drawings to include the following if needed:
  - a. Previously submitted drawings that have incorporated comments of the last review.
  - b. Legend, notes, and details.

#### G. PLUMBING

1. Submit 100% complete drawings to include the following if needed:
  - a. Previously submitted drawings that have incorporated comments of the last review.
  - b. All piping sized.
  - c. Plumbing riser diagram plans.
  - d. Demolition plumbing floor plans.
  - e. Legend, notes and details.

#### H. HEATING, VENTILATION AND AIR CONDITIONING (HVAC)

1. Provide complete and final engineering calculations of all systems. In addition to the updated room by room heating and cooling calculations, the following additional calculations shall be performed and submitted:
  - a. Final selection of all pumps with head calculations based on the actual piping layout and takeoffs, and pressure drop through the equipment selected for the systems.
  - b. Final selection of all fans with the fan static pressure calculations based on the actual duct layouts and takeoffs, and static pressure drop through the equipment for all systems.
  - c. Sizing and selection of all expansion tanks based on the actual piping layout and volume computation.

- d. Sizing and selection of all steam to hot water converters and heat exchangers based on the flow requirement of each terminal unit, that is, duct mounted reheat coil, box (air terminal unit) mounted reheat coil, unit heaters, convectors, finned tube radiation, radiant ceiling panels, etc.
  - e. Sound analysis of various systems and steps taken to ensure compliance with the specified noise levels.
- 2. Provide complete selection data, including catalog cuts and calculations, for all HVAC equipment and drawings showing all equipment schedules.
- 3. Complete the coordination requirements with electrical, plumbing, and steam generation by providing revised information (if any) developed since the last submission. In addition, complete coordination with the architectural drawings (Examples: Louvers, ceiling access panels reflected ceiling plans, etc.) and structural drawings (Examples: Operating weights of ceiling and floor mounted equipment, concrete and steel supports, roof and floor openings, etc.).
- 4. Submit 1/8 inch scale HVAC floor plans for all areas showing all ductwork and piping on separate floor plans. Show all duct/pipe sizes and quantities, that is, air quantities for each room and each air inlet/outlet, expressed in cubic feet per minute (CFM) and fluid quantity, where required, in gallons per minute (GPM). Show all volume dampers, fire dampers, smoke dampers, automatic control dampers, risers and drops in ductwork, air inlet/outlets, etc., on the air distribution floor plans. Show all piping specialties, such as expansion loops, anchors, valves, drip assemblies, balancing fittings, etc. on the piping floor plans. All architectural room names and numbers must be shown on the floor plans along with designated smoke and smoke/fire barriers.
- 5. Submit 1/4 inch scale HVAC floor plans for all mechanical equipment rooms with at least two cross-sections taken at right angles to each other. Show all equipment located on roof and/or grade.
- 6. Provide updated design and drawings of the outside chilled water distribution work showing pipe sizes and insulation with plans, profile, sections, details and all accessories such as anchors, expansion loops/joints, valves, manholes, capped and flanged connections, interface between the new and existing work (if any). The outside piping layout drawings shall clearly indicate interferences (if any) with the existing utilities and/or landscape elements. The scope of work shall show rerouting any utilities, cuttings of roads, pavements, trees, etc., and the extent of new and demolition work, thus, involved. The outside utility drawings shall be based on the study of the latest site drawings, discussions with engineering personnel and actual site inspection of the existing utility. To determine the actual location of the existing utility, should it become necessary to perform limited excavation, the Engineering Firm shall make necessary arrangements to do so in consultation with the site engineering personnel and project manager.
- 7. Update all automatic temperature control drawings showing revisions (if any) since the last submission. All duct detectors, control valves/dampers static pressure sensors, differential pressure control assemblies, etc., whose actual physical location is critical for the intended sequence of the operation shall be clearly shown on the floor plans and identified as such. For projects involving a central Engineering Control Center (ECC), provide a point schedule with intended analog/digital input/outputs, graphics capabilities and requirements of the

other trades to be included in the ECC. Provide a riser diagram showing locations of all field data gathering panels and their interface with the ECC. The actual location of the ECC and peripherals should be shown on the floor plans.

8. Submit VA standard detail drawings. The details shall be edited to suit the project. Include any special details deemed useful and necessary for the project.
9. Provide complete HVAC demolition drawing showing clearly the extent of demolition work. Indicate major sizes of ductwork and piping to be dismantled. Show capacities and sizes of the existing equipment to be removed. Show clearly, points of connection and disconnection, blankoffs, dead end flanges with isolating valves. Coordinate demolition and restoration work with other disciplines. The revised capacities of the systems affected by the demolition work shall be clearly stated together with additional efforts, if any, involved in testing, balancing and adjusting them.
10. Provide edited sections of the VA Master Specifications. Include all information which is applicable to the project.

## I. ELECTRICAL

1. Submit 100% complete drawings including legend symbol list, details and schedules.
2. On the electrical one-line diagrams and risers show the final sizes, ratings, feeders and identification of the electrical equipment.
3. Plans shall include any major equipment to be removed and/or relocated. Any equipment, devices or fixtures to remain and be reused shall be shown where necessary for rewiring.
4. Submit the complete final lighting, load and sizing calculations. (ie, transformers, conductors, panelboards, etc.).
5. Indicate the short-circuit current values available at each level of distribution on the one-line and riser diagrams.
6. Submit a full set of floor plans. Show locations of primary distribution switchgear, engine generator sets, unit substations, feeder routing plan and other major pieces of equipment.
7. All floor plans shall have room titles and area functions shown on the drawings. Location of all equipment, lighting fixtures, outlets for power, fire alarm devices, and signal outlets and devices shall be shown. Layouts of specialty areas (radiology, office/exam, bed areas, O.R.'s, I.C.U.'s, etc) are to be laid out.
8. All electrical drawings shall show smoke partitions and fire alarm zones. Submit fire alarm and signal (nurse call, telephone, MATV, CCTV, radio, PA, etc.) riser diagrams.
9. Phasing and shutdown requirements.

## J. BARRIER FREE DESIGN

1. Complete all drawings and specifications. Ensure that every effort to make this facility accessible to handicapped employees and patients has been taken in this design.

## K. FIRE PROTECTION

1. Complete all drawings and specifications if needed. Ensure compliance with NFPA. Provide hydraulic calculations used to derive the pipe and equipment dimensions and ratings.

## L. PHASING REQUIREMENTS

1. Phasing requirements shall describe the general sequence of the project work, estimated project duration (including allowances for delivery items), and what government constraints will exist that will influence the Contractor's approach to the construction project. In addition, special attention shall be given to asbestos abatement requirements to ensure that the project phasing plan and associated cost are reasonable. Adequate time shall be allocated for the evaluation for asbestos abatement areas in addition to the time to perform the asbestos abatement work that must precede the general construction. The Engineering Firm shall submit the following phasing information:
  - a. Phasing Narrative in written form which outlines phasing requirements and sequence with all areas of the project identified as a part of some phase. Each phase description shall include constraints particular to that phase, what other phases that must precede it, and any VA moves which must precede the start of the phase or phases. If equipment and other removable items require storage and relocation by the government, because of asbestos abatement, these requirements shall be listed in the phasing narrative. Special phasing constraints which may be common to the project should be listed at the end of the narrative and not within each individual phase description.
  - b. Individual phases shall be outlined and labeled on all drawings including site, architectural, structural, plumbing and electrical drawings. Phases shall be outlined on the submitted full sized drawings.
    - a. All systems shall be designed so that, upon completion of a particular phase, the entire area covered by that phase can be occupied by the Medical Center personnel with all systems functioning properly.

The A/E (Engineering Firm) shall incorporate all comments from the previous review into the final working drawings and specifications.

1. Final construction cost estimate shall be provided.
2. Final construction specifications.
3. Final construction contract drawings.
4. Final construction project schedule.
5. Provide five (5) copies of all review material.

NOTE: All final construction specifications must be provided on Microsoft Word in addition to providing five (5) hardcopies. All drawings shall be stamped and signed. All final construction drawings must be provided on latest version of AutoCAD and PDF, (see attached description), Adobe .pdf, in addition to

providing one (1) set of Mylar and five (5) blue line copies.

#### IV Construction Period Services

A. Review materials, submittals, shop drawings, schedules, etc.

1. Provide recommendation to Project Engineer as to each submittal being approved, disapproved, or approved as noted. Include review comments as to appropriateness of submittal and conformance to construction drawings and specifications.

2. Provide list of submittals and status report of submittals processed.

B. Review and advise the VA of contractors request for information.

C. Review change orders and provide A/E cost estimate to support VA's negotiations with contractor.

D. Furnish as-built drawings at completion of construction.

E. Advise the VA of the timeliness of the contract with his approved schedule.

F. Site visits:

1. Prebid Conference.

2. Preconstruction Conference.

3. Ten (10) field visits during construction (All field visits are to be followed by a job meeting).

4. One (2) Final Inspection, to include construction punch list/report.

ATTACHMENT A  
COMPUTER AIDED DESIGN AND DRAFTING STANDARDS FOR  
PROJECT # 526-15-113

The A/E shall adhere to the following criteria for CAD under this contract.

A. Graphic Format

All CAD data shall be supplied in the latest version of the translation format, Drawing Exchange Format (DXF). The contractor will be responsible for ensuring that all files shall translate to the VAMC's target CAD system. The Bronx VA's current target CAD system is AutoCAD (latest version).

B. Delivery Media

All CAD data shall be delivered on a CD ROM. All data files shall be organized using the directory structure (path) as outlined in the CAD Standards, Naming Conventions section of this document. All files shall be free of corrupted or unusable data.

C. CAD Standards

1. CAD drawings shall be 2-dimensional drawing files. All drawings should be registered with the lower left limits set at 0,0 x-y coordinate vectors.
2. Translated files shall not exceed 1.44 MB unless approved by C.O.T.R.
3. Lettering: Only default font style 0 shall be accepted. No attempt to map fonts to Drafix should be made.

-The text sizes to be used are as follows:

General Notes & Associated Text at 1/8"

Drawing Subtitles at 1/4"

Drawing Main Titles at 1/2"

Or Approved by C.O.T.R.

4. Symbology (graphic libraries/details/border and drawing sheets) shall be provided to the contractor by the Department of Veterans Affairs upon request. These graphics libraries shall be project specific. The contractor shall provide VA with any special symbology developed for this project on separate delivery diskette.
5. Layering/Level Standards shall follow the American Institute of Architects (AIA) "Recommended Designations for Architecture, Engineering, and Facility Management Computer Aided Design". Cad layers guidelines shall be performed during translation.
6. All files created for use by the Department of Veterans Affairs will conform to the following



directory path and file naming conventions:

Directory Path: \station number\building number\project number\discipline\11 character file name  
(includes 3 character extension)

#### Abbreviations for Discipline Types

ARCH	Architectural
CIVIL	Civil/Survey
ELEC	Electrical
INTERIOR	Interiors
LANDSC	Landscape
MASTERPL	Master Planning
MECHVAC	Mechanical - HVAC
PLUMB	Plumbing
SPACEPL	Space Planning
STRUCT	Structural
3DMODEL	3 Dimensional Models

Directory Path Example: \vamc526\project #\arch\

File names identify the drawing type and floor number. File names will contain alphanumeric characters a-z and/or 0-9, and may be up to 11 characters in length. Special characters are not permitted.

File name structure: DTf#xxxx.ext.

DT = drawing type, 2 character abbreviation

f# = floor number, 2 digit number

xxxx= the remaining 4 alphanumeric positions are user assignable to further define drawing, i.e.; building wing or zone.

.ext = drawing extensions (example: \*.dwg, \*.dgn, \*.dxf).

#### Abbreviations for Drawing Type

de	Details
di	Diagrams
el	Elevations

fp	Floor Plans
rc	Reflected Ceiling Plan
sc	Schedules
se	Sections
3d	3D Models

File Name Example: fp01n.dwg (floor plan, first floor, north wing, AutoCAD file).

#### D. Hardcopy and Documentation

The A/E shall supply a hardcopy of the following items:

- CAD data file listings of diskette contents.
- Full size check plots of all drawings, fully identified with path and drawing name.
- Full size plot of special project specific symbology created by contractor.

#### E. Ownership

All CAD files created and reimbursed for this project shall be the property of the Department of Veterans Affairs.

## **Infection Control During Construction and Renovation**

### **526-15-113**

**1. Purpose:** The purpose of this policy is to outline the requirements for managing all construction, renovation, or structural repairs within the medical center in a manner designed to minimize the potential for the spread of infections due to degraded air quality, environmental contamination, or contamination of water.

**2. Policy:** It is the policy of this Medical Center that a systematic approach based on assessment and planning will effectively manage the issues of transmission of infectious diseases and the aggravation of allergies. The overall approach relies on pre-construction assessment, management of HVAC systems, and aggressive use of a variety of barriers.

**3. Scope:** This policy applies to all construction performed within the Medical Center whether performed by staff artisans for minor station projects or by construction contractor personnel during major construction/renovation

#### **4. Responsibilities and Procedures:**

1. The Director of Facility Management Service Center, the Infection Control Program staff, and the Safety and Occupation Health Manager are collectively responsible for evaluating the need for infection control measures for every construction, renovation, modernization, or repair activity requiring the demolition, construction, or penetrating or any wall, ceiling, or floor slab.
2. Prior to the awarding of a construction project, the Infection Control Coordinator will insure an Infection Control Assessment Screen (ICAS – Attachment A) has been performed and a copy of the assessment provided the Business Service Center. Based upon the ICAS, the Business Service Center will ensure construction project specifications include the required environmental control measures specified by the ICAS process.
3. An Infection Control Assessment Screen based on the Risk Assessment Matrix (Attachment B) must be completed prior to initiation of any construction/demolition work, whether it is contractor or station level.
4. A log of all ICAS will be maintained by the Infection Control Coordinator.
5. When Temporary Aggressive Infection Control (TAIC) measures are indicated based on the ICAS, the director the Facility Management Service Center, the Infection Control Program staff, and the Safety and Occupation Health Manager are responsible for determining the specific measures, the areas to which they will be applied, providing education to contractors and employees, and implementing a monitoring program to assure rigorous implementation of the required measures.
6. Barriers and other measures will provide dust control. If water borne contamination is an identified risk, individual decisions regarding the best method for managing the identified risk will be made by the Infection Control Coordinator.
7. The Infection Control Program staff will conduct Construction Rounds for compliance periodically and submit a report to the Director the Facility Management Service Center. (Attachment C)
8. The Director the Facility Management Service Center, the Infection Control Program staff, and the Safety and Occupation Health Manager have the authority to order cessation of activities in areas

when the TAIC are not being complied with. Employees violating the measures may be subject to the disciplinary process. Contractors violating the measures may be removed from the job site.

9. The TAIC needs on a given project may change over the life of the project. The director the Facility Management Service Center, the Infection Control Program staff, and the Safety and Occupation Health Manager are responsible for periodically reassessing the appropriateness of the TAIC on each project and making changes as required.

When changes are made, the contractors and staff responsible for implementing and monitoring compliance with the measures will be reoriented. Revised monitoring checklists will be provided as required.

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CONSTRUCTION ACTIVITY	YES	NO	Comments
Type A*: Inspection and non-invasive activities, minimal dust levels			
Type B: Small scale, short duration, moderate dust levels			
Type C: Generates moderate to high levels of dust			
Type D: Major duration and construction activities requiring consecutive work shift			

**\*See Attachment B**

#### **INFECTION CONTROL RISK GROUP:**

**Low Risk**\_\_\_\_\_

**Medium Risk**\_\_\_\_\_

**High Risk**\_\_\_\_\_

**Highest Risk**\_\_\_\_\_

## Attachment B

### Infection Control Risk Assessment

#### Matrix of Precautions for Construction & Renovation

**Step One:** Using the following table, identify the **TYPE** of Construction Project

TYPE A	<p>Inspection and Non-Invasive Activities. Includes, but is not limited to:</p> <ul style="list-style-type: none"><li>▪ removal of ceiling tiles for visual inspection limited to 1 tile per 50 square feet</li><li>▪ painting (but not sanding)</li><li>▪ wall covering, electrical trim work, minor plumbing, and activities which do not generate dust or require cutting of walls or access to ceilings other than for visual inspection.</li></ul>
TYPE B	<p>Small scale, short duration activities which create minimal dust Includes, but is not limited to:</p> <ul style="list-style-type: none"><li>▪ installation of telephone and computer cabling</li><li>▪ access to chase spaces</li><li>▪ cutting of walls or ceiling where dust migration can be controlled.</li></ul>
TYPE C	<p>Work that generates a moderate to high level of dust or requires demolition or removal of any fixed building components or assemblies.</p> <p>Includes, but is not limited to:</p> <ul style="list-style-type: none"><li>▪ sanding of walls for painting or wall covering</li><li>▪ removal of floor coverings, ceiling tiles and casework</li><li>▪ new wall construction</li><li>▪ minor duct work or electrical work above ceilings</li><li>▪ major cabling activities</li><li>▪ any activity that cannot be completed within a single work shift.</li></ul>
TYPE D	<p>Major demolition and construction projects. Includes, but is not limited to:</p> <ul style="list-style-type: none"><li>▪ activities which require consecutive work shifts</li><li>▪ requires heavy demolition or removal of a complete cabling system</li><li>▪ new construction.</li></ul>

**Step 2:** Using the following table, identify the **PATIENT RISK GROUPS** that will be affected. If more than one risk group will be affected, select the higher risk group:

**Attachment B**

**Step Three:** Match the **PATIENT RISK GROUP** (*Low, Medium, High, Highest*) with the planned **CONSTRUCTION PROJECT TYPE** (*A, B, C, D*) on the following matrix, to find the **CLASS OF PRECAUTIONS** (*I, II, III or IV*) or level of infection control activities required.

IC Matrix-Class of Precautions: Construction Project by Patient Risk

Patient Risk Group	Construction Project Type			
	TYPE A	TYPE B	TYPE C	TYPE D
LOW Risk Group	I	II	II	III/IV
MEDIUM Risk Group	I	II	III	IV
HIGH Risk Group	I	II	III/IV	IV
HIGHEST Risk Group	II	III/IV	III/IV	IV

Note: Infection Control approval will be required when the Construction Activity and Risk Level indicate that **Class III** or **Class IV** control procedures are necessary.

**Step Four:** Follow the Required **Infection Control Precautions by Class**

	During Construction Project	Upon Completion of Project
<b>CLASS I</b>	<ol style="list-style-type: none"> <li>1. Execute work by methods to minimize raising dust from construction operations.</li> <li>2. Immediately replace a ceiling tile displaced for visual inspection</li> </ol>	

Low Risk	Medium Risk	High Risk	Highest Risk
Office areas	<ul style="list-style-type: none"> <li>Cardiology</li> <li>Echocardiography</li> <li>Endoscopy</li> <li>Nuclear Medicine</li> <li>Physical Therapy</li> <li>Radiology/MRI</li> <li>Respiratory Therapy</li> </ul>	<ul style="list-style-type: none"> <li>CCU</li> <li>Emergency Room</li> <li>Laboratories (specimen)</li> <li>Outpatient Surgery</li> <li>Pharmacy</li> <li>Post Anesthesia Care Unit</li> </ul>	<ul style="list-style-type: none"> <li>Any area caring for immunocompromised patients</li> <li>Cardiac Cath Lab</li> <li>Supply &amp; Processing</li> <li>Intensive Care Unit</li> <li>Medical/Surgical Units</li> <li>Negative pressure isolation rooms</li> <li>Hematology/Oncology</li> <li>Operating rooms</li> <li>Hemodialysis Unit</li> </ul>

CLASS II	<ol style="list-style-type: none"> <li>1. Provide active means to prevent airborne dust from dispersing into atmosphere.</li> <li>2. Water mist work surfaces to control dust while cutting.</li> <li>3. Seal unused doors with duct tape.</li> <li>4. Block off and seal air vents.</li> <li>5. Place dust mat at entrance and exit of work area</li> <li>6. Remove or isolate HVAC system in areas where work is being performed.</li> </ol>	<ol style="list-style-type: none"> <li>1. Wipe work surfaces with disinfectant.</li> <li>2. Contain construction waste before transport in tightly covered containers.</li> <li>3. Wet mop and/or vacuum with HEPA filtered vacuum before leaving work area.</li> <li>4. Remove isolation of HVAC system in areas where work is being performed.</li> </ol>
CLASS III	<ol style="list-style-type: none"> <li>1. Remove or Isolate HVAC system in area where work is being done to prevent contamination of duct system.</li> <li>2. Complete all critical barriers i.e. sheetrock, plywood, plastic, to seal area from non-work area or implement control cube method (cart with plastic covering and sealed connection to work site with HEPA vacuum for vacuuming prior to exit) before construction begins.</li> <li>3. Maintain negative air pressure within work site utilizing HEPA equipped air filtration units.</li> <li>4. Contain construction waste before transport in tightly covered containers.</li> <li>5. Cover transport receptacles or carts. Tape covering unless solid lid.</li> </ol>	<ol style="list-style-type: none"> <li>1. Do not remove barriers from work area until completed project is inspected by the owner's Safety Department and Infection Control Department and thoroughly cleaned by the owner's Environmental Services Department.</li> <li>2. Remove barrier materials carefully to minimize spreading of dirt and debris associated with construction.</li> <li>3. Vacuum work area with HEPA filtered vacuums.</li> <li>4. Wet mop area with disinfectant.</li> <li>5. Remove isolation of HVAC system in areas where work is being performed.</li> </ol>

**Attachment B**

**During Construction Project**

**Upon Completion of**

CLASS IV	<ol style="list-style-type: none"> <li>1. Isolate HVAC system in area where work is being done to prevent contamination of duct system.</li> <li>2. Complete all critical barriers i.e. sheetrock, plywood, plastic, to seal area from non-work area or implement control cube method (cart with plastic covering and sealed connection to work site with HEPA vacuum for vacuuming prior to exit) before construction begins.</li> <li>3. Maintain negative air pressure within work site utilizing HEPA equipped air filtration units.</li> <li>4. Seal holes, pipes, conduits, and punctures appropriately.</li> <li>5. Construct anteroom and require all personnel to pass through this room so they can be vacuumed using a HEPA vacuum cleaner before leaving work site or they can wear cloth or paper coveralls that are removed each time they leave the work site.</li> <li>6. All personnel entering work site are required to wear shoe covers. Shoe covers must be changed each time the worker exits the work area.</li> <li>7. Do not remove barriers from work area until completed project is inspected by the owner's Safety Department and Infection Control Department and thoroughly cleaned by the owner's Environmental Services Department.</li> </ol>	<ol style="list-style-type: none"> <li>1. Remove barrier material carefully to minimize spreading of dirt and debris associated with construction.</li> <li>2. Contain construction waste before transport in tightly covered containers.</li> <li>3. Cover transport receptacles or carts. Tape covering unless solid lid</li> <li>4. Vacuum work area with HEPA filtered vacuums.</li> <li>5. Wet mop area with disinfectant.</li> <li>6. Remove isolation of HVAC system in areas where work is being performed.</li> </ol>
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**Attachment C**

**Construction Rounds Compliance Monitor**

Project Title:

Date:

Location:

Reported:

CONSTRUCTION BARRICADE	YES	NO	CORRECTED
Barricades sealed, no penetrations			
Barricade doors have closers			
Door frames gasketed, doors close and seal			



properly			
Signs posted for construction			
Walk-off mats (clean & adequate to contain dust)			
Adjacent floor areas clean, no dust tracks			
Adjacent ceiling areas intact			
Comments:			

Negative Air	Yes	No	Corrected
Negative pressure			
All windows and doors closed behind barricade			
Negative air machine(s) running			
Negative air machines filters clean			
Negative air discharge hoses intact			
Comments:			

JOB SITE	YES	NO	CORRECT
Project area clean, debris removed daily			
Debris removed in suitable containers (closed containers)			
Construction personnel & materials transported on dedicated elevator			
Construction personnel wearing required PPE (e.g., hardhat, protective eyewear, footwear).			
Comments:			

**PROJECT #526-15-113**  
**Renovate ICU**

**ATTACHMENT C**

**WASTE MANAGEMENT PRE-CONFERENCE CHECK LIST, p 1/2**

CONTRACT: \_\_\_\_\_

PROJECT: \_\_\_\_\_

LOCATION: \_\_\_\_\_

Have the following been completed or submitted?	YES	NO
1. Asbestos pre-survey (if required)		
2. Lead pre-survey (if required)		
3. Mercury pre-survey (if required)		
4. Storm water permit (if required)		
5. Waste Management Plan contains the following elements:		
5a. Identifies on-site waste manager(s) for duration of project		
5b. Copies of permits, licenses and insurance for Contractor and/or Subcontractors, recycling facilities, TSDF's for hazardous waste and landfills to be used for duration of project		
5c. Copies of any DOT permits and licenses for all transportation of hazardous and non-hazardous wastes generated from project		
5d. Estimated job site waste to be generated (types & quantities)		
5e. List of equipment being removed/de-installed and associated waste streams that require management		
5e. Proposed alternatives to land filling		
5f. On-site methods handling for recyclable materials		
5g. On-site methods handling for hazardous and universal waste generated from project IAW Federal, State and Local regulations		
5h. Name of mixed debris recycling facility & list of materials to be recycled		
5i. Reporting - Periodic (monthly, quarterly and at end of job) waste management progress reporting procedures; report to contain the following: (amount in tons, yd <sup>3</sup> or lbs); date removed from site; receiving party and transportation cost.  Report will be itemized separately for all identified wastes (itemize recycled materials, hazardous wastes and itemize any universal wastes).		

## **ON-SITE WASTE MANAGEMENT GUIDANCE, pg 1/2**

Location of Project: \_\_\_\_\_

Work to be done: \_\_\_\_\_

Project Wastes Category, aside from demolition debris: Check all that apply

- ☐ Universal Wastes
- ☐ Hazardous Wastes
- ☐ Recyclable Wastes

Breakdown of Universal Wastes for this Project: Check all that apply

- ☐ Fluorescent lights
- ☐ Electronics (no VAMC barcode)
- ☐ Oil (from decommissioned equipment)
- ☐ Ballasts (electric)
- ☐ Batteries

Breakdown of Recyclable Wastes for this Project: Check all that apply

- |   |   |
|---|---|
| <input type="checkbox"/> Ceiling Tiles, asbestos free | <input type="checkbox"/> Floor Tiles, asbestos free |
| <input type="checkbox"/> Carpet and pad               | <input type="checkbox"/> Wood, clean and unpainted  |
| <input type="checkbox"/> Plastics: ABS, PVC           | <input type="checkbox"/> Asphalt roofing materials  |
| <input type="checkbox"/> Engineered wood products     | <input type="checkbox"/> Cardboard/paper/packaging  |
| <input type="checkbox"/> Metal, ductwork,             | Lead shielding                                      |
| <input type="checkbox"/> Leaded glass                 | <input type="checkbox"/> Leaded doors               |
| <input type="checkbox"/> Copper/copper piping         |   |

Breakdown of Hazardous Wastes for this Project: Check all that apply

I. Lead

- ☐ Lead paint debris
- ☐ Lead painted substrate (i.e., wood, metal), list here:  
\_\_\_\_\_

II. Asbestos

- ☐ Asbestos-containing materials; check all that apply:
- ☐ Thermal system insulation ☐ Boiler ☐ Ceiling tiles

## **ATTACHMENT C**

## **ON-SITE WASTE MANAGEMENT GUIDANCE, pg 2/2**

- ☐ Asbestos floor tiles ☐ Vinyl floor tiles/ACM mastic backing
- ☐ ACM or PACM Roofing materials/components \_\_\_\_\_
- ☐ ACM containing concrete or drywall ☐ Joint Compound
- ☐ Fireproofing ☐ Insulation ☐ Ductwork

III. Mercury

- ☐ Project is in a space previously or presently used as a clinical/lab area?
- ☐ Project will involve removal/remediation/replacement of drains or hoods that may have been a conduit for mercury or mercury vapors?
- ☐ Have any mercury-containing equipment been previously or currently used in project area?

#### IV. Other Hazardous Waste

☐ Oil-based paints

☐ PCB-containing materials, list here:

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#### V. Storm Water Permit → SWPPP required

☐ Does the project disturb at least 1 or more acre of land through clearing, grading, excavating or stockpiling of fill material, cumulatively over each phase of the project?

☐ Does the project generate storm water discharge that could run off from site during construction and into surface waters or conveyance systems leading to surface waters of NYS

### **ON-SITE WASTE MANAGEMENT GUIDANCE**

Location of Project: \_\_\_\_\_

<b>Waste Category</b>	<b>Dumpster?</b>	<b>EPA Manifest Required?</b>	<b>Bill of Lading/ Recycling Certificate?</b>
Hazardous	No	Yes	No
Universal Waste for Recycling	No	No	Yes
Recyclables	Yes	No	Yes

- - - E N D - - -