



U.S. Department  
of Veterans Affairs

# **Design Narrative**

## **Upgrade Primary Care**

### **Building 117, Phase 1**

**Northern Arizona VA Health Care System**  
**Prescott, Arizona**

**Project No. 649-13-101**

**December 23, 2014**



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## Design Narrative

### General

This project involves renovation of the former Emergency Department (ED) space in Building 117 at the Prescott campus of VA Northern Arizona Health Care System. Spaces will be renovated for use by Spinal Cord Injury / Disorders (SCI / D) Outpatient Clinic.

Building 117 was originally constructed around 1975 and has undergone several additions and renovations in the past. The last major renovation in the space to be vacated by the Emergency Department was around 1999. Total area to be renovated is approximately 5,000 Department Gross Square Feet (DGSF).

Work will include interior renovations, modifications to existing plumbing, medical gas, fire suppression, HVAC, electrical, and low-voltage systems. Work affecting the exterior building envelope will be limited to the ambulance canopy at the entrance to the existing ED.

Work of this project will need to be coordinated and sequenced with the work of other projects at NAVAHCS. Projects that may affect the SCI / D Upgrade include:

Laboratory and Pathology, and Pharmacy Addition—adjacent an concurrent work will affect access to the SCI / D during construction; and, if SCI / D space is completed and occupied prior to the Lab / Pharmacy addition, patient access will be affected;

Ongoing and Future Primary Care Upgrades in Building 117—planning for the SCI / D project must consider impacts on constructability and functionality of future renovations in the layout of functional spaces, circulation, and building services;

Renovations to Endoscopy Clinic (Building 107) and Expand Rehab / SPS (Building 148)—these projects anticipate using some or all of the vacated ED as swing space in advance of the renovation for SCI / D.

## Site Development

### General

Scope of work for SCI / D **does not** include site work at areas adjoining Building 117. Site work is limited to demolition of Portland cement concrete pavements and walks as necessary for new construction.

Contractor access, parking and staging areas will be identified as directed by the COTR.

### Site Utility Systems

This project does not include work for existing or new sanitary, storm, or water services or other site systems.

## **Architectural**

Building 117 was constructed around 1975 as an Ambulatory Care addition to the main hospital, Building 107. Building 117 has undergone several additions and renovations. Its function remains Ambulatory Care. Building 117 is one story, approximately 23,215 square feet. Primary structure is steel frame with open web steel joists supporting metal deck at roofs and concrete on metal deck at mechanical penthouse; floor is slab on grade; foundations are shallow spread footings at columns; later addition includes reinforced CMU walls and continuous footings. Exterior walls are primarily cement plaster (stucco) on metal stud framing and stucco on CMU at latest addition.

The area of work for this project will be in spaces currently used by the Emergency Department. This space is in the northwest corner of Building 117 and includes an exterior entry from the ambulance canopy. Except for a vestibule, the ambulance canopy is not enclosed. The spaces to be renovated are bounded on the north and west by exterior walls, and by other Primary Care functions on the south and east sides. The existing entrance vestibule will be demolished and new exterior wall constructed along the north side to enclose additional interior space. The boundary between the area to be renovated and existing space to remain on the south and east is along functional spaces rather than corridors. As a result, the interior boundary is irregular in shape. The western portion of the area to be renovated includes spaces that were constructed as addition(s) to Building 117. Therefore the work will encompass modifications to (formerly) exterior walls now within interior space. Structural columns in the addition are independent of the original structure and do not align on the same grids. The irregular boundary and diverse structural elements present challenges to efficiency in the layout of the new functional spaces and circulation in the SCI / D.

The area of work is approximately 5,000 DGSF—see Paragraph Space Planning for program requirements.

## **Demolition**

The project requires selective demolition of interior construction and systems in the areas to be vacated by Emergency Department. Demolition will include partitions, doors, frames, and hardware; flooring and ceiling finishes; equipment and casework; and mechanical, plumbing, and electrical distribution and fixtures. Work on below grade plumbing systems will require saw cutting and repairs to slabs on grade.

Exterior demolition includes portions of stud and stucco walls, and soffits at the ambulance canopy.

## **Renovation**

### **Building Envelope – Exterior Walls**

Existing exterior walls at the area of work are painted cement plaster (stucco) on metal stud frame construction. New construction encloses a portion of the existing ambulance canopy with insulated metal stud and stucco wall system. Color and texture will match the existing walls. Existing stucco will be patched and painted where doors and windows are infilled and where new openings occur in existing walls.

## **Building Envelope - Fenestration**

### **Doors and Entrances**

Existing, primary exterior entrance to the ED is aluminum, automatic sliding door. Secondary entrances or exits are hollow metal doors in hollow metal frames. Existing doors will be removed when exterior walls are reconfigured. Unused opening will be filled with matching construction.

The Lab / Pharmacy project proposes the construction of an enclosed corridor adjoin the west exterior wall of Building 117. The new corridor would provide for common circulation between Primary Care (Building 117) and the Lab / Pharmacy addition; and extend to the north to meet the existing connecting corridor (AKA 'Miracle Mile') from Building 148. Patient entrance to SCI / D Clinic will be from the new, common corridor. Automatic sliding entrance door will be provided. Temporary, fire retardant wood construction will be installed to protect the new doors during construction of the other project.

### **Windows**

Existing windows are fixed glazing in aluminum frames. Existing windows will be removed where exterior walls are reconfigured.

Where new windows are feasible at exterior walls, sealed insulating glass units with low-e coating will be installed in fixed aluminum framing system for conference space and office.

## **Interior Renovations**

### **Partition Systems**

Non-bearing interior partitions shall be capable of supporting equipment and furnishings specified for the clinic. Interior partition framing shall be minimum 362S125-33 galvanized metal studs, ASTM C645; with fasteners and accessories complying with ASTM C 754. Stud spacing shall be 16-inches on center maximum. Where pipe spaces are required, partition framing thickness will be selected to conceal piping. Installation of metal studs shall comply with ASTM C754.

5/8-inch thick gypsum wallboard ASTM C1396 will be used throughout, except for special conditions. Moisture resistant wallboard ASTM C620 will be used at wet locations. Accessories, fasteners, and finishing materials shall be in accordance with ASTM C1047, C1002, and C840. Installation and finish gypsum wallboard shall be in accordance with ASTM C840. Level 4 finish with smooth texture will be used for all occupied areas with paint finish. Level 4 finish will be specified if surfaces are to receive ceramic tile. Level 2 finish will be provided for rooms or spaces for which no decorative finish is specified.

No new fire and/or smoke rated partitions are required.

All layers of gypsum board, on both sides of studs, shall extend from floor to underside of structure above on the following partitions:

Sound rated partitions

Corridor partitions as required by building code

All restrooms

Electrical/data utility closets

In other locations, gypsum board shall extend from floor to not less than 4 inches above suspended acoustical ceilings

### **Sound Resistant Construction**

Partition and ceiling systems will be specified to provide necessary performance. Doors, windows, ducts and other penetrations of partitions be specified to maintain acoustic performance. Attention shall be given to possible flanking paths for noise transmission.

Except where higher STC class is required, the sound resistant enclosures of all rooms in the facility shall be specified to achieve a Sound Transmission Class Rating of 45.

### **Interior Doors**

Sizes and types of doors shall be in accordance with PG-18-14; except, minimum width of doors to patient use areas shall be 44 inches. Swing doors shall be of flush design.

Interior wood doors shall be solid core, 1-3/4 inch thick, with White Ash, Plain Sliced, Grade A face veneers for transparent finish. Wood doors shall comply with Window and Door Manufacturer's Association (WDMA) I.S.1-A, Heavy Duty with Type II adhesives.

### **Automatic Doors**

Automatic door equipment shall comply with the requirements of Builders Hardware Manufacturers Association (BHMA) 156.10. Operators shall move the doors from the fully closed to fully opened position in five seconds maximum time interval, when speed adjustment is at maximum setting. Equipment shall conform to UL 325. Key operated power disconnect wall switch shall be provided for each door installation. Swing door operators shall be of institutional type, electric operated for overhead mounting. Sliding doors shall have electric operators, conforming to BHMA A156.10. System shall permit manual control of door in event of power failure. Opening and closing speeds shall be adjustable. In compliance with NFPA-101, all door panels shall allow "breakout" to the fully open position to provide instant egress at any point in the door's movement.

## **Fire Protection**

Building 117 is fully sprinklered. Existing fire protection (sprinkler and alarm) systems within the area of work will be modified for the revised plan configuration. Systems in the rest of Building 117 and adjoining buildings will not be affected.

### **Existing Construction Type**

NFPA 220: Type II (000): non-combustible structural steel columns and beams, with open web steel joists supporting metal roof deck (concrete on metal deck at mechanical penthouse); with non-bearing exterior walls and interior partitions.



## **Occupancy Group**

Renovated area is within existing Ambulatory Healthcare occupancy. There is no change in occupancy type.

## **Means of Egress**

Capacity and arrangement of means of egress within the renovated SCI / D Clinic are designed to comply with NFPA 101®.

Enclosure of Ambulance canopy increases occupied area by 538 sf; or 5 occupants (538 sf/100 sf/occ). Egress capacity and configuration are more than adequate to support the occupant load of the renovated area.

Egress from adjoin areas of Building 117 is not affected.

Existing smoke compartment configuration will not be affected.

Refer to drawings for means of egress diagram.

## **Interior Design**

Interior (color) design services are excluded. Standard interior finishes are specified for functional spaces and departmental corridors in accordance with selections from PG-18-14, Room Finishes, Door and Hardware Schedule. Consideration has been given to durability and suitability for use by SCI / D patients.

## **Typical Finishes**

Waiting Area: solid (luxury) vinyl tile, resilient base; painted GWB; acoustical ceiling.

PSA : luxury vinyl tile, resilient base; painted GWB, acoustical ceiling.

Group / Conference Room: luxury vinyl tile, resilient base; painted GWB; acoustical ceiling.

Social Work and Staff Offices: luxury vinyl tile, resilient base; painted GWB; acoustical ceiling.

SCI Clinic, Triage, and Exam Room: luxury vinyl tile, resilient base; painted GWB; washable acoustic ceiling.

Patient Toilet: resinous flooring and base; glazed ceramic tile wainscot (full height at shower), painted GWB above; painted GWB ceiling.

Staff Toilet: porcelain tile flooring and base; glazed ceramic tile wainscot, painted GWB above; acoustical ceiling.

Clean and Soiled Utility Rooms: welded sheet flooring and cove base; GWB with glazed coating; washable acoustical ceiling.

Corridors and Stretcher / Wheelchair Alcove: luxury vinyl tile, resilient base; painted GWB, acoustical ceiling.

## Structural

This project does not involve modifications to existing structural elements.

Where overhead patient lifts are provided, the existing long-span roof system **is not** capable of supporting the loads.

Patient lifts have been specified with overhead tracks spanning to wall support posts furnished by the lift vendor. Metal stud framing is provided at post locations for attachment and support of the wall posts.

## Plumbing

Plumbing work within the project area will consist of:

**DEMOLITION:** The project scope will require the removal of existing plumbing fixtures in renovated areas. The list of fixtures is as follows: 1B120 – (1) lavatory, 1B120 – (1) water closet, 1B121 – (1) mop sink, 1B125 – (2) lavatories, 1B129 – (1) lavatory, 1B130 – (1) lavatory, 1B132 – (1) lavatory, 1B133 – (1) lavatory. For a total of (8) lavatories, (1) water closet, and (1) mop sink.

All associated waste pipe, carriers and waste system accessories will be removed. Existing waste lines will be capped below the existing floor slab. Patch and repair all slab per Architectural finish schedule. All existing vent lines will be capped above ceiling unless used for new plumbing vent system.

All associated domestic supply piping and accessories will be removed. Existing domestic branch lines will be removed and capped back at main takeoff.

All existing waste and supply mains to remain.

**NEW WORK:** New plumbing fixtures in the renovated areas include the following: 1B103 – (1) kitchen sink, 1B105 – (1) lavatory, 1B105a – (1) lavatory, 1B105a – (1) water closet, 1B107 – (1) lavatory, 1B107 – (1) water closet, 1B111 – (1) lavatory, 1B112 – (1) lavatory, 1B113 – (1) lavatory, 1B114 – (1) lavatory, 1BXX – (1) mop sink. For a total of (8) lavatories, (2) water closets, and (1) mop sink.

Existing waste mains run east-west between gridlines A and B. All new waste lines will tie into these existing mains from the new fixture locations. The existing slab will be saw-cut where required to install new waste lines. New vent lines will be installed to serve new fixtures. Existing roof penetrations will be used for new vent termination.

Existing domestic supply mains are piped in a loop fashion around the space. New branch lines from mains will be installed to serve new fixtures. No return lines will be installed on the hot water branch piping. Isolation valves will be installed at each branch take-off.

**Medical Gas:**

Existing vacuum, medical air, and oxygen mains run north-south approximately along grid line 2. New branch piping for each will be installed in three locations to serve rooms 1B105, 1B112, and 1B114.

## HVAC

HVAC work within the project area will consist of:

**DEMOLITION:** The existing spaces are served from the three following HVAC systems: AHU-1, AHU-2, and a unitary fan coil unit. Most of the area is served from AHU-1 by way of variable volume terminal units with reheat coils. AHU-2 serves the isolation/exam rooms on the north edge of the space. The fan coil unit is dedicated to the existing waiting area.

All supply, return, and exhaust duct mains to remain. Most of the branch lines will be removed and existing taps to be reused where possible. Existing thermostats will be removed; thermostat control wiring will be coiled and temporarily hung from ceiling.

**NEW WORK:** Refer to sheet M002 for HVAC zoning plan.

AHU-1 duct mains will provide air to Zone 1 through new branch ducting and air devices.

AHU-2 will be configured to serve Zone 2 (Conference/Group 1B103). Due to the high variable occupancy and room type this space will require its own dedicated unit. Grouping with adjacent spaces is not recommended due to variations in cooling and heating demands.

Existing FCU-X will be reconfigured to serve Zone 3 (PSA 1B102 and Waiting 1B101). New branch ducting and air devices will be provided for each space. Fan coil is located in corridor south of PSA 1B102.

Thermostat control wiring will be extended to new locations shown on the zoning plan. Controls conduit to be provided where required.

A new 2 ton fan coil unit (FCU-2) will be installed to serve Zone 4. Fan coil will be located in corridor in the area of gridlines B-2. 1" CHW and 3/4" HW branch lines will need to be extended from the mezzanine mechanical area directly above the space down to the new fan coil unit. A new thermostat and associated conduit will be installed for FCU-2.

A new, approximately 1000 CFM, utility set exhaust fan will replace an existing exhaust fan to serve general exhaust functions.

A new 1 ton split system air conditioner will be installed to serve the new telecom room located in the equipment mezzanine. System to be provided with factory furnished refrigerant line sets and hard wired thermostat.

## Electrical

Demolish existing 600A distribution board (DB) "117-1-1" and associated feeders. Distribution board "117-1-1" is currently fed from a distribution switchboard "107/117/158". A new 800A distribution board ("117-1-1") will be installed fed with new 800A feeders from existing switchboard "107/117/158". New feeders shall route thru the basement of building 107 and continue exterior of the building underground to new location (approximately 120'-0"). Distribution board "117-1-1" will increase in size due to existing connected load of 583 Amps.

Demolish existing 225 amp branch circuit panelboard "117-1-6" and relocate/extend any branch circuitry not demolished. Panel "117-1-6" is fed from DB "117-1-1" with #4/0 AWG feeders. Panel "117-1-6" will be provided new in new location. The existing panel feeders shall be intercepted above panelboard removed and redirected with new to new panel location.

Demolish existing 225 amp branch circuit panelboard "117-1x-2" and relocate/extend any branch circuitry not demolished. Panel "117-1x-2" is currently sub-fed from the emergency

distribution panel “107-1AX-5” in building 107 with #4/0 AWG feeders. Panel “117-1x-2” will be provided new in new location. The existing panel feeders shall be intercepted in the basement of building 107 and redirected with new to new panel location (approximately 150’-0”).

Demolish existing 225 amp branch circuit panelboard “117-1x-3” and relocate/extend any branch circuitry not demolished. Panel “117-1x-3” is currently fed from the emergency distribution “107-DPX-3” in building 107 with #1 AWG feeders. Panel “117-1x-3” will be provided new in new location. The existing panel feeders shall be intercepted in the basement of building 107 and redirected with new to new panel location (approximately 150’-0”).

Existing branch circuit panelboards “117-2-1, “117-1-3”, 117-1-4”, “117-1-2”, and 117-1-7” are fed from existing distribution board “117-1-1” and will remain. The existing panel feeders will be intercepted above the demolished distribution board removed and redirected/extended with new to new distribution board.

Demolition of all existing power devices, lighting, and branch circuitry within the project area.

Power and lighting infrastructure for the new telecommunications room to be constructed in the building 117 mezzanine.

## **Lighting**

Foot-candle levels for each room/space will be as recommended by the Department of Veteran Affairs Design Guidelines and Illuminating Engineering Society of Northern America (IESNA) for such space. Special design requirements (dimming capabilities, track lighting, wall washers, wall sconces, etc.) shall be as directed by the architect and in accordance with the National Electric Code (NEC) and International Energy Conservation Codes (IECC).

Lighting fixtures shall be of the same lighting vendor for a complete package purchase and intended to match each other in appearance where applicable. For example overhead lighting and wall sconces made of the same family.

All lighting fixtures shall be constructed and installed in accordance with local building codes and directives by the National Fire Protection Association (NFPA) and shall bear the label of Underwriters Laboratory (U.L.) approval.

The majority of the space will be provided with recessed indirect/ direct linear fluorescent with center louvered basket, operating at 120-volts. Luminaires will contain multiple 32-watt T8 or 17w T8 lamps with a minimum CRI of 85 and color temperature of 3500K. Average rated lamp life shall be 20,000 hours.

Lobbies and other public gathering places will have a more decorative look to the luminaire, such as a 2x2 linear fluorescent to match the indirect/directs. These spaces shall be accompanied with 4” square LED down lights.

Incandescent lamps and lamp holders will not be permitted.

Toggle Switches will be located in areas not accessible to the public or patients. Occupancy sensors with manual “off” switch and active “on-off” function will control luminaires located in staff offices, patient care, conference rooms, public toilets and similar spaces.

All exit luminaires will be connected to the Life Safety Branch of the Essential Emergency System. A select number of the luminaires located in the corridors will also be connected to the Life Safety Branch, providing a minimum of one (1) foot-candle along the path of egress.

Fluorescent ballasts shall be U.L. listed Class P Ballasts with an “A” sound rating. Ballasts shall be energy efficient and shall meet ANSI and NEMA standards, carry the U.L. label for intended use, operate with low noise, have a minimum power factor of 90 percent and a control lamp

wattage variations not to exceed +5% with a line variation not to exceed +10%, have less than a 10% value of Third Harmonic Distortions, and rated for high power factor.

Exterior lights will not be provided for this project.

## **Power**

Duplex receptacles shall be located along the perimeter of all walls for general housekeeping use in all corridors, maintenance rooms, and storage rooms. Offices and conference rooms shall be provided with receptacles dedicated for computer, printer, and/or copier loads as well as for general use.

Above counter mounted receptacles will be provided as designated by the architect/user. These receptacles are usually for dedicated loads.

Receptacles located in specialty room, i.e. exam, etc. will be provided per the VA Design Guidelines.

Receptacles will be rated for 20 Amps, straight blade configuration, 120Volt, NEMA 5-20R, and U.L. listed as "Hospital Grade". Receptacles dedicated for specialty loads shall be sized for the connected load.

Duplex receptacles located in all restrooms will be installed above the sink. These receptacles shall be rated for "Ground Fault Interrupting" style.

Duplex receptacles dedicated for computer / printer loads shall be "Orange" in color. Isolation ground will not be provided. Orange receptacles will deter the use of non-computer loads.

Minimum branch circuitry wire size shall be #12 Awg. Wire sizes #12 and #10 AWG will be solid copper, #8 and larger in size will be stranded copper. All 600Volt branch circuit wiring will be THNN/THWN.

Wiring will be color coded as follows:

208Volt, 3-Phase, 4-Wire; Phase A-Black, B-Red, C-Blue, Neutral-White, Ground-Green

Schedule 40 PVC conduit will be installed underground and under building foundations. All above grade conduits will be galvanized IMC or GRS in exterior locations or where exposed to physical damage or prior to PVC turning upward. EMT conduit will be installed above ceilings, in walls, or where not exposed to physical damage.

For convenience outlets, boxes will be galvanized steel with plaster rings and sized to satisfy the requirements at each outlet. Each box will not be less than 4 inch square and 2-1/8 inch deep. Handy boxes will not be less than 2 inch deep, 2-1/4 inch wide and 4" in length and will be used for luminaire single toggle switches. Multi-ganged switching banks will utilize properly sized back boxes. Bell boxes shall be used where exposed to outdoor weather.

No more than six (6) duplex receptacles will be connected to one circuit.

Each 120Volt device will have its own dedicated neutral per 2011 NEC. Locking-bar over circuit breaker handle for shared neutrals is prohibited.

All 600Volt rated cables shall be installed in dedicated raceways. Exposed cables are prohibited.

## Technology

Telecommunications, voice and data, presently originate in room 1B122. This room is also supporting additional rooms to the south of the Scope of Work for this construction project. Tele Room 1B110 also contains the incoming voice connection and primary protectors (1000 pair) for the hospital. This room will remain as-is for this project. Telecommunications cabling (voice and data) in the existing area will remain as-is. Upon completion of the building project, new telecommunication devices (voice, including VoIP and analog, and data terminals) will be connected to a new TR located on the attic penthouse.

Technology systems work within the project area will consist of adding a TR to the attic penthouse area. This will allow the construction to be completed without disturbing the existing TR located in room 1B110. There is adequate space above the existing area to accommodate a 10' x 10' telecommunications room. Existing optical fiber to the MDF, FMS access control and equipment for future CCTV equipment exist in this location. Cabling, for the new construction, will be connected to the new TR located on the attic penthouse.

Nurse Call will be placed in the Triage/Exam rooms (1B114 and 1B105), SCI Clinic Room (room 1B112) and the Patient Toilet (room 1B105a) and will be self-contained for this area and will be able to interconnect with existing or future units.

Telecommunication outlets for future SSTVs will be placed in coordination with the VA Police Department.

The VA *Fire Protection Design Manual* will be used as a basis for design. New fire alarm devices to be installed on this project as required by NFPA 101 and are designed to meet the requirements of NFPA 72.

## Equipment

Demolition will include any equipment or casework not removed by VA during the relocation of ED.

Provisions for VA-Furnished equipment and furnishings will be made in accordance with PG-18-5, Equipment Guide List.

Contractor furnished and installed equipment shall be in accordance with final equipment list. See Appendix for preliminary list.

## Automatic Transport

This project does not include work for Automatic Transport Systems.

## **Hazardous Materials**

GLHN scope for this project does not include sampling and testing for hazardous materials such as asbestos and lead based paint. NA VAHCS provided copies of asbestos and lead paint surveys conducted by IHI in May of 2012—see Appendix. Although Building 117 has had several additions and renovations, the most recent in the 1990s, the original construction dates from 1975. There are suspected and confirmed ACMs and lead based paint in various areas of Building 117. Construction documents will include requirements for sampling and testing by the Contractor.

## **Space Planning**

During the 15% Design the preliminary Space Program from the SOW was reviewed to verify that the functional requirements of the SCI / D would be met. Refer to 15% Interim Submittal or Meeting Notes for December 2, 2013—see Appendix; for details of clarifications or changes to the Space Program.

Final programmed net area is 2,865 square feet. See Appendix for tabulation of spaces at 65% Design compared to final program.

## **Critical Path Method**

The work is designed as a single-phase renovation project that includes mobilization, demolition, and construction tasks.

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## **Appendix**

**Space Program (as approved at 65% Design)**

**Conceptual Schedule**

**Submittal Checklist**



## SCI/D Clinic

Space or Room Name		SOW NSF	Dec 2013 NSF	DD 6/14 NSF	Change
<b>Reception Area</b>					
RECP3	PSA	180	180	179	(1)
WRC01	Waiting Room	300	300	603	303
Subtotal Reception Area		480	480	782	302
<b>Patient Areas</b>					
EXUD1	SCI Clinic (treatment room)	500	350	331	(19)
TLTS1	Patient Rest Room	180	180	164	(16)
TRGS1	Triage Room	200	300	300	0
TRGS1	Exam Room	180	180	205	25
<del>TRGS1</del>	<del>Exam Room</del>	<del>180</del>	<del>0</del>	<del>0</del>	<del>0</del>
Subtotal Patient Areas		1,240	1,010	1,000	(10)
<b>Support Areas</b>					
CRA01	Conference Room	500	600	598	(2)
JANC1	Housekeeping Aides Closet - HAC	80	0	73	73
<del>PRC03</del>	<del>Kitchen</del>	<del>100</del>	<del>0</del>	<del>0</del>	<del>0</del>
SRLW1	Stretcher / Wheelchair Alcove	0	80	61	(19)
UCCL1	Clean Utility Room	120	100	94	(6)
USCL1	Soiled Utility Room	140	80	70	(10)
Subtotal Support Areas		940	860	896	36
<b>Staff and Administrative Areas</b>					
OFD01	Office, Staff	130	130	130	0
OFD01	Office, Staff	130	130	131	1
OFDC1	Office, Social Worker	200	200	199	(1)
<del>SL004</del>	<del>Lounge, Staff</del>	<del>220</del>	<del>0</del>	<del>0</del>	<del>0</del>
OFD01	Office (unassigned)			248	248
TLTU1	Toilet, Staff	80	55	78	23
Subtotal Staff and Administrative Areas		760	515	786	271
Total NSF		3,420	2,865	3,464	599



CONCEPT SCHEDULE

6 month schedule from NTP with 2 or 3 weeks preparation period between Contract and NTP

Job Name: Upgrade Primary Care B117, Phase 1		Project No.: 649-13-101																													
Date Begin: TBD		Date Due: TBD																													
			Month 1	Month 2				Month 3				Month 4				Month 5				Month 6											
Task / Activity			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
PROCUREMENT																															
Signed Contract																															
Prepare and Approve Submittals																															
concrete and rebar																															
exterior closure and windows																															
doors and hardware																															
partitions and finishes																															
specialties, equipment & furnishings (Div 10, 11, 12)																															
mechanical and plumbing																															
electrical																															
low voltage systems																															
CONSTRUCTION																															
Notice to Proceed																															
Mobilization																															
Rough Construction																															
Selective demolition																															
Under slab utilities																															
Slabs and footings																															
Exterior closure																															
Glass and glazing																															
Overhead MEP																															
Interior framing																															
In-wall MEP																															
Finishes and Fit Out																															
Drywall																															
Doors and Hardware																															
Finishes																															
Specialties and equipment																															
Final MEP																															
Test and Clean																															
Equipment start up																															
Test and balance																															
Punchlist/ final clean																															
TURNOVER to GOVT																															

6 month schedule from NTP with 2 or 3 weeks preparation period between Contract and NTP



## Submittal Checklist

Section	Para	Description	Date Received	Date to Consultant	Consultant	Returned by Consultant	Returned to Contractor	No Exception Taken	Rejected	Make Corrections Noted	Revise and Resubmit	Submit Specified Item	Remarks
01 00 00		<b>GENERAL REQUIREMENTS</b>											
	1.12	As-Built Drawings											
	1.20	Tests											
	1.21	Instructions											
01 32 16.15		<b>PROJECT SCHEDULES</b>											
	1.3 A.	Proposed Consultant											
	1.5	Complete Project Network Diagram											
	1.7	Progress Reporting											
	1.8	Changes to the Schedule											
01 35 26		<b>SAFETY</b>											
	1.4 C.	Accident Prevention Plan											
	1.5 C. 3.	Activity Hazard Analyses											
	1.12 F.	Dust Control Program											
	1.13 A.	Tuberculosis Screening											
	1.14 A.	Fire Protection Plan											
01 45 29		<b>TESTING LABORATORY SERVICES</b>											
	1.3 A.	Certificate of Accreditation and Scope of Accreditation											
	1.3 C.	Written Test Reports											
	1.3 D.	Oral Reports of Irregularities											
01 57 19		<b>TEMPORARY ENVIRONMENTAL CONTROLS</b>											
	1.4 A.	Environmental Protection Plan											
01 74 19		<b>CONSTRUCTION WASTE MANAGEMENT</b>											
	1.5 B.	Demolition Debris Management Plan											
	1.5 C.	Designated Manager											
	1.5 D.	Monthly Summary of Diversion and Disposal											
03 30 53		<b>CAST-IN-PLACE CONCRETE</b>											
	1.5 B.	Concrete Mix Design.											
	1.5 C.	Shop drawings: Reinforcing Steel											
	1.5 D.	Manufacturer's Certificates											
05 40 00		<b>COLD FORMED METAL FRAMING</b>											
	1.4 B.	Shop Drawings											
	1.4 C.	Manufacturer's Literature and Data											
05 50 00		<b>METAL FABRICATIONS</b>											

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	1.3 B.	Shop Drawings											
	1.3 C.	Certificates											
	1.3 D.	Design Calculations											
	1.3 E.	Setting Drawings											
<b>06 10 00</b>		<b>ROUGH CARPENTRY</b>											
	1.3 B.	Shop Drawings											
<b>06 16 63</b>		<b>CEMENTITIOUS SHEATHING</b>											
	1.2 B.	Samples											
	1.2 C.	Manufacturer's Literature and Data											
<b>06 20 00</b>		<b>FINISH CARPENTRY</b>											
	1.3 B.	Shop Drawings											
	1.3 C.	Samples											
	1.3 D.	Certificates											
	1.3 E.	Manufacturer's Literature and Data											
<b>07 21 13</b>		<b>THERMAL INSULATION</b>											
	1.3 B.	Manufacturer's Literature and Data											
	1.3 C.	Certificates											
<b>07 84 00</b>		<b>FIRESTOPPING</b>											
	1.3 B.	Manufacturer's Literature and Data											
	1.3 C.	FM, UL or WH Classification numbers used											
	1.3 D.	Laboratory Test Reports											
<b>07 92 00</b>		<b>JOINT SEALANTS</b>											
	1.4 B.	Installation Instrucitons											
	1.4 C.	Samples											
	1.4 D.	Manufacturer's Literature and Data											
<b>08 11 13</b>		<b>HOLLOW METAL DOORS AND FRAMES</b>											
	1.4 B.	Manufacturer's Literature and Data											
<b>08 14 00</b>		<b>INTERIOR WOOD DOORS</b>											
	1.3 B.	Samples											
	1.3 C.	Shop Drawings											
	1.3 D.	Manufacturer's Literature and Data											
	1.3 E.	Laboratory Test Reports											
<b>08 31 13</b>		<b>ACCESS DOORS AND FRAMES</b>											
	1.2 B.	Shop Drawings											



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08 41 13	1.2 C.	Manufacturer's Literature and Data											
		<b>ALUMINUM FRAMED ENTRANCES AND STOREFRONTS</b>											
	1.3 B.	Shop Drawings											
	1.3 C.	Manufacturer's Literature and Data											
08 71 00	1.3 D.	Samples											
	1.3 E.	Manufacturer's Certificates											
		<b>DOOR HARDWARE</b>											
	1.6 B.	Hardware Schedule											
08 71 13	1.6 C.	Samples and Manufacturer's Literature											
	1.6 D.	Certificates and Test Reports											
	1.4 D.	Certificates											
	1.4 D.	Test Reports											
08 71 13 .11		<b>AUTOMATIC DOOR OPERATORS</b>											
	1.6 B.	Manufacturer's Literature and Data											
	1.6 C.	Shop Drawings											
	1.6 D.	Certificates											
08 80 00		<b>LOW ENERGY POWER ASSIST DOOR OPERATORS</b>											
	1.6 B.	Manufacturer's Literature and Data											
	1.6 C.	Shop Drawings											
	1.6 D.	Certificates											
09 22 16		<b>GLAZING</b>											
	1.5 B.	Manufacturer's Certificates											
	1.5 C.	Warranty											
	1.5 D.	Manufacturer's Literature and Data											
09 24 00	1.5 E.	Samples											
		<b>NON-STRUCTURAL METAL FRAMING</b>											
	1.4 B.	Manufacturer's Literature and Data											
		<b>PORTLAND CEMENT PLASTERING</b>											
09 29 00	1.4 B.	Manufacturer's Literature and Data											
	1.4 C.	Samples											
		<b>GYPSUM BOARD</b>											
	1.4 B.	Manufacturer's Literature and Data											
	1.4 C.	Test Reports											

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<b>09 30 13</b>		<b>CERAMIC / PORCELAIN TILING</b>											
	1.3 B.	Samples											
	1.3 C.	Manufacturer's Literature and Data											
	1.3 D.	Certification											
<b>09 51 00</b>		<b>ACOUSTICAL CEILINGS</b>											
	1.2 B.	Samples											
	1.2 C.	Manufacturer's Literature and Data											
	1.2 D.	Manufacturer's Certificates											
<b>09 65 13</b>		<b>RESILIENT BASE AND ACCESSORIES</b>											
	1.3 B.	Manufacturer's Literature and Data											
	1.3 C.	Samples											
<b>09 65 16</b>		<b>RESILIENT SHEET FLOORING</b>											
	1.4 B.	Manufacturer's Literature and Data											
	1.4 C.	Samples											
<b>09 65 19</b>		<b>RESILIENT TILE FLOORING</b>											
	1.3 B.	Manufacturer's Literature and Data											
	1.3 C.	Samples											
	1.3 D.	Shop Drawings											
	1.3 E.	Test Reports											
<b>09 67 23.20</b>		<b>RESINOUS FLOORING WITH VINYL CHIP BROADCAST (RES 2)</b>											
	1.2 B.	Manufacturer's Literature and Data											
	1.2 C.	Qualification Data											
	1.2 D.	Sustainable Submittal											
	1.2 E.	Samples											
	1.2 F.	Shop Drawings											
	1.2 G.	Certifications and Approvals											
	1.2 H.	Warranty											
<b>09 91 00</b>		<b>PAINTING</b>											
	1.3 B.	Manufacturer's Literature and Data											
	1.3 C.	Sample Panels											
	1.3 D.	Sample of Identity Markers											
	1.3 E.	Certificates											
<b>10 11 13</b>		<b>MARKERBOARDS</b>											

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	1.2 B.	Shop Drawings											
	1.2 C.	Manufacturer's Literature and Data											
	1.2 D.	Samples											
<b>10 11 23</b>		<b>TACKBOARDS</b>											
	1.2 B.	Shop Drawings											
	1.2 C.	Manufacturer's Literature and Data											
	1.2 D.	Samples											
<b>10 21 23</b>		<b>CUBICLE CURTAIN TRACKS</b>											
	1.2 B.	Samples											
	1.2 C.	Shop Drawings											
	1.2 D.	Manufacturer's Literature and Data											
<b>10 26 00</b>		<b>WALL AND DOOR PROTECTION</b>											
	1.3 B.	Shop Drawings											
	1.3 C.	Manufacturer's Literature and Data											
	1.3 D.	Test Reports											
<b>10 28 00</b>		<b>TOILET, BATH, AND LAUNDRY ACCESSORIES</b>											
	1.3 B.	Shop Drawings											
	1.3 C.	Samples											
	1.3 D.	Manufacturer's Literature and Data											
<b>10 44 13</b>		<b>FIRE EXTINGUISHER CABINETS</b>											
	1.2 B.	Manufacturer's Literature and Data											
<b>11 73 00</b>		<b>CEILING MOUNTED PATIENT LIFT SYSTEM</b>											
	1.4 B.	Certificates of Compliance											
	1.4 C.	Manufacturer's Literature and Data											
	1.4 D.	Room Layouts											
<b>12 36 00</b>		<b>COUNTERTOPS</b>											
	1.3 B.	Shop Drawings											
	1.3 C.	Samples											

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21 05 11		<b>COMMON WORK RESULTS FOR FIRE SUPPRESSION</b>											
	1.4.B	Manufacturer's Literature											
	1.4.C	Coordination Drawings											
	1.4.D	Maintenance Data and Operating Instructions											
21 10 00		<b>WATER-BASED FIRE SUPPRESSION SYSTEM</b>											
	1.5 D.	Manufacturer's Literature											
	1.5 E.	Detailed Drawings											
	1.5 F.	Hydraulic Calculations											
	1.5 G.	Operations & Maintenance Data											
	1.5 H.	Preventive Maintenance Schedule											
21 13 13		<b>WET-PIPE SPRINKLER SYSTEM</b>											
	1.3 C. 1.	Qualificaitons											
	1.3 C. 2.	Drawings											
	1.3 C. 3.	Data Sheets											
	1.3 C. 5.	Final Document Submittals											
	1.3 D.	Design Basis Information											
22 05 11		<b>COMMON WORK RESULTS FOR PLUMBING</b>											
	1.4 D.	Substitution Drawings (if applicable)											
	1.4 E.	Certification											
	1.4 F.	List of Previous Installations (if requested)											
	1.4 G.	Manufacturer's Literature and Data											
	1.4 H.	Maintenance Data and Operating Instructions											
22 05 19		<b>METERS AND GAGES FOR PLUMBING PIPING</b>											
22 05 23		<b>GENERAL-DUTY VALVES FOR PLUMBING PIPING</b>											
	1.3 B.	Manufacturer's Literature and Data											
22 07 11		<b>PLUMBING INSULATION</b>											
22 11 00		<b>FACILITY WATER DISTRIBUTION</b>											
	1.3 B.	Manufacturer's Literature and Data											

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22 13 00		<b>FACILITY SANITARY AND VENT PIPING</b>											
	1.3 B.	Manufacturer's Literature and Data											
	1.3 C.	Shop Drawings											
22 40 00		<b>PLUMBING FIXTURES</b>											
	1.3 B.	Manufacturer's Literature and Data											
22 63 00		<b>GAS SYSTEMS FOR LABORATORY AND HEALTHCARE FACILITIES</b>											
23 05 11		<b>COMMON WORK RESULTS FOR HVAC</b>											
	1.4 C.	Substitution Drawings (if applicable)											
	1.4 D.	Certification of Coordination and Integration											
	1.4 F.	Manufacturer's Literature and Data											
	1.4 G.	Maintenance Data and Operating Instructions											
22 05 12		<b>GENERAL MOTOR REQUIREMENTS FOR HVAC AND STEAM GENERATION EQUIPMENT</b>											
	1.3.B	Shop Drawings											
	1.3.C	Manuals											
	1.3.D	Motor Certification											
22 05 41		<b>NOISE AND VIBRATION CONTROL FOR HVAC PIPING AND EQUIPMENT</b>											
23 05 93		<b>TESTING, ADJUSTING, AND BALANCING FOR HVAC</b>											
	1.4 B.	Qualifications											
	1.4 C.	AABC or NEBB Publications											
	1.4 D.	Reports											
	1.4 E.	Completed Reports											
23 07 11		<b>HVAC AND BOILER PLANT INSULATION</b>											
	1.4 B.	Shop Drawings											
23 23 00		<b>REFRIGERANT PIPING</b>											
23 31 00		<b>HVAC DUCTS AND CASINGS</b>											
	1.4.B	Manufacturer's Literature and Data											
	1.4.C	Coordination Drawings											

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23 34 00		HVAC FANS											
23 37 00		AIR OUTLETS AND INLETS											
	1.4.B	Manufacturer's Literature and Data											
	1.4.C	Coordination Drawings											
23 81 00		DECENTRALIZED UNITARY HVAC EQUIPMENT											
23 82 00		CONVECTION HEATING AND COOLING UNITS											
26 05 11		REQUIREMENTS FOR ELECTRICAL INSTALLATIONS											
	1.12	Manufacturer's Literature and Data											
	1.12H	Samples											
	1.15	Acceptance Checks and Tests											
	1.16	Warranty											
26 05 19		LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (600 VOLTS AND BELOW)											
	1.5	Manufacturer's Literature and Data											
	3.1	Acceptance Checks and Tests											
26 05 26		GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS											
	1.4	Manufacturer's Literature and Data											
	3.14	Acceptance Checks and Tests											
26 05 33		RACEWAY AND BOXES FOR ELECTRICAL SYSTEMS											
	1.4	Manufacturer's Literature and Data											
26 05 41		UNDERGROUND ELECTRICAL CONSTRUCTION											
	1.4	Manufacturer's Literature and Data											
	3.4	Acceptance Checks and Tests											
26 24 13		DISTRIBUTION SWITCHBOARDS											

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	1.4 B	Additional Testing											
	1.5	Manufacturer's Literature and Data											
	3.2	Acceptance Checks and Tests											
<b>26 24 16</b>		<b>PANELBOARDS</b>											
	1.4	Manufacturer's Literature and Data											
	3.2	Acceptance Checks and Tests											
	3.3	Follow-up Verification											
<b>26 27 26</b>		<b>WIRING DEVICES</b>											
	1.4	Manufacturer's Literature and Data											
	3.2	Acceptance Checks and Tests											
<b>26 29 11</b>		<b>MOTOR CONTROLLERS</b>											
	1.4	Manufacturer's Literature and Data											
	3.2	Acceptance Checks and Tests											
	3.2	Acceptance Checks and Tests											
<b>26 29 21</b>		<b>ENCLOSED SWITCHES AND CIRCUIT BREAKERS</b>											
	1.4	Manufacturer's Literature and Data											
	3.2	Acceptance Checks and Tests											
	3.3	Spare Parts											
<b>26 29 21</b>		<b>INTERIOR LIGHTING</b>											
	1.4	Manufacturer's Literature and Data											
	3.2	Acceptance Checks and Tests											
	1.4 C.	Manuals											
	1.4 D.	Certification											
<b>27 05 11</b>		<b>REQUIREMENTS FOR COMMUNICATIONS INSTALLATIONS</b>											
<b>27 05 26</b>		<b>GROUNDING AND BONDING FOR COMMUNICATIONS SYSTEMS</b>											
<b>27 05 33</b>		<b>RACEWAYS AND BOXES FOR COMMUNICATIONS SYSTEMS</b>											

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27 10 00		STRUCTURED CABLING											
27 11 00		COMMUNICATIONS EQUIPMENT ROOM FITTINGS											
27 13 23		COMMUNICATIONS OPTICAL FIBER BACKBONE CABLING											
27 15 00		COMMUNICATIONS HORIZONTAL CABLING											
28 05 00		COMMON WORK RESULTS FOR ELECTRONIC SAFETY AND SECURITY											
28 31 00		FIRE DETECTION AND ALARM											
	1.4 B.	Drawings											
	1.4 C.	Manuals											
	1.4 D.	Certifications											
31 20 11		EARTH MOVING											
	1.6 C.	Soil Samples for Testing											