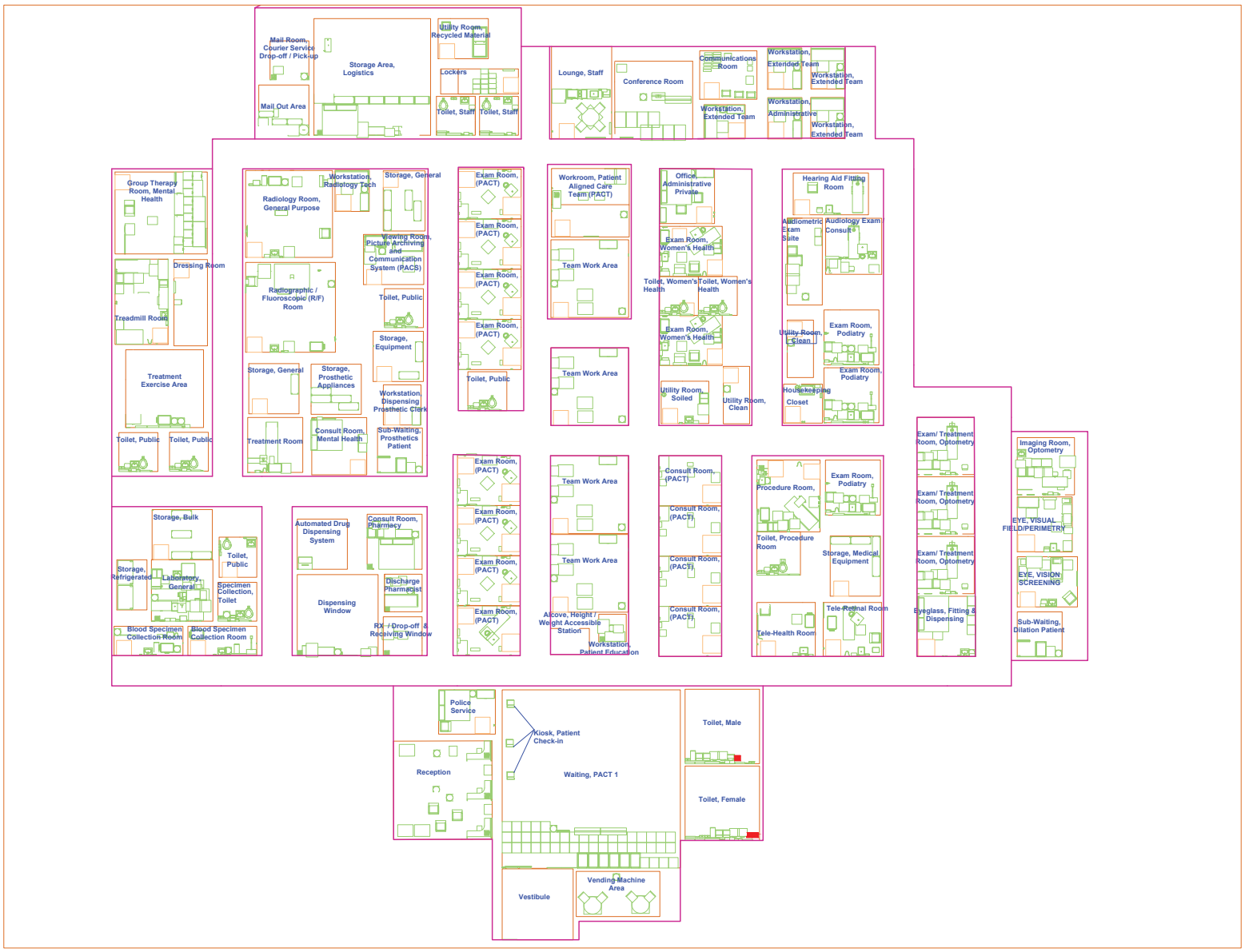
Sample Layout



VA Minimum Property Requirements

Upon review of proposed properties, the following checklist is meant to identify the minimum requirements for medical space for a Community Based Outpatient Clinic (CBOC) to replace the existing Tulare CBOC lease.

- Building NUSF approximately 22,000 NUSF.
    - Notes:

- Parking Lot meets ADA stall count or may be restriped to accommodate requirements listed below.

TOTAL PARKING IN LOT	REQUIRED MINIMUM NUMBER OF ACCESSIBLE SPACES
1 to 25	1
26 to 50	2
51 to 75	3
76 to 100	4
101 to 150	5
151 to 200	6
201 to 300	7
301 to 400	8
401 to 500	9
501 to 1000	2 percent of total
1001 and over	20 plus 1 for each 100 over 1000

    - Locations shall provide 85 stalls
        - 3 Stalls to be reserved for Government Vehicles.
        - 1 Stall to be reserved for 3rd party patient transportation with loading zone near main entrance.

- Natural Lighting: Natural lighting is required in common areas, vestibules, and lobby areas as determined by VACCHCS officials. Window locations should not compromise building security in sensitive areas or should be identified for additional security measures.
    - Notes:

- Leased space may occupy multiple stories.
    - First floor entrance and occupancy shall be required.

- Elevators and emergency egress shall meet local occupancy codes.

- Site review will determine if multi-tenant building is acceptable.
- Physical Appearance: Professional appearance and location shall be assessed by individual location(s) to assess the use of natural barriers such as rocks and trees as layered security, natural lighting, xeriscaping, elevation designs, and water features.
- Locations shall not be within ¼ mile of a bar or business that primarily serves alcohol.
- Location shall be within 1 mile of lodging and dinning locations.
- Emergency power or generators are preferred but not required.
- Traffic flow and/or congestion shall not interfere with ease of ingress/egress to the site.
- Parking location shall be conveniently located near building entrance.
- Shall have ability to accommodate layout.
- Shall provide an area for receiving deliveries.
- Space shall be located in a prime commercial office district with attractive, prestigious, and professional surroundings with a prevalence of modern design and/or tasteful rehabilitation in modern use. Streets and public sidewalks shall be well maintained.
- Shall not be within 250 walkable feet from a bar, liquor store or like establishment; a residential hotel or motel, marijuana dispensary, or near an area where it is known that illegal activities occur i.e., illegal drugs sales, prostitution, loitering etc. as determined by VA officials. Patio dining, restaurants and sports bars are acceptable.
- Shall not be a sublease.
- Shall not be in the 100 year flood plain.

AGENCY'S SPECIAL REQUIREMENTS
Tulare CBOC Relocation

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Space Plan

Per HIPPA, patient confidentiality must be maintained when providing personal information to interview clerks and/or other staff, particularly at the main entrance check in/reception counter/waiting room areas.

The facility Privacy Officer will review the submitted layouts and make recommendations to assure the highest level of patient confidentiality is provided at these critical areas.

Parking to accommodate staff and patients, minimum of 85 stalls. Stripping shall reflect appropriate ADA compliant rations listed below.

TOTAL PARKING IN LOT	REQUIRED MINIMUM NUMBER OF ACCESSIBLE SPACES
1 to 25	1
26 to 50	2
51 to 75	3
76 to 100	4
101 to 150	5
151 to 200	6
201 to 300	7
301 to 400	8
401 to 500	9
501 to 1000	2 percent of total
1001 and over	20 plus 1 for each 100 over 1000

Provide ADA compliant corridors. Some circumstances in the design may require a greater clearance within corridors dimension for patient safety and functionality.

All doors for access to the main entry are to be provided with an Automatic Door Operator (ADO) function.

Site work and amenities need to conform to VA standards, with regards to items such as exterior signage (attached) and defense protections (physical security design manual).

No medical gas system is required.

Sound protection must comply with provided Design Standards STC ratings. Wall details must be submitted for review by VA for STC ratings. Clinical areas require a STC rating of 40 or greater.

ADA Corridors; all corridors and spaces shall meet the minimum ADA requirements for access. Patient corridors shall be at least 5 feet (60 inches) wide. Doorways shall be at least 40 inches wide. Ceilings shall be at least 9 feet high. There is no maximum ceiling height limit for common areas, vestibules, waiting areas, reception, and warehouse storage. All flooring connections shall be flush.

Access Control: Public access entrances should be limited to one main access area for reception at the main lobby. Staff entrances shall be located independently of the main entrance while remaining within proximity to staff parking. Provide staff entrances with access control, visual monitoring, and intrusion detection system / alarm box. Locking access control should be placed outside entrances of the following locations: Patient Corridors leading into clinic suites, IT closets, Logistics, Pharmacy suite, drug dispensing / storage rooms, mechanical closets, radiology suite, staff locker room, and laboratory suite.

Surveillance Cameras: Fixed high-resolution VASS Video cameras shall be provided to monitor activities in the vestibules and lobbies and shall be located to provide views of approaching pedestrian and vehicular traffic, drop-off areas, building entrances, and departing pedestrian and vehicular traffic. Additional locations may be identified upon design review and existing building conditions.

FA1 : Patient Aligned Care Team (PACT) Module

Lobby	SF	Qty	Net Sum
Vestibule	200	1	200
Alcove, Wheelchair	90	1	90
Waiting, PACT 1	1260	1	1260
Reception	385	1	385
Kiosk, Patient Check-In	1	3	3
Workstation, Patient Education	30	1	30
Toilet, Male	220	1	220
Toilet, Female	220	1	220
Sub-Total		10	2408
FA2 : Patient Aligned Care Team (PACT) Module			
Canteen Service	SF	Qty	Net Sum
Vending Machine Area	150	1	150
Sub-Total		1	150
FA3 : Patient Aligned Care Team (PACT) Module			
Police Service	100	1	100
Sub-Total		1	100
FA4 : Patient Aligned Care Team (PACT) Module			
Patient Align Care Team	SF	Qty	Net Sum
Alcove, Height / Weight Station	40	1	40
Consult Room, (PACT)	125	4	500
Exam Room (PACT)	125	8	1000
Toilet, Public	60	1	60
Exam Room, Women's Health	125	2	250

Toilet, Woman's Health	60	2	120
Procedure Room	180	1	180
Toilet, Procedure Room	75	1	75
Tele-Health Room	125	1	125
Tele-Retinal Room	125	1	125
Storage, Shared Medical Appointment Room	100	1	100
Alcove, Medication	20	1	20
Alcove, Resuscitation Cart	20	1	20
Team Work Area	240	4	960
Workstation, Extended Team	56	4	224
Workroom, Patient Aligned Care Team (PACT)	100	1	100
Workstation, Administrative	56	1	56
Conference Room	240	1	240
Utility Room, Clean	60	1	60
Storage, Medical Equipment	120	1	120
Lounge, Staff	220	1	220
Lockers	60	1	60
Toilet, Staff	60	2	120
Office, Administrative Private	120	1	120
Sub-Total		43	4895
FA5 : Patient Aligned Care Team (PACT) Module			
Audiology	SF	Qty	Net Sum
Hearing Aid Fitting Room	125	1	125
Suite 1, Audiometric Exam (prefab, 2-sided Suite)	300	1	300
Audiology Exam / Consult	125	1	125
Sub-Total		3	550
FA6 : Patient Aligned Care Team (PACT) Module			
Eye Clinic	SF	Qty	Net Sum
Eyeglass, Fitting & Dispensing	140	1	140
EYE, VISION SCREENING	120	1	120
EYE, VISUAL FIELD/PERIMETRY	120	1	120
Exam/ Treatment Room, Optometry	130	1	130
Imaging Room, Optometry	130	1	130
Sub-Waiting, Dilation Patient	80	1	80
Exam/ Treatment Room, Optometry	130	2	260
Sub-Total		8	980
FA7 : Patient Aligned Care Team (PACT) Module			
Prosthetics			
Sub-Waiting, Prosthetics Patient	80	1	80
Workstation, Dispensing Prosthetic Clerk	60	1	60
Storage, Prosthetic Appliances	100	1	100

Sub-Total		3	240
FA8 : Patient Aligned Care Team (PACT) Module			
Mental Health	SF	Qty	Net Sum
Shared Medical Appointments /Group Therapy Room, Mental Health	300	1	300
Consult Room, Mental Health	125	1	125
Storage, General	100	1	100
Sub-Total		3	525
FA9 : Patient Aligned Care Team (PACT) Module			
Podiatry Service	SF	Qty	Net Sum
Exam Room, Podiatry	120	3	360
Sub-Total		3	360
FA10 : Patient Aligned Care Team (PACT) Module			
Physical Therapy	SF	Qty	Net Sum
Dressing Room	60	1	60
Treatment Exercise Area	240	1	240
Treatment Room	120	1	120
Storage, Equipment	100	1	100
Toilet, Public	60	1	60
Treadmill Room	180	1	180
Sub-Total		6	760
FA11 : Patient Aligned Care Team (PACT) Module			
Radiology Service	SF	Qty	Net Sum
Radiology Room, General Purpose	300	1	300
Radiographic / Fluoroscopic (R/F) Room	320	1	320
Viewing Room, Picture Archiving and Communication System (PACS)	120	1	120
Workstation, Radiology Tech	56	1	56
Toilet, Public	60	1	60
Sub-Total		5	856
FA12 : Patient Aligned Care Team (PACT) Module			
Pathology and Laboratory Service	SF	Qty	Net Sum
Laboratory, General	150	1	150
Blood Specimen Collection Room	80	2	160
Specimen Collection, Toilet	60	1	60
Storage, Bulk	120	1	120
Storage, Refrigerated	60	1	60
Sub-Total		6	550
FA13 : Patient Aligned Care Team (PACT) Module			
Pharmacy Service	SF	Qty	Net Sum
Automated Drug Dispensing System	100	1	100

Dispensing Window	260	1	260
RX / Drop-off & Receiving Window	60	1	60
Consult Room, Pharmacy	120	1	120
Discharge Pharmacist	56	1	56
Toilet, Public	60	1	60
Sub-Total		6	656
FA14 : Patient Aligned Care Team (PACT) Module			
Logistics Service	SF	Qty	Net Sum
Storage Area, Logistics	540	1	540
Mail Room, Courier Service Drop-off / Pick-up	60	1	60
Mail Out Area	100	1	100
Sub-Total		3	700
FA15 : Patient Aligned Care Team (PACT) Module			
Support Area	SF	Qty	Net Sum
Communications Room	110	1	110
Housekeeping Closet	60	1	60
Utility Room, Soiled	80	1	80
Utility Room, Recycled Material	80	1	80
Utility Room, Clean	60	1	60
Sub-Total		5	390
Net SF SubTotal		**106**	**14120**
NUSF Factor 1.5			**7060**
NUSF Grand Total			**21180**

Space Special Requirements

SPACE DESCRIPTION	SPECIAL REQUIREMENTS
Flagpoles	• Pre-existing flagpoles should have timer lighting for dusk to dawn lighting of raised colors. • Proposed locations for flagpoles may be considered upon review, separate or attached to building.
Signage	• Exhibit D, Page 82 for signage requirements.
Life Safety	• Exhibit D, Page 1
Vestibule	• Floor Finish: Carpet or Luxury Vinyl Tile Planks (wood finish), w/ 6” base cove • Automatic door control to be located at reception. • Wall décor to include wood wainscoting or approved equivalent high-end finish • Vestibule or entry to include recessed walk-off carpet system.
Alcove, Wheelchair	• Floor Finish: Carpet or Luxury Vinyl Tile Planks (wood finish), w/ 6” base cove. Use of accent patterns/designs is encouraged. • Provide recessed area for wheelchair storage adjacent to waiting area. • Provide utilities for electrical connections.
Waiting Room, PACT 1	• Floor Finish: Carpet or Luxury Vinyl Tile Planks (wood finish), w/ 6” base cove. Use of accent patterns/designs is encouraged. • Wall décor to include wood wainscoting or approved equivalent high-end finish • Provide data outlet, power outlet, and coaxial outlet on walls for TV mounts and Wayfinding. • Provide wall backing, flat screen TV brackets

Reception	• Floor Finish: Carpet or Luxury Vinyl Tile Planks (wood finish), w/ 6” base cove • Provide Granite or Corian counters • Provide front door access control at counter (automatic locking mechanism)
Kiosk Patient Check in	• Provide wall space for minimum of (3) wall mounted kiosks. Provide data and power outlets at location determined by VA for each kiosk.
Workstation, Patient Education	• Floor Finish: Carpet or Luxury Vinyl Tile Planks (wood finish), w/ 6” base cove. Use of accent patterns/designs is encouraged. • Built-in Granite or Corian or Laminate counter w/ gromets for, data and power. • VA selected wall mount rack for patient education pamphlets. Provide backing as required.
Toilet, Male	• Ceramic tile (12x24 full wall and floor) or approved equivalent with accent strip. Use coved corners and base. • Provide full height acoustically insulated walls. • Automatic paper towel dispenser • Auto faucets shall be hardwired • Provide floor drain
Toilet, Female	• Ceramic tile (12x24 full wall and floor) or approved equivalent with accent strip. Use coved corners and base. • Provide full height acoustically insulated walls. • Woman’s room to include female hygiene dispenser • Automatic paper towel dispenser • Auto faucets shall be hardwired • Provide floor drain
Vending Machine Area	• Floor Finish: Carpet or Luxury Vinyl Tile Planks (wood finish), w/ 6” base cove. Use of accent patterns/designs is encouraged. • Wall décor to include wood wainscoting or approved equivalent high-end finish • Provide power outlets behind vending machines.
Police Service	• Floor Finish: Carpet or Luxury Vinyl Tile Planks (wood finish), w/ 6” base cove

	• Provide Granite or Corian counters • Provide front door access control at counter (automatic locking mechanism) • Provide power outlets and coaxial data ports on each wall for video monitoring, security alarm systems, and dispatch systems.
Alcove, Resuscitation Cart	• Floor Finish: Carpet or Luxury Vinyl Tile Planks (wood finish), w/ 6” base cove. Use of accent patterns/designs is encouraged. • Provide recessed wall SF space for crash carts. • Provide utilities for electrical connections.
Alcove, Medication	• Floor Finish: Carpet or Luxury Vinyl Tile Planks (wood finish), w/ 6” base cove. Use of accent patterns/designs is encouraged. • Prepare wall and provide supports for medication storage cabinets.
Alcove, Height/Weight Station	• Floor Finish: Carpet or Luxury Vinyl Tile Planks (wood finish), w/ 6” base cove. Use of accent patterns/designs is encouraged. • Prepare wall and provide utilities for wall mounted weigh scale.
Exam Room (PACT)	• Floor Finish: vinyl welded seam (wood finish), w/ integral base cove or 6” rubber base cove as approved by the VA. • Provide full height acoustically insulated walls. • Provide adjacent data and power outlets on minimum of 3 walls at a location approved by the VA • Provide wall backing for wall mount Computer system • Nurse call interface to be located in location approved by VA. • Provide ceiling mounted curtain track system and flame retardant curtains. • Power outlet for exam table to be recessed in floor or as approved by VA. • Casework to be Midmark or VA approved equal with Corrian countertops. Sink to be under counter mount. Drawers to have radius interior corners. Auto faucets shall be hardwired

	• Room layout and utility locations shall accommodate telehealth equipment. Layout shall be approved by VA. • Exam room shall have primary swinging door for patient entry from corridor and a second sliding door from shared documentation area.
Exam Room, Women's Health	• Floor Finish: vinyl welded seam (wood finish), w/ integral base cove or 6" rubber base cove as approved by the VA. • Provide full height acoustically insulated walls. • Provide adjacent data and power outlets on minimum of 3 walls at a location approved by the VA • Provide wall backing for wall mount Computer system • Nurse call interface to be located in location approved by VA. • Provide ceiling mounted curtain track system and flame retardant curtains. • Power outlet for exam table to be recessed in floor or as approved by VA. • Casework to be Midmark or VA approved equal with Corrian countertops. Sink to be under counter mount. Drawers to have radius interior corners. Auto faucets shall be hardwired • Room layout and utility locations shall accommodate telehealth equipment. Layout shall be approved by VA. • Exam room shall have primary swinging door for patient entry from corridor and a second sliding door from shared documentation area.
Toilet, Woman's Health	• Ceramic tile (12x24 full wall and floor) or approved equivalent with accent strip. Use coved corners and base. • Provide full height acoustically insulated walls. • Woman's room to include female hygiene dispenser • Nurse call interface to be located in location approved by VA. • Automatic paper towel dispenser • Auto faucets shall be hardwired • Provide floor drain

Exam Room, Podiatry	• Floor Finish: vinyl welded seam (wood finish), w/ integral base cove or 6" rubber base cove as approved by the VA. • Provide full height acoustically insulated walls. • Provide adjacent data and power outlets on minimum of 3 walls at a location approved by the VA • Provide wall backing for wall mount Computer system • Nurse call interface to be located in location approved by VA. • Provide ceiling mounted curtain track system and flame retardant curtains. • Power outlet for exam table to be recessed in floor or as approved by VA. • Casework to be Midmark or VA approved equal with Corrian countertops. Sink to be under counter mount. Drawers to have radius interior corners. Auto faucets shall be hardwired • Room layout and utility locations shall accommodate telehealth equipment. Layout shall be approved by VA. • Exam room shall have primary swinging door for patient entry from corridor and a second sliding door from shared documentation area.
Shared Medical Appointments / Group Therapy Rooms, Mental Health	• Floor Finish: Carpet or Luxury Vinyl Tile Planks (wood finish), w/ 6" base cove. Use of accent patterns/designs is encouraged. • Provide full height acoustically insulated walls. • Provide a minimum 5x 8 magnetic whiteboard with full length marker rail. • Provide built in cabinet storage: premium wood laminate or equal, granite or Corian counter with sink. Auto faucets shall be hardwired • Provide data outlet, power outlet, and coaxial outlet on wall behind wall mount TV • Provide wall backing, and large flat screen TV bracket at location approved by the VA.

	• Room layout and utility locations shall accommodate telehealth equipment. Layout shall be approved by VA. • Provide infrastructure for full room A/V system including ceiling speakers, podium /control station, and wall mount TV systems. Infrastructure shall accommodate industry standard AV installation requirements. • Room lighting shall include dimmable fixtures to provide flexibility during use of video and telehealth equipment.
Consult Room, Mental Health	• Floor Finish: Carpet or Luxury Vinyl Tile Planks (wood finish), w/ 6" base cove. Use of accent patterns/designs is encouraged. • Provide adjacent data and quadruple power outlets on minimum of 3 walls, location as approved by VA • Room layout shall accommodate installation of audiology booth and provide workspace for audiologist. Workspace shall be screened from patient view. • Provide counter work surface with sink. Auto faucets shall be hardwired • Provide full height acoustically insulated walls. • Provide power and data required by audiology equipment. • Floor shall be coordinated with ramp for booth.
Consult Room PACT	• Floor Finish: Carpet or Luxury Vinyl Tile Planks (wood finish), w/ 6" base cove. Use of accent patterns/designs is encouraged. • Provide adjacent data and quadruple power outlets on minimum of 3 walls, location as approved by VA • Room layout shall accommodate installation of audiology booth and provide workspace for audiologist. Workspace shall be screened from patient view. • Provide counter work surface with sink. Auto faucets shall be hardwired

	• Provide full height acoustically insulated walls. • Provide power and data required by audiology equipment. • Floor shall be coordinated with ramp for booth.
Storage- Shared Medical Appointment Room	• Floor Finish: Carpet or Luxury Vinyl Tile Planks (wood finish), w/ 6” base cove. Use of accent patterns/designs is encouraged. • Storage room shall be immediately accessible from the Shared Medical Appointments room. • Space shall be oriented to accept storage and removal of nesting tables and chairs in addition to other miscellaneous storage items.
Procedure Room	• Floor Finish: vinyl welded seam (wood finish), w/ integral base cove or 6” rubber base cove as approved by the VA. • Provide full height acoustically insulated walls. • Provide adjacent data and power outlets on minimum of 3 walls at a location approved by the VA • Provide wall backing for wall mount Computer system • Nurse call interface to be located in location approved by VA. • Provide ceiling mounted curtain track system and flame retardant curtains. • Power outlet for exam table to be recessed in floor or as approved by VA. • Casework to be Midmark or VA approved equal with Corrian countertops. Sink to be under counter mount. Drawers to have radius interior corners. Auto faucets shall be hardwired • Room layout and utility locations shall accommodate telehealth equipment. Layout shall be approved by VA. • Room shall have primary swinging door for patient entry from corridor and a second sliding door from shared documentation area.

Toilet, Procedure Room	• Ceramic tile (12x24 full wall and floor) or approved equivalent with accent strip. Use coved corners and base. • Provide full height acoustically insulated walls. • Automatic paper towel dispenser • Auto faucets shall be hardwired • Provide floor drain • Nurse call interface to be located in location approved by VA.
Automated Drug Dispensing System	• Floor Finish: Carpet or Luxury Vinyl Tile Planks (wood finish), w/ 6" base cove. Use of accent patterns/designs is encouraged. • Room shall be configured and utilities provided to accommodate medication refrigerator, freezer unit, medication dispenser system, "Pyxis" unit, casework with sink and general wall mounted storage and medication inventory units. • Equipment may require dedicated electrical circuits/ 208V power or other specific needs. Vendor to provide all as required to meet equipment requirements. • Walls shall be full height around room. • Door hinges shall utilize set pins. • Casework to be Midmark or VA approved equal with Corrian countertops. Sink to be under counter mount. Drawers to have radius interior corners. Auto faucets shall be hardwired
Storage, Medical Equipment	• Floor Finish: Carpet or Luxury Vinyl Tile Planks (wood finish), w/ 6" base cove. Use of accent patterns/designs is encouraged. • Provide power and data outlets on 2 walls at a location approved by the VA. • Storage space may be broken up to locate storage for patient lift system independently of remaining storage items and close to the suite entrance.
Utility Room, Clean	• Ceramic tile (12x24 full wall and floor) or approved equivalent with accent strip. Use coved corners and base.

	• Provide power and data outlets for VA provided supply distribution equipment “Omnicells”. • Provide an additional power and data outlet at a location approved by the VA. • Provide Floor Drain
Utility Room, Soiled	• Ceramic tile (12x24 full wall and floor) or approved equivalent with accent strip. Use coved corners and base. • Provide stainless steel counter with sink w/ sensor faucet (hardwired). Counter width, 4ft minimum. Sink size and depth to be approved by the VA. • Provide Floor Drain
Tele-Retinal Room	• Floor Finish: Carpet or Luxury Vinyl Tile Planks (wood finish), w/ 6” base cove. Use of accent patterns/designs is encouraged. • Provide full height acoustically insulated walls. • Provide adjacent data and power outlets on minimum of 3 walls, location as approved by VA •
Telehealth Room	• Floor Finish: Carpet or Luxury Vinyl Tile Planks (wood finish), w/ 6” base cove. Use of accent patterns/designs is encouraged. • Provide full height acoustically insulated walls. • Provide adjacent data and power outlets on minimum of 3 walls, location as approved by VA • Provide data outlet, power outlet, and coaxial outlet on wall behind wall mount TV • Provide wall backing, flat screen TV bracket at location designated by the VA. • Room layout and utility locations shall accommodate telehealth equipment. Layout shall be approved by VA.
Team Work Area	• Floor Finish: Carpet or Luxury Vinyl Tile Planks (wood finish), w/ 6” base cove. Use of accent patterns/designs is encouraged.

	• Provide layout to accommodate cubicle bay privacy and space for collaboration and printing. • Power and data to support systems furniture (cubicles and similar) shall be located in a way to provide flexibility to workspace layout. Exposed conduit, surface mount conduit or raceway is not acceptable. Power/Data shall be fully coordinated with furniture layout. • Shall provide for a minimum of 5 cubicle spaces. • Space may be combined with Shared Documentation Area, if approved by the VA. • Orient to provide natural light and maximize windows. • Use ceiling hung acoustic solutions for noise control as appropriate.
Workstation, Extended Team	• Floor Finish: Carpet or Luxury Vinyl Tile Planks (wood finish), w/ 6” base cove. Use of accent patterns/designs is encouraged. • Provide layout to accommodate cubicle bay privacy and space for collaboration and printing. • Power and data to support systems furniture (cubicles and similar) shall be located in a way to provide flexibility to workspace layout. Exposed conduit, surface mount conduit or raceway is not acceptable. Power/Data shall be fully coordinated with furniture layout. • Shall provide for a minimum of 5 cubicle spaces. • Space may be combined with Shared Documentation Area, if approved by the VA. • Orient to provide natural light and maximize windows. • Use ceiling hung acoustic solutions for noise control as appropriate.
Workstation, Administrative	• Floor Finish: Carpet or Luxury Vinyl Tile Planks (wood finish), w/ 6” base cove. Use of accent patterns/designs is encouraged.

	• Provide layout to accommodate cubicle bay privacy and space for collaboration and printing. • Power and data to support systems furniture (cubicles and similar) shall be located in a way to provide flexibility to workspace layout. Exposed conduit, surface mount conduit or raceway is not acceptable. Power/Data shall be fully coordinated with furniture layout. • Space may be combined with Shared Documentation Area, if approved by the VA. • Orient to provide natural light and maximize windows. • Use ceiling hung acoustic solutions for noise control as appropriate.
Workroom, Patient Aligned Care Team (PACT)	• Floor Finish: Carpet or Luxury Vinyl Tile Planks (wood finish), w/ 6” base cove. Use of accent patterns/designs is encouraged. • Provide layout to accommodate cubicle bay privacy and space for collaboration and printing. • Power and data to support systems furniture (cubicles and similar) shall be located in a way to provide flexibility to workspace layout. Exposed conduit, surface mount conduit or raceway is not acceptable. Power/Data shall be fully coordinated with furniture layout. • Shall provide for a minimum of 5 cubicle spaces. • Space may be combined with Shared Documentation Area, if approved by the VA. • Orient to provide natural light and maximize windows. • Use ceiling hung acoustic solutions for noise control as appropriate.
Conference Room	• Floor Finish: Carpet or Luxury Vinyl Tile Planks (wood finish), w/ 6” base cove. • Provide data outlet, power outlet, and coaxial outlet on wall behind wall mount TV

	• Provide wall backing, flat screen TV bracket at location designated by the VA. • Provide recessed floor box for power, data and spare conduit for future AV expansion capabilities. Location to be coordinate with conference room furniture. • Provide wall mount white board at location identified by the VA. • Provide built in casework for supply storage. • Orient to provide natural light if possible.
Office Administrative Private	• Floor Finish: Carpet or Luxury Vinyl Tile Planks (wood finish), w/ 6" base cove. Use of accent patterns/designs is encouraged. • Provide cubicle or enclosed office space to provide adequate privacy for supervisory functions such as evoking disciplinary action. Space shall provide suitable sound insulation. • Can be located in or adjacent to shared documentation area.
Lounge, Staff	• Floor Finish: Carpet or Luxury Vinyl Tile Planks (wood finish), w/ 6" base cove. Use of accent patterns/designs is encouraged. • Provide power for full size refrigerator • Provide built in casework/cabinet storage: premium wood laminate or equal, Corian counter with sink. Auto faucets shall be hardwired
Lockers	• Ceramic tile (12x24 full wall and floor) or approved equivalent with accent strip. Use coved corners and base. • Provide for a minimum of 20 lockers. Lockers to be of high quality, durable materials, with finish to coordinate with other aesthetic qualities of the space (wood grain or equal). • Lockers may be located within lounge space if approved by the VA.
Toilet, Staff	• Ceramic tile (12x24 full wall and floor) or approved equivalent with accent strip. Use coved corners and base. • Provide full height acoustically insulated walls.

	• Automatic paper towel dispenser • Auto faucets shall be hardwired • Provide floor drain
Storage, General	• Floor Finish: Carpet or Luxury Vinyl Tile Planks (wood finish), w/ 6” base cove. Use of accent patterns/designs is encouraged. • Provide power and data outlets on 2 walls at a location approved by the VA. •
Blood Specimen Collection Room	• Floor Finish: vinyl welded seam (wood finish), w/ integral base cove or 6” rubber base cove as approved by the VA • Provide for a minimum of (2) blood draw chairs. Layout shall accommodate patient privacy. • Provide Casework with Corian counter with under counter mount sink w/ auto faucet. Auto faucets shall be hardwired, Counter to be of 4ft wide, minimum. • Provide direct access in-wall specimen transfer box between Blood Specimen room and Specimen toilet room. • Power/data outlets shall be provided to accommodate equipment used in room. Vendor to coordinate with VA on equipment requirements.
Specimen Collection, Toilet	• Ceramic tile (12x24 full wall and floor) or approved equivalent with accent strip. Use coved corners and base. • Provide full height acoustically insulated walls. • Automatic paper towel dispenser • Auto faucets shall be hardwired • Provide floor drain • Nurse call interface to be located in location approved by VA. • Provide pass through transfer box for urine specimen into Blood Specimen collection room.
Laboratory General	• Floor Finish: vinyl welded seam (wood finish), w/ integral base cove or 6” rubber base cove as approved by the VA • Provide Casework with Corian counter with under counter mount sink w/ auto faucet. Auto faucets shall be hardwired, Counter to be of 4ft wide, minimum.

	• Provide direct access in-wall specimen transfer box between Blood Specimen room and Specimen toilet room. • Power/data outlets shall be provided to accommodate equipment used in room. Vendor to coordinate with VA on equipment requirements. • Provide power and data outlets on all walls. Recessed Floor outlets where needed and approved by the VA.
Storage, Bulk	• Floor Finish: vinyl welded seam (wood finish), w/ integral base cove or 6” rubber base cove as approved by the VA • Provide power and data outlets on 2 walls at a location approved by the VA. •
Storage, Refrigerated	• Floor Finish: vinyl welded seam (wood finish), w/ integral base cove or 6” rubber base cove as approved by the VA • Provide power and data outlets on 2 walls at a location approved by the VA. • Built-in cold storage as required and approved by VA.
Audiology Exam / Consult	• Floor Finish: Carpet or Luxury Vinyl Tile Planks (wood finish), w/ 6” base cove. Use of accent patterns/designs is encouraged. • Provide adjacent data and quadruple power outlets on minimum of 3 walls, location as approved by VA • Room layout shall accommodate installation of audiology booth and provide workspace for audiologist. Workspace shall be screened from patient view. • Provide counter work surface with sink. Auto faucets shall be hardwired • Provide full height acoustically insulated walls. • Provide power and data required by audiology equipment. • Floor shall be coordinated with ramp for booth.
Hearing Aid Fitting Room	• Floor Finish: Carpet or Luxury Vinyl Tile Planks (wood finish), w/ 6” base cove.

	Use of accent patterns/designs is encouraged. • Provide adjacent data and quadruple power outlets on minimum of 3 walls, location as approved by VA • Provide counter work surface with sink. Auto faucets shall be hardwired • Provide full height acoustically insulated walls. • Provide power and data required by audiology equipment. • Floor shall be coordinated with ramp for booth.
Suite 1, Audiometric Exam (prefab, 2-sided Suite)	• Floor Finish: Carpet or Luxury Vinyl Tile Planks (wood finish), w/ 6" base cove. Use of accent patterns/designs is encouraged. • Provide adjacent data and quadruple power outlets on minimum of 3 walls, location as approved by VA • Room layout shall accommodate installation of audiology suite with workspace for audiologist. Workspace shall be screened from patient view. • Provide counter work surface with sink. Auto faucets shall be hardwired • Provide full height acoustically insulated walls. • Provide power and data required by audiology equipment. • Floor shall be coordinated with ramp for booth. • Max noise level 35 db • Humidity 20-60% • Maintain temperature range from 70 – 75F.
EYE, VISION SCREENING	• Floor Finish: Carpet or Luxury Vinyl Tile Planks (wood finish), w/ 6" base cove. Use of accent patterns/designs is encouraged. • Provide adjacent data and power outlets on minimum of 3 walls, location as approved by VA • Room layout and utility locations shall accommodate telehealth equipment and eye examination equipment. Layout shall be approved by VA.

Eyeglass, Fitting & Dispensing	• Floor Finish: Carpet or Luxury Vinyl Tile Planks (wood finish), w/ 6” base cove. Use of accent patterns/designs is encouraged. • Provide adjacent data and power outlets on minimum of 3 walls, location as approved by VA • Room should be adjacent to sub waiting and clinic staff.
EYE, VISUAL FIELD/PERIMETRY	• Floor Finish: Carpet or Luxury Vinyl Tile Planks (wood finish), w/ 6” base cove. Use of accent patterns/designs is encouraged. • Provide adjacent data and power outlets on minimum of 3 walls, location as approved by VA • Room layout and utility locations shall accommodate telehealth equipment and eye examination equipment. Layout shall be approved by VA.
Exam/ Treatment Room, Optometry	• Floor Finish: Carpet or Luxury Vinyl Tile Planks (wood finish), w/ 6” base cove. Use of accent patterns/designs is encouraged. • . • Provide adjacent data and power outlets on minimum of 3 walls, location as approved by VA • Room layout and utility locations shall accommodate telehealth equipment and eye examination equipment. Layout shall be approved by VA.
Imaging Room, Optometry	• Floor Finish: vinyl welded seam (wood finish), w/ integral base cove or 6” rubber base cove as approved by the VA or Luxury Vinyl Tile Planks (wood finish), w/ 6” base cove. • Provide adjacent data and power outlets on minimum of 3 walls, location as approved by VA • Room layout and utility locations shall accommodate telehealth equipment and eye examination equipment. Layout shall be approved by VA.
Sub-Waiting, Dilation Patient	• Floor Finish: Carpet or Luxury Vinyl Tile Planks (wood finish), w/ 6” base cove.

	Use of accent patterns/designs is encouraged. • Provide adjacent data and power outlets on minimum of 3 walls, location as approved by VA • Room should be central and adjacent to eye clinic for patient flow.
Sub-Waiting, Prosthetics Patient	• Floor Finish: Carpet or Luxury Vinyl Tile Planks (wood finish), w/ 6" base cove. Use of accent patterns/designs is encouraged. • Provide adjacent data and power outlets on minimum of 3 walls, location as approved by VA • Room should be central and adjacent to prosthetics areas. •
Workstation, Dispensing Prosthetic Clerk	• Floor Finish: Carpet or Luxury Vinyl Tile Planks (wood finish), w/ 6" base cove. Use of accent patterns/designs is encouraged. • Provide layout to accommodate cubicle bay privacy and space for collaboration and printing. • Power and data to support systems furniture (cubicles and similar) shall be located in a way to provide flexibility to workspace layout. Exposed conduit, surface mount conduit or raceway is not acceptable. Power/Data shall be fully coordinated with furniture layout. • Shall provide adjacency to prosthetics storage. • Orient to provide natural light and maximize windows. • Use ceiling hung acoustic solutions for noise control as appropriate.
Storage, Prosthetic Appliances	• Floor Finish: Carpet or Luxury Vinyl Tile Planks (wood finish), w/ 6" base cove. Use of accent patterns/designs is encouraged. • Provide power and data outlets on 2 walls at a location approved by the VA. • Storage space may be broken up to locate storage for patient lift system independently of remaining storage items and close to the suite entrance.

Treatment Exercise Area	• Floor Finish: vinyl welded seam (wood finish), w/ integral base cove or 6” rubber base cove as approved by the VA • Provide data outlet, power outlet, and coaxial outlet on wall behind wall mount TV • Provide wall backing, flat screen TV bracket at location designated by the VA. • Provide recessed floor box for power, data and spare conduit for future AV expansion capabilities. • Provide wall mount white board at location identified by the VA. • Provide built in casework for supply storage. • Preferably orient to natural light. • Shall have adjacency with treadmill room and equipment storage.
Treadmill Room	• Floor Finish: vinyl welded seam (wood finish), w/ integral base cove or 6” rubber base cove as approved by the VA • Provide data outlet, power outlet, and coaxial outlet on wall behind wall mount TV • Provide wall backing, flat screen TV bracket at location designated by the VA. • Provide recessed floor box for power, data and spare conduit for future AV expansion capabilities. • Provide wall mount white board at location identified by the VA. • Provide built in casework for supply storage. • Preferably orient to natural light. • Shall have adjacency with treadmill room and equipment storage.
Treatment Room	• Floor Finish: vinyl welded seam (wood finish), w/ integral base cove or 6” rubber base cove as approved by the VA. • Provide full height acoustically insulated walls. • Provide adjacent data and power outlets on minimum of 3 walls at a location approved by the VA • Provide wall backing for wall mount Computer system

	• Nurse call interface to be located in location approved by VA. • Provide ceiling mounted curtain track system and flame retardant curtains. • Power outlet for exam table to be recessed in floor or as approved by VA. • Casework to be Midmark or VA approved equal with Corrian countertops. • Room shall have adjacency with other physical therapy rooms.
Storage Equipment	• Floor Finish: Carpet or Luxury Vinyl Tile Planks (wood finish), w/ 6" base cove. Use of accent patterns/designs is encouraged. • Provide power and data outlets on 2 walls at a location approved by the VA. • Storage space may be broken up to locate storage for patient lift system independently of remaining storage items and close to the exercise room & treadmill room.
Dressing Room	• Ceramic tile (12x24 full wall and floor) or approved equivalent with accent strip. Use coved corners and base. • Provide for a minimum of 20 lockers. Lockers to be of high quality, durable materials, with finish to coordinate with other aesthetic qualities of the space (wood grain or equal). • Dressing room may be collocated with PM&R toilet. • Provide ceiling mounted curtain track system and flame retardant curtains. •
Radiology Room, General Purpose	• Floor Finish: vinyl welded seam (wood finish), w/ integral base cove or 6" rubber base cove as approved by the VA. • Provide full height acoustically insulated walls. • Provide adjacent data and power outlets on minimum of 3 walls at a location approved by the VA • Provide wall backing for wall mount Computer system • Nurse call interface to be located in location approved by VA.

	• Provide ceiling mounted curtain track system and flame retardant curtains. • Power outlet for exam table to be recessed in floor or as approved by VA. • Casework to be Midmark or VA approved equal with Corrian countertops. Sink to be under counter mount. Drawers to have radius interior corners. Auto faucets shall be hardwired • Room layout and utility locations shall accommodate telehealth equipment. Layout shall be approved by VA. • Exam room shall have primary swinging door for patient entry from corridor and a second sliding door from shared documentation area.
Radiographic / Fluoroscopic (R/F) Room	• Floor Finish: vinyl welded seam (wood finish), w/ integral base cove or 6” rubber base cove as approved by the VA. • Provide full height acoustically insulated walls. • Provide adjacent data and power outlets on minimum of 3 walls, location as approved by VA • Provide data outlet, power outlet, and coaxial outlet on walls • Provide wall backing, equipment mounting capabilities for telecom systems. • Room layout and utility locations shall accommodate telehealth equipment. Layout shall be approved by VA. • Room shall have adjacency with viewing room.
Viewing Room, Picture Archiving and Communication System (PACS)	• Floor Finish: Carpet or Luxury Vinyl Tile Planks (wood finish), w/ 6” base cove. Use of accent patterns/designs is encouraged. • Provide full height acoustically insulated walls. • Provide adjacent data and power outlets on minimum of 3 walls, location as approved by VA • Provide data outlet, power outlet, and coaxial outlet on walls

	• Provide wall backing, equipment mounting capabilities for telecom systems. • Room layout and utility locations shall accommodate telehealth equipment. Layout shall be approved by VA.
Workstation, Radiology Tech	• Floor Finish: Carpet or Luxury Vinyl Tile Planks (wood finish), w/ 6” base cove. Use of accent patterns/designs is encouraged. • Provide layout to accommodate cubicle bay privacy and space for collaboration and printing. • Power and data to support systems furniture (cubicles and similar) shall be located in a way to provide flexibility to workspace layout. Exposed conduit, surface mount conduit or raceway is not acceptable. Power/Data shall be fully coordinated with furniture layout. • Space may be combined with viewing room, picture archiving and communication systems, if approved by the VA. • Orient to adjacency with R/F room. •
Dispensing Window	• Floor Finish: vinyl welded seam (wood finish), w/ integral base cove or 6” rubber base cove as approved by the VA or Luxury Vinyl Tile Planks (wood finish), w/ 6” base cove. • Provide power and data outlets on 2 walls at a location approved by the VA. • Open wall access via the dispensing window rooms & discharge pharmacist • Install wall-mounted patient service window & counter where VA approved.
RX/ Drop-off & Receiving window	• Floor Finish: vinyl welded seam (wood finish), w/ integral base cove or 6” rubber base cove as approved by the VA or Luxury Vinyl Tile Planks (wood finish), w/ 6” base cove. • Provide power and data outlets on 2 walls at a location approved by the VA. • Open wall access via the dispensing window rooms & Automated Drug dispensing system.

	• Install wall-mounted patient service window & counter where VA approved.
Consult Room, Pharmacy	• Floor Finish: Carpet or Luxury Vinyl Tile Planks (wood finish), w/ 6" base cove. Use of accent patterns/designs is encouraged. • Provide full height acoustically insulated walls. • Provide adjacent data and power outlets on minimum of 3 walls at a location approved by the VA • Provide wall backing for wall mount Computer system • Nurse call interface to be located in location approved by VA. • Provide ceiling mounted curtain track system and flame retardant curtains. • Power outlet for exam table to be recessed in floor or as approved by VA. • Casework to be Midmark or VA approved equal with Corrian countertops. • Room shall be adjacent to discharge pharmacist. Passthrough door is optional with locking door.
Discharge Pharmacist	• Floor Finish: Carpet or Luxury Vinyl Tile Planks (wood finish), w/ 6" base cove. Use of accent patterns/designs is encouraged. • Provide layout to accommodate cubicle bay privacy and space for collaboration and printing. • Power and data to support systems furniture (cubicles and similar) shall be located in a way to provide flexibility to workspace layout. Exposed conduit, surface mount conduit or raceway is not acceptable. Power/Data shall be fully coordinated with furniture layout. • Room shall be adjacent to dispensing areas, drug dispensing, and consult room. • Pharmacy room layout to be approved by VA.
Toilet, Public	• Ceramic tile (12x24 full wall and floor) or approved equivalent with accent strip. Use coved corners and base. • Provide full height acoustically insulated walls.

	• Nurse call interface to be located in location approved by VA. • Automatic paper towel dispenser • Auto faucets shall be hardwired • Provide floor drain
Storage Area, Logistics	• Floor Finish: polished/sealed concrete with 6” cove base. • Power and data to support systems furniture (cubicles and similar) shall be located in a way to provide flexibility to workspace layout. Exposed conduit, surface mount conduit or raceway. • Use ceiling hung acoustic solutions for noise control as appropriate. • Logistics to have loading ramp adjacency, exposed wall with roll-up / sliding locking doors.
Mail Room, Courier Service Drop-off / Pick-up	• Floor Finish: Carpet or Luxury Vinyl Tile Planks (wood finish), w/ 6” base cove. Use of accent patterns/designs is encouraged. • Power and data to support systems furniture (cubicles and similar) shall be located in a way to provide flexibility to workspace layout. Exposed conduit, surface mount conduit or raceway is not acceptable. • Use ceiling hung acoustic solutions for noise control as appropriate.
Mail Out Area	• Floor Finish: Carpet or Luxury Vinyl Tile Planks (wood finish), w/ 6” base cove. Use of accent patterns/designs is encouraged. • Power and data to support systems furniture (cubicles and similar) shall be located in a way to provide flexibility to workspace layout. Exposed conduit, surface mount conduit or raceway is not acceptable. • Use ceiling hung acoustic solutions for noise control as appropriate.
Communications Room	• Floor Finish: polished/sealed concrete with 6” cove base. • Provide dedicated cooling system for room, operational 24 hours/day. • Provide full height walls. • Door hinges shall use set pins.

	• Refer to IT SOW requirements for further requirements.
Housekeeping Closet	• Floor Finish: vinyl welded seam (wood finish), w/ integral base cove or 6" rubber base cove as approved by the VA • Provide floor mop sink. • Provide floor drain • Provide wainscot wall protection to 48" above finish floor. • Provide stainless steel rack shelving for supply storage. Building utilities (water heater) shall not be collocated in room.
Utility Room Recycled Material	• Ceramic tile (12x24 full wall and floor) or approved equivalent with accent strip. Use coved corners and base. • Provide floor drain

Note: Refer to SECTION 6 of Prototype for Standardized Design and Construction of Community Based Outpatient Clinics Document for information on minimum room contents in addition to Design Guide requirements. At time of construction, interior finishes shall comply with VA master specs found at:

https://www.cfm.va.gov/til/room/roomFinishes.pdf (pages278-301)

https://www.cfm.va.gov/til/equip/equip265.xlsx (excel spreadsheet)

General:

Provide wall protection @ all corridors: Wood finish rails and toe guard or use wainscoting.

Nurse-call system to be installed in all exam rooms, procedure room and in all toilet rooms. Nurse call system shall be approved by the VA. VA approved or equal to include call lights, room stations, central station(s) and all associated wiring and control boxes/devises.

Provide security alarm system at all entry doors into suite.

Provide street side lighted VA sign. Provide building mounted lighted VA emblem sign.

Provide interior directional, way-finding and room numbering signage. Signage to match signage program used at VA Fresno facility or an approved equal. Provide all other notification signage required by governing code requirements and by VA signage design guide for interior and exterior signs.

Interior lighting shall meet the minimum standards for ft-candles and shall be indirect where possible. The VA requires a medium-high to high class lighting package that meets all performance requirements but also is used to enhance the aesthetic quality of the spaces. Use of sconces, pendant lights, etc is encouraged where appropriate.

Finish surface painting shall be satin finish in common areas, semi-gloss in bathrooms and wet areas. The VA reserves the right to use/select accent colors as desired during the interior design process.

Ceiling tiles shall be 2x2 beveled, tegular type, high CAC, Mesa Series by Armstrong or approved equal.

Provide stainless steel door edge protection at soiled utility room, clean utility room, housekeeping room and equipment storage rooms. Provide stainless steel corner guards at exterior corners not covered by other wall protection.

Doors to be solid core with wood grain plastic laminate or wood stain grade wood veneer. Stainless steel mop plates shall be used as required. Door latches shall accommodate Stanley-Best Coremax X-10 and X-11 series cores. Lever sets shall be Hagar, Archer series or equal, wide handle. Lockset types to be determined during design. Sliding doors shall include heavy duty hardware, commercial grade. Sliding doors shall be “barn door” type and include open assist hardware for accessibility.

Window coverings shall be provided on all windows. Use Mecho-shades or equal.

Outpatient Clinic OI&T SOW

General requirements:

- OI&T key Core on door to telecommunication room
- Dedicated Air Conditioning in telecommunication room
- Minimum room size of 100 sq. ft (10'x10')
- 2-4 (4) inch cores and conduit sleeves above door and inside Telecommunication room. Number of cores based on total number of data drops.
- Need access to building's demark via conduit stub out and pull string on both ends
- Provide and install, 25 Pair tie copper tie cable from the demark to the IDF. If there is more than one IDF, then extend 8 of those pairs to each additional IDF in the building.
- Provide and install, 12 stand SM fiber with LC connectors from demark to the IDF. If there is more than one IDF, provide and install 6 strands of OM4 MM fiber from main IDF to each sub IDF.
- Provide and install, T-bar to wall with cable ladder on building. Contractor provided data relay racks. Minimum 36-inch clearance on both the front and back of the rack.
- (1) regular 20 amp, 110 4 gang outlet networking power connection taken to the IT rack
- (1) regular 20 amp, 110 4 gang outlets provided on same wall as plywood for non-VA equipment
- (1) emergency "red" outlet – bldg. generator back up power or UPS to supply the IT rack
- L5-30 120v 30-amp receptacle preferable on emergency power (if available) taken to the rack
- Wall with fire rated plywood on it for 110 blocks
- Supply & install and ground (2) 19" IT racks, with vertical and horizontal cable management.
  Busbar (earth ground) and grounding wire #6 installed to IT rack
- Cable trays to be installed in all main hallways or alternate location approved by VA.
- All data cable will be CAT 6a

Office of Information and Technology DESIGN AND CONSTRUCTION GUIDANCE (revised 3/8/11)

1. General VA Central California Health Care System

1.1 Codes of Practice

Adherence to the VA Network Cable Specifications by cabling installation contractors is a condition of contract. In the event the cabling installation is sub-contracted by the prime contractor, the prime contractor will supply a copy of these specifications to the sub-contractor. This requirement shall cover all levels of sub-contracting.

Any variations to the issued job specification shall be referred for approval to the Contracting Officer Representative (COR).

Contractors shall install all cable and cabling products with a proven track record for data network cabling installations. Such installations shall also meet all requirements as set out in this specification.

Un-terminated "future capacity" cables are not permitted. All installed cables shall be terminated at each end and documentation, labeling and (where applicable) test results provided. This applies to all permanently installed cable types.

1.2 Documentation

At least two copies of documents describing the data cable installation shall be provided.
A copy to be supplied to the COR for approval

1.3 Network Equipment

COR must approve the installation or removal of network hardware equipment. Non-VA staff shall carry out such work only with prior approval from the COR.

1.4 Network Equipment Environment

Punch down area(s) (location of the data communication rack(s)) will be determined by the building Architect/Engineer and the COR.

Contractor shall supply at minimum 1000BaseT, Category 6a certified rack-mounted modular RJ45 HIGH DENSITY patch panel (24/48 ports) for jacks meeting the ANSI/EIA/TIA t568-B- category 6a standards.

Contractor shall supply at minimum 1000BaseT, Category 6a certified AT&T style 110 blocks for voice requirements meeting the ANSI/EIA/TIA t568-B- category 6a standards. Contractor shall install one full wall of fire-rated plywood for the 110 blocks to be mounted on.

Contractor will supply a minimum of two (2) 19”W x 84”H steel data communication rack. Both racks shall have a grounding wire and bus bar installed to earth ground.

Where network equipment is to be located in a secure room or large closet, the room or closet shall have a dry powder extinguisher, suitable for electrical fires, provided and installed within the room. Air conditioning is required in each IT room. And the OI&T key core should be installed.

2. Unshielded Twisted Pair (UTP) Category 6a *Contractor shall use a Cable color other than White- Preferably Blue*

IEEE 802.3 100BaseT UTP Level 6, 24 AWG plenum rated cable.
Insulation - high-speed data grade.
Sheath - high temperature UL data grade.

2.1 Network Configuration Constraints *Contractor shall use a Cable color other than White *
Each segment comprises a four pair Category 6a cable.
Pin all 8 conductors.
Maximum link length - 90 meters
Maximum channel length - 100 meters
Maximum number of stations per segment - 1.

2.2 Installation Constraints

2.2.1 Installation Standards

Cable and connecting hardware meeting or exceeding the Category 6a specifications shall be used throughout, with pairs terminated according to the T568B wiring scheme.

2.2.2 General Requirements

The cabling system shall include all patch panels, horizontal cables, transition blocks, vertical cabling, modular jacks, system cables, patch cables, cable management, and a

comprehensive labeling system. Cable trays shall be installed in main hallways or as approved by the VA in the place of j-hooks.

2.2.3 Data Outlets

The following information represents a minimum requirement for the number of UTP outlets that shall be installed in each type of workspace.

If the construction at the location of the data outlet is drywall, provide flush-mounted single-gang outlet boxes with four-port base plates and applicable wall device faceplates (cable to be installed behind drywall).

If the construction at the location of the data outlet is a solid wall, provide surface-mounted single-gang outlet boxes with four-port base plates and applicable wall device faceplates (cable to be installed in plastic wall mold equipped with protective insulator or sleeve).

Where modular furniture is used, the location of the data outlet will be in the baseboard of the furniture, where the networked equipment (computers, printers, etc) will be located. Provide flush-mounted single gang outlet boxes with four-port base plates and applicable wall device faceplates. If flush-mounted single-gang outlet boxes cannot be used, then modular surface mount boxes will be used with four-port inserts. All cable runs in modular furniture will be through furniture wire baseboard ducts/conduit.

2.2.4 Horizontal Cabling

The horizontal wiring shall be a star topology connecting each network outlet jack to a jack on a patch panel rack in a communications enclosure/room.

The cable used shall be 4-pair 100-ohm high performance, 24 AWG solid conductor, and unshielded twisted pair cable, meeting or exceeding the Category 6 specification.

2.2.5 Network Outlet and Labeling

Each network outlet faceplate shall incorporate one or more modular, universal RJ45 IDC jack sockets meeting or exceeding the Category 6a specification. Label each jack at this wall device faceplate to correspond with the label on the patch panel jack (N1, N2, etc.). All numbering should be readily visible. Contractor shall coordinate with VA for specific labeling/numbering identification and sequence.

2.2.6 Cable Installation

The cable interconnecting a network outlet to the patch panel shall be one continuous length with no intermediate joins, splices or taps. Each cable runs shall be no longer than 300 feet total in length, from start to finish.

Cable termination onto a horizontal distribution panel or patch panel shall be undertaken in a manner that permits additional cables to be terminated without unduly disturbing previously installed cables.

Each data outlet/device location will have a minimum of (2) cable runs and capability of up to (4). All cables will terminate on high density rack mounted patch panel.

No more than 24 cables shall be cable tied in a bunch.

All cable ties shall be made with Velcro ties.

A 2-meter loop of cable shall be left within or on the approach to each communications room/enclosure to facilitate re-termination of the cable in the future, should this be required. Such cable slack shall be coiled and supported in a neat and practical manner.

A 0.5-meter loop of cable shall be left in the trunking on the approach to each network outlet to facilitate re-termination of the cable in the future, should this be required.

The amount of untwisting in a pair as a result of termination to connecting hardware shall be no greater than 13mm, and less than this if possible.

Cable bend radii shall be no less than eight times the cable diameter or as specified by the cable manufacturer; whichever is the greater.

Precautions shall be observed to eliminate cable stress caused by tension in suspended cable runs and tightly strapped bundles.

Cable bundles shall not rub on, or be unduly compressed against any cable tray, equipment racking, or other cable support.

Cable bundles shall not obstruct the installation and removal of equipment in equipment racks.

Where UTP cables are run parallel with electrical cables the following minimum separation rules shall be observed:

Circuit rating	Unshielded power/data	Shielded power/data
≤ 1 KVA	300mm	25mm

≥ 1 < 2 KVA	450mm	50mm
≥ 2 < 5 KVA	600mm	150mm
5 KVA	1500mm	300mm

Where UTP cables are run in the proximity of electrical motors or transformers the minimum separation shall be 1 meter.

In situations where the above minimum distances cannot be applied due to a lack of available space, data cables shall be enclosed in rigid and/or flexible steel conduit. Conduit shall be bonded to a protective ground at one point in the installation. No steel cabling enclosure medium shall be installed without having continuity to a protective ground.

2.3 Building Cabling

Connecting Maintenance or other local buildings with the Administration Building:

A minimum 25 pair cable underground shielded cable will run to the Main Telecom MPOE.

A 12 pair SM fiber will be installed from each Telecom Room to Server Room or main data room.
The contractor will install LC connectors at both ends of the SM fiber. A minimum of 12 SM strands will be required and must either be installed in conduit and/or installed below the frost line, however, it is highly recommend the cable be installed in orange conduit. All bends will be made with long radius conduit. All associated fiber patch panels shall be installed by the contractor.

Below is a list of hardware that is required for fiber installations. VA will supply the Cisco Catalyst Switch for installation by the contractor on an approval basis. Contact the COR to arrange delivery.

Single-mode	
Cisco Catalyst 3750-48 port	
Cisco Catalyst LX uplink port	
Single-mode Fiber 8.3x125 microns	
LC Connectors	

2.4 Testing

Testing shall be carried out with building electrical services operating (lighting, power, air-conditioning plant and lift services where applicable).

Wiring shall be tested to verify the continuity, integrity and polarity of the cable according to the specified pin and pair grouping assignments.

2.5 Documentation

The contractor shall provide installation documentation at the completion of the cabling system installation.

The contractor shall certify that the cabling system meets the UTP cabling system requirements for Category 6a performance levels.

3. Optical Fiber Cable (Ethernet)

Single-mode Fiber

Core Diameter 7 - 9 microns
Cladding diameter 125 microns
Prim. Acryl. Buffer diameter 250 microns
Proof test not less than 50kpsi.
Numerical aperture 0.11
Attenuation not greater than 0.5dB/Km @ 1310nm. not greater than 0.4dB/Km @ 1550nm.
Termination: All Single-mode terminations shall be made with LC connectors

3.1 Fiber Network Configuration Constraints

Maximum Single-mode segment length – 5 km

3.2 Installation Constraints

Minimum bend radius (during installation)- not less than 20 X outside diameter of cable.

Minimum bend radius (as installed) - not less than 10 X outside diameter of cable or the manufacturer's specification, whichever is the greater.

During installation the pulling force shall not exceed the manufacturer's specified maximum.

Cable slack shall be provided as follows:

Within pits - 2 meters minimum.
At a termination location - 2 meters minimum.
Within a termination enclosure - 0.5 meter minimum.

All fiber cable terminations are to be LC connectors. When using a wall or rack mount enclosure, a patch cord protector shall be included in the installation.

3.3 Testing

100% Insertion Loss (light source and power meter) testing of all terminated fibers shall be performed in both directions at 1310nm for single mode cables.

OTDR tests shall be performed at high wavelength, if the distance is greater than 1000m at 1550nm for single mode cables.

Optical loss covers the total loss between two corresponding optical ports and must include allowances for losses due to fiber, connectors, passive optical components, splices and any margin for maintenance. This loss shall not exceed 5db.

Copies of all test results are to be provided to the COTR on completion of the project.

3.4 Documentation

Documentation of a cable installation shall be comprised of the following:

Cable type
Route followed
Pit locations (where applicable)
Building names
Table of losses for each core

4. 0 In reference to VA Master Specification Section 27 15 00 Communications Horizontal cabling, the following shall be applied to the communications installation:

27 15 00- 24.
e.1 2 Category 6a rj 11 to be installed
f. Provide each rj45 type jacks

27 15 00 -25. h. Fiber Optics. VA Fresno networking equipment does not support ST type – Provide LC terminations on both ends.

27 15 00 -26. 2. SM fiber – Provide LC terminations.

27 15 00 -29. 4.C Fresno no longer uses MM fiber due to the distance limitations. Provide Type SM. VA Fresno networking gear has been refreshed by OI&T in March 2012 for SM fiber uplinks.

27 15 00 -29.5. Fresno purchases our own patch cables – this purchase is unnecessary.

27 15 00 -34.
h.3 Indicates a clause for growth on Category 6 cabling which should be able to give VA Fresno the additional rj45 we require.
h.4 Indicates a clause for distance on MM vs SM which should be able to give Fresno the SM fiber with LC connections we require.

Fiber limitations are identified in 27 15 00-34. h..4 –Provide proof of testing of all fibers to VA Fresno IT.

The Contractor shall supply and install the IT equipment rack into each data room.

Provide the IT department with cable warranty and POC so VA Fresno can route any cable warranty issues directly with them. Industry standards are 10 years on cabling warranty.

Submit Contractor's telecommunications OEM certifications for the installers as mandated by 27 15 00-9 1.4.E.

Under clause 27 15 00-2 E, Contractor shall use cable tray for the horizontal cabling.

5.1 One-PACT CBOC Prototype Proposed Layout

As discussed in Section 2, the One-PACT CBOC Prototype is based on One-PACT module. The module is complemented by other common components, such as Group Rooms and Pathology and Laboratory Medicine, to create a comprehensive care environment. Refer to Section 2 for an explanation of the services included in the prototype and Section 3 for a Prototype Program for Design.

The Entry component design allows for a police presence at the front door of the clinic, coupled with the vestibule and wheel chair storage. The lobby area, known as the Commons, holds combined waiting for the entire clinic. A variety of seating options allows patients choice and flexibility. The Commons is energized by the inclusion of vending and Patient Education space, encouraging movement and interaction, offering more than a typical passive waiting experience.

The Reception component is centrally located, providing two distinct entrances into the PACT area. Its location provides a clear check-in point for patients while affording staff visibility over the activity in the Commons. Kiosks are located near the patients' path from the Entry component to the Reception component, encouraging patient use within reach of both the Reception desk and Volunteer area, should a patient require assistance. This centralized node of the Reception component is immediately adjacent to the clinic waiting areas. This distance provides patients visual and auditory privacy while talking to staff at the desk.

The Group Room component, consisting of a Group Room and Shared Medical Appointment Room, has access directly from the Commons. This allows patients to attend appointments and group sessions without entering the clinic space. Its location lends itself to hosting evening and weekend appointments since it can be accessed from outside of the clinic. The Lab component is also directly accessed via the Commons. Often, patients need access to the Lab without entering the clinic area. These two components benefit from the shared access from the public side and clinic side. Patients can enter the spaces from the Commons and providers can enter from the clinic.

A corridor separates the front bar of components from the PACT components. Upon entering the controlled access points to the PACT area, there is a Heights and Weights alcove that serves all exam rooms in the PACT. Exam, Consult and Procedure components are located in two patient circulation corridors on either side of a centralized PACT + Extended Team Work Area component. Exam and procedure rooms have entrances on two sides, allowing direct access from both the patient corridors and team work area. Refer to Section 4 for more information on the Exam and Consult, Procedure and PACT + Extended Team Work Area components.

The rear corridor of the One-PACT CBOC Prototype is the primary staff and service access. This allows for possible secondary staff entrance points, as well as exterior access to building support spaces.

The One-PACT CBOC Prototype lends itself to expansion. The patient corridor at the front and the staff / support corridor at the rear of the PACT can easily connect to additional components. For an example, refer to Section 7 for a test fit of an actual program, where a General Mental Health component is added, as dictated by local need.

Engineering Assumptions

Electrical / Main Power:
(1) The incoming main power for the building will be from an outdoor, pad mounted transformer. This transformer will be located such that it adheres to AT/FP criteria and guidelines outlined in the Physical Security Design Manual for VA Facilities. (2) Back-up emergency power will be provided for the building via an outdoor, pad mounted generator installed in a weatherproof and soundproof enclosure. This generator will provide back-up power for life safety, critical, and essential electrical loads as required by the VA Electrical Design Manual.

Telecommunications / Security:
(1) Security systems hardware will not be housed inside the telecommunications rooms.

HVAC / Fire Protection / Plumbing:
(1) The mechanical and plumbing systems will follow the Sustainable Design Principles outlined in the VA Sustainable Design and Energy Reduction Manual (April 2010). (2) The mechanical systems will be based on the VA HVAC Design Manual for New, Replacement, Addition, and Renovation of Existing VA Facilities for Hospitals, Clinics (Outpatient and Inpatient), Emergency Care, Ambulatory Care, Animal Research and Holding, Laboratories, Energy Centers, and Warehouses (March 2011). (3) The plumbing systems will be based on the VA Plumbing Design Manual for New Hospitals, Replacement Hospitals, Ambulatory Care, Clinical Additions, Energy Centers, Outpatient Clinics, Animal Research Facilities, and Laboratory Buildings (April

2010). (4) The fire protection systems will be based on the VA Fire Protection Design Manual (Sept 2011).

Electrical

The main electrical room located at the perimeter of the building along the staff / support corridor will house the main switchgear fed from the outdoor pad mounted transformer. The facility is small enough that it will not require any additional electrical rooms, with a maximum branch circuit run is no more than 200 feet. Branch circuit panelboards, both 480Y/277V and 208Y/120V, and step down transformers (480V-208Y/120V) will be installed within the main electrical room.

Telecommunications and Security

The main telecommunications room and Entrance Facility (EF) is located along the perimeter of the building, adjacent to the main electrical room with access from the staff / support corridor. The size of the facility eliminates the need to have multiple telecommunication rooms throughout the building, as cable runs will not exceed 200 feet. Communication racks will be used within this room to serve the entire building along with other equipment as required by the VA Electrical Design Manual, December 2010, Chapter 7: Telecommunication System. The racks needed to accommodate CCTV and security systems hardware will be located in police areas due to security accessibility concerns.

HVAC

The clinic building will be provided with a mechanical space sized to accommodate the Heating, Ventilating, and Air Conditioning (HVAC) systems equipment. The major components of the HVAC systems are assumed to include rooftop air handling units, heating hot water boilers, air-cooled chillers, expansion tanks, air separators, water treatment system, and associated pumps and controls. A mechanical penthouse located at the roof of the clinic building will be utilized to accommodate the hot water boiler equipment. Ductwork from air handling units located on the roof will run through the ceiling spaces for distribution of supply and return air. Exhaust air from clinic spaces will be ducted to exhaust fans located at the roof level. Location of outside air intakes relative to building exhausts, and plumbing vents will require coordination review to adequate separation. In lieu of a roof hatch and ladder system, it is recommended that a stairwell be utilized to allow for easier maintenance accessibility. The penthouse space required to house two boilers sized at 100% of the building heating load, associated pumps, expansion tank, water treatment, domestic water heater, chilled water pumps and all controls for the air cooled chillers is approximately 800 SF.

Plumbing

Space will be provided in the new clinic building for installation of plumbing systems equipment. It is recommended that the building's domestic water backflow preventer assembly be located in a room on the ground floor level where the building water main enters the building. Typically local authorities want the backflow preventer at the building entrance to reduce the possibility of obtaining unmetered water or contamination from an unauthorized connection into the water main upstream of the backflow preventer. In addition, the backflow preventer assemblies have a large pressure drop and it is best to locate them at the entrance where the incoming water pressure is the highest. Ideally, the backflow preventer would be located in a separate room but may also be located in the fire valve room. In addition to the domestic backflow preventer, the plumbing systems will include sanitary drainage piping, rain water drainage piping, domestic cold water piping, water booster pump (where required) water softening/filter equipment (where required), domestic hot water systems including water heaters, expansion tanks, and pumps. It is assumed any medical/dental air and vacuum systems required will be point of use located within the clinic area. Space required for this equipment is estimated at approximately 200 SF. Aside from the backflow preventer, the equipment may be located at the penthouse level.

Fire Protection

The fire protection equipment required to serve the clinic building shall be installed in a separate room located at the perimeter of the ground floor level where the main water supply enters the building. The location of this room may also be subject to the requirements of the local jurisdiction authorities. The room shall contain the main fire protection valves and fire pumps if required. Usually, the use of fire pumps for a single story building is not necessary. However, the need for fire pumps is dependent on the available water pressure at the point of main water entry. Should fire pumps be necessary, the fire protection equipment room must also be accessible directly from the building exterior. If the required building supply water pressure is adequate for the fire suppression system, then fire pumps are not necessary and direct access to the building exterior is not required. The recommended size of this room, regardless of whether a fire pump is required, is approximately 120 SF.

One-PACT Community Based Outpatient Clinic Prototype

Module Overview

Refer to section-4 - planning components + modules for additional information on the outlined areas

Figure 5.1
One-PACT CBOC Prototype
Module Overview

6' 8' 0' 16' 32'

GRAPHIC SCALE: 1/16" = 1'-0"

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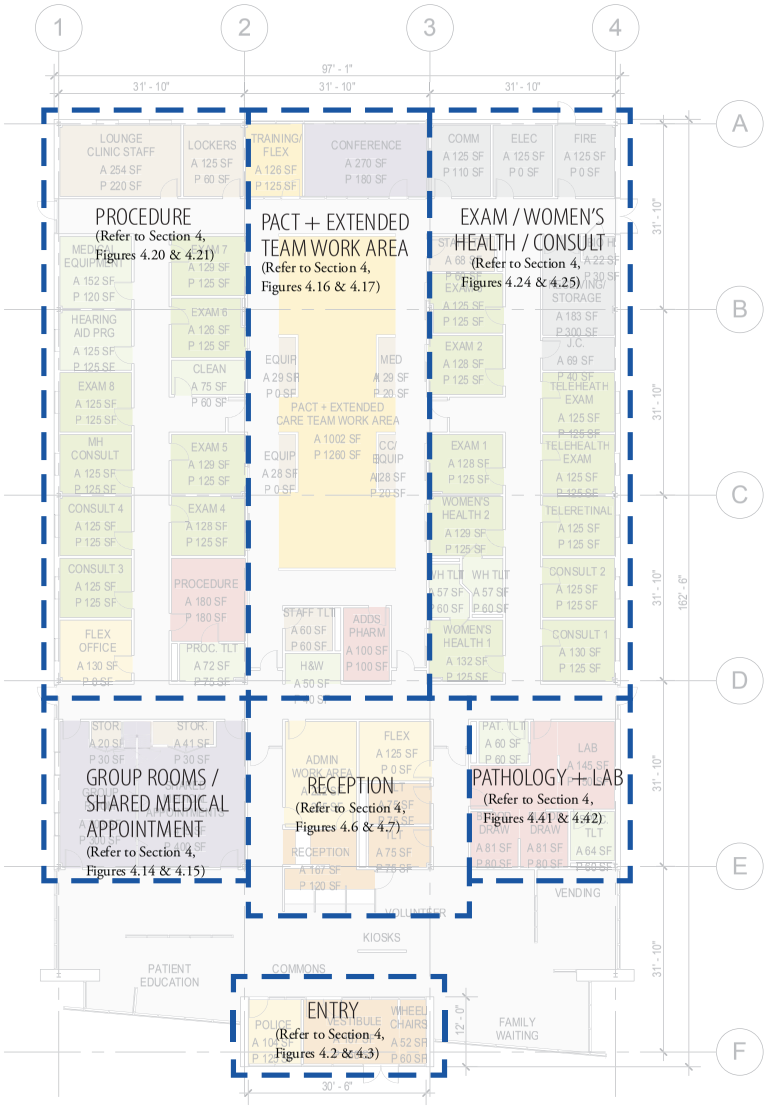
One-PACT Community Based Outpatient Clinic Prototype

Components Overview



Refer to section-4 - planning components + modules for additional information on the outlined areas

Figure 5.2
One-PACT CBOC Prototype
Component Overview

6' 8' 0' 16' 32'

GRAPHIC SCALE: 1/16" = 1'-0"

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One-PACT Community Based Outpatient Clinic Prototype

Plan Overview

LEGEND - FUNCTION

- TEAM WORK AREA
- OFFICES
- STAFF SUPPORT
- CLASSROOM/CONFERENCE
- RECEPTION/WAITING/PUBLIC SPACE
- EXAM/CONSULT ROOMS
- TREATMENT/PROCEDURE ROOMS
- CLINIC SUPPORT
- MECH, ELEC, PLUMB, COMM
- CIRCULATION

Figure 5.3
One-PACT CBOC Prototype

16' 8' 0' 16' 32'

GRAPHIC SCALE: 1/16" = 1'-0"

4.1 Planning Components - Primary Care

Planning Components

The components utilize the universal room size of 125 SF when ever possible to facilitate future clinic flexibility. Each room in the patient zone has a handwashing sink to re-purpose these spaces for alternate functions. For example, a Mental Health Consult room can become an exam room depending on the workload demands of the clinic by simply changing out the furniture and equipment. The components are developed within the 31'-10" by 31'-10" structural bay to optimize the net square footage to departmental gross square footage.

The Components included in this section are:

- Entrance Vestibule with Police & Wheel Chair Alcove
- Reception with enclave, work area and admin office
- Shared Medical Appointment Room & Group Room
- One, Two and Three-PACT + Extended Team Work Room
- Home Based Primary Care (HBPC)
- Exam, Consult and Women's Health Rooms
- Procedure Rooms

Flex Offices are dispersed throughout all of the Prototype layouts and are not provider-specific. Flex offices are not programmed as part of PACT or ASDM and can be utilized for Service Organizations, such as, Veterans Benefits Administration (VBA), Visiting Providers, Spectacle Shop, Storage, etc. Flex offices are typically located along the front public/front bar, but could be located along on the back bar with support spaces depending on the administrative functions of the clinic.

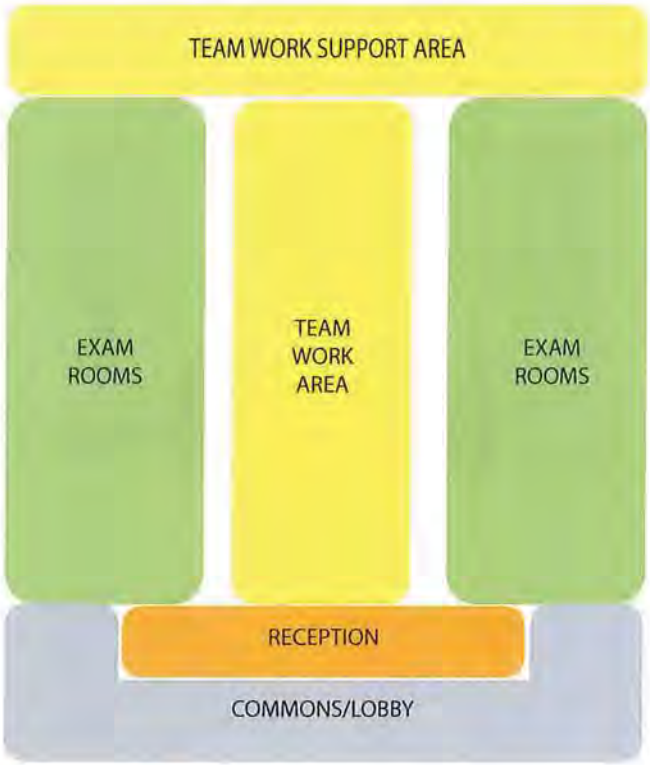


Figure 4.1
Primary Care Module Zones

Primary Care Components
Entry / Police + Security: One-PACT CBOC

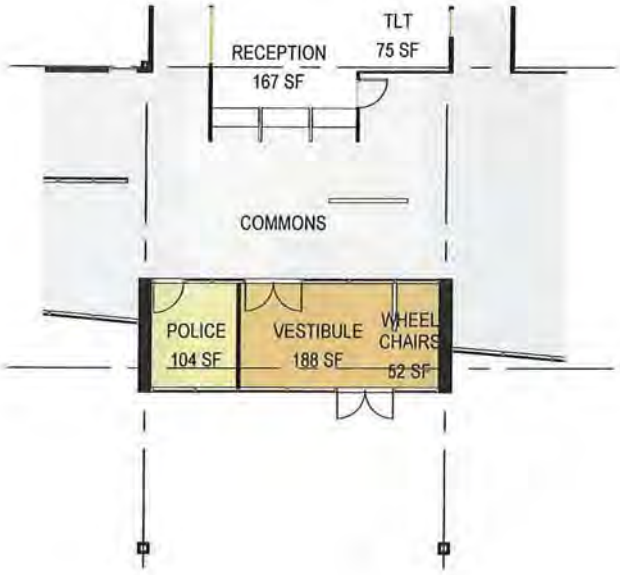


Figure 4.2
Component

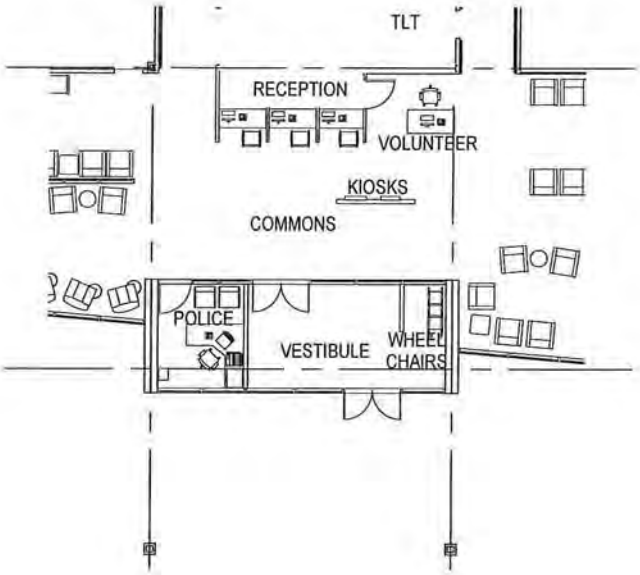


Figure 4.3
Equipment

Entry / Police + Security - One-PACT CBOC

The Entry / Police + Security component is designed to be a universal component that is consistent in all three CBOC Prototypes. The vestibule is flanked by a wheelchair storage alcove and a police office. The purpose of locating the police office in the front of the clinic is two-fold: for patients, its location offers a sense of security and comfort. For staff, its location offers the most visibility into the Commons and also the areas located outside of the clinic such as parking lots and sidewalks. The wheelchair storage alcove is strategically located to be accessible to patients. In some cases, the preference is to access the wheelchair storage from the Commons area to avoid congestion within the vestibule. Its location allows family members to quickly retrieve a wheelchair when accompanying a Veteran patient to their appointment. The vestibule's 12 foot depth meets both the depth requirements of ASHRAE and the minimum walk-off mat length required by LEED. The offset of the vestibule doors also serve as a barrier to prevent a blast of uncomfortable outside air from entering the clinic.

Key Spaces - Entry

- Vestibule
- Wheelchair storage

Key Spaces - Police + Security

- Operations Room (Police Office)

Refer to Section 3 - Prototype Program for Design, for specific programmatic requirements.

Primary Care Components
Reception: One-PACT CBOC

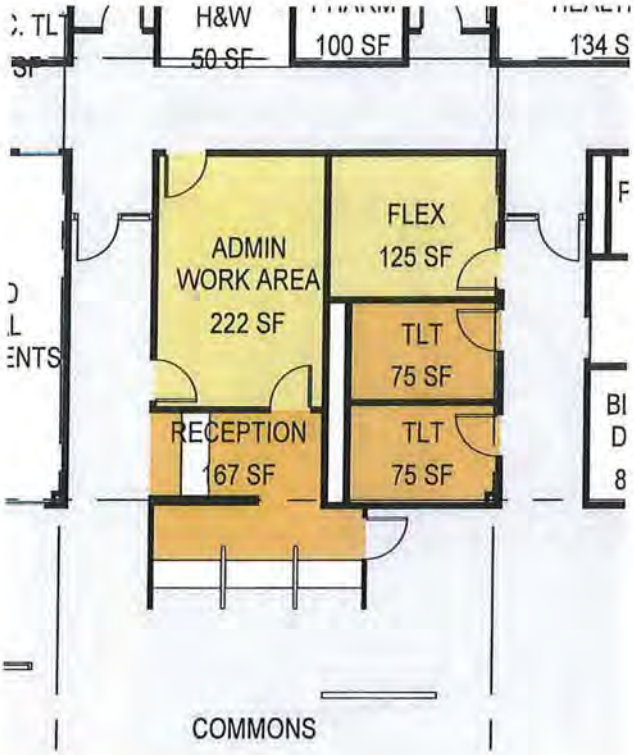


Figure 4.6
Component

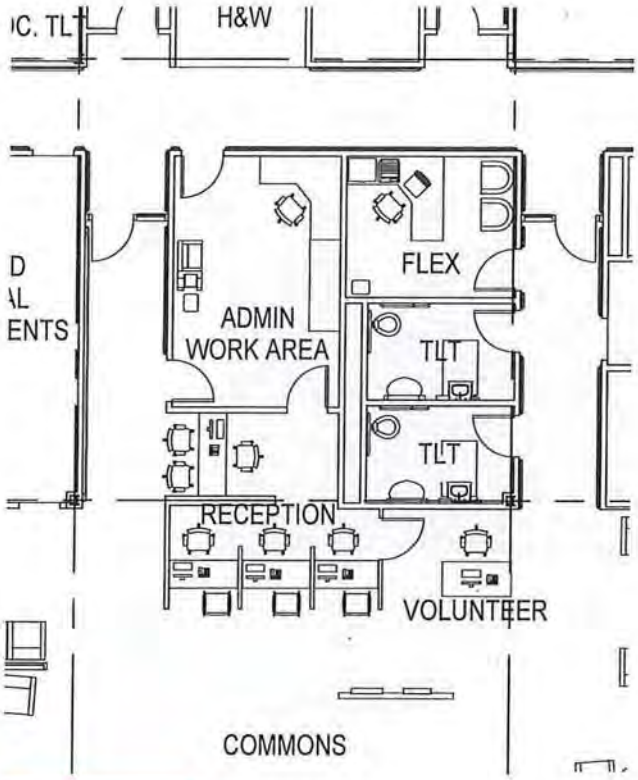


Figure 4.7
Equipment

Reception - One-PACT CBOC

The Reception is centrally located, providing two distinct entrances into the PACT area. Its location provides a clear check-in point for patients entering the facility through the vestibule while affording staff visibility over the activity in the Commons. Kiosks are located in the patients' path from the Entry to Reception, encouraging patient use within visibility of both the Reception desk and Volunteer area, should a patient require assistance. This centralized node of the Reception is immediately adjacent, but not too close to the clinic waiting areas. This distance provides patients visual and auditory privacy while talking to staff at the desk by adding privacy panels at each check-in location. Each check-in counter is approximately 5'-0" to provide space for the patient and an accompanying family member. In a One-PACT CBOC, three check-in locations are provided with an additional counseling alcove off the corridor for surge hours or patients requesting additional privacy for conversations. A single entry way leads to the large, open Admin Work Room for office equipment and can be secured after hours.

Refer to Section 2.4.4 Reception Areas for additional options.

Key Spaces

- Reception
- Admin Work Area
- Admin Office (HAS)

Refer to Section 3 - Prototype Program for Design, for specific programmatic requirements.

PACT Components
Group Rooms / Shared Medical Appts.: All CBOCs

Figure 4.14
Component

Group Rooms - All CBOCs

The Group Room component, consisting of a Group Room and Shared Medical Appointment Room, has access directly from the Commons. This allows patients to attend appointments and group sessions without entering the clinic space proper. Its location lends itself to hosting evening and weekend appointments since it can be accessed from outside of the clinic. The Group Room and Shared Medical Appointment Room can be located adjacent to each other providing the potential for a larger single space through the use of a folding partition. This offers flexibility to host rather larger groups/conferences as needed. Folding partitions will need to meet strict sound attenuation requirements to meet the acoustic privacy necessary for these rooms.

Refer to Section 2.7 Lobby / Commons Area for renderings of the public areas.

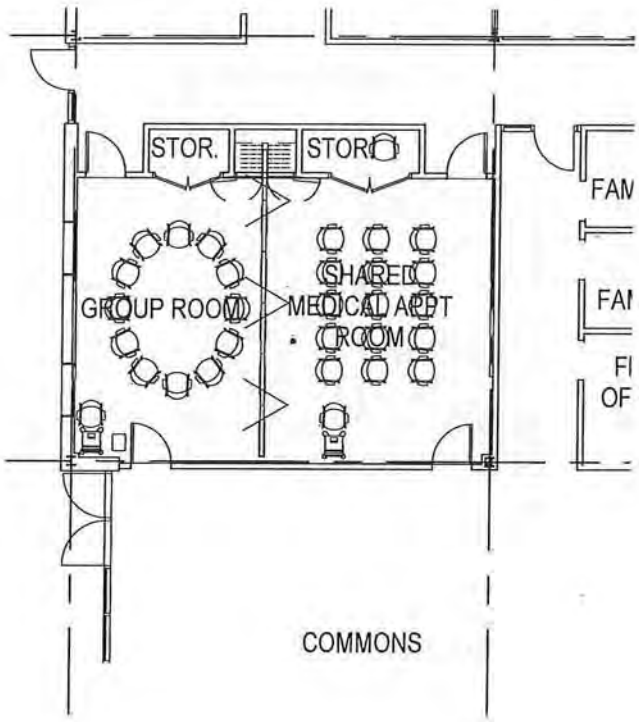


Figure 4.15
Equipment

Key Spaces

- Shared Medical Appointment Room
- Storage, Shared Medical Appointments
- Group Room
- Storage, Group Room

Refer to Section 3 - Prototype Program for Design, for specific programmatic requirements.

Primary Care Components
PACT + Extended Care Team Work Area: One-PACT

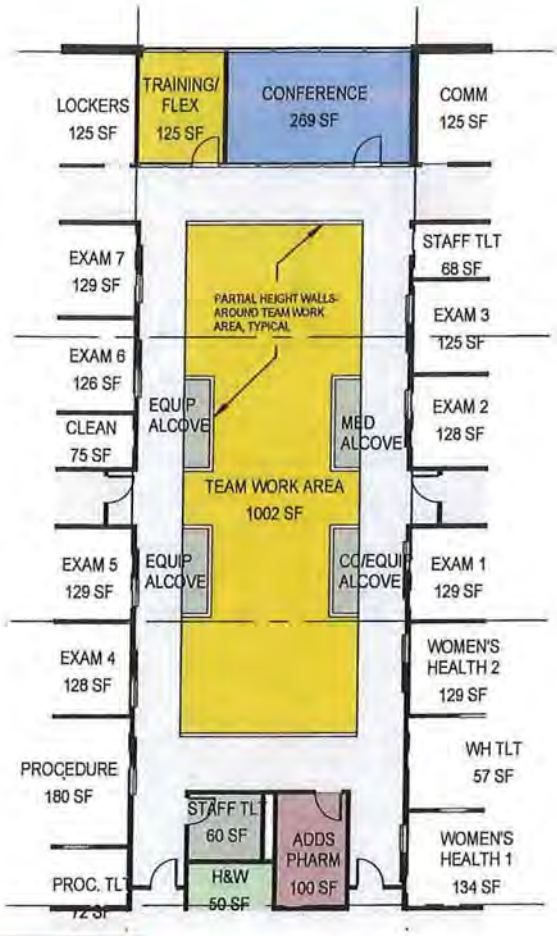


Figure 4.16
Component

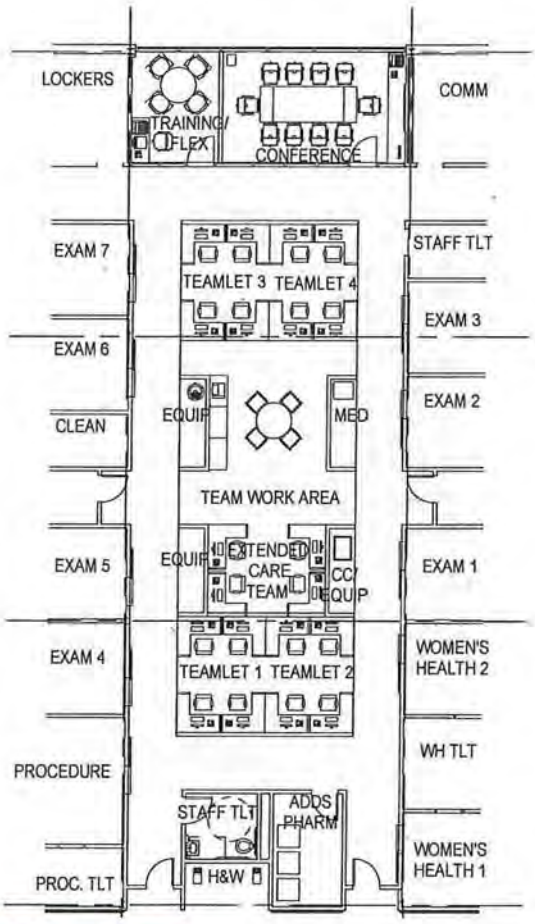


Figure 4.17
Equipment

PACT + Extended Care Team Work Area - One-PACT CBOC

The PACT Work Area has been combined with the Extended Team Work Area to foster the active communication and coordination important to providing integrative healthcare services, a key element in the PACT model of care. The work area includes four work stations for each of the four PACT Teamlets and a minimum of four additional work stations for the Extended Team members. By utilizing the optimum column bay of 31'-10" as described Section 2.3 - Structural Bay Overview, the team work area will also accommodate equipment alcoves, medication alcove, crash cart and support space. The support space includes areas for supplies, and printer/fax/copy. In a One CBOC Prototype, the front of the team work area consists of a ADDS Room, since a Pharmacy is not included.

Refer to Section 2.9, PACT + Extended Care Team Work Areas for additional options.

Key Spaces

- Shared Documentation Area (1 per Teamlet)
- Extended Care Team Area
- Medications Alcove
- Heights + Weights Alcove
- Medical Equipment Alcove
- Conference Room
- Training/Consult Room

Refer to Section 3 - Prototype Program for Design, for specific programmatic requirements.

Primary Care Components
Procedure: One-PACT CBOC

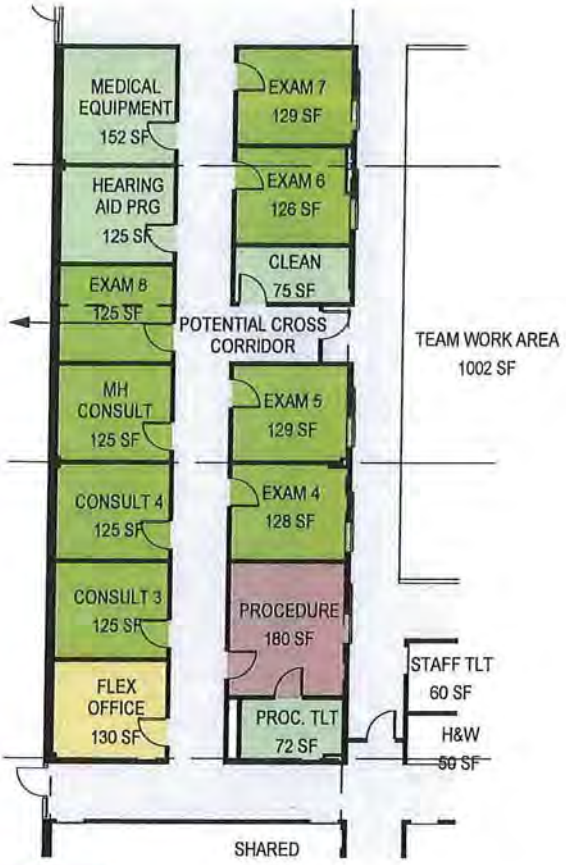


Figure 4.20
Component

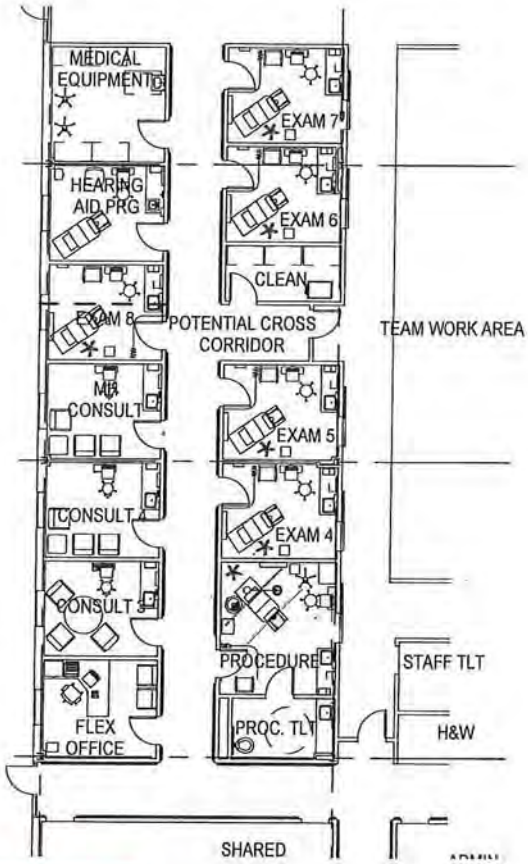


Figure 4.21
Equipment

Procedure - One-PACT CBOC

In the One-PACT CBOC Prototype, one procedure room is dedicated to the PACT module. The Procedure Room is located in the patient zone of the module. As shown, it is located towards the front of the clinic, however, due to the flexibility of the module, the procedure room can shift anywhere along the corridor based on clinic preferences. The procedure rooms are immediately accessed off the team work areas. Support spaces such as clean rooms and medical equipment storage are located within the vicinity of the room. Per criteria, the procedure room also has a dedicated patient toilet that is only accessed from within the room. A sliding door is provided on the staff work area side of the room minimizing door conflicts within the room. A swing door is used on the patient side to allow for handrails along the entire corridor. The procedure room is multi-functional and can also be used for bariatric patients and women's health appointments as needed.

Refer to Section 6.1.4 for Typical Procedure Room Layouts.

Key Spaces

- Procedure Room (1 per PACT Module)
- Dedicated Patient Toilet (1 per PACT Module)

Refer to Section 3 - Prototype Program for Design, for specific programmatic requirements.

Primary Care Components
Exam, Consult and Women's Health: All CBOCs

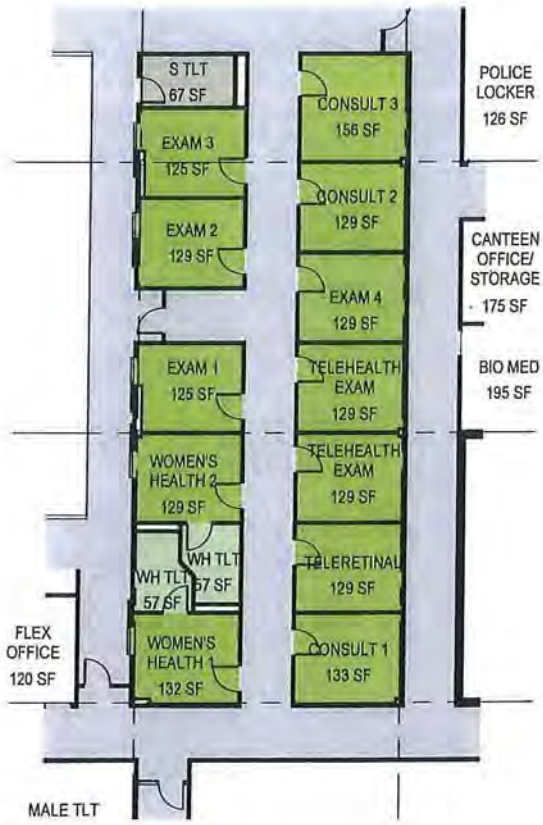


Figure 4.24
Component

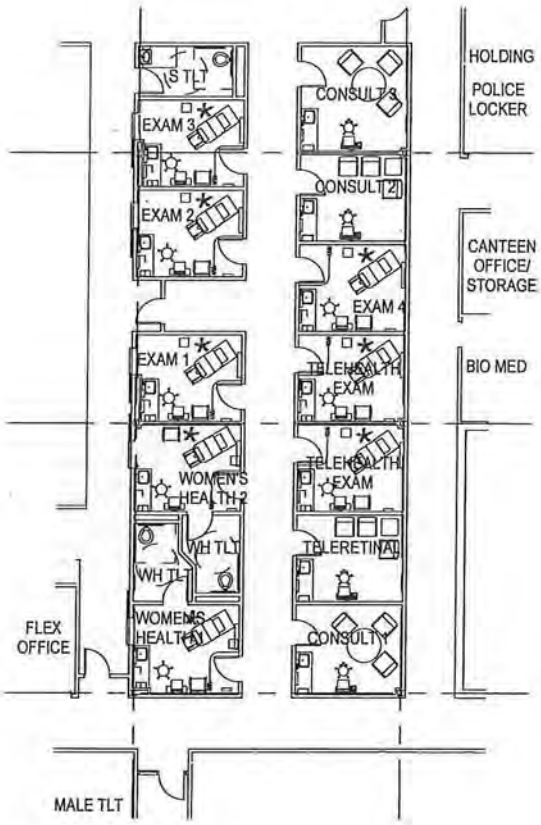


Figure 4.25
Equipment

Exam + Consult - All CBOC Prototypes

The patient zone of the PACT module is identified for Exam, Consult and Women's Health Rooms. On the patient corridor, the room is entered through a swing door while on team work area side staff enter through a sliding/barn door. Women's health rooms are clustered together towards the front of the clinic. Like the Procedure Room, the Women's Health Room can easily shift any where along the corridor depending on clinic preference. In cases where there is a larger population of female Veterans, multiple Women's Health rooms can be clustered at the front of the patient zone with a dedicated women's entrance for a Small Women's Clinic. Women's Health rooms do not have to be used solely for female patient encounters. Consult rooms and tele-health rooms have a single entry point off the patient corridor. All rooms in this zone are designed to be universal rooms at 125 SF.

Refer to Section 6.1.1 and 6.1.2 for Typical Exam Room and Women's Health Exam Room Layouts.

Key Spaces

- Exam Rooms
- Consult Rooms
- Women's Health Rooms
- Patient Toilets

Refer to Section 3 - Prototype Program for Design, for specific programmatic requirements.

Ancillary Services Diagnostic Components
Pathology + Lab: One-PACT CBOC Prototype

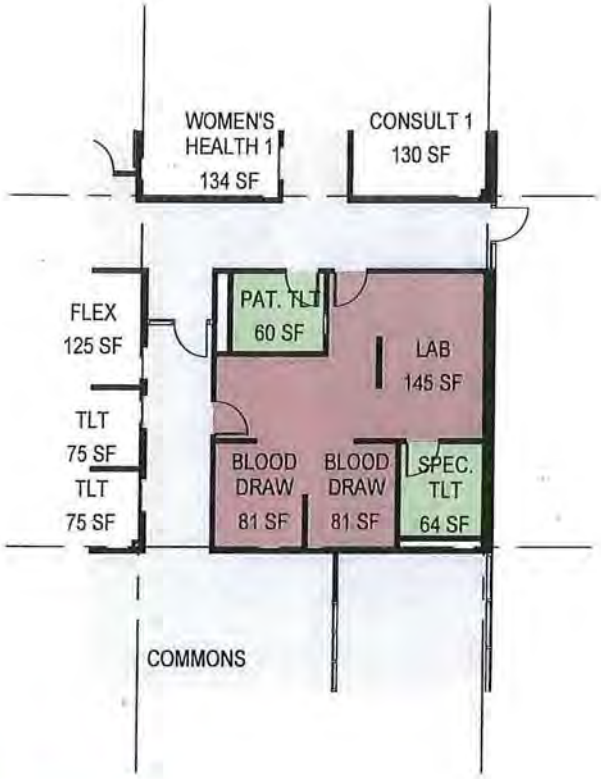


Figure 4.41
Component

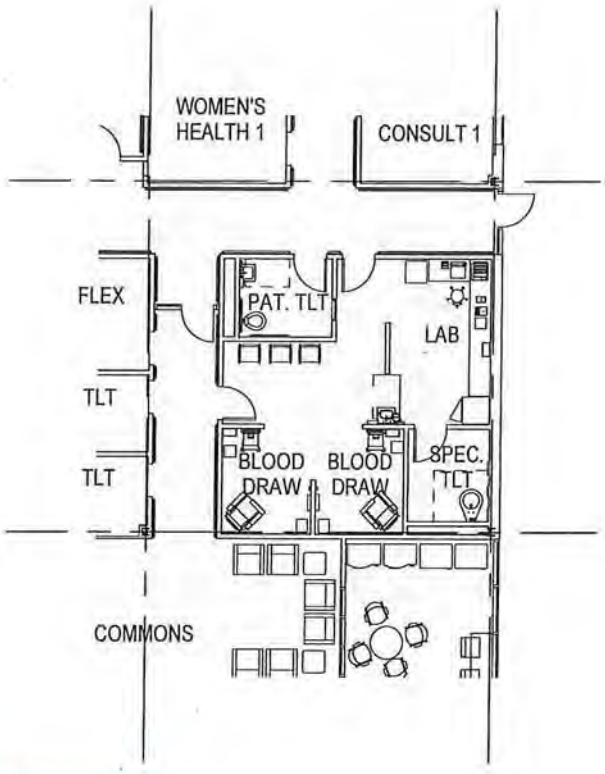


Figure 4.42
Equipment

Pathology + Lab - One-PACT CBOC

The Pathology + Lab One-PACT CBOC component is located along the front public/private bar of the clinic for ease of entrance from both the public Commons area and PACT module. Its location along the front bar provides convenient patient access, especially for those patients visiting the CBOC for lab appointments only. There is an open lab area and semi-private blood draw stations. Allowances have been made for bariatric patients and patients in wheelchairs. There are two unisex patient toilets; one for specimen collection with the handwashing sink located outside the door, for drug testing situations; the other along the clinic corridor with a specimen pass-thru. A secondary entrance into the main lab space off the clinic corridor minimizes staff travel distances, providing quick access to fainting patients without having to exit the PACT module.

Refer to Section 2.5 - Typical Patient/Staff Flow for additional diagrams.

Key Spaces

- Blood Draw
- Lab
- Toilet, Specimen Collection
- Shared Spaces:
  - Reception
  - Public Toilets

Refer to Section 3 - Prototype Program for Design, for specific programmatic requirements.

6.1.1 Typical Rooms Prototype Exam Room

The Typical Exam Room has been refined during the course of this project, following several basic principles. Patient encounter rooms should have two doors whenever possible; patient privacy is to be maintained; patient encounter rooms are to be arranged as right handed rooms, with the computer station to the right as the care provider enters the room; and the room should not be cluttered with equipment deemed not necessary.

Figure 6.1 and 6.2 both illustrate a typical exam room. The only difference is the relationship between staff and patient doors. Figure 6.1 is the preferred option, with the two doors placed diagonally, and is the base used to develop the other exam rooms and orientation of the universal room. A swing door is shown off the patient corridor with a reverse swing for patient privacy. Additionally the door allows for a handrail to be installed along the patient corridor. A sliding door is provided from the staff corridor to maximize clear floor space and ease of moving carts and equipment into the exam space. A reverse swinging door is shown as an alternative to the slider. Refer to the Project Room Contents Report for an itemized list.

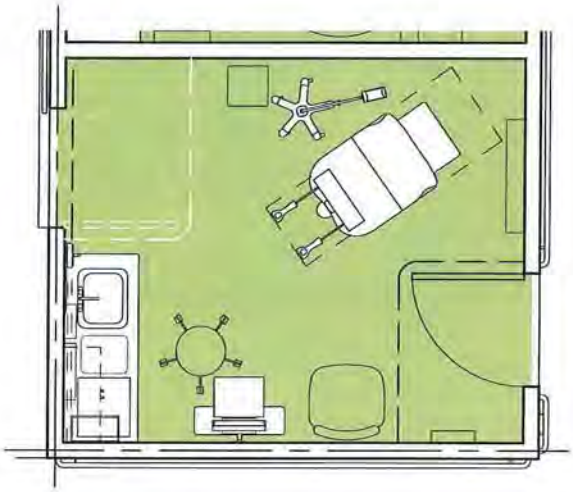


Figure 6.1
Preferred Exam Room Layout

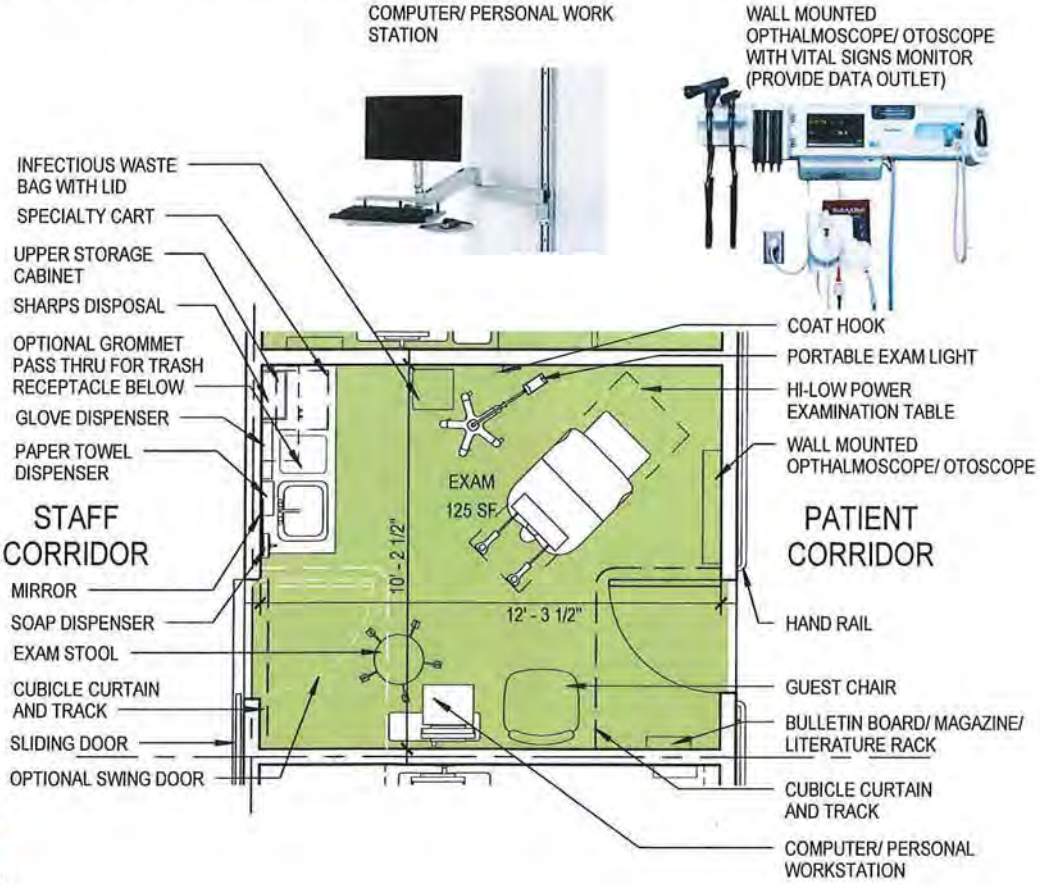


Figure 6.2
Alternate Exam Room Layout

6.1.2 Typical Rooms Prototype Women's Health Room

The Women's Health Exam Room equipment list and layout is illustrated below. It is designed to be the same as the typical exam room with the doors placed diagonally allowing it to flex as necessary. The required patient toilet rooms are nested between the two women's health rooms and occupy the same foot print as a single exam room. This allows this small component to easily be placed along the column grid within any bank of universal rooms.

Refer to the Project Room Contents Report for an itemized list.

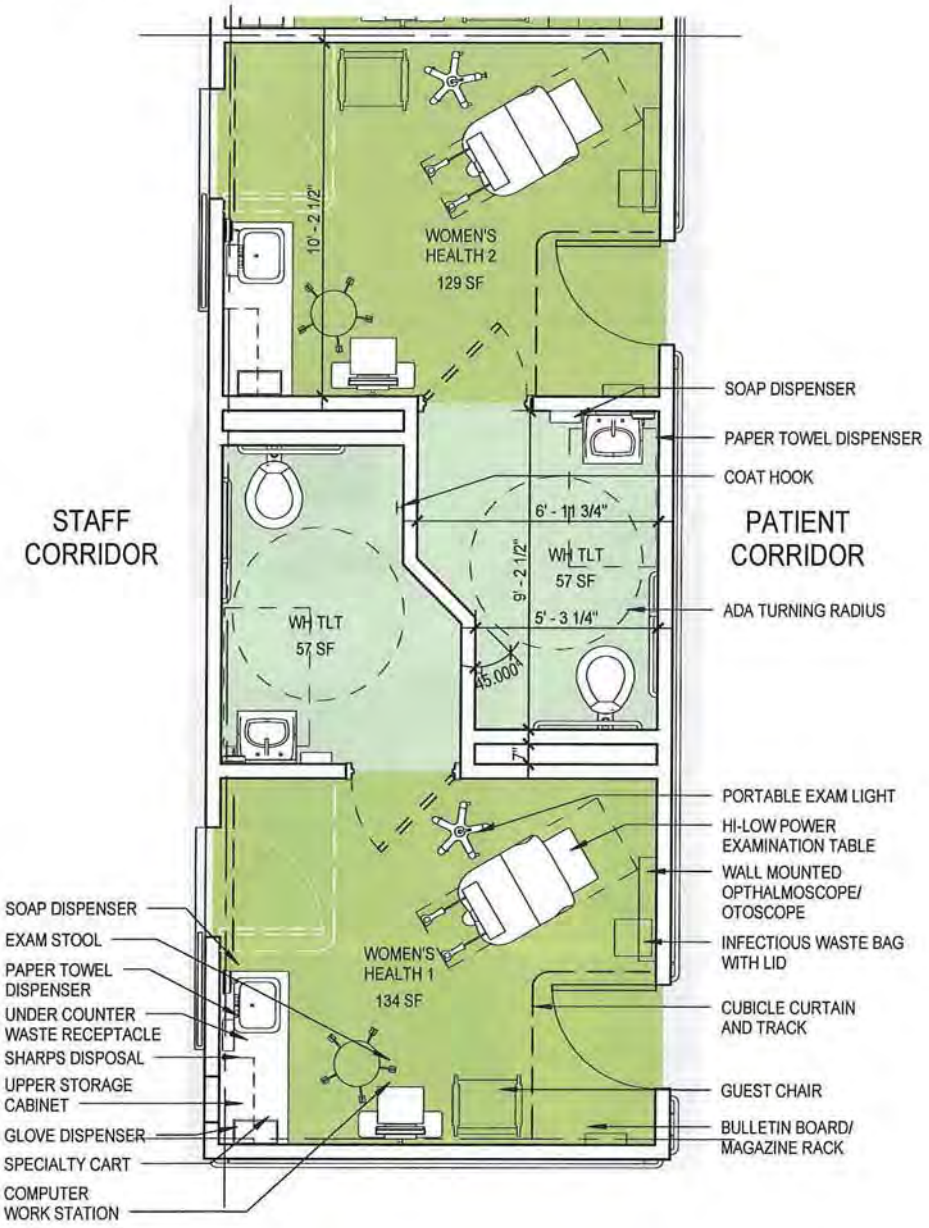


Figure 6.6
Typical Women's Health Room Layout

6.1.3 Typical Rooms Prototype Procedure Room

The Procedure Room Equipment List and Layout are illustrated below. Similar to the typical exam room, the procedure room is designed as a right-handed room with doors placed diagonally across from each other. It does include a patient lift which facilitates this space being utilized as a bariatric exam room. The procedure room can also be utilized as a women's health exam room since it includes the adjacent toilet.

Designed within the modular grid, the procedure room with attached toilet are the same dimension as two universal rooms. This allows the room to be located anywhere along the exam and consult corridors, for maximum flexibility.

Refer to the Project Room Contents Report for an itemized list.

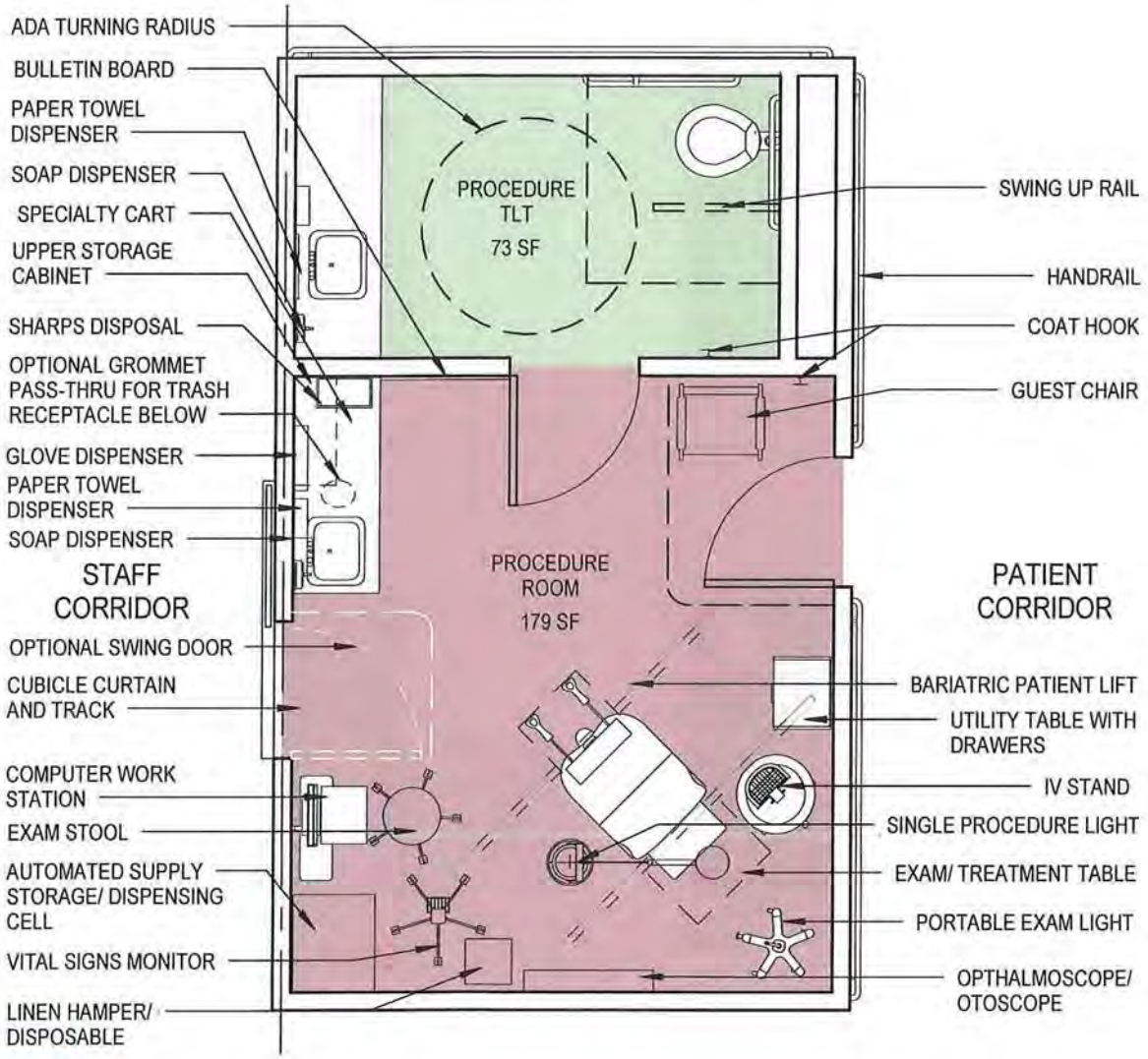


Figure 6.7
Typical Procedure Room Layout

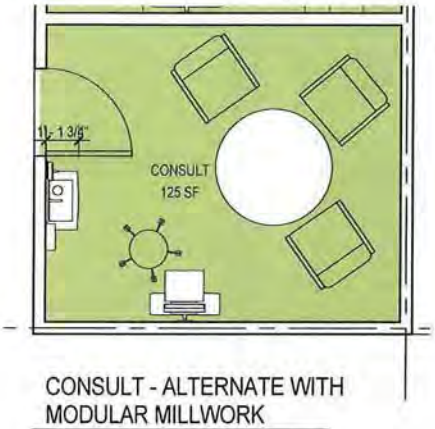
6.1.5 Typical Rooms Prototype Consult Room

The Consult Room Equipment List and Layout are illustrated below. The consult room is designed as a universal room. The entrance door, sink and computer station are located in the same location as the right-handed exam room. This allows for future flexibility.

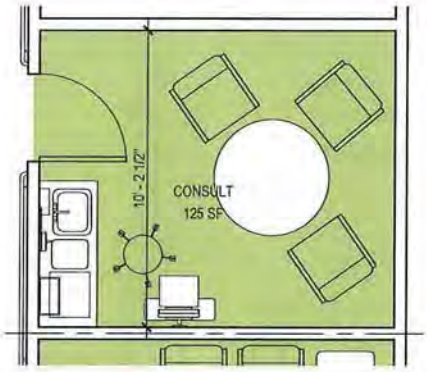
The room equipment supports patient encounters of a conversational nature. Comfortable chairs are provided for Veterans and family members, and the computer station rotates, so the provider does not turn his/her back to the patient while using the computer. This room can also be utilized for private staff conversations inappropriate for the team work area.

Refer to the Project Room Contents Report for an itemized list.

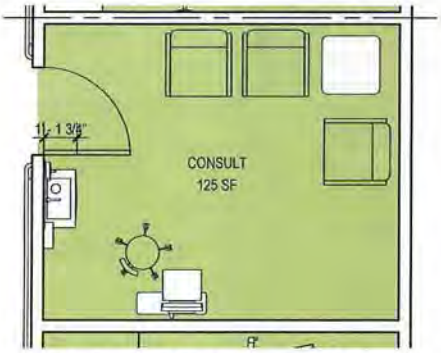
PLEASE CONFIRM WHICH CONSULT ROOM LAYOUT IS DESIRED



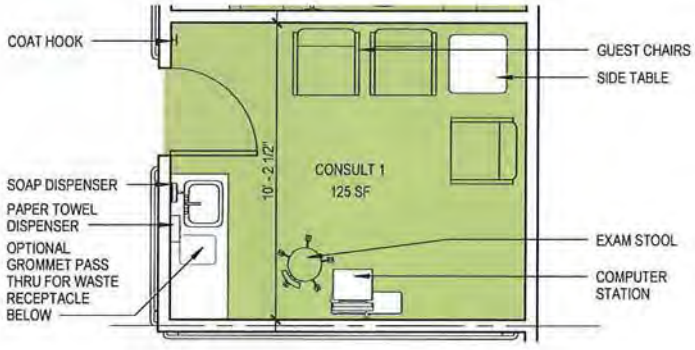
CONSULT - ALTERNATE WITH MODULAR MILLWORK



CONSULT - ALTERNATE



CONSULT - TYPICAL WITH MODULAR MILLWORK

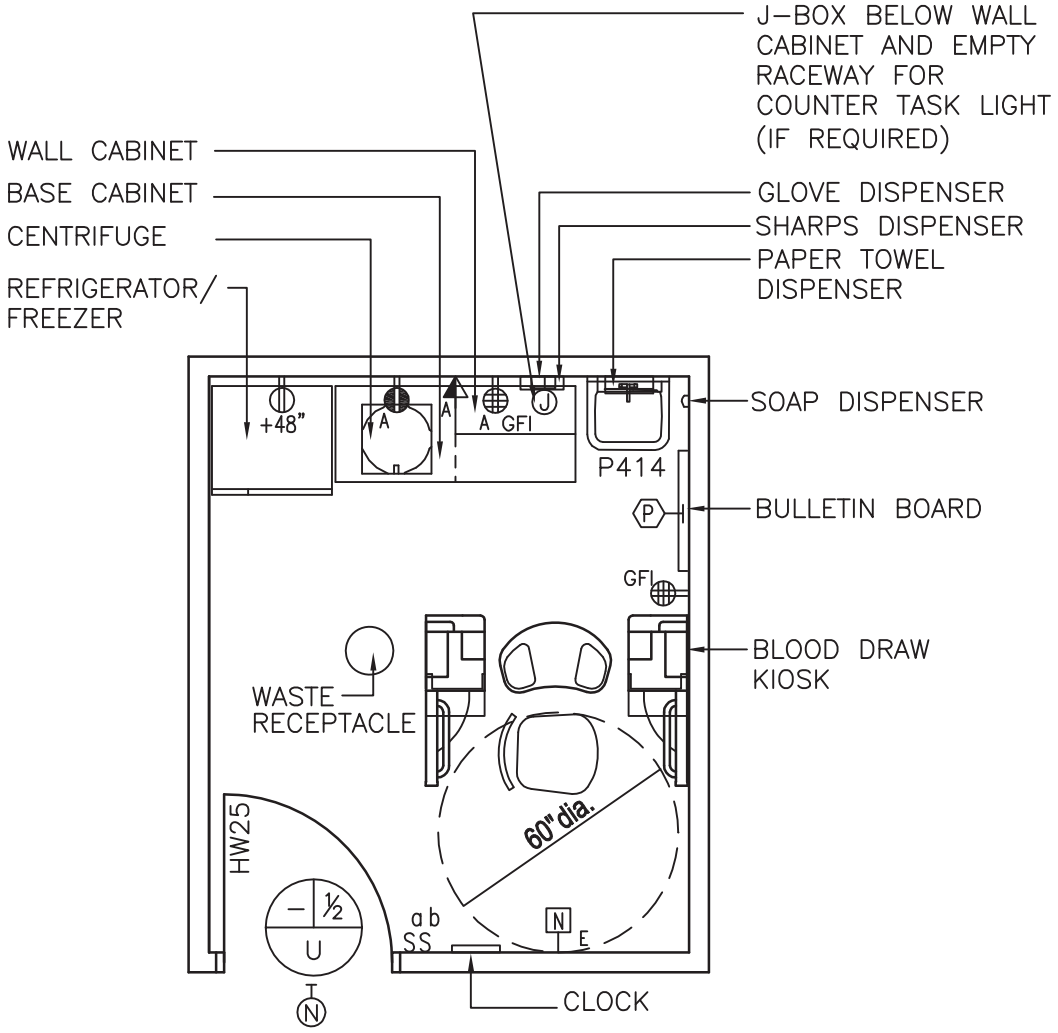


CONSULT - TYPICAL

Figure 6.8
Typical Consult Room and Alternate Layouts

Blood Draw (LBVP1)

Floor Plan



120 NSF/ 11.2 NSM (SHOWN ABOVE)

ONCOLOGY LAB SIMILAR REDUCE TO 80 NSF/ 7.4 NSM

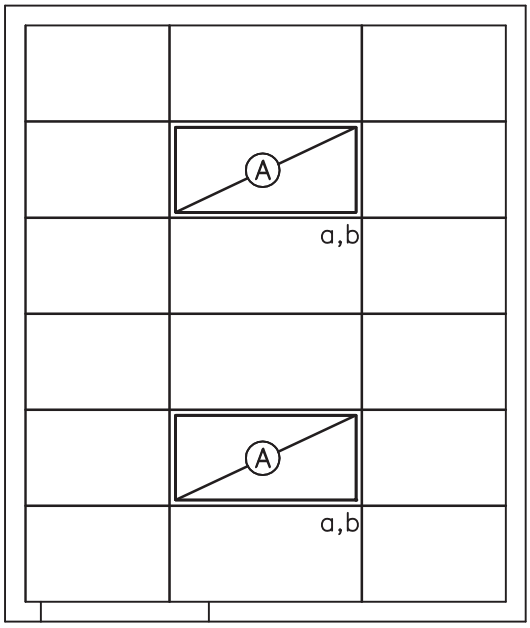
SCALE $\frac{1}{4}$" = 1'-0"

M 2 1 0 1 2 4Ft

NOTE: Guide plates are graphical representations of selected room types, illustrating the integration of space, components, systems, and equipment. They provide typical configurations and general technical guidance, and are not intended to be project specific. Specific infrastructure design requirements are contained in VA Design Manuals and Space Planning Criteria located in the VA Technical Information Library.

Blood Draw (LBVP1)

Reflected Ceiling Plan



120 NSF/ 11.2 NSM (SHOWN ABOVE)

ONCOLOGY LAB SIMILAR REDUCE TO 80 NSF/ 7.4 NSM

SCALE $\frac{1}{4}$" = 1'-0"

M 2 1 0 1 2 4Ft

NOTE: Guide plates are graphical representations of selected room types, illustrating the integration of space, components, systems, and equipment. They provide typical configurations and general technical guidance, and are not intended to be project specific. Specific infrastructure design requirements are contained in VA Design Manuals and Space Planning Criteria located in the VA Technical Information Library.

Blood Draw (LBVP1)

Design Standards

ARCHITECTURAL

Ceiling:	AT
Ceiling Height:	9'-0" (2700 mm)
Wall Finish:	GWB-P
Wainscot:	--
Base:	RB
Floor Finish:	VCT
Slab Depression:	--
Sound Protection:	STC 40
Notes:	--

SPECIAL EQUIPMENT

--

LIGHTING

General: --

Special: --

Notes:
1) 2' x 4' (600 mm x 1200 mm) recessed fluorescent light fixture, acrylic prismatic lens, w/ F32T8 lamps, 3500˚K, CRI=70 (minimum).
2) The foot-candle level is average maintained.
3) Provide ballasts per fixture for desired switching configuration. To provide a uniform lighting level, switch inner lamp(s) on first switch and outer lamps on second switch.
4) Exact quantity, location, and lamping of light fixtures shall be chosen to meet the foot-candle requirement.
5) Fluorescent nurse call light.
6) Fixture description for alternate 80 NSF room is the same as described in Note 1 above. Orient two fixtures at 90° to layout for 120 NSF room. Reduce fixture wattage to approximately 65% that required for 120 NSF room.

POWER

General:	As Shown
Emergency:	As Shown
Notes:	--

COMMUNICATION/SPECIAL SYSTEMS

Data:	Yes
Telephone:	Yes
Intercom:	--
Nurse Call:	Yes
Public Address:	--
Radio/Entertainment:	--
MATV:	--
CCTV:	--
MID:	--
Security/Duress:	Yes
VTEL:	--
VA Satellite TV:	--
Notes:	--

HEATING, VENTILATING AND AIR CONDITIONING

Inside Design Conditions:	70°F (21°C) to 75°F (24°C) Dry-Bulb Temperature 30 Percent to 50 Percent Relative Humidity
Minimum Air Changes per Hour:	6
100% Exhaust:	No
100% Outside Air:	No
Room Air Balance:	Neutral (0)
Dedicated Exhaust System:	No
Occupancy:	2
AC Load-(Equipment):	As Required
AC Load-(Light):	As Required

Notes: 1) Year around conditions.

PLUMBING AND MEDICAL GASES

Cold Water:	Yes
Hot Water:	Yes
Laboratory Air:	--
Laboratory Vacuum:	--
Sanitary Drain:	Yes
Reagent Grade Water:	--
Medical Air:	--
Medical Vacuum:	--
Oxygen:	--
Notes:	--

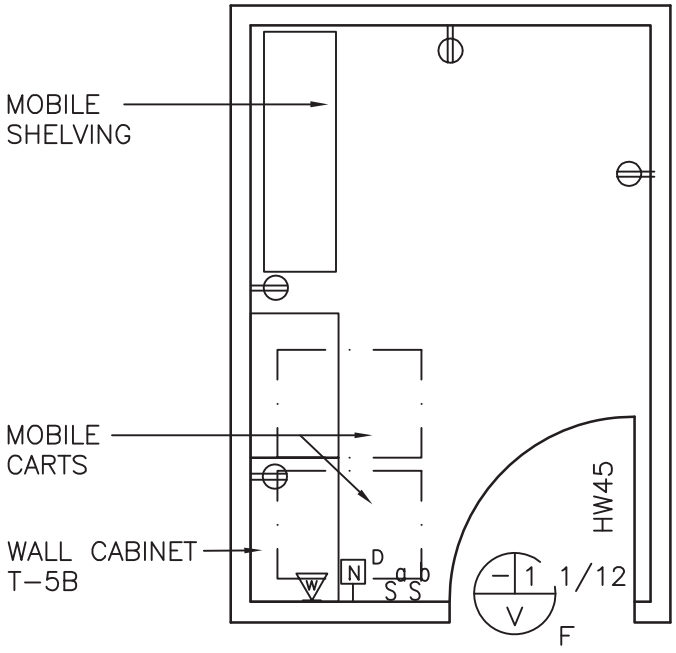
Blood Draw (LBVP1)

Equipment List

JSN	SYMBOL	QTY	AI	DESCRIPTION
CT030	Top 10A	1	CC	Counter top, high pressure plastic laminate, decorative, over plywood or particle board core, 1-1/4" (25 mm) thick (PG-18-1, MCS 12 36 00)
C03F0	VL4	1	CC	Cabinet, under counter, with 2 drawers, 2 hinged doors and 1 adjustable shelf, 30" x 22" x 31" (750 mm x 550 mm x 775 mm) for floor mounted add, 5" (125 mm) toe base (PG-18-1 , MCS 12 31 00, 12 32 00)
	VL5	1	CC	Cabinet, under counter, with 4 drawers, 1 hinged door and 2 adjustable shelves, 30" x 22" x 31" (750 mm x 550 mm x 775 mm) for floor mounted add, 5" (125 mm) toe base (PG-18-1; MCS 12 31 00, 12 32 00)
CE040	VL25	1	CC	Cabinet, wall, with sloping top, 2 glazed sliding doors and 2 adjustable shelves, 30" x 13" x 30" (750 mm x 325 mm x 750 mm) (PG-18-1, MCS 12 31 00, 12 32 00)
P3100	P-414	1	CC	Lavatory, straight back (PG-18-1, MCS 22 40 00)
A1010		1	CC	Outlet, telephone/data, wall mounted (PG-18-1, MCS 27 15 00)
		AR	CC	Receptacle, electrical, quadruplex, ground fault interrupter (PG-18-1, MCS 26 27 26)
		AR	CC	Receptacle, electrical, duplex (PG-18-1, MCS 26 27 26)
		1	CC	Nurse call, emergency station with corridor signal light (PG-18-1, MCS 27 52 23)
		1	CC	Alarm button, security/duress (PG-18-1, MCS 27 52 31)
A5075		1	VV	Dispenser, soap, liquid, wall mounted
A5080		1	VV	Dispenser, paper towel, surface mounted
F2017		1	VV	Receptacle, waste, step on type, approx. 12" (300 mm) diameter
M1410		1	VV	Kiosk, blood draw or chair, laboratory, blood drawing with storage
F3010 or F3025		1	VV	Bulletin board, 30" x 42" (750 mm x 1050 mm) Note: F3010 is 48" x 48" (1200 mm x 1200 mm) and F3025 is wood frame.
R7250		1	VV	Refrigerator/freezer, 120 volt, domestic, approx. 31" x 28" x 66" (775 mm x 700 mm x 1650 mm)
L1350		1	VV	Centrifuge, non-refrigerated, bench model, 120 volt, approx. 19" H x 16" W x 19" D (480 mm H x 400 mm W x 480 mm D)
F3200		1	VV	Clock, atomic, battery operated
A5106		1	VV	Sharps container/glove dispenser

Clean Utility Room (UCCL1)

Floor Plan



Minimum: 100 NSF/ 9.4 NSM

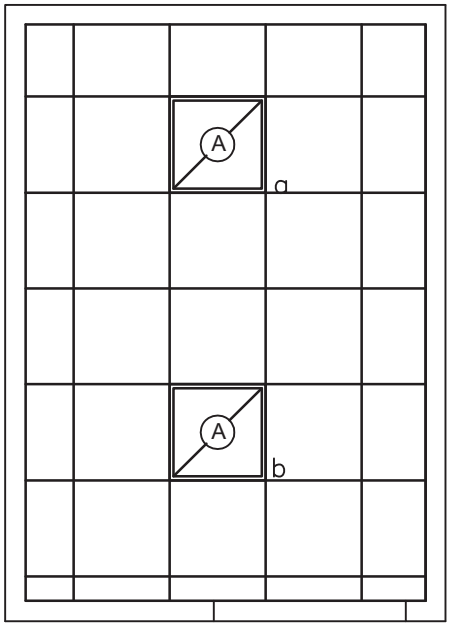
SCALE $\frac{1}{4}$" = 1'-0"

M 2 1 0 1 2 4Ft

NOTE: Guide plates are graphical representations of selected room types, illustrating the integration of space, components, systems, and equipment. They provide typical configurations and general technical guidance, and are not intended to be project specific. Specific infrastructure design requirements are contained in VA Design Manuals and Space Planning Criteria located in the VA Technical Information Library.

Clean Utility Room (UCCL1)

Reflected Ceiling Plan



Minimum: 100 NSF/ 9.4 NSM

SCALE $\frac{1}{4}$" = 1'-0"

M 2 1 0 1 2 4Ft

NOTE: Guide plates are graphical representations of selected room types, illustrating the integration of space, components, systems, and equipment. They provide typical configurations and general technical guidance, and are not intended to be project specific. Specific infrastructure design requirements are contained in VA Design Manuals and Space Planning Criteria located in the VA Technical Information Library.

Clean Utility Room (UCCL1)

Design Standards

ARCHITECTURAL

Ceiling:	AT (SP)
Ceiling Height:	9’-0” (2700 mm)
Wall Finish:	GWB (SC)
Wainscot:	--
Base:	RB
Floor Finish:	VCT
Slab Depression:	--
Sound Protection:	--
Notes:	--

SPECIAL EQUIPMENT

--

LIGHTING

General: --

Special: --

Notes:
1) Recessed 2’ x 2’ (600 mm x 600 mm) fluorescent light fixture with acrylic prismatic lens, T8 lamps, 3500˚K, CRI=70 (minimum).
2) The foot-candle level is average maintained.
3) Provide ballasts per fixture for desired switching configuration. To provide a uniform lighting level, switch inner lamp(s) on first switch and outer lamps on second switch.
4) Exact quantity, location, and lamping of light fixtures shall be chosen to meet the foot-candle requirement.

POWER

General:	As Shown
Emergency:	As Shown
Notes:	--

COMMUNICATION/SPECIAL SYSTEMS

Data:	--
Telephone:	Yes
Intercom:	--
Nurse Call:	Yes
Public Address:	--
Radio/Entertainment:	--
MATV:	--
CCTV:	--
MID:	--
Security/Duress:	--
VTEL:	--
VA Satellite TV:	--
Notes:	--

HEATING, VENTILATING AND AIR CONDITIONING

Inside Design Conditions:	70°F (21°C) to 75°F (24°C) Dry-Bulb Temperature 30 Percent to 50 Percent Relative Humidity
Minimum Air Changes per Hour:	4
100% Exhaust:	No
100% Outside Air:	No
Room Air Balance:	Positive (+)
Dedicated Exhaust System:	Not Required
Occupancy:	Not Applicable
AC Load-(Equipment):	As Required
AC Load-(Light):	As Required
Notes:	--

PLUMBING AND MEDICAL GASES

Cold Water:	Yes
Hot Water:	Yes
Laboratory Air:	--
Laboratory Vacuum:	--
Sanitary Drain:	Yes
Reagent Grade Water:	--
Medical Air:	--
Medical Vacuum:	--
Oxygen:	--
Notes:	--

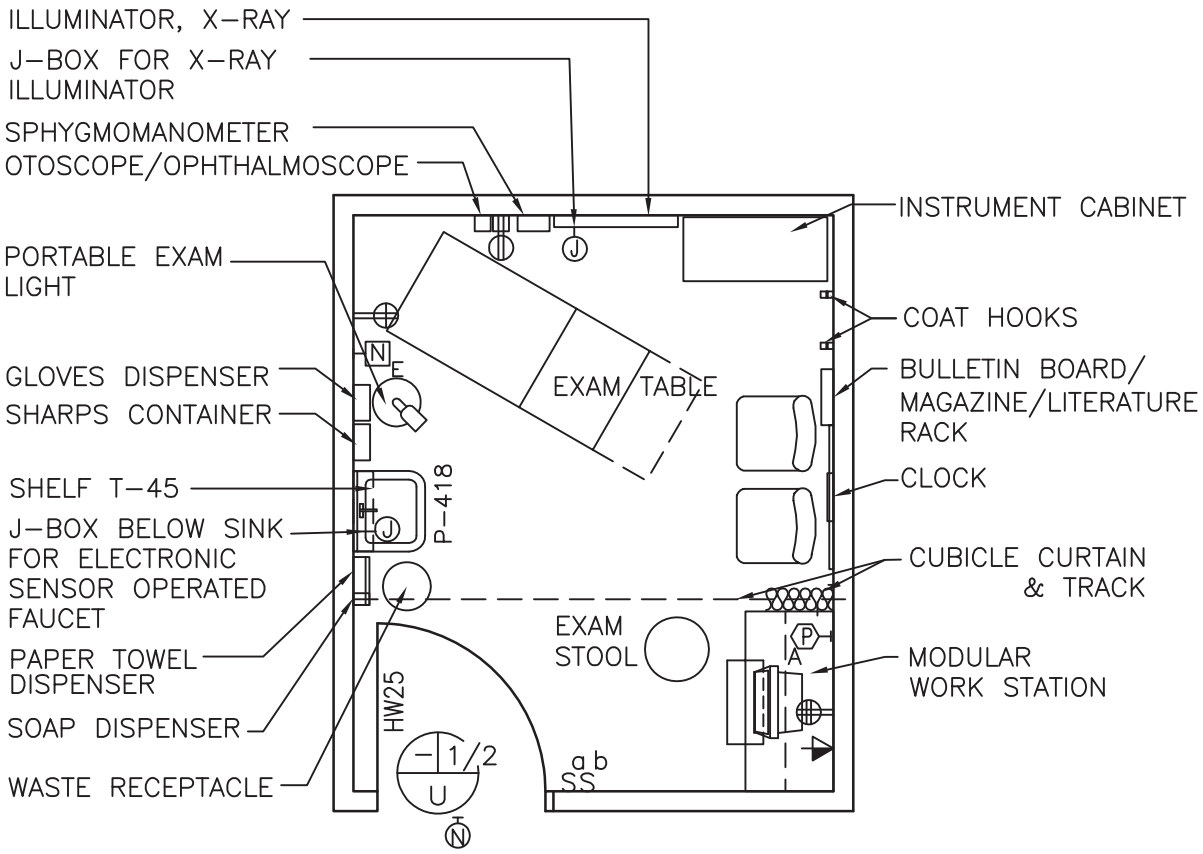
Clean Utility Room (UCCL1)

Equipment List

JSN	SYMBOL	QTY	AI	DESCRIPTION
CD040	T-5B	AR	CC	Cabinet, wall, with sloping top, 2 hinged doors and 2 adjustable shelves, 36” x 22” x 42” (900 mm x 550 mm x 1050 mm) (PG-18-1, MCS 12 31 00)
		AR	CC	Receptacle, electrical, duplex, 120 volt (PG-18-1, MCS 26 27 26)
A1010		AR	CC	Outlet, telephone, wall mounted (PG-18-1, MCS 27 15 00)
		1	CC	Nurse call duty station (PG-18-1, MCS 27 52 23)
M2050		AR	VV	Shelving, storage, mobile, steel, rod shelf, open style with 5 adjustable shelves
E0945		AR	VV	Cart, mobile with adjustable shelves, 27” x 36” x 38” (675 mm x 900 mm x 950 mm)

Exam Room (Multi-Purpose) (EXRG3)

Floor Plan



120 NSF/ 11.2 NSM (Shown above)
Audiology similar: 150 NSF/ 13.9 NSM

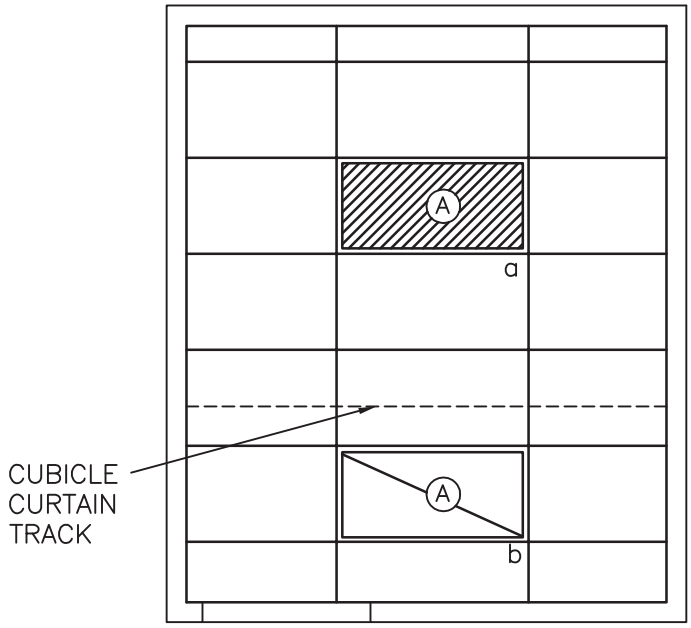
SCALE $\frac{1}{4}$" = 1'-0"

M 2 1 0 1 2 4Ft

NOTE: Guide plates are graphical representations of selected room types, illustrating the integration of space, components, systems, and equipment. They provide typical configurations and general technical guidance, and are not intended to be project specific. Specific infrastructure design requirements are contained in VA Design Manuals and Space Planning Criteria located in the VA Technical Information Library.

Exam Room (Multi-Purpose) (EXRG3)

Reflected Ceiling Plan



120 NSF/ 11.2 NSM (Shown above)
Audiology similar: 150 NSF/ 13.9 NSM

SCALE $\frac{1}{4}$" = 1'-0"

NOTE: Guide plates are graphical representations of selected room types, illustrating the integration of space, components, systems, and equipment. They provide typical configurations and general technical guidance, and are not intended to be project specific. Specific infrastructure design requirements are contained in VA Design Manuals and Space Planning Criteria located in the VA Technical Information Library.

Exam Room (Multi-Purpose) (EXRG3)

Design Standards

ARCHITECTURAL

Ceiling:	GWB Lay-in Panels
Ceiling Height:	9'-0" (2700 mm)
Wall Finish:	GWB-P
Wainscot:	--
Base:	RB
Floor Finish:	VCT
Slab Depression:	--
Sound Protection:	STC 40
Notes:	--

SPECIAL EQUIPMENT

--

LIGHTING

General: --

Special: --

Notes:
1) 2' x 4' (600 mm x 1200 mm) recessed fluorescent light fixture, acrylic prismatic lens, w/ F32T8 lamps, 3500˚K, CRI=70 (minimum).
2) Portable Examining Light
3) The foot-candle level is average maintained.
4) Provide ballasts per fixture for desired switching configuration. To provide a uniform lighting level, switch inner lamp(s) on first switch and outer lamps on second switch.
5) Exact quantity, location, and lamping of light fixtures shall be chosen to meet the foot-candle requirement.
6) Fluorescent nurse call light.
7) Fixture description for alternate 150 NSF room is the same as described in Note 1 above. Orient both fixtures in the same manner as shown for 120 NSF room. Increase overall room wattage by 20%.

POWER

General:	As Shown
Emergency:	As Shown

Notes:
1) Coordinate location and height of work station receptacles with modular furniture.
2) Exam table may be wall outlet connected.

COMMUNICATION/SPECIAL SYSTEMS

Data:	Yes
Telephone:	Yes
Intercom:	--
Nurse Call:	Yes
Public Address:	--
Radio/Entertainment:	--
MATV:	--
CCTV:	--
MID:	--
Security/Duress:	Yes
VTEL:	--
VA Satellite TV:	--

Notes:
1) Coordinate location and height of work station telephone/data outlets with modular furniture.

HEATING, VENTILATING AND AIR CONDITIONING

Inside Design Conditions:	70°F (21°C) to 75°F (24°C) Dry-Bulb Temperature 30 Percent to 50 Percent Relative Humidity
Minimum Air Changes per Hour:	6
100% Exhaust:	No
100% Outside Air:	No
Room Air Balance:	Neutral (0)
Dedicated Exhaust System:	No
Occupancy:	2
AC Load-(Equipment):	As Required
AC Load-(Light):	As Required

Notes: 1) Year around conditions.

PLUMBING AND MEDICAL GASES

Cold Water:	Yes
Hot Water:	Yes
Laboratory Air:	--
Laboratory Vacuum:	--
Sanitary Drain:	Yes
Reagent Grade Water:	--
Medical Air:	--
Medical Vacuum:	--
Oxygen:	--
Notes:	--

Exam Room (Multi-Purpose) (EXRG3)

Equipment List

JSN	SYMBOL	QTY	AI	DESCRIPTION
P3100	P-418	1	CC	Lavatory, sensor control (PG-18-1, MCS 22 40 00; PG-18-4, NCS SD 22 40 00)
A5165	T45	1	CC	Shelf, corrosion resisting steel, 12” W x 5” D (300 mm W x 125 mm D) (PG-18-1, MCS 10 28 00; PG-18-4, NCS SD 10 28 00-4)
A5180		1	CC	Track, curtain, cubicle, ceiling type, surface mounted (PG-18-1, MCS 10 21 23)
A1010		1	CC	Outlet, telephone/data, wall mounted (PG-18-1, MCS 27 15 00)
		1	CC	Receptacle, electrical, quadruplex, for computer equipment items (PG-18-1, MCS 26 27 26)
		AR	CC	Receptacle, electrical, duplex (PG-18-1, MCS 26 27 26)
		1	CC	Receptacle, electrical, duplex, with ground fault interrupter (PG-18-1, MCS 26 27 26)
		1	CC	Nurse call, emergency station, with pull cord and corridor signal light (PG-18-1, MCS 27 52 23)
		1	CC	Alarm button, security/duress (PG-18-1, MCS 27 52 31)
A5075		1	VV	Dispenser, soap, liquid, wall mounted
A5080		1	VV	Dispenser, paper towel, surface mounted
F2017		1	VV	Receptacle, waste, step on type, approx. 12” (300 mm) diameter
A5145		2	VV	Hook, coat, wall mounted
A5180		1	VV	Curtain, cubicle
M9050		1	VV	Table, examining, padded, adjustable top, approx. 74” x 21” x 30” (1850 mm x 525 mm x 750 mm)
F0210		AR	VV	Chair, straight, without arms
E0210		1	VV	Modular work station with under counter keyboard tray, overhead storage, and wall hanger strips.
F0340		1	VV	Stool, examining
M3085		1	VV	Cabinet, instrument and treatment, 36” W x 16” D x 78” H (900 mm W x 400 mm D x 1950 mm H)
X3930		AR	VV	Illuminator, x-ray film, 120 volts, wall mounted, individual switch for two, 14” x 17” (350 mm x 425 mm) radiographs, 31” W x 20” H (775 mm W x 500 mm H)
M7401		1	VV	Light, examining, portable, 120 volt, approx. 18” diameter x 75” H (450 mm diameter x 1875 mm H)
M1801		1	VV	CRT, computer system, with keyboard
M4100		1	VV	Sphygmomanometer, wall hung
M4200		1	VV	Otoscope, wall hung
M4200		1	VV	Ophthalmoscope, wall hung
F3010 or F3025		1	VV	Bulletin board, 48” x 36” (1200 mm x 900 mm)
F2300		1	VV	Magazine/literature rack, wall mounted
F3200		1	VV	Clock, atomic, battery operated
A5106		1	VV	Sharps container, wall mounted
A5106		1	VV	Glove dispenser, wall mounted

4.0 PLANNING AND DESIGN

4.3 PACT Module Core Components

4.3.2 Exam Room

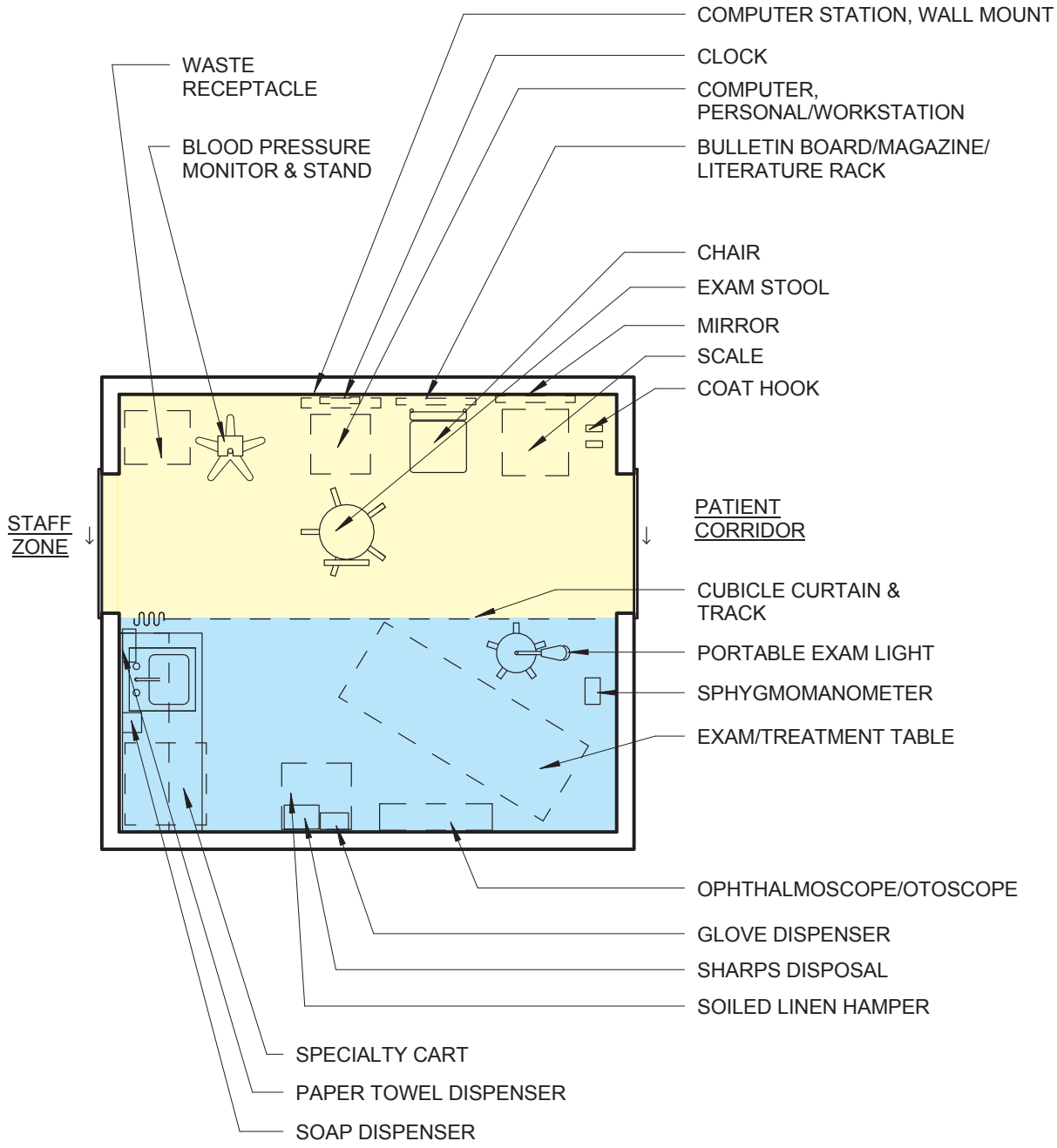
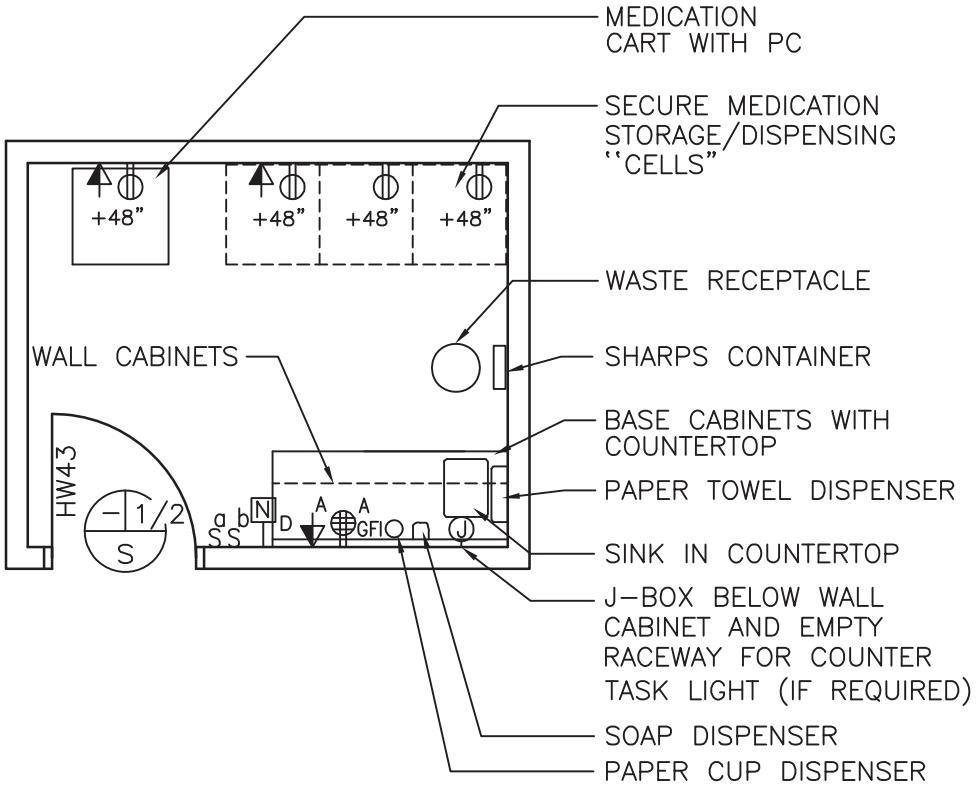


Figure 4.3-7
Example Exam Room Floor Plan

Medication Room (MEDP1)

Floor Plan



80 NSF/ 7.4 NSM (Shown above)

Dermatology: 90 NSF/ 8.4 NSM

Methadone maintenance: 120 NSF/ 11.2 NSM

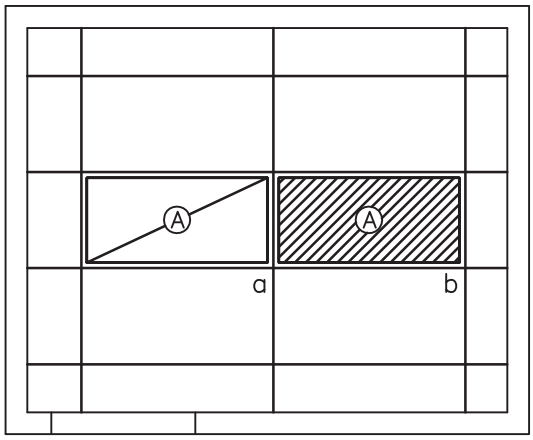
SCALE $\frac{1}{4}$" = 1'-0"

M 2 1 0 1 2 4Ft

NOTE: Guide plates are graphical representations of selected room types, illustrating the integration of space, components, systems, and equipment. They provide typical configurations and general technical guidance, and are not intended to be project specific. Specific infrastructure design requirements are contained in VA Design Manuals and Space Planning Criteria located in the VA Technical Information Library.

Medication Room (MEDP1)

Reflected Ceiling Plan



80 NSF/ 7.4 NSM (Shown above)

Dermatology: 90 NSF/ 8.4 NSM

Methadone maintenance: 120 NSF/ 11.2 NSM

SCALE $\frac{1}{4}$" = 1'-0"

NOTE: Guide plates are graphical representations of selected room types, illustrating the integration of space, components, systems, and equipment. They provide typical configurations and general technical guidance, and are not intended to be project specific. Specific infrastructure design requirements are contained in VA Design Manuals and Space Planning Criteria located in the VA Technical Information Library.

Medication Room (MEDP1)

Design Standards

ARCHITECTURAL	
Ceiling:	AT
Ceiling Height:	9'-0" (2700 mm)
Wall Finish:	GWB-P
Wainscot:	--
Base:	RB
Floor Finish:	VCT
Slab Depression:	--
Sound Protection:	--
Notes:	--

SPECIAL EQUIPMENT	
	--

LIGHTING	
General:	--
Special:	--

Notes:

1) 2' x 4' (600 mm x 1200 mm) recessed fluorescent light fixture with acrylic prismatic lens w/ F32T8 lamps, 3500˚K, CRI=70 (minimum).
2) The foot-candle level is average maintained.
3) Provide ballasts per fixture for desired switching configuration. To provide a uniform lighting level, switch inner lamp(s) on first switch and outer lamps on second switch.
4) Exact quantity, location, and lamping of light fixtures shall be chosen to meet the foot-candle requirement.
5) Fixture description for alternate 90 and 120 NSF rooms is the same as described in Note 1 above. Orient two fixtures in a similar manner to layout for 80 NSF room. Fixture wattage should remain the same as required for 80 NSF room.

POWER	
General:	As Shown
Emergency:	As Shown
Notes:	--

COMMUNICATION/SPECIAL SYSTEMS	
Data:	Yes
Telephone:	Yes
Intercom:	--
Nurse Call:	Yes
Public Address:	--
Radio/Entertainment:	--
MATV:	--
CCTV:	--
MID:	--
Security/Duress:	--
VTEL:	--
VA Satellite TV:	--
Notes:	--

HEATING, VENTILATING AND AIR CONDITIONING	
Inside Design Conditions:	70°F (21°C) to 75°F (24°C) Dry-Bulb Temperature 30 Percent to 50 Percent Relative Humidity
Minimum Air Changes per Hour:	4
100% Exhaust:	No
100% Outside Air:	No
Room Air Balance:	Positive (+)
Dedicated Exhaust System:	No
Occupancy:	1
AC Load-(Equipment):	As Required
AC Load-(Light):	As Required
Notes:	--

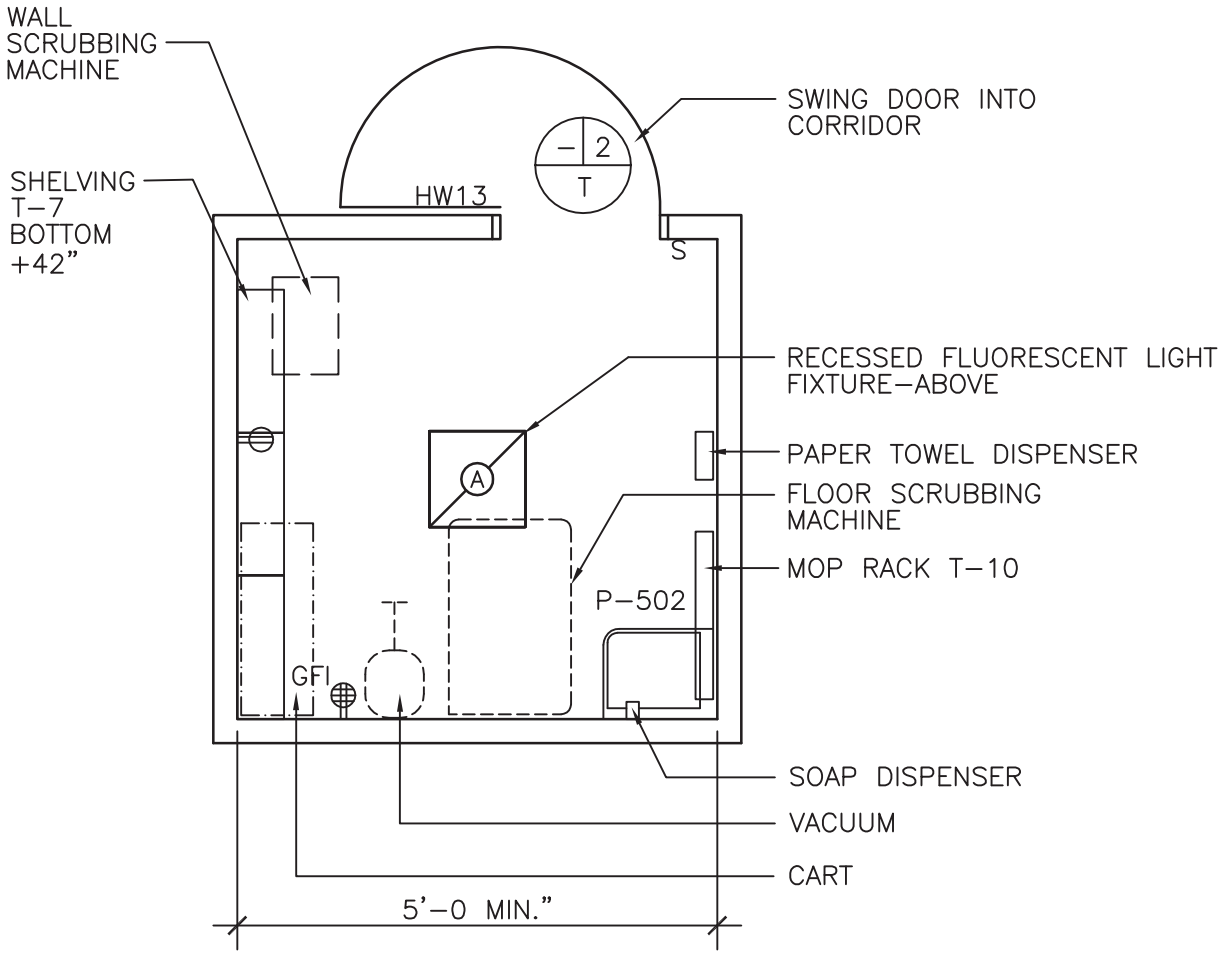
PLUMBING AND MEDICAL GASES	
Cold Water:	Yes
Hot Water:	Yes
Laboratory Air:	--
Laboratory Vacuum:	--
Sanitary Drain:	Yes
Reagent Grade Water:	--
Medical Air:	--
Medical Vacuum:	--
Oxygen:	--
Notes:	--

Medication Room (MEDP1)

Equipment List

JSN	SYMBOL	QTY	AI	DESCRIPTION
C04P0		1	CC	Cabinet, sink base, 2-door, 60” x 24” x 36” (1520 mm x 600 mm x 900 mm) (PG-18-1, MCS 12 31 00)
D0370		1	CC	Cabinet, drawer base, 24” x 24” x 36” (600 mm x 600 mm x 900 mm) (PG-18-1, MCS 12 31 00)
		AR	CC	Receptacle, electrical, duplex and quadruplex(PG-18-1, MCS 26 27 26)
CE050		AR	CC	Cabinet, wall, 2 adjustable shelves, sloping top 24” W x 24” D x 30” H (600 mm W x 600 mm D x 750 mm H)
CT030		AR	CC	Countertop, SS (PG-18-1, MCS 12 36 00)
CS090	A-2	1	CC	Sink, CRS integral with top, with faucet, drain outlet and top (PG-18-1, MCS 12 36 00)
A1010		AR	CC	Outlet, telephone/data, wall mounted (PG-18-1, MCS 27 15 00)
		1	CC	Nurse call duty station (PG-18-1, MCS 27 52 23)
A5080		1	VV	Dispenser, paper towel, surface mounted
A5075		1	VV	Dispenser, soap, liquid, wall mounted
F2017		1	VV	Receptacle, waste, step on type, approx. 12” (300 mm) diameter
A5085		1	VV	Dispenser, paper cup, wall mounted
M3150		AR	VV	Automated storage/dispensing unit (cell) secure, approx. 27” W x 25” D x 78” H (675 mm W x 635 mm D x 1950 mm H)
A5106		1	VV	Sharps container
M7250		1	VV	Cart, medication, with PC computer system 36” x 30” x 36” (900 mm x 750 mm x 900 mm)

Housekeeping Aids Closet (HAC) (JANC1)
Floor Plan & Reflected Ceiling Plan



100 NSF (Large)/ 9.3 NSM (Large) (Shown above)
60 NSF (Surgery) 5.6 NSM
40 NSF(Standard)/ 3.8 NSM (Standard)

SCALE $\frac{1}{4}$" = 1'-0"

NOTE: Guide plates are graphical representations of selected room types, illustrating the integration of space, components, systems, and equipment. They provide typical configurations and general technical guidance, and are not intended to be project specific. Specific infrastructure design requirements are contained in VA Design Manuals and Space Planning Criteria located in the VA Technical Information Library.

Housekeeping Aids Closet (HAC) (JANC1)

Design Standards

ARCHITECTURAL	
Ceiling:	GWB-P
Ceiling Height:	9'-0" (2700 mm)
Wall Finish:	GWB-SC
Wainscot:	CT 48" (1200 mm) above base
Base:	WSF, 6" (150 mm) Integral Cove Base
Floor Finish:	WSF
Lead Lining:	--
Notes:	--

SPECIAL EQUIPMENT
--

LIGHTING	
General:	--
Special:	--
Emergency:	All

Note:
1) 2' x 2' (600 mm x 600 mm) recessed fluorescent light fixture, acrylic prismatic lens, w/ T8 lamps 3500˚K, CRI=70 (minimum).
2) The foot-candle level is average maintained.
3) Provide ballasts per fixture for desired switching configuration. To provide a uniform lighting level, switch inner lamp(s) on first switch and outer lamps on second switch.
4) Exact quantity, location, and lamping of light fixtures shall be chosen to meet the foot-candle requirement.
5) Fixture description for alternate 60 NSF and 40 NSF rooms is the same as described in Note 1 above. Locate the fixture in the center of the room. Reduce fixture wattage to half that required for 100 NSF room.

POWER	
General:	As Shown
Emergency:	As Shown
Notes:	--

COMMUNICATION/SPECIAL SYSTEMS	
Data:	--
Telephone:	--
Intercom:	--
Nurse Call:	--
Public Address:	--
Radio/Entertainment:	--
MATV:	--
CCTV:	--
MID:	--
Security/Duress:	--
VTEL:	--
VA Satellite TV:	--
Notes:	--

HEATING, VENTILATING AND AIR CONDITIONING	
Inside Design Conditions:	Not Applicable
Minimum Air Changes per Hour:	Highest of: 10 air changes per hour, or 1 CFM/SF (23 liters/sec/sq meters), or 50 CFM (24 liters/sec). Air admitted as make-up from adjoining spaces
100% Exhaust:	Yes
100% Outside Air:	No
Room Air Balance:	Double Negative (--)
Dedicated Exhaust System:	No
Occupancy:	Not Applicable
AC Load-(Equipment):	Not Applicable
AC Load-(Light):	As Required
Notes:	--

PLUMBING AND MEDICAL GASES	
Cold Water:	Yes
Hot Water:	Yes
Laboratory Air:	--
Laboratory Vacuum:	--
Sanitary Drain:	Yes
Reagent Grade Water:	--
Medical Air:	--
Medical Vacuum:	--
Oxygen:	--
Notes:	--

Housekeeping Aids Closet (HAC) (JANC1)

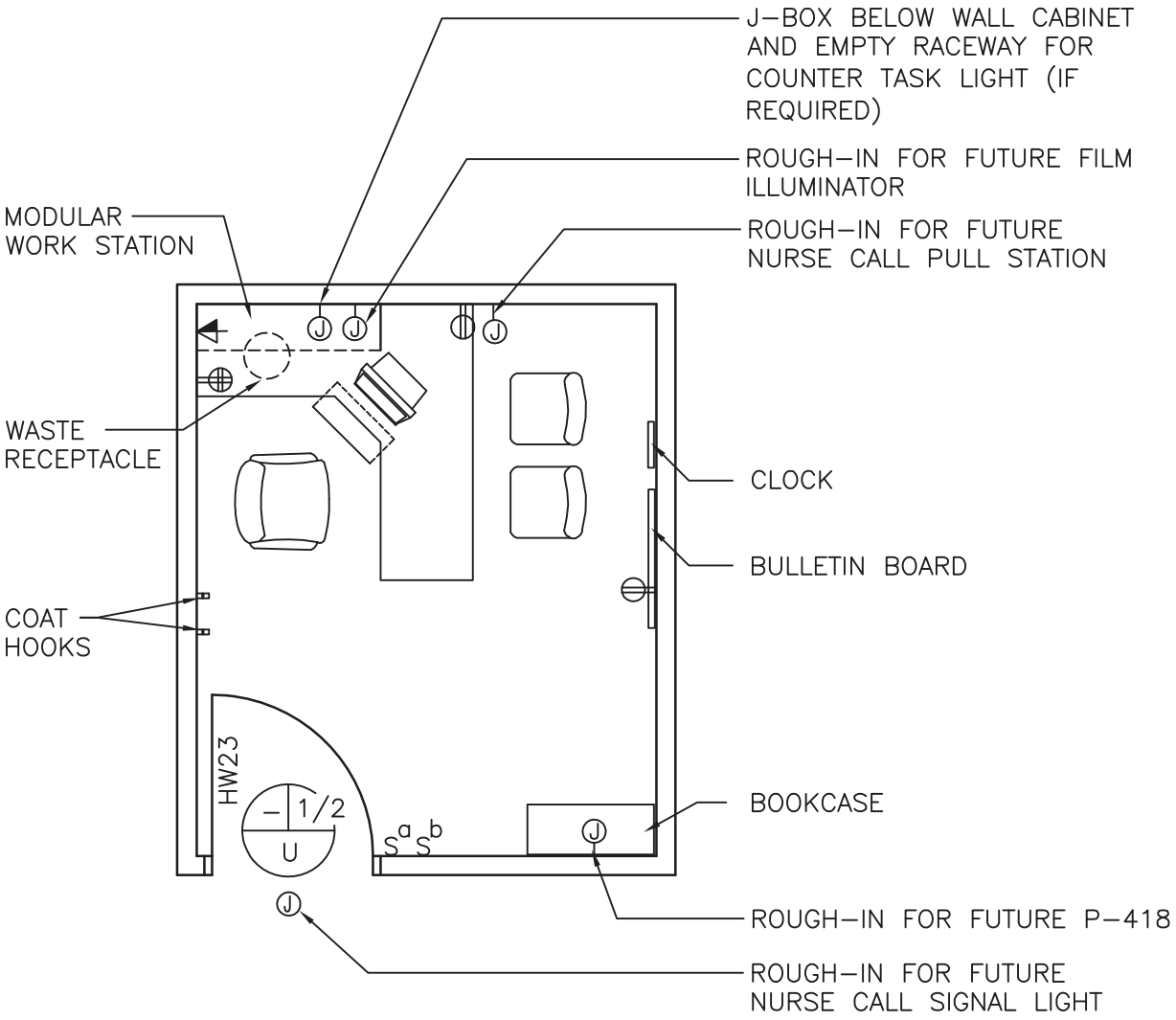
Equipment List

JSN	SYMBOL	QTY	AI	DESCRIPTION
P4700	P-502	1	CC	Sink, service, corner, floor mounted (PG-18-1, MCS 22 40 00)
A5135	T-10	AR	CC	Rack, mop, wall mounted (PG-18-1, MCS 10 28 00)
A5135	T-7	AR	CC	Shelving, wall hung, corrosion resisting steel, 2 fixed shelves, 2 doors with locks, 36” x 12” x 48” (900 mm x 300 mm x 1200 mm), 60” (1520 mm) above finished floor (PG-18-1, MCS 12 31 00)
		AR	CC	Receptacle, electrical, duplex, 120 volt (PG-18-1, MCS 26 27 26)
		1	CC	Receptacle, electrical, quadruplex (PG-18-1, MCS 26 27 26)
M2600		1	VV	Vacuum cleaner, battery powered
		1	VV	Machine, scrubbing, wall, battery powered
M2650		1	VV	Machine, scrubbing, floor, battery powered
F0500		1	VV	Cart, supplies, 24” x 48” (600 mm x 1200 mm)
A5080		1	VV	Dispenser, paper towel, surface mounted
A5075		1	VV	Dispenser, soap, liquid, wall mounted

Office (OFA01)(OFA02)(OFA03)(SEC01)(OFC01)(OFC02)(OFD01)(OFD03)(OFDC1)(OFDR1)

Floor Plan

CONSIDER PROVIDING BACKING ROUGH-INS FOR CONVERSION TO EXAM ROOM-SEE GUIDE PLATE 4-174 SIMILAR.



Typical: 120 NSF/ 11.2 NSM (Shown above)
Minimum: 80 NSF/ 7.4 NSM
Maximum: 150 NSF/ 13.9 NSM

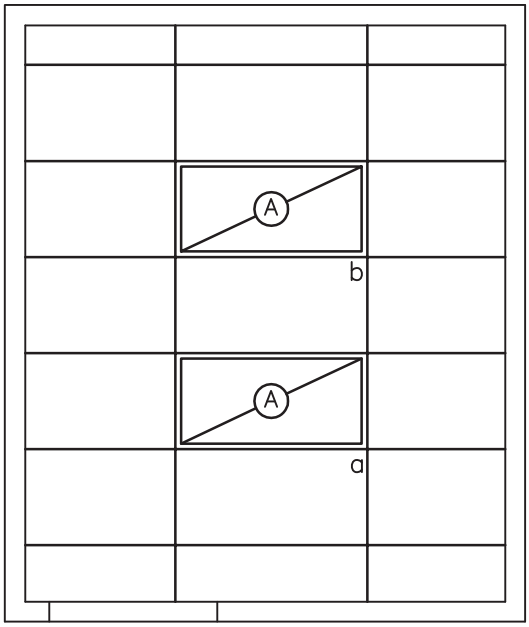
SCALE $\frac{1}{4}$" = 1'-0"

M2 1 0 1 2 4Ft

NOTE: Guide plates are graphical representations of selected room types, illustrating the integration of space, components, systems, and equipment. They provide typical configurations and general technical guidance, and are not intended to be project specific. Specific infrastructure design requirements are contained in VA Design Manuals and Space Planning Criteria located in the VA Technical Information Library.

Office (OFA01)(OFA02)(OFA03)(SEC01)(OFC01)(OFC02)(OFD01)(OFD03)(OFDC1)(OFDR1)

Reflected Ceiling Plan



Typical: 120 NSF/ 11.2 NSM (Shown above)
Minimum: 80 NSF/ 7.4 NSM
Maximum: 150 NSF/ 13.9 NSM

SCALE $\frac{1}{4}$" = 1'-0"

M 2 1 0 1 2 4Ft

NOTE: Guide plates are graphical representations of selected room types, illustrating the integration of space, components, systems, and equipment. They provide typical configurations and general technical guidance, and are not intended to be project specific. Specific infrastructure design requirements are contained in VA Design Manuals and Space Planning Criteria located in the VA Technical Information Library.

Office (OFA01)(OFA02)(OFA03)(SEC01)(OFC01)(OFC02)(OFD01)(OFD03)(OFDC1)(OFDR1)

Design Standards

ARCHITECTURAL

Ceiling:	AT
Ceiling Height:	9'-0" (2700 mm)
Wall Finish:	GWB-P
Wainscot:	--
Base:	RB
Floor Finish:	CPT
Slab Depression:	--
Sound Protection:	STC 40
Notes:	--

SPECIAL EQUIPMENT

--

LIGHTING

General: --

Special: --

Notes:
1) 2' x 4' (600 mm x 1200 mm) recessed fluorescent light fixture, parabolic louver, w/ F32T8 lamps 3500°K, CRI=70 (minimum).
2) The foot-candle level is average maintained.
3) Provide ballasts per fixture for desired switching configuration. To provide a uniform lighting level, switch inner lamp(s) on first switch and outer lamps on second switch.
4) Exact quantity, location, and lamping of light fixtures shall be chosen to meet the foot-candle requirement.
5) Fixture description for alternate 80 and 150 NSF rooms is the same as described in Note 1 above. Orient the two fixtures for 150 NSF room in the same manner as shown for 120 NSF room. Orient single fixture and grid for 80 NSF room at 90° from orientation shown in 150 NSF room. For 80 and 150 NSF rooms, increase fixture wattage by 50%.

POWER

General:	As Shown
Emergency:	As Shown

Notes:
1) Coordinate location and height of work station receptacles with modular furniture.

COMMUNICATION/SPECIAL SYSTEMS

Data:	Yes
Telephone:	Yes
Intercom:	--
Nurse Call:	Rough-in Only
Public Address:	--
Radio/Entertainment:	--
MATV:	--
CCTV:	--
MID:	--
Security/Duress:	--
VTEL:	--
VA Satellite TV:	--

Notes:
1) Coordinate location and height of work station telephone/data outlets with modular furniture.

HEATING, VENTILATING AND AIR CONDITIONING

Inside Design Conditions:	70°F (21°C) to 75°F (24°C) Dry-Bulb Temperature 30 Percent to 50 Percent Relative Humidity
Minimum Air Changes per Hour:	4
100% Exhaust:	No
100% Outside Air:	No
Room Air Balance:	Neutral (0)
Dedicated Exhaust System:	No
Occupancy:	2
AC Load-(Equipment):	As Required
AC Load-(Light):	As Required
Notes:	--

PLUMBING AND MEDICAL GASES

Cold Water:	Rough-in Only
Hot Water:	Rough-in Only
Laboratory Air:	--
Laboratory Vacuum:	--
Sanitary Drain:	Rough-in Only
Reagent Grade Water:	--
Medical Air:	--
Medical Vacuum:	--
Oxygen:	--
Notes:	--

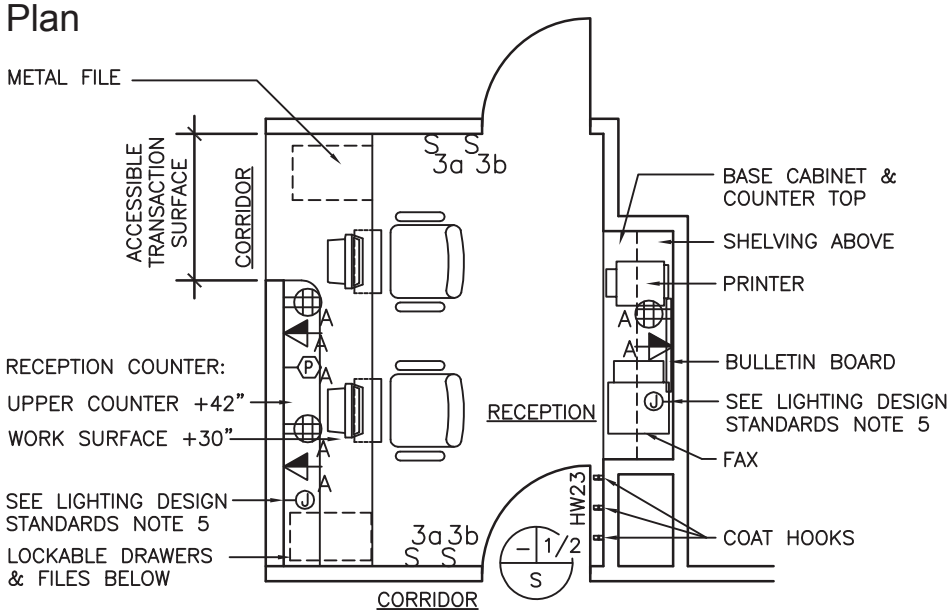
Office (OFAO1)(OFAO2)(OFAO3)(SEC01)(OFC01)(OFC02)(OFD01)(OFD03)(OFDC1)(OFDR1)

Equipment List

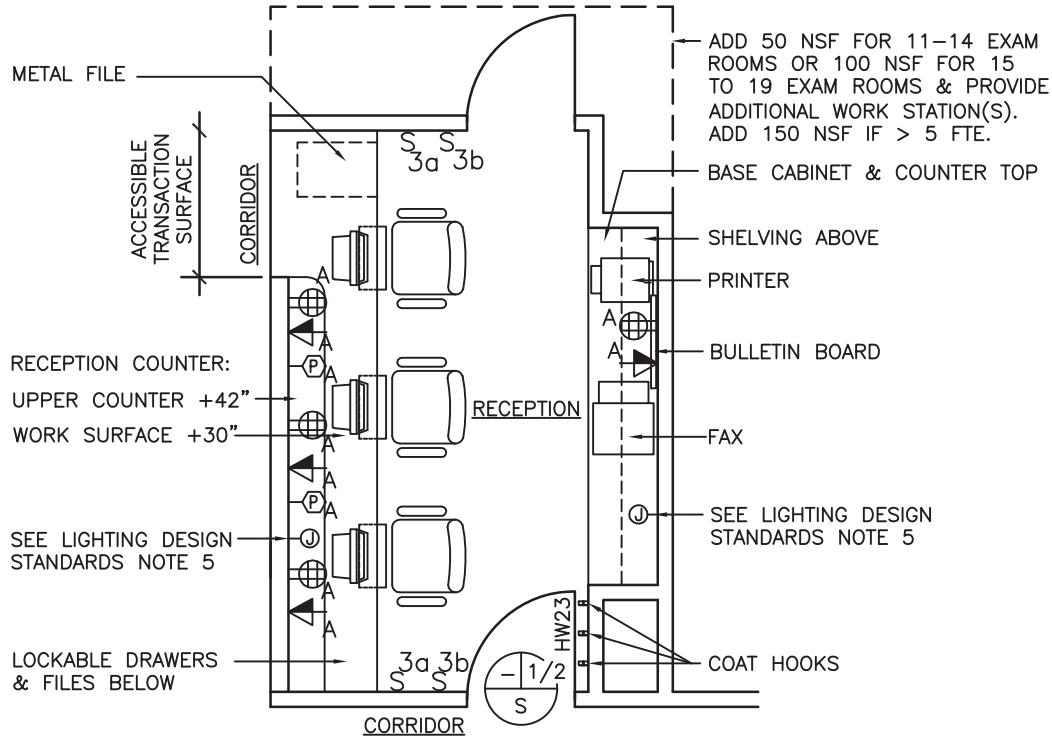
JSN	SYMBOL	QTY	AI	DESCRIPTION
	P-418	1	CC	Rough-in for lavatory, sensor control (PG-18-1, MCS 22 40 00; PG-18-4, NCS SD 22 40 00)
A1010		1	CC	Outlet, telephone/data, wall mounted (PG-18-1, MCS 27 15 00)
		1	CC	Receptacle, electrical, quadruplex, for computer equipment items (PG-18-1, MCS 26 27 26)
		AR	CC	Receptacle, electrical, duplex (PG-18-1, MCS 26 27 26)
		1	CC	Rough-in for nurse call, emergency station, and corridor signal light (PG-18-1, MCS 27 52 23)
E0210		1	VV	Modular work station with under counter keyboard tray, overhead storage, and wall hanger strips.
F0205		1	VV	Chair, rotary, with arms
F0120		1	VV	Bookcase, sectional, each section, 33” x 13” x 75” (825 mm x 325 mm x 1875 mm) with 10” (250 mm) base
A5145		2	VV	Hook, coat, wall mounted
F2000		1	VV	Receptacle, waste, 13” (325 mm) diameter
M1801		1	VV	PC, computer system, with keyboard
F0210		2	VV	Chair, straight, without arms
F3010		1	VV	Bulletin board, 48” x 36” (1200 mm x 900 mm)
F3200		1	VV	Clock, atomic, battery operated
Refer to Examination Room Guide Plate (EXRG3) for location of following:				
		AR	CC	Provide backing for future wall mounted equipment and accessories: Sphygmomanometer Otoscope / Ophthalmoscope Glove dispenser Sharps container Paper towel dispenser
		1	CC	Rough-in j-box for future x-ray film illuminator

Reception (RECP1)

Floor Plan



Typical Reception: 120 NSF/ 11.2 NSM
Prosthetics similar: 60 NSF/ 5.6 NSM



Clinical Reception (for up to 10 Exam Rooms): 150 NSF/13.9 NSM

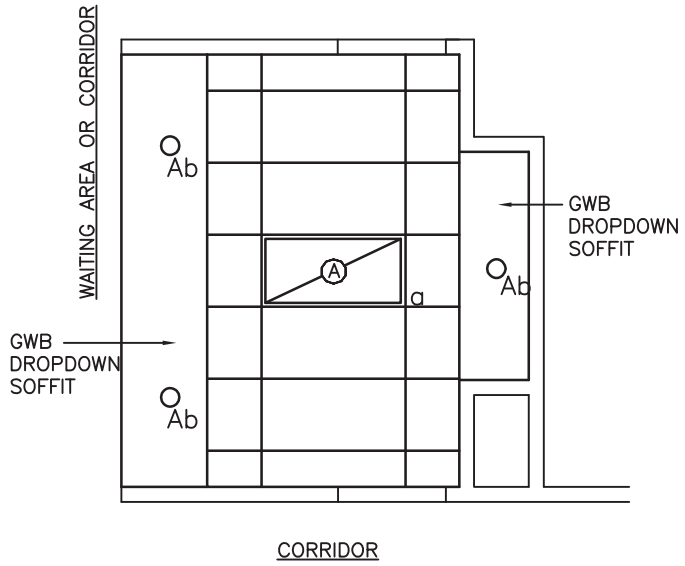
SCALE $\frac{3}{16}$" = 1'-0"

M2 1 0 1 2 4F

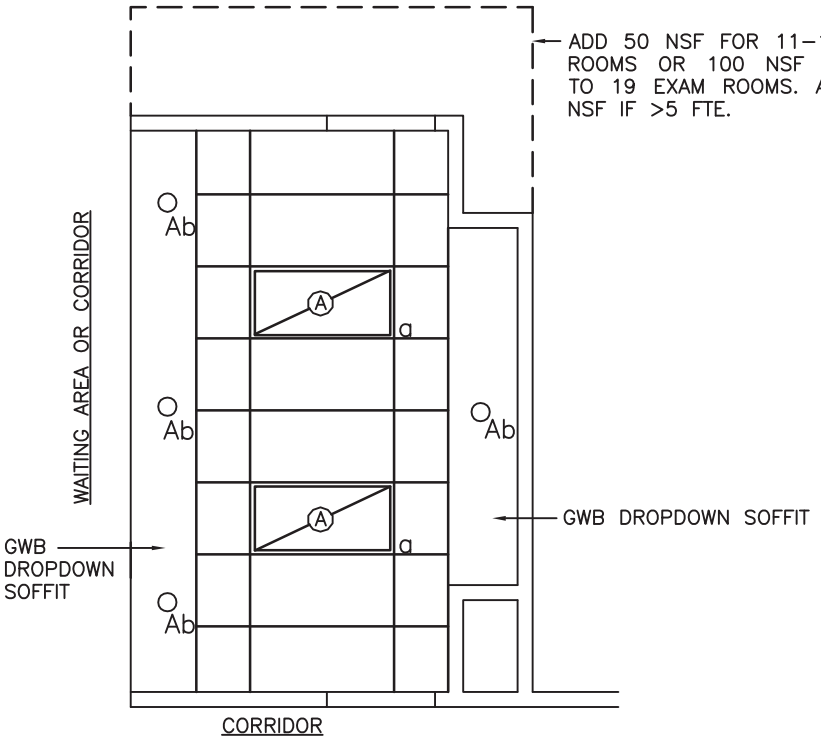
NOTE: Guide plates are graphical representations of selected room types, illustrating the integration of space, components, systems, and equipment. They provide typical configurations and general technical guidance, and are not intended to be project specific. Specific infrastructure design requirements are contained in VA Design Manuals and Space Planning Criteria located in the VA Technical Information Library.

Reception (RECP1)

Reflected Ceiling Plan



Typical Reception: 120 NSF/ 11.2 NSM
Prosthetics similar: 60 NSF/ 5.6 NSM



Clinical Reception (for up to 10 Exam Rooms): 150 NSF/13.9 NSM

SCALE $\frac{3}{16}$" = 1'-0"

M2 1 0 1 2 4F

NOTE: Guide plates are graphical representations of selected room types, illustrating the integration of space, components, systems, and equipment. They provide typical configurations and general technical guidance, and are not intended to be project specific. Specific infrastructure design requirements are contained in VA Design Manuals and Space Planning Criteria located in the VA Technical Information Library.

Reception (RECP1)

Design Standards

ARCHITECTURAL	
Ceiling:	AT
Ceiling Height:	9’-0” (2700 mm)
Wall Finish:	--
Wainscot:	--
Base:	RB
Floor Finish:	VCT
Slab Depression:	--
Notes:	--

SPECIAL EQUIPMENT
--

LIGHTING	
General:	--
Special:	--
Emergency	--

Notes:
1) Recessed fluorescent fixture with compact fluorescent lamp.
2) Recessed 2’ x 4’ (600 mm x 1200 mm) fluorescent fixture with F32T8 lamps, color temperature of 3500°K , CRI=70 (minimum).
3) The foot-candle level is average maintained.
4) Provide ballasts per fixture for desired switching configuration. To provide a uniform lighting level, switch inner lamps(s) on first switch and outer lamps on second switch.
4) Exact quantity, location, and lamping of light fixtures shall be chosen to meet the foot-candle requirement.
5) J-box below wall cabinet and empty raceway for counter task light (if required).

POWER	
General:	As Shown
Special:	As Shown
Emergency:	As Shown
Notes:	--

COMMUNICATION/SPECIAL SYSTEMS	
Data:	Yes
Telephone:	Yes
Intercom:	--
Nurse Call:	--
Public Address:	--
Radio/Entertainment:	--
MATV:	--
CCTV:	--
MID:	--
Security/Duress:	Yes
VTEL:	--
VA Satellite TV:	--
Notes:	--

HEATING, VENTILATING AND AIR CONDITIONING	
Inside Design Conditions:	70°F (21°C) to 75°F (24°C) Dry-Bulb Temperature 30 Percent to 50 Percent Relative Humidity
Minimum Air Changes per Hour:	6
100% Exhaust:	No
100% Outside Air:	No
Room Air Balance:	Neutral (0)
Dedicated Exhaust System:	No
Occupancy:	2
AC Load-(Equipment):	As Required
AC Load-(Light):	As Required
Notes:	--

PLUMBING AND MEDICAL GASES	
Cold Water:	--
Hot Water:	--
Laboratory Air:	--
Laboratory Vacuum:	--
Sanitary Drain:	--
Reagent Grade Water:	--
Medical Air:	--
Medical Vacuum:	--
Oxygen:	--
Notes:	--

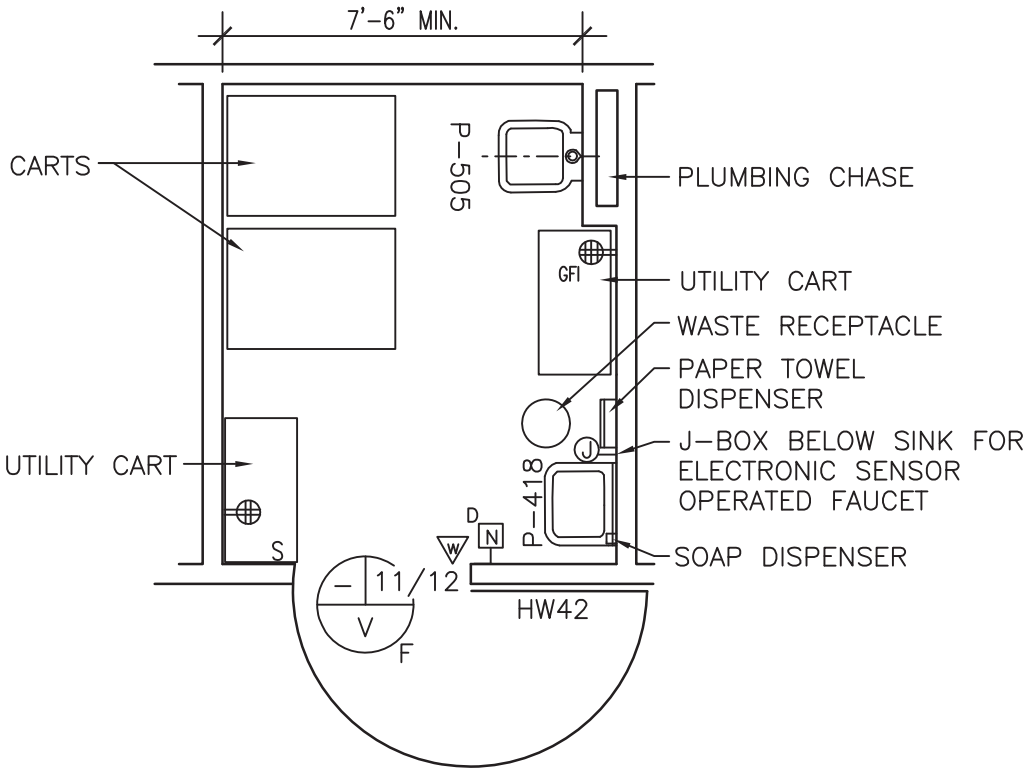
Reception (RECP1)

Equipment List

JSN	SYMBOL	QTY	AI	DESCRIPTION
		AR	CC	Receptacle, electrical, quadruplex, for computer equipment items (PG-18-1, MCS 26 27 26)
		AR	CC	Shelving, wall hung, standard and bracket type, 2 adjustable shelves, 12” D x length as required (300 mm D x length as required (PG-18-1, MCS 12 36 00)
A1010		AR	CC	Outlet, telephone/data (PG-18-1, MCS 27 15 00)
F3010 or F3025		AR	CC	Bulletin board
CT030		AR	CC	Reception counter, custom casework (PG-18-1, MCS 06 20 00)
A6105		AR	CC	Base cabinets, counter top, and open wall shelving (work surface) (PG-18-1, MCS 12 32 00 and 12 36 00)
		AR	CC	Alarm button, security/duress (PG-18-1, MCS 27 52 31)
M1801		AR	VV	CRT, computer system, with keyboard
F0410		AR	VV	Metal file, under counter
M1840		1	VV	Printer, computer system
F0280		AR	VV	Chair, rotary, with arms
M1840		1	VV	Machine, facsimile
A5145		3	VV	Hook, coat, wall mounted

Soiled Utility Room (USCL1)

Floor Plan



Typical (min.): 80 NSF/ 7.4 NSM (Shown above)
Ambulatory Surgery: 100 NSF/ 9.3 NSM

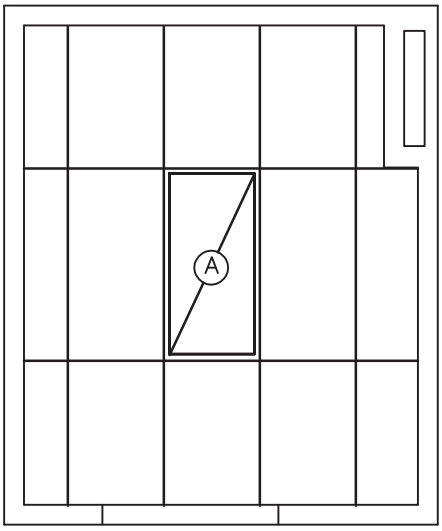
SCALE $\frac{1}{4}$" = 1'-0"

M2 1 0 1 2 4Ft

NOTE: Guide plates are graphical representations of selected room types, illustrating the integration of space, components, systems, and equipment. They provide typical configurations and general technical guidance, and are not intended to be project specific. Specific infrastructure design requirements are contained in VA Design Manuals and Space Planning Criteria located in the VA Technical Information Library.

Soiled Utility Room (USCL1)

Reflected Ceiling Plan



Typical (min.): 80 NSF/ 7.4 NSM (Shown above)
Ambulatory Surgery: 100 NSF/ 9.3 NSM

SCALE $\frac{1}{4}$" = 1'-0"

NOTE: Guide plates are graphical representations of selected room types, illustrating the integration of space, components, systems, and equipment. They provide typical configurations and general technical guidance, and are not intended to be project specific. Specific infrastructure design requirements are contained in VA Design Manuals and Space Planning Criteria located in the VA Technical Information Library.

Soiled Utility Room (USCL1)

Design Standards

ARCHITECTURAL	
Ceiling:	AT (SP)
Ceiling Height:	9'-0" (2700 mm)
Wall Finish:	GWB (SC)
Wainscot:	--
Base:	RSF
Floor Finish:	RSF
Slab Depression:	--
Sound Protection:	--
Notes:	--

SPECIAL EQUIPMENT	
	--

LIGHTING	
General:	--
Special:	--

Notes:
1) Recessed 2' x 4' (600 mm x 1200 mm) fluorescent fixture with acrylic prismatic lens, w/ F32T8 lamps, 3500˚K, CRI=70 (minimum).
2) The foot-candle level is average maintained.
3) Provide ballasts per fixture for desired switching configuration. To provide a uniform lighting level, switch inner lamp(s) on first switch and outer lamps on second switch.
4) Exact quantity, location, and lamping of light fixtures shall be chosen to meet the foot-candle requirement.
5) Fixture description for alternate 100 NSF room is the same as described in Note 1 above. Orient single fixture for 100 NSF in the same manner as shown for 80 NSF room. Fixture wattage should be the same for both room sizes.

POWER	
General:	As Shown
Emergency:	As Shown
Notes:	--

COMMUNICATION/SPECIAL SYSTEMS	
Data:	--
Telephone:	Yes
Intercom:	--
Nurse Call:	Yes
Public Address:	--
Radio/Entertainment:	--
MATV:	--
CCTV:	--
MID:	--
Security/Duress:	--
VTEL:	--
VA Satellite TV:	--
Notes:	--

HEATING, VENTILATING AND AIR CONDITIONING	
Inside Design Conditions:	Not Required
Minimum Air Changes per Hour:	10 (All Make-Up Air)
100% Exhaust:	Yes
100% Outside Air:	No
Room Air Balance:	Double Negative (--)
Dedicated Exhaust System:	No
Occupancy:	None
AC Load-(Equipment):	None
AC Load-(Light):	As Required

Notes:
1) Admit make-up air through the door undercut and transfer grille (if required) from the adjoining areas.

PLUMBING AND MEDICAL GASES	
Cold Water:	Yes
Hot Water:	Yes
Laboratory Air:	--
Laboratory Vacuum:	--
Sanitary Drain:	Yes
Reagent Grade Water:	--
Medical Air:	--
Medical Vacuum:	--
Oxygen:	--
Notes:	--

Soiled Utility Room (USCL1)

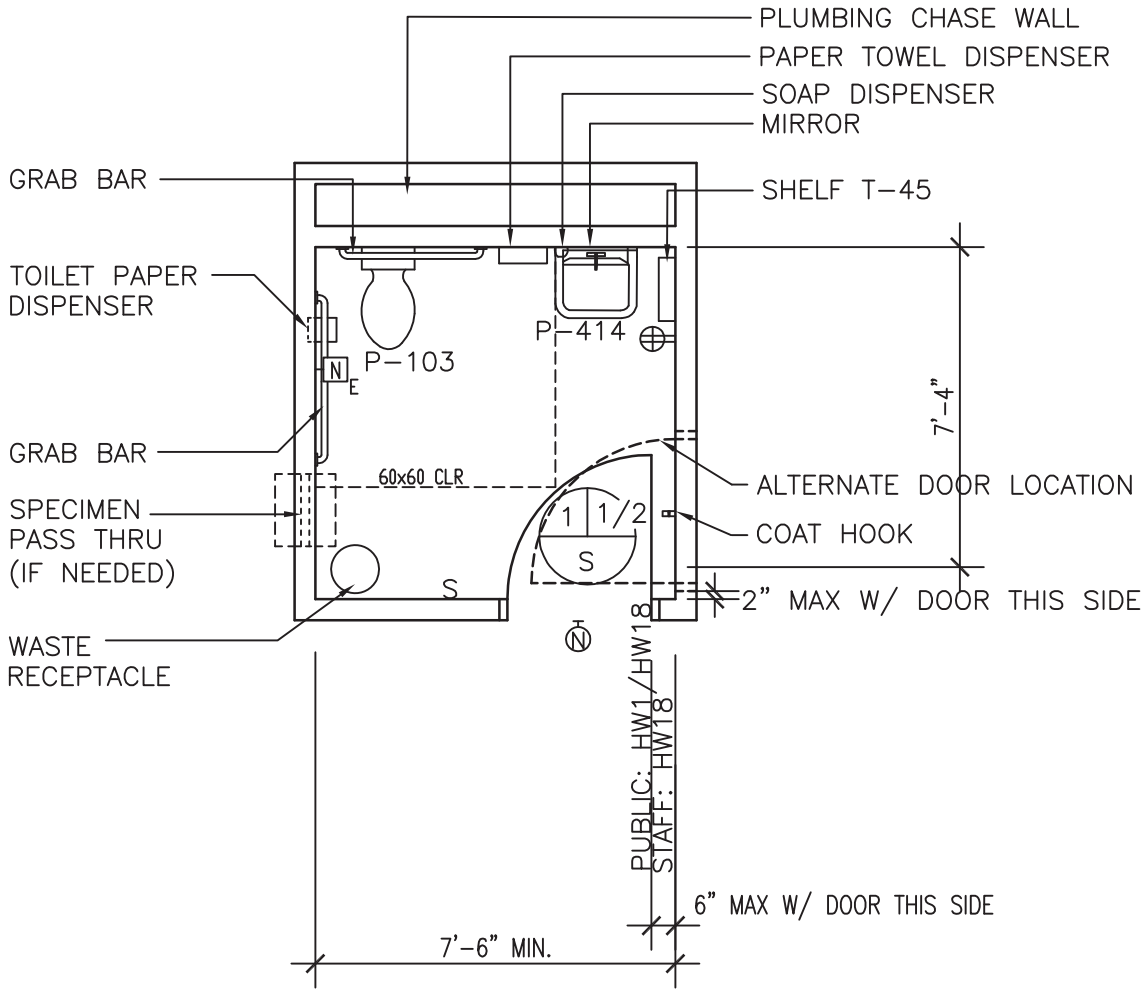
Equipment List

JSN	SYMBOL	QTY	AI	DESCRIPTION
P3100	P-418	1	CC	Lavatory, sensor control (PG-18-1, MCS 22 40 00)
P6500	P-505	1	CC	Sink, service, clinic, flushing rim, wall hung (PG-18-1, MCS 22 40 00)
		AR	CC	Receptacle, electrical, quadruplex, 120 volt (PG-18-1, MCS 26 27 26)
		1	CC	Nurse call duty station, wall mounted (PG-18-1, MCS 27 52 23)
		1	CC	Outlet, telephone, wall mounted (PG-18-1, MCS 27 15 00)
F0535		2	VV	Cart, utility, corrosion resisting steel, 36” x 18” x 30” (900 mm x 450 mm x 750 mm)
F2000		1	VV	Receptacle, waste, 13” (325 mm) diameter
A5075		1	VV	Dispenser, soap, liquid, wall mounted
A5080		1	VV	Dispenser, paper towel, surface mounted
F0510		AR	VV	Carts, soiled, linen

Toilet, Wheelchair Accessible (TLTU1)

Floor Plan

NOTE: DO NOT OVERLAP DOOR SWING WITH ADA/ ABA CLEARANCE AT WATER CLOSET.



55 NSF/ 3.7 NSM

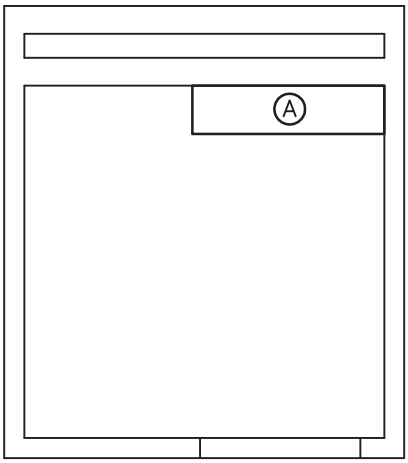
SCALE $\frac{1}{4}$" = 1'-0"

M2 1 0 1 2 4Ft

NOTE: Guide plates are graphical representations of selected room types, illustrating the integration of space, components, systems, and equipment. They provide typical configurations and general technical guidance, and are not intended to be project specific. Specific infrastructure design requirements are contained in VA Design Manuals and Space Planning Criteria located in the VA Technical Information Library.

Toilet, Wheelchair Accessible (TLTU1)

Reflected Ceiling Plan



55 NSF/ 3.7 NSM

SCALE $\frac{1}{4}$" = 1'-0"

M 2 1 0 1 2 4Ft

NOTE: Guide plates are graphical representations of selected room types, illustrating the integration of space, components, systems, and equipment. They provide typical configurations and general technical guidance, and are not intended to be project specific. Specific infrastructure design requirements are contained in VA Design Manuals and Space Planning Criteria located in the VA Technical Information Library.

Toilet, Wheelchair Accessible (TLTU1)

Design Standards

ARCHITECTURAL	
Ceiling:	AT
Ceiling Height:	9'-0" (2700 mm)
Wall Finish:	GWB-P
Wainscot:	48" (1200 mm) min., CT
Base:	CT
Floor Finish:	CT
Slab Depression:	--
Sound Protection:	STC 40
Notes:	--

SPECIAL EQUIPMENT	
	--

LIGHTING	
General:	--
Special:	--

Notes:
1) Wall mounted fluorescent fixture above mirror. Fixture shall have T8 lamps, 3500˚K, CRI=70 (minimum).
2) The foot-candle level is average maintained.
3) Provide ballasts per fixture for desired switching configuration. To provide a uniform lighting level, switch inner lamp(s) on first switch and outer lamps on second switch.
4) Exact quantity, location, and lamping of light fixtures shall be chosen to meet the foot-candle requirement.
5) Fluorescent nurse call light.

POWER	
General:	As Shown
Emergency:	As Shown
Notes:	--

COMMUNICATION/SPECIAL SYSTEMS	
Data:	--
Telephone:	--
Intercom:	--
Nurse Call:	Yes
Public Address:	--
Radio/Entertainment:	--
MATV:	--
CCTV:	--
MID:	--
Security/Duress:	--
VTEL:	--
VA Satellite TV:	--
Notes:	--

HEATING, VENTILATING AND AIR CONDITIONING	
Inside Design Conditions:	
	(Interior) Conditioned by make-up air
	(Perimeter) Heating 68°F (20°C)
	Provide radiant ceiling panels
Minimum Air Changes per Hour:	Highest of:
	10 air changes per hour, or
	50 CFM (24 liters/sec).
	Room air balance
100% Exhaust:	Yes
100% Outside Air:	No
Room Air Balance:	Double Negative (--)
Dedicated Exhaust System:	No
Occupancy:	Transient
AC Load-(Equipment):	None
AC Load-(Light):	As Required

Notes:
1) Individual Room Temperature Control:
   (Interior) Not Required
   (Perimeter) Required for Heating Mode

PLUMBING AND MEDICAL GASES	
Cold Water:	Yes
Hot Water:	Yes
Laboratory Air:	--
Laboratory Vacuum:	--
Sanitary Drain:	Yes
Reagent Grade Water:	--
Medical Air:	--
Medical Vacuum:	--
Oxygen:	--
Notes:	--

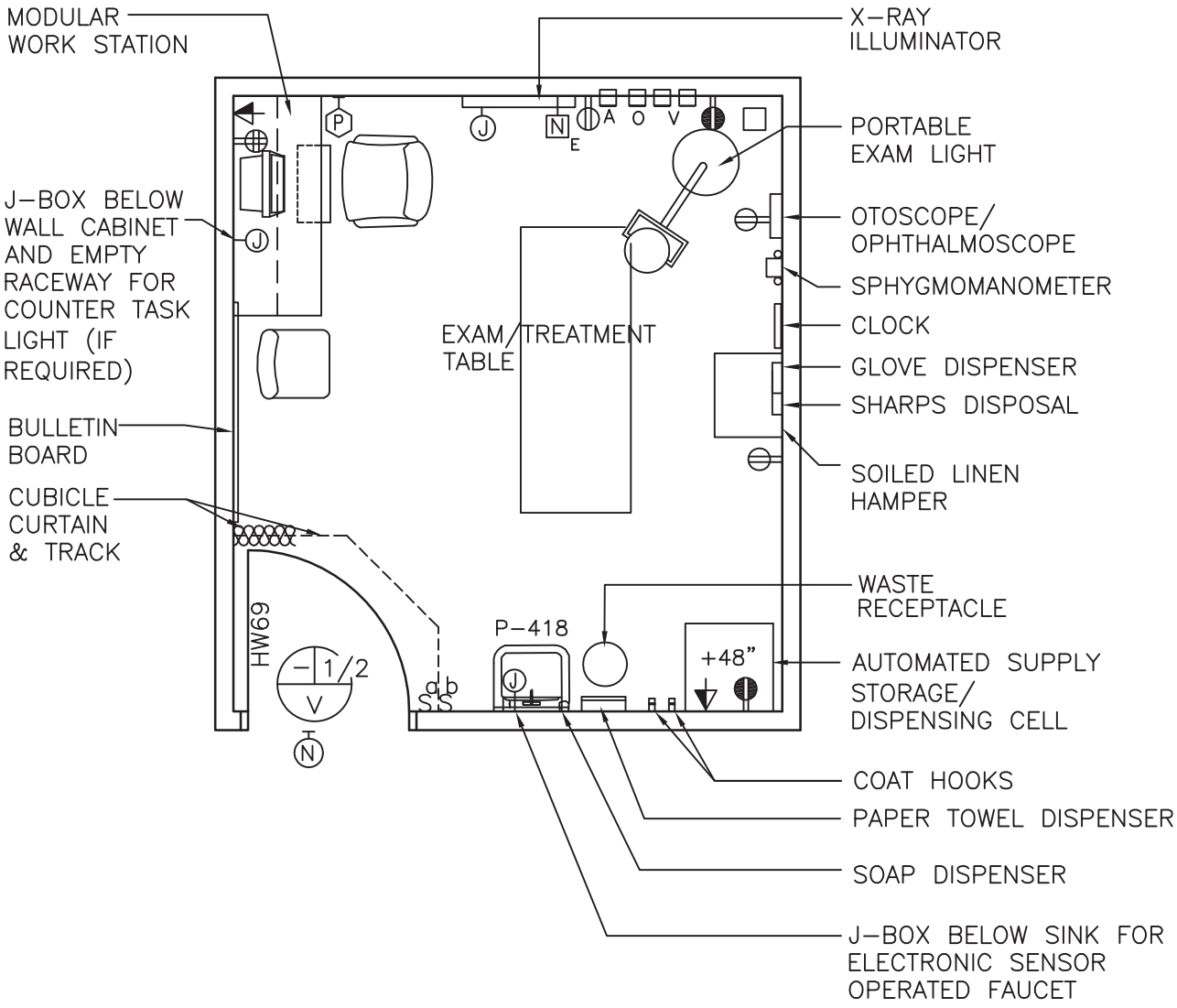
Toilet, Wheelchair Accessible (TLTU1)

Equipment List

JSN	SYMBOL	QTY	AI	DESCRIPTION
P9150	P-103	1	CC	Water closet, wall hung (PG-18-1, MCS 22 40 00)
A5200		1	CC	Dispenser, toilet tissue, double roll (PG-18-1, MCS 10 28 00; PG-18-4, NCS SD 10 21 13-1)
A5109		AR	CC	Bar, grab for water closet (PG-18-1, MCS 10 28 00; PG-18-4, NCS SD 10 21 13-1)
P3100	P-414	1	CC	Lavatory, straight back (PG-18-1, MCS 22 40 00)
A1066		1	CC	Mirror, 24” x 36” (600 mm x 900 mm) over wheelchair lavatory (PG-18-1, MCS 10 28 00; PG-18-4, NCS SD 10 28 00-3)
A5162	T-45	1	CC	Shelf, stainless steel, wall hung, 6” x 18” (150 mm x 450 mm) (PG-18-1, MCS 10 28 00)
		1	CC	Light, over mirror (PG-18-1, MCS 26 51 00)
		AR	CC	Receptacle, electrical, duplex, with ground fault interrupter (PG-18-1, MCS 26 27 26)
		1	CC	Nurse call, emergency station, with corridor signal light, provide pull cord by water closet (PG-18-1, MCS 27 52 23). Omit in staff toilet.
A5145		1	VV	Hook, coat, wall mounted
A5075		1	VV	Dispenser, soap, liquid, wall mounted
A5080		1	VV	Dispenser, paper towel, surface mounted
F2017		1	VV	Receptacle, waste, step on type, approx. 12” (300 mm) diameter
				Note: Provide following only when clinic has a laboratory.
		1	CC	Specimen pass-thru, to general lab (PG-18-1, MCS 10 28 00)

Ambulatory Care: ETM Procedure Room, Multi-Purpose (TRGM1)

Floor Plan



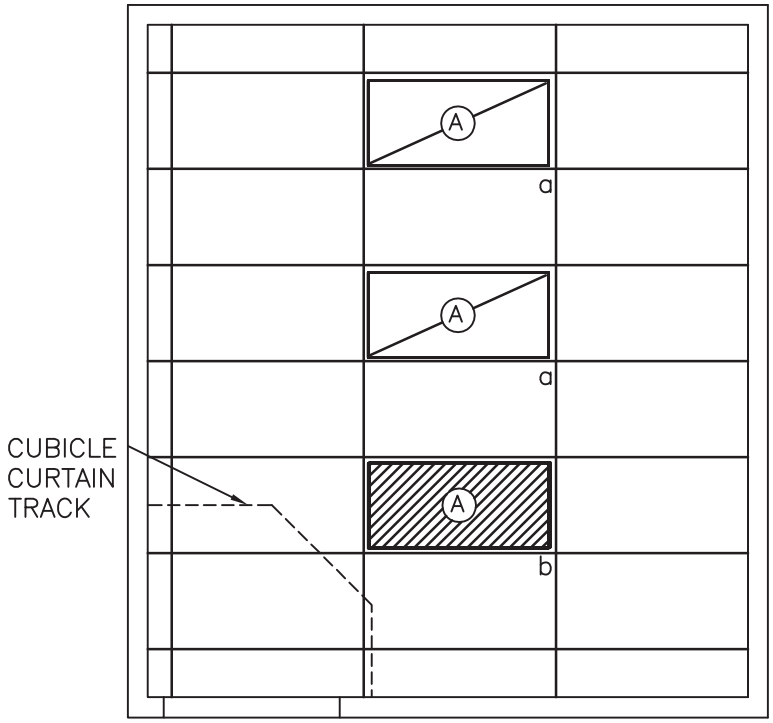
175 NSF/ 16.3 NSM

SCALE $\frac{1}{4}$" = 1'-0" M2 1 0 1 2 4Ft

NOTE: Guide plates are graphical representations of selected room types, illustrating the integration of space, components, systems, and equipment. They provide typical configurations and general technical guidance, and are not intended to be project specific. Specific infrastructure design requirements are contained in VA Design Manuals and Space Planning Criteria located in the VA Technical Information Library.

Ambulatory Care: ETM Procedure Room, Multi-Purpose (TRGM1)

Reflected Ceiling Plan



175 NSF/ 16.3 NSM

SCALE $\frac{1}{4}$" = 1'-0"

M 2 1 0 1 2 4Ft

NOTE: Guide plates are graphical representations of selected room types, illustrating the integration of space, components, systems, and equipment. They provide typical configurations and general technical guidance, and are not intended to be project specific. Specific infrastructure design requirements are contained in VA Design Manuals and Space Planning Criteria located in the VA Technical Information Library.

Ambulatory Care: ETM Procedure Room, Multi-Purpose (TRGM1)

Design Standards

ARCHITECTURAL

Ceiling:	AT
Ceiling Height:	9'-0" (2700 mm)
Wall Finish:	GWB-P
Wainscot:	--
Base:	RB
Floor Finish:	VCT
Slab Depression:	--
Sound Protection:	STC 40
Notes:	--

SPECIAL EQUIPMENT

As Required

LIGHTING

General: --

Special: --

Notes:
1) Recessed 2' x 4' (600 mm x 1200 mm) fluorescent light fixture, acrylic prismatic lens, w/ F32T8 lamps. Color corrected lamps having a color rendering index (CRI) of 70 or above with color temperature of 3500˚K.
2) The foot-candle level is average maintained.
3) Provide ballasts per fixture for desired switching configuration. To provide a uniform lighting level, switch inner lamp(s) on first switch and outer lamps on second switch.
4) Exact quantity, location, and lamping of light fixtures shall be chosen to meet the foot-candle requirement.
5) Fluorescent nurse call light.

POWER

General: As Shown

Emergency: As Shown

Notes:
1) Lighting; portable light; x-ray illuminator; select receptacles shall be on emergency power.
2) Coordinate location and height of work station receptacles with modular furniture.
3) Exam table may be wall outlet connected.

COMMUNICATION/SPECIAL SYSTEMS

Data:	Yes
Telephone:	Yes
Intercom:	--
Nurse Call:	Yes
Public Address:	--
Radio/Entertainment:	--
MATV:	--
CCTV:	--
MID:	--
Security/Duress:	Yes
VTEL:	--
VA Satellite TV:	--

Notes:
1) Coordinate location and height of work station telephone/data outlets with modular furniture.

HEATING, VENTILATING AND AIR CONDITIONING

Inside Design Conditions:	70°F (21°C) to 75°F (24°C) Dry-Bulb Temperature 30 Percent to 50 Percent Relative Humidity
Minimum Air Changes per Hour:	12
100% Exhaust:	No
100% Outside Air:	No
Room Air Balance:	Positive (+)
Dedicated Exhaust System:	No
Occupancy:	5
AC Load-(Equipment):	As Required
AC Load-(Light):	As Required

Notes:
1) Year around conditions.

PLUMBING AND MEDICAL GASES

Cold Water:	Yes
Hot Water:	Yes
Laboratory Air:	--
Laboratory Vacuum:	--
Sanitary Drain:	Yes
Reagent Grade Water:	--
Medical Air:	Yes
Medical Vacuum:	Yes
Oxygen:	Yes
Notes:	--

Ambulatory Care: ETM Procedure Room, Multi-Purpose (TRGM1)

Equipment List

JSN	SYMBOL	QTY	AI	DESCRIPTION
P3100	P-418	1	CC	Lavatory, sensor control (PG-18-1, MCS 22 40 00; PG-18-4, NCS SD 22 40 00)
A1010		AR	CC	Outlet, telephone/data, wall mounted (PG-18-1, MCS 27 15 00)
		1	CC	Receptacle, electrical, quadruplex, for computer equipment items (PG-18-1, MCS 26 27 26)
		AR	CC	Receptacle, electrical, duplex (PG-18-1, MCS 26 27 26)
		1	CC	Nurse call, emergency station, with pull cord and corridor signal light (PG-18-1, MCS 27 52 23)
		1	CC	Alarm button, security/duress (PG-18-1, MCS 27 52 31)
A5180		AR	CC	Track, curtain, cubicle, surface mounted (PG-18-1, MCS 10 21 23)
		1	CC	Outlet, medical air, wall mounted (PG-18-1, MCS 22 63 00)
		1	CC	Outlet, oxygen, wall mounted (PG-18-1, MCS 22 63 00)
		1	CC	Outlet, medical vacuum, wall mounted (PG-18-1, MCS 22 62 00)
M8320		1	VV	Table, treatment, hi-lo, electrical, 120 volt, 30” x 78” x 32” (750 mm x 1950 mm x 800 mm)
		1	VV	Bracket, vacuum bottle, slide (PG-18-1, MCS 22 62 00)
M7401		1	VV	Light, examining, portable, 120 volt, approx. 18” diameter x 75” H (450 mm diameter x 1875 mm H)
A5075		1	VV	Dispenser, soap, liquid, wall mounted
A5080		1	VV	Dispenser, paper towel, surface mounted
F2017		1	VV	Receptacle, waste, step on type, approx. 12” (300 mm) diameter
F3010 or F3025		1	VV	Bulletin board, 60” x 36” (1520 mm x 900 mm)
X3930		1	VV	Illuminator, x-ray film, 120 volt, wall mounted, individual switch for two, 14” x 17” (350 mm x 425 mm) radiographs, 31” W x 20” H (775 mm W x 500 mm H)
M4200		1	VV	Ophthalmoscope, wall hung
M4200		1	VV	Otoscope, wall hung
M4100		1	VV	Sphygmomanometer, wall hung
A5145		2	VV	Hook, coat, wall mounted
F3200		1	VV	Clock, atomic, battery operated
A5180		AR	VV	Curtain, cubicle
A5106		1	VV	Sharps container, wall mounted
A5106		1	VV	Glove dispenser, wall mounted
M1801		1	VV	PC, computer system
F0205		1	VV	Chair, rotary, with arms
F0210		1	VV	Chair, straight, without arms
E0210		1	VV	Modular work station with under counter keyboard tray, overhead storage, and wall hanger strips.
M3070		1	VV	Hamper, soiled linen
F0205		AR	VV	Automated storage/dispensing unit (cell), approx. 27” W x 25” D x 78” H (675 mm W x 635 mm D x 1950 mm H)

4.0 PLANNING AND DESIGN

4.3 PACT Module Core Components

4.3.4 Procedure Rooms

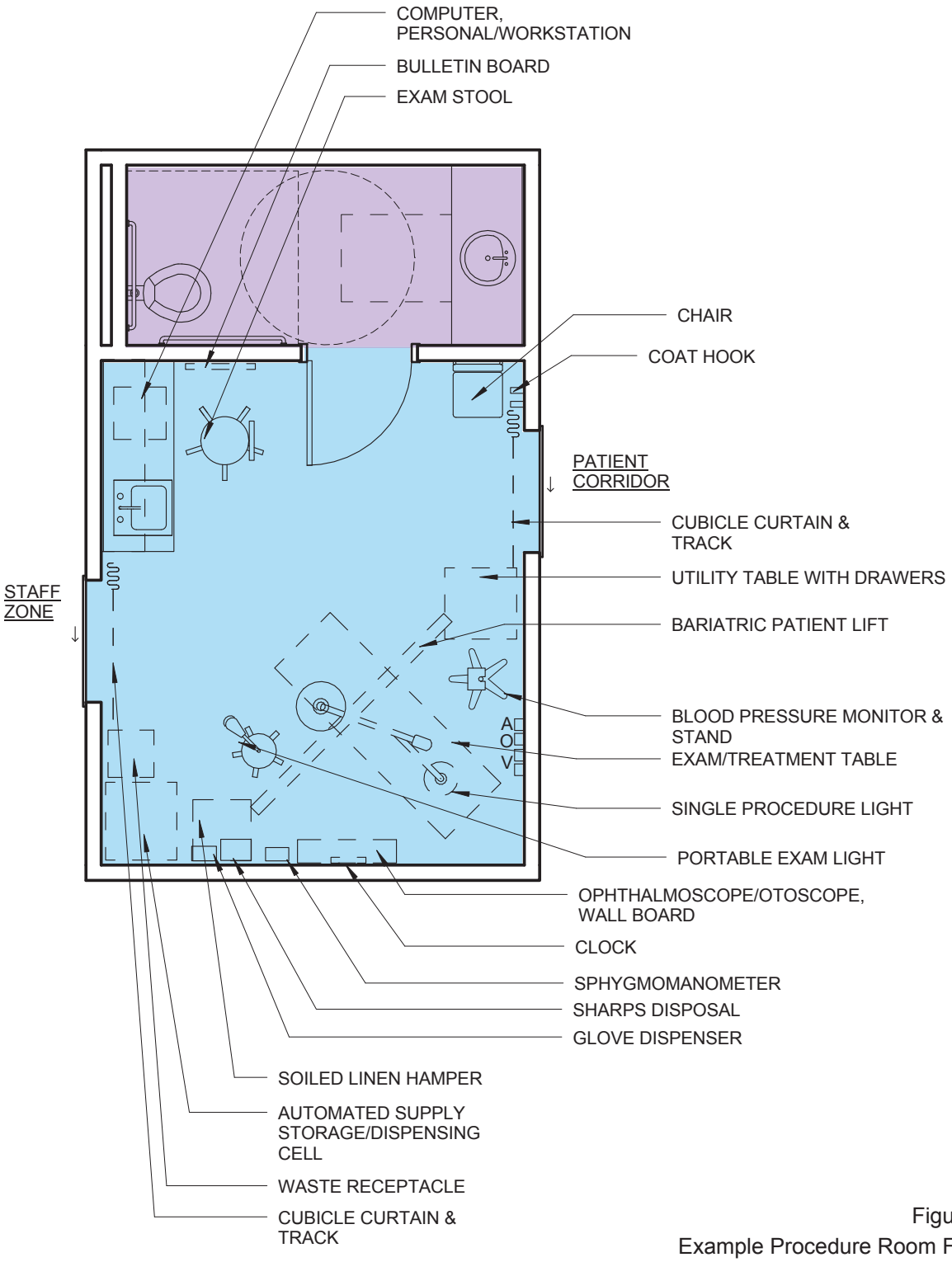
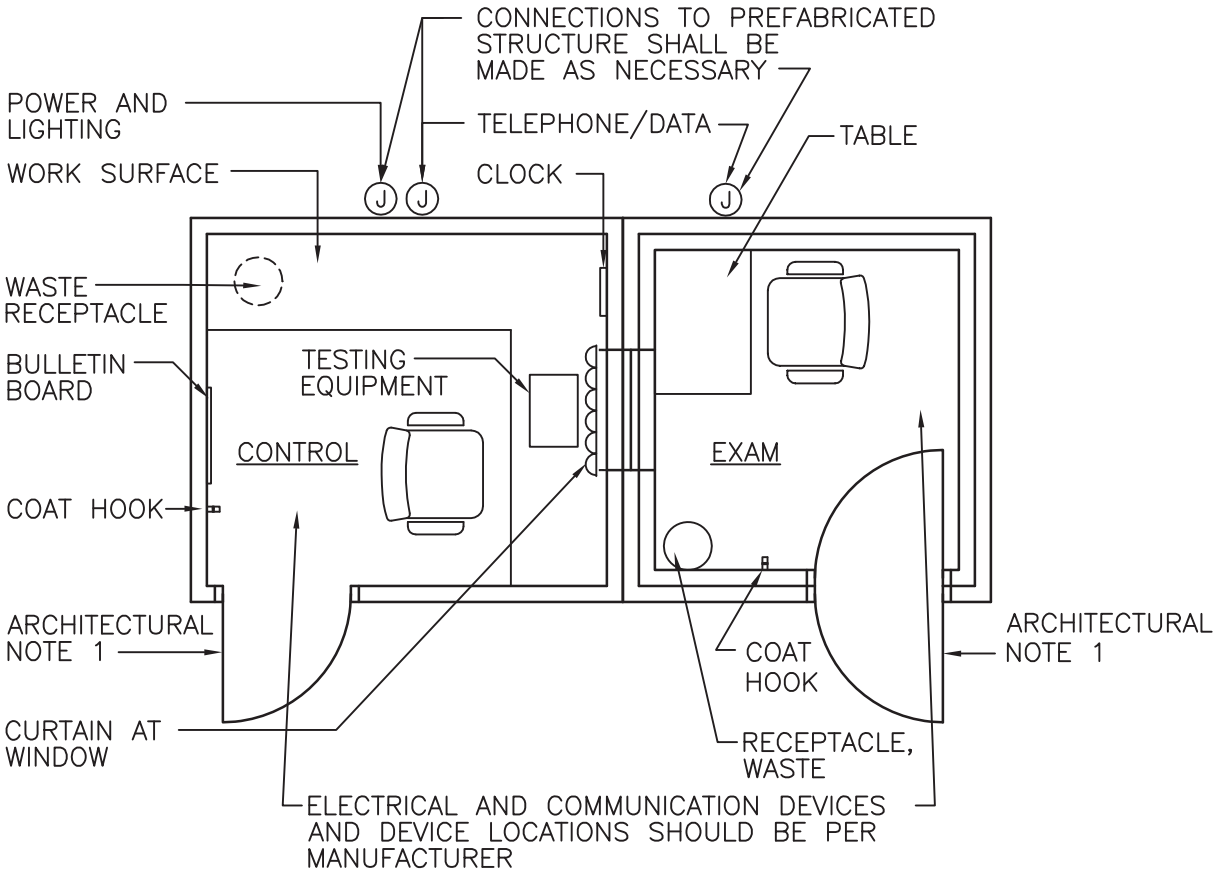


Figure 4.3-15
Example Procedure Room Floor Plan

Audiology: Booth Audiometric Exam (PEHS1)

Floor Plan



PREFABRICATED EXAM SUITE

130 NSF/ 12.1 NSM
(Included booth walls)

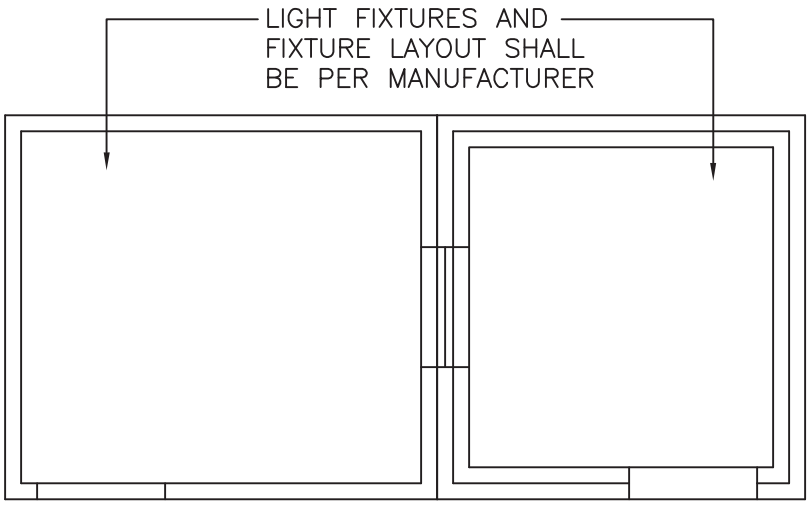
SCALE $\frac{1}{4}$" = 1'-0"

M 2 1 0 1 2 4Ft

NOTE: Guide plates are graphical representations of selected room types, illustrating the integration of space, components, systems, and equipment. They provide typical configurations and general technical guidance, and are not intended to be project specific. Specific infrastructure design requirements are contained in VA Design Manuals and Space Planning Criteria located in the VA Technical Information Library.

Audiology: Booth Audiometric Exam (PEHS1)

Reflected Ceiling Plan



130 NSF/ 12.1 NSM
(Included booth walls)

SCALE $\frac{1}{4}$" = 1'-0"

M 2 1 0 1 2 4Ft

NOTE: Guide plates are graphical representations of selected room types, illustrating the integration of space, components, systems, and equipment. They provide typical configurations and general technical guidance, and are not intended to be project specific. Specific infrastructure design requirements are contained in VA Design Manuals and Space Planning Criteria located in the VA Technical Information Library.

Audiology: Booth Audiometric Exam (PEHS1)

Design Standards

ARCHITECTURAL

Ceiling:	Finishes shall be as per manufacturer's standard model as selected.
Slab Depression:	Approximately 4" (100 mm) coordinate with manufacturer.

Notes:
1) 3'-0" (900 mm) wide door. Doors and hardware furnished with prefabricated audio booth.
2) Perimeter GWB partition full height. Acoustic blanket over ceiling.
3) For Audio Suite details see VA Bulletin #1E11-87.

SPECIAL EQUIPMENT

--

LIGHTING

General:	As Required
Special:	--

Notes:
1) Lighting to be as per manufacturer's standards.

POWER

General:	As Shown
Emergency:	As Shown
Notes:	--

COMMUNICATION/SPECIAL SYSTEMS

Data:	--
Telephone:	--
Intercom:	--
Nurse Call:	--
Public Address:	--
Radio/Entertainment:	--
MATV:	--
CCTV:	--
MID:	--
Security/Duress:	--
VTEL:	--
VA Satellite TV:	--
Notes:	--

HEATING, VENTILATING AND AIR CONDITIONING

Inside Design Conditions:	70°F (21°C) to 75°F (24°C) Dry-Bulb Temperature 30 Percent to 50 Percent Relative Humidity
Minimum Air Changes per Hour:	6
100% Exhaust:	No
100% Outside Air:	No
Room Air Balance:	Neutral (0)
Dedicated Exhaust System:	No
Occupancy:	3
AC Load-(Equipment):	As Required
AC Load-(Light):	As Required

Notes:
1) Coordinate HVAC connections with the pre-fabricated acoustic booth for the exam room. Verify if the booth is equipped with any packaged HVAC system.
2) Year around conditions.

PLUMBING AND MEDICAL GASES

Cold Water:	--
Hot Water:	--
Laboratory Air:	--
Laboratory Vacuum:	--
Sanitary Drain:	--
Reagent Grade Water:	--
Medical Air:	--
Medical Vacuum:	--
Oxygen:	--
Notes:	--

Audiology: Booth Audiometric Exam (PEHS1)

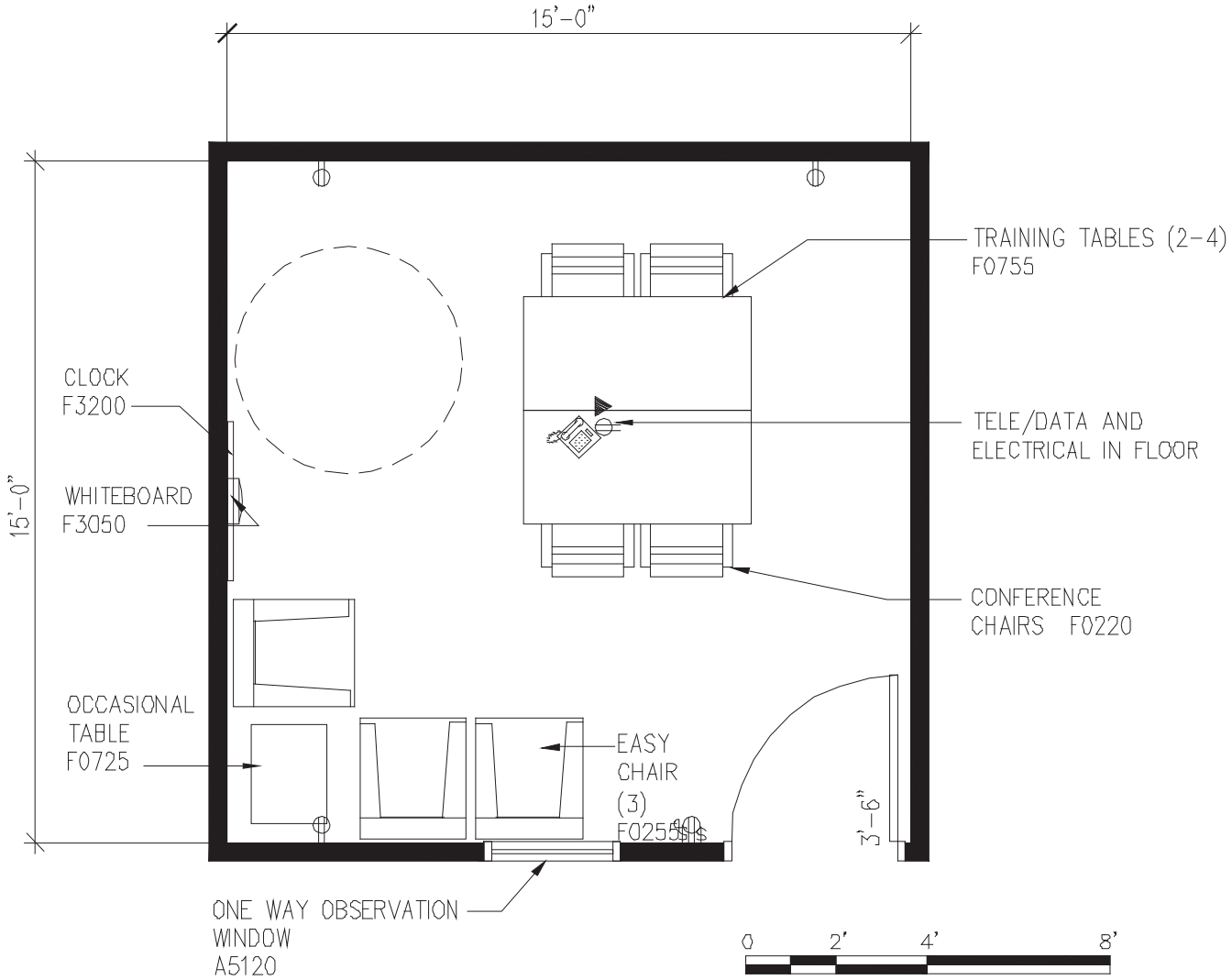
Equipment List

FIXED EQUIPMENT AND UTILITIES				
JSN	**SYMBOL**	**QTY**	**AI**	**DESCRIPTION**
		1	VV	Prefabricated audiometric booth in accordance with individual project requirements. Size as required.
				Note: Coordinate electrical, telephone/data supplies and connections with equipment vendor.

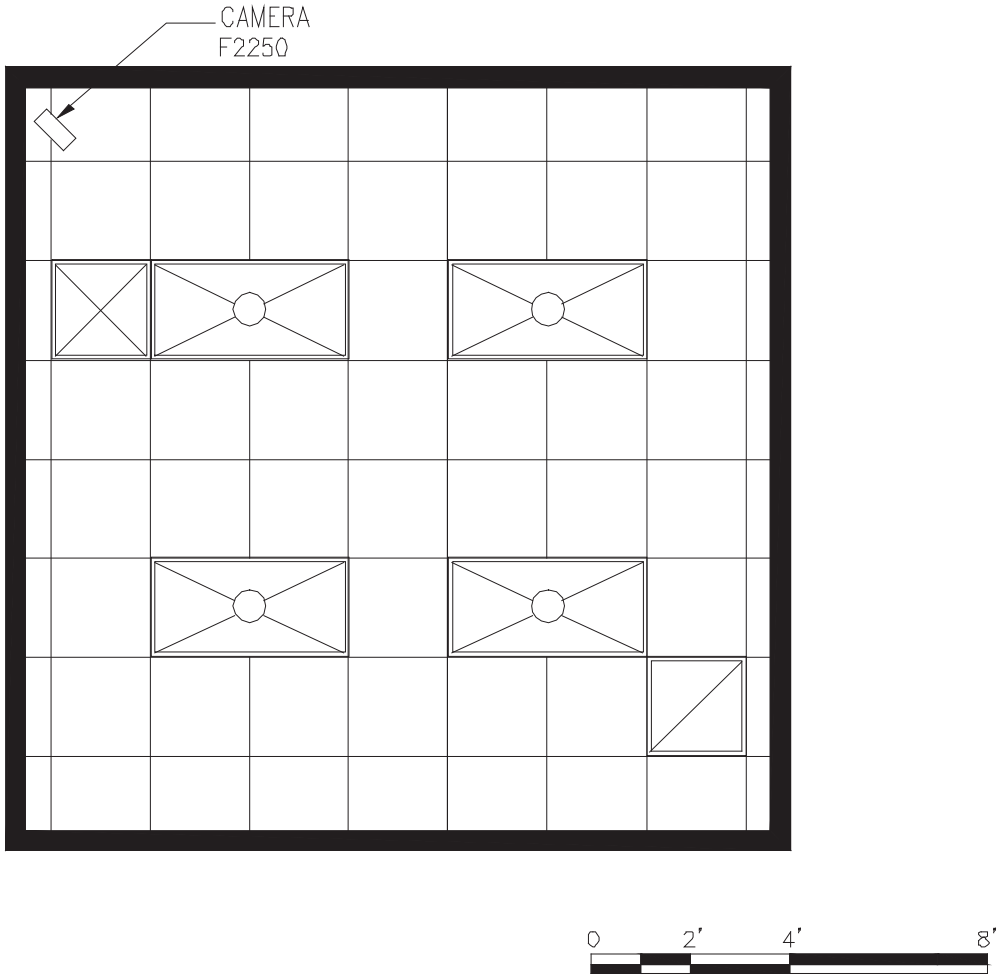
CONTROL ROOM				
JSN	**SYMBOL**	**QTY**	**AI**	**DESCRIPTION**
E0042		AR	VV	Modular work surface, 30” D x 30” H (750 mm D x 750 mm H)
F0280		AR	VV	Chair, rotary, with arms, approx. 30” W x 30” D (750 mm W x 750 mm D)
F2017		1	VV	Receptacle, waste, step on type, approx. 18” x 18” (450 mm x 450 mm)
A5185 & A6305		1	VV	A6305 curtain and A5185 rod, wall mounted over window
A5145		1	VV	Hook, coat, wall mounted
F3010 or F3025		1	VV	Bulletin board Note: F3010 is 48” x 48” (1200 mm x 1200 mm), F3025 is Wood Frame.
		1	VV	Testing equipment

EXAMINATION ROOM				
JSN	**SYMBOL**	**QTY**	**AI**	**DESCRIPTION**
F0860		1	VV	Table, single drawer, 24” W x 36” L (600 mm W x 900 mm L)
F2000		1	VV	Receptacle, waste, step on type approx. 18” x 18” (450 mm x 450 mm)
F0260		AR	VV	Chair, high back, straight, with arms
A5145		1	VV	Hook, coat, wall mounted

5.9 Group Room (OPMH1) - 225 NSF [20.9 NSM] Floor Plan



5.9 Group Room (OPMH1) - 225 NSF [20.9 NSM] Reflected Ceiling Plan



5.9 Group Room (OPMH1) - 225 NSF [20.9 NSM]

Function: The function and use of this space will vary depending on the type of patient housed in the unit. Typically, this room will be used for group educational sessions and can be used for limited computer access for patients based in individual treatment plans. This room should be directly observed from the Nurse's station and can be locked when not in use.

Note: Where VA standard items are shown, non-institutional & sustainable options should be considered if feasible.

Space Requirement:
225 NSF [20.9 NSM]

Architectural:

Floor Finish:	Carpet, Carpet tiles or resilient flooring
Base:	Rubber Base
Wall Finish:	Gypsum Board (2 layers) with painted finish
Ceiling:	Acoustic Tile with clips or gypsum board with acoustical plaster
Ceiling Height:	10'-8" preferred, 9'-6" minimum
Noise (STC Rating):	STC 45.
Hardware:	VA Hardware Group # 52
Doors:	3'-6" x 7'-0" wood or metal, with laminate glass view panel.
Windows:	Laminate glazing on inside face of exterior windows and interior windows. Integral blinds recommended on exterior glazing for sun control.

HVAC:

Inside Design Conditions:	70 degrees F (21C), 75 degrees F (24C) 30%- 50% Relative Humidity
Min. Supply Air Change/ Hr.:	6
Return Air:	Permitted
Exhaust Air:	Not Required
Room Noise Level:	NC 35
Individual Temperature Control:	Required
Room Air Balance:	Neutral

Electrical:

Lighting Levels:	
Gen. Illumination:	30 fc Task Illumination: N/A
Emerg. Illumination:	As required
Telecommunications:	1 in floor under center of table
Emergency Power:	As required
Medical Gases:	N/A
Receptacles:	5 per room (including 1 in floor under center of table)
Nurse Call:	N/A

5.9 Group Room (OPMH1) - 225 NSF [20.9 NSM]

Equipment Table:
See Legend of Symbols in Section 1.6

SYMBOL	QUANTITY	AI	DESCRIPTION
			Note: Where VA standard items are shown, non-institutional & sustainable options should be considered if feasible.
JSN A1010	1	CC	TELECOMMUNICATIONS/DATA OUTLET
JSN A1012	1	CC	TELEPHONE, WALL MOUNTED, 1 LINE
JSN A5120	1	CC	WINDOW, OBSERVATION, ONE WAY WINDOW FRAME MOUNTED INSIDE WALL OPENING ON AN ALUMINUM FRAME. SIZE AS REQUIRED.
JSN A6330	1	CC	INTERCOM - ROOM TO ROOM (NOT SHOWN)
JSN F0220	AR	W	CHAIR, CONFERENCE 914mm x 533mm x 558mm (36”h x 21” w x 22” d)
JSN F0255	7	W	CHAIR, EASY WITH ARMS AND FLOOR GLIDES. 888mm x 711mm x 812mm (35" h x 28" w x 32" d)
JSN F0755	1	W	TABLE, CONFERENCE, WOOD 761mm x 1218mm (30”h x 48” w x VARYING LENGTHS)
JSN F2250	1	W	CAMERA, PORTABLE, CCTV, WITH RECORDER PORTABLE CAMERA/RECORDER (CAMCORDER) WITH VIDEO-OUT CAPACITY TO ACCOMMODATE A REMOTE RECORDER.

TABLE 5.9
Group Room

SCHEDULE FOR FINISHES

A. FINISH CARPENTRY

1. CASEWORK TYPICALS				
Component	Material	Manufacturer / Species	Finish	Color
Countertop	Solid Surface	Corian		Sagebrush
Vertical Surface(s)	Laminate	Wilsonart		Fusion Maple 7909
Drawer and Door Fronts	Laminate	To match Vertical Surface		
Drawer and Door Interiors	Melamine			White
Drawer and Door Pulls	Aluminum	Stanley	Satin	Clear

B. WOOD DOORS

Component	Finish/Color
Doors	Wilsonart Fusion Maple - 7909
HM Frames	Paint to match adjacent wall
Aluminum Frames	Clear Anodized

C. ACCESS DOORS AND FRAMES

Material	Finish/Color
Steel	Paint to match adjacent surfaces

D. CERAMIC AND PORCELAIN TILING

1. SECTION 09 30 13, CERAMIC TILING WAINSCOT

Location	Size	Shape	Pattern	Manufacturer	Mfg. Color Name/No.
Toilet Rooms	3" X 6"	Field Tile	Matte	Daltile	0161 Urban Putty
Toilet Rooms	4 ¼" x 6"	Cove A-3461	Matte	Daltile	0161 Urban Putty
Toilet Rooms	2" x 6"	Bullnose S-4269	Matte	Daltile	0161 Urban Putty

2. SECTION 09 30 13, PORCELAIN TILE (PPT)

Finish Code	Size	Shape	Pattern	Manufacturer	Mfg. Color Name/No.
Toilet Rooms and Entry Vestibule	13" x 20"	Rectangular	Concrete Connection	Daltile	CN94 Eastside Brown

3. SECTION 09 30 13, CERAMIC TILE GROUT

Finish Manufacturer	Mfg. Color Name/No.
Custom Building Products	Polyblend Non-Sanded #135 Mushroom

E. ACOUSTICAL CEILINGS

Locations	Component	Color Pattern	Manufacturer	Mfg Name/No.
	Exposed Suspension System	White	Armstrong	Prelude XL 7301 (15/16")
Typical	2x4 ACT	White	Armstrong	Cirrus Second Look II Beveled Tegular 513
Locations where Guide Plate calls out GWB Lay-in Panels	2x4 ACT	White	Armstrong	Optima Health Zone - 3215

F. FLOORING

Locations	Finish Code	Pattern name	Manufacturer	Mfg. Color Name/No.
Corridors	Resilient Sheet Flooring	Darks	Parterre	T-503 Dark Oak
Typical UNO - including Storage, Team Workroom and Where Guide Plates reference: RF, RSF, WSF, VCT or SVT	Welded Seam Sheet Flooring	Marmorette Linoleum	Armstrong	LP506 The Boardwalk
Telecom	Anti-static welded seam			

G. RESILIENT BASE, STAIR TREADS AND ACCESSORIES

Locations	Item	Size	Manufacturer	Color
All Storage, OIT and Housekeeping areas	Rubber Base (RB)	6" Cove Base	Johnsonite	80-Fawn
All public, staff, and patient care areas	Rubber Base (RB)	6" Millwork Mandalay Profile	Johnsonite	80-Fawn
All carpet to resilient or carpet to concrete locations	Resilient Transitions	As appropriate	Johnsonite	80-Fawn
All porcelain and ceramic tile transitions	Aluminum Transitions	As appropriate	Schluter Systems	Clear anodized

H. CARPET (CP or CPT)

Locations	Pattern	Manufacture	Mfg. Color Name/No.
Reception, Consult, Clinic Manager, Admin Workroom, Waiting, Call Rooms, Extended Team Work, Staff Lounge, Group Therapy	Stereo	Shaw	50700 Metallic

I. PAINTS AND COATINGS

All paint based on Kelly Moore egg-shell finish

	Locations	Field/Accent	Mfg. Color Name/No.
P1	Hallways	Field	KM3969-1 Campiello
P2	Interior Rooms	Field	KM3970-1 Meadow Day
P3	Waiting Room	Field	KM4020 Palomino Pony
P4	Waiting Room	Accent	KM3917-2 Rock Wall
P5	Multiple	Accent	KM3915-1 Dillard
P6	Multiple	Accent	KM4021-2 Swiss Cream

J. WALL GUARDS AND CORNER GUARDS

Locations	Item	Material	Manufacturer	Mfg. Color Name/No.
All outside corners	Corner Guards	Adhesive mounted Stainless Steel	CS Acrovyn	CO series
All public corridors	Handrail	Stainless Steel	CS Acrovyn	P-RSS Series
	Wall Guard	PVC-free	CS Acrovyn	SM series - 209 Slate

K. FLOORING SPECIALTIES

Location	Finish Code	Pattern name	Manufacturer	Mfg. Color Name/No.
Vestibule	Walk off matt	Prairie Pattern	CS Acrovyn	C/S Floorometry 101

L. FIRE EXTNGUISHER CABINETS

Component	Material	Finish
Cabinet Trim	Stainless Steel	Satin
Cabinet Tub	Metal	Baked on Semi-gloss white enamel

K. TOILET AND BATH ACCESSORIES

	Item	Material	Manufacturer	Mfg. Color Name/No.
Contractor Provided Contractor Installed	Toilet Partitions	Solid Color Reinforced Composite	Bobrick	Sierra Series 1090
Backing provided by Contractor	Paper Towel Dispenser		Kimberly-Clark	0974620
Backing provided by Contractor	Toilet paper dispenser		San Jamar ocean	r4000/r4090
Backing provided by Contractor	Seat cover holder	¼ fold	Safe T Gard	57726-00
Backing provided by Contractor	Soap Dispenser–PROVON LTX-12 1200ML CROME		GoJo	051313

--- E N D---

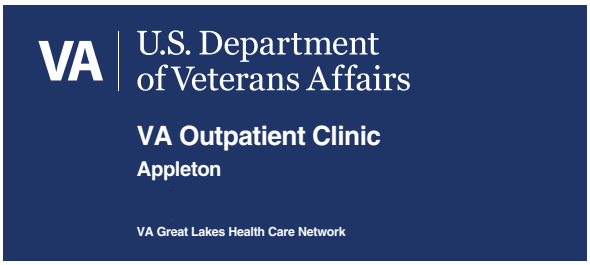
Message Layout E depicts the independent VBA Regional Office locations.

Message Layout F depicts the large Outpatient Clinic locations.

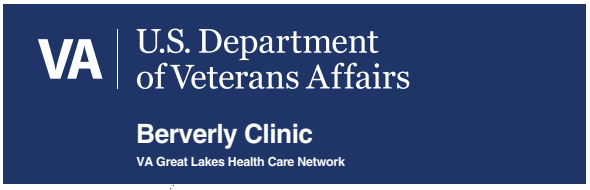
Message Layout G depicts the Community Based Outpatient Clinic locations.

Message Layout E

Message Layout F



Message Layout G



New Logo/Signature

The VA has developed a new logo/signature for use in signage. It replaces the old logo and name presentation.

The old logo may remain in use on existing signs, but all new signs shall incorporate the new logo/signature.

Adjacent are its application in a horizontal format and a vertical format.

The master art is available as an electronic file, for downloading, in the Technical Information Library. www.cfm.va.gov/til/

The master art and typography shall not be altered. The font, the size relationship between the elements, and the letter spacing for the VA and name, shall remain as presented in the master art .

Horizontal Sign Format

Vertical Sign Format

Sign Type EI-01

Illuminated Monument Sign for Medical Center Identification

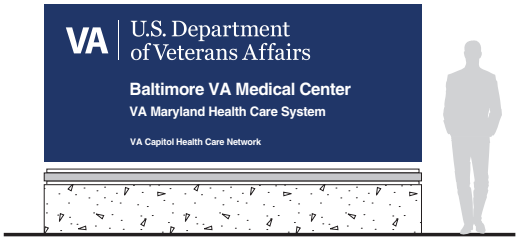
EI-01.01
Large horizontal monument sign

EI-01.02
Standard horizontal monument sign

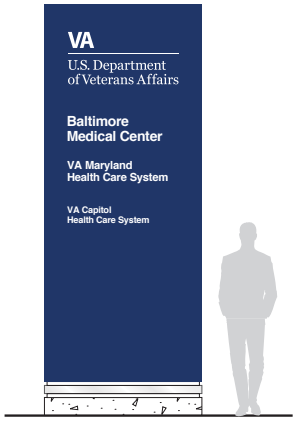
EI-01.03
Small horizontal monument sign

EI-01.04
Standard vertical monument sign

EI-01.05
Small vertical monument sign



EI-01.01



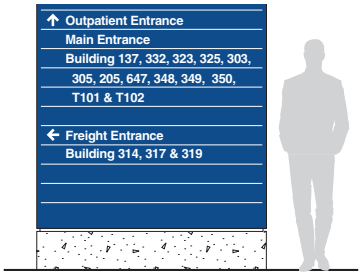
EI-01.04

Sign Type EI-02

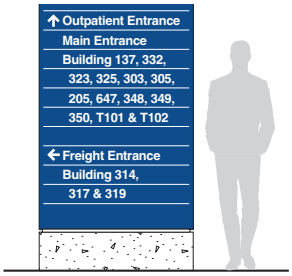
Illuminated Directional Monument Sign with Stacking Text Modules

EI-02.01
Large directional monument sign with stacking strips - 10 strips

EI-02.02
Small directional monument sign with stacking strips - 10 strips



EI-02.01



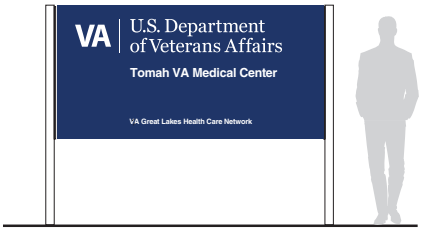
EI-02.02

Sign Type EI-03

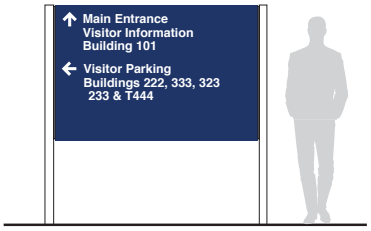
Illuminated Post and Panel Sign for Identification and Information

EI-03.01
Post and panel sign for medical center identification

EI-03.02
Standard auto oriented post and panel sign



EI-03.01



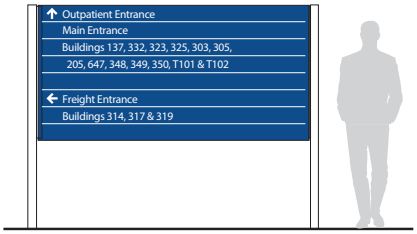
EI-03.02

Sign Type EI-04

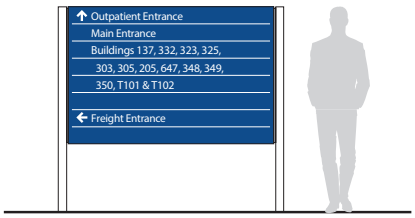
Illuminated Post and Stacking Bar Sign for Directional Information

EI-04.01
Large/long auto oriented stacking bar directional sign - 6 to 8 bars

EI-04.02
Standard auto oriented stacking bar directional sign - 5 to 8 bars



EI-04.01



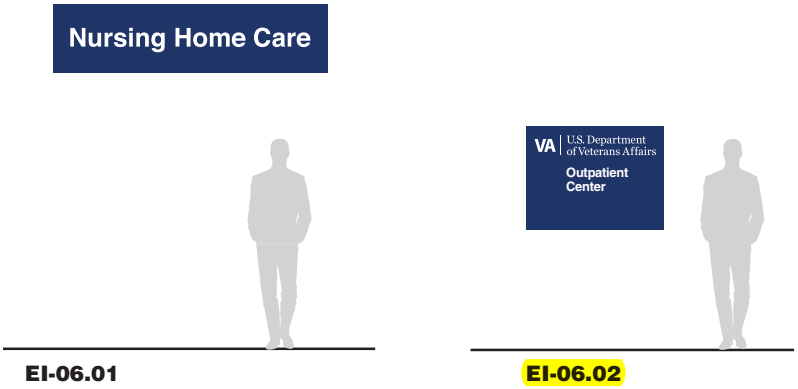
EI-04.02

Sign Type EI-06

Illuminated Wall Mounted Signs

EI-06.01
Overhead wall mounted sign

EI-06.02
Large size wall mounted sign



EI-06.01 **EI-06.02**

Sign Type EI-08

Ambulance Entrance Signs

EI-08.01
Overhead wall mounted sign

EI-08.02
Wall mounted sign

EI-08.03
Post and panel sign

EI-08.01 **EI-08.02** **EI-08.03**

Sign Type EI-09

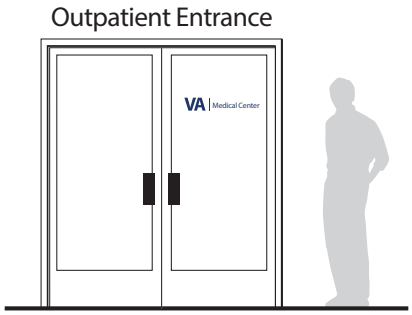
Dimensional Letters and Logo

EI-09.06
Logo and dimensional letter

EI-09.07
Logo and dimensional letter

EI-09.08
Logo and dimensional letter

EI-09.09
Logo and dimensional letter



EI-09.06

Primary Room Identification with Insert

Size
229 mm H x 229 mm W
(9" H x 9" W)

Description and Use
This sign always has tactile number and Braille as its top sign component. Lower section is for insert. Use this sign to identify the occupant or activity within a room.

Message Configuration
(Refer to layout drawing for lettering sizes and dimensions) Layout A is suggested for department identification. Layout B for rooms and departments with long words or names. Layout C and D for rooms with a common name but need specific identification.

Sign Components
Vary by sign family, sliding rail component systems, curved and flat. Top section raised text and Braille. Lower section can be inserted graphics.

Graphic Process
Tactile raised text and Braille on top section. Insert with clear protector cover with surface applied vinyl on substrate or paper printed insert in lower sign section.

Colors
Text: refer to color chart.
Background: refer to color chart

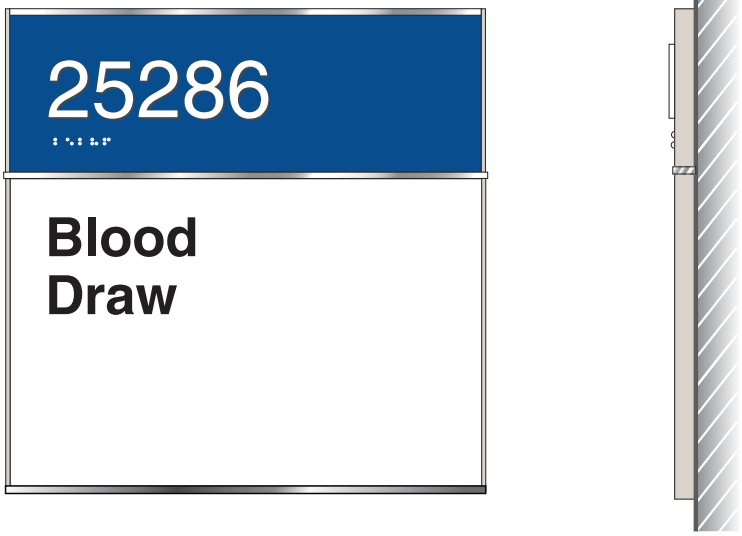
Typography
Helvetica Bold
Grade 2 Braille
Lettering size is adaptable to allow messages to fit on to the sign. Refer to various layouts for reference.

Mounting
Double sided foam tape, silastic adhesive or screw.

Installation
Knob side of door, 1524 mm (60") to top of sign and 50 mm (2") over from door frame.

Recommendations
It is recommended that this particular sign type become the "building standard" for identification of all rooms.

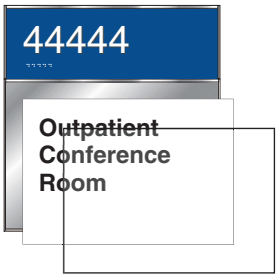
Signs identifying electrical closets, mechanical rooms and telecommunication rooms should consist of only the room number (Sign type IN-03.01). The room number should follow the master building room numbering system. No descriptive name or title should be used nor should they have a unique number system.



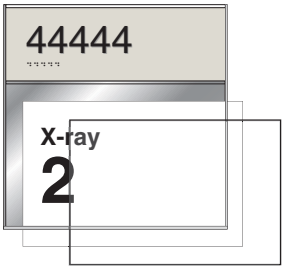
Message Layout A

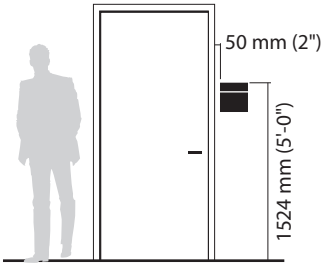
Message Layout B

Message Layout C

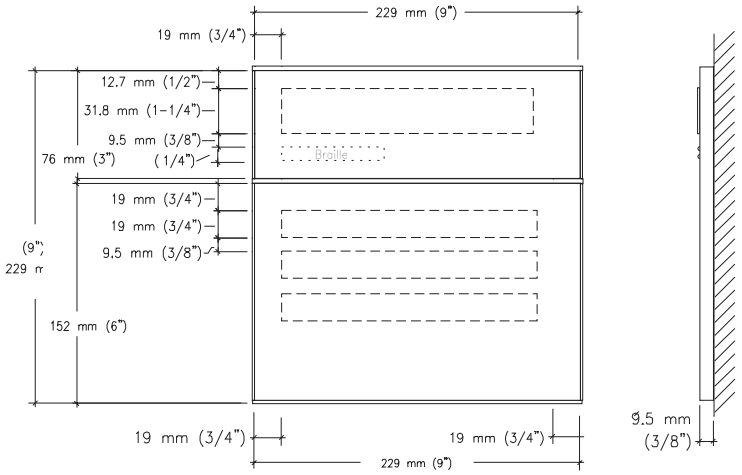


Message Layout D

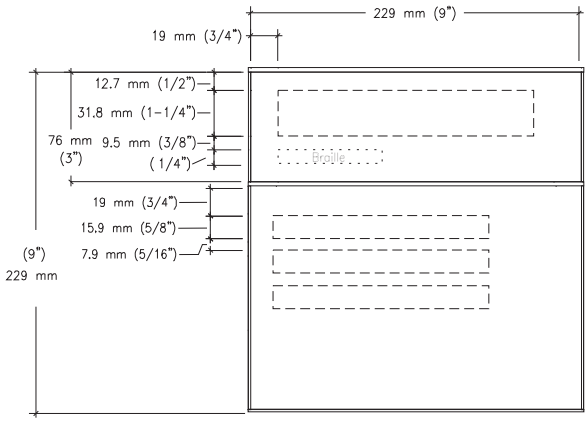




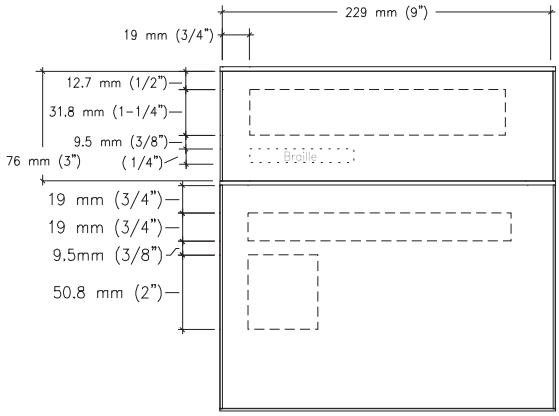
Primary Room Identification with Insert



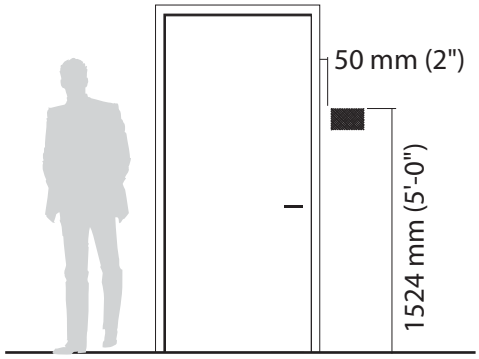
Message Layout A & B



Message Layout C



Message Layout D



Secondary Room Identification with Insert

Sign Size
152 mm H x 229 mm W
(6" H x 9" W)

Description and Use
This sign always has a tactile number and Braille in its top sign component. Use this sign to secondary rooms or rooms that have short names.

Message Configuration
(Refer to layout drawing for lettering sizes and dimensions) Layout A is suggested for short titles. Layout B and C is for longer names or titles. Layout D is specific identification by number or letter.

Sign Components
Vary by sign family, sliding rail component systems, curved and flat. Top section raised text and Braille. Lower section is an inserted graphic.

Graphic Process
Tactile raised text and Braille on top section. Insert with clear protector covering insert with surface applied vinyl on substrate or paper printed insert in lower sign section.

Colors
Text: refer to color chart.
Background: refer to color chart

Typography
Helvetica Bold
Grade 2 Braille

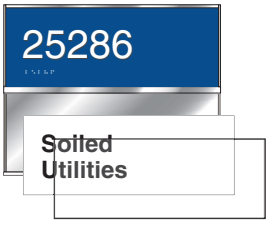
Mounting
Double sided foam tape, silastic adhesive or screw.

Installation
Knob side of door, 1524 mm (60") to top of sign and 50 mm (2") over from door frame.

Recommendations
This sign is for rooms that do not require long or large text.

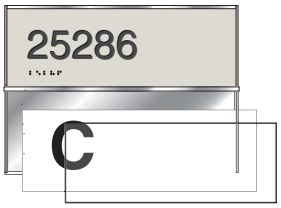
Message Layout A

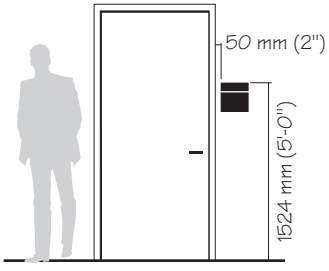
Message Layout B



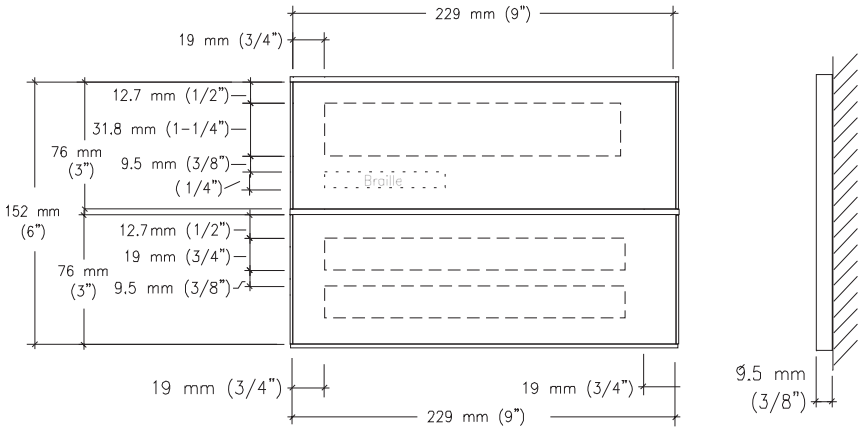
Message Layout C

Message Layout D

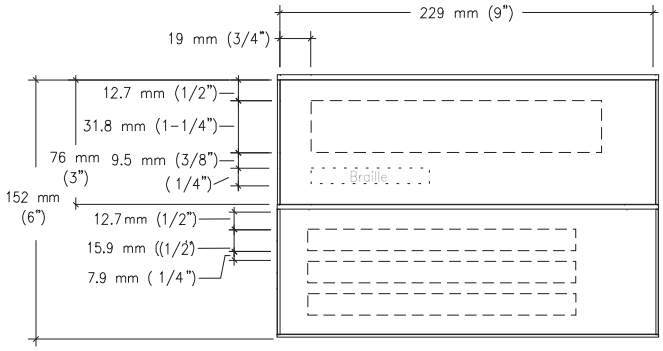




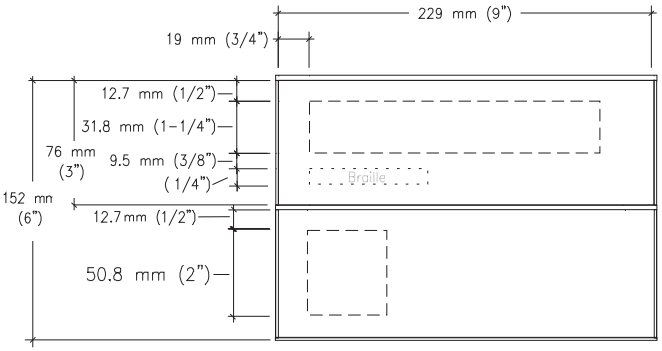
Secondary Room Identification with Insert



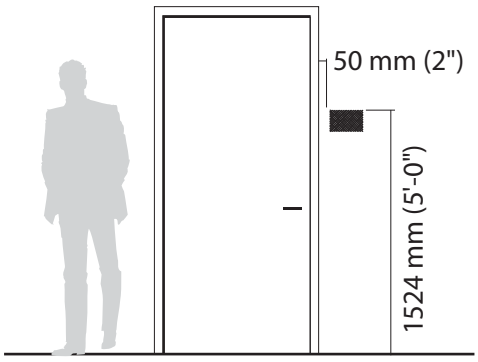
Message Layout A & B



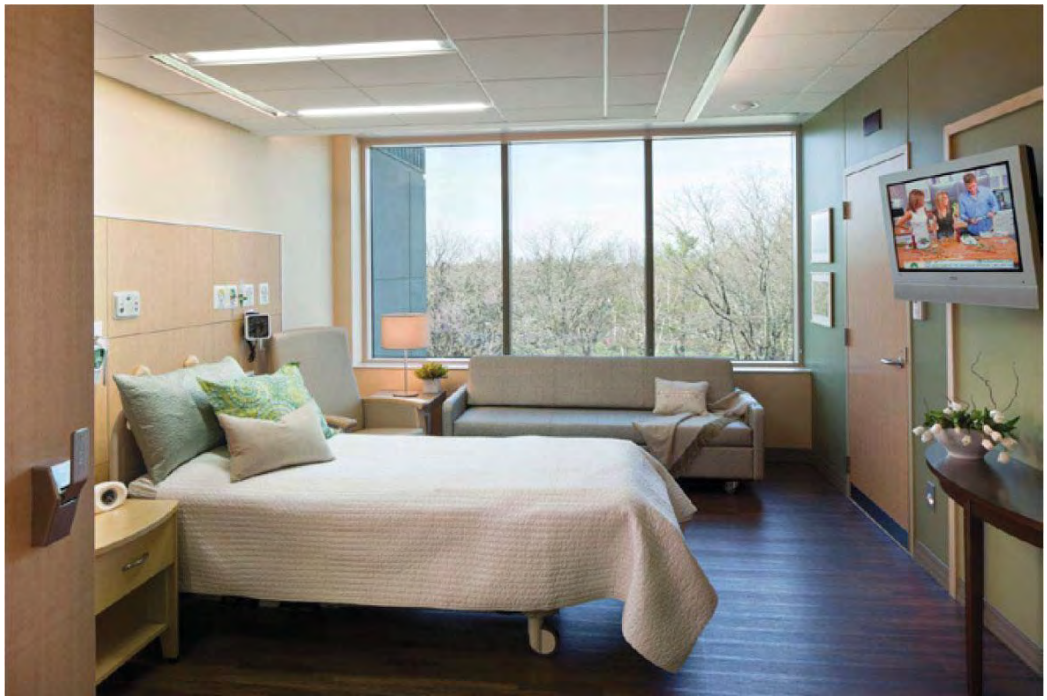
Message Layout C



Message Layout D



4.3 PATIENT CARE AREAS



4.3.1 NURSE STATION

DESIGN PARAMETERS:

(1) Average Maintained Illumination - Ambient:
- General Day: 300 lx (30 FC) at finished floor
- General Night/Quiet: 100 lx (10 FC) at finished floor
- ICU Day: 500 lx (50 FC) at finished floor
- ICU Night/Quiet: 300 lx (30 FC) at finished floor

(2) Average Maintained Illumination - Task / Focus:
- Desk Surface: 500 lx (50 FC) at 3'-0" AFF

(3) Uniformity Ratio (max / min):
- Ambient: 3:1

(4) Color Temperature (CCT):
- Fluorescent: 3500 degrees
- LED: 3500 degrees
- Compact Fluorescent: 3500 degrees

(5) Color Rendering (CRI):
- Fluorescent: minimum of 80
- LED: minimum of 80
- Compact Fluorescent: minimum of 80

(6) Power Source:
- Normal
- Life Safety branch of the EES.
- Critical branch of the EES.

DESIGN APPROACH:

The nurse station lighting will include a combination of ambient and task lighting strategies to allow for wayfinding, charting and note taking, filing, and computer work. Illumination levels should be uniform throughout the nurse station. Decorative lights such as sconces and pendants may be used for visual interest.

RECOMMENDED LUMINAIRES:

(1) Recessed ceiling-mounted fluorescent or LED lensed luminaire.
(2) Recessed ceiling-mounted compact fluorescent or LED downlight or wall washer.
(3) Recessed ceiling-mounted fluorescent or LED cove or perimeter light.
(4) Surface-mounted fluorescent or LED under-cabinet task light.
(5) Decorative compact fluorescent, fluorescent or LED wall-mounted sconce or ceiling-mounted pendant.

CONTROL APPROACH:

(1) Multi-level switching controls for fluorescent luminaires, or dimming controls for LED luminaires.
(2) Desk lights shall be controlled with integral occupancy sensors or switches.
(3) Automatic full OFF or scheduled OFF with local manual control devices for all lighting.
(4) Automatic daylight response by photocontrols for ambient lighting.
(5) Under-cabinet lights shall be controlled with integral occupancy sensors or switches.

SPECIFIC COORDINATION ISSUES:

(1) If using pendants, ensure complete field of view from nurse station to patient rooms for patient observation.
(2) Wall-mounted sconces must be ADA compliant.
(3) Coordinate style of lighting luminaires with adjacent areas.

4.3.2 PATIENT CORRIDOR

DESIGN PARAMETERS:

(1) Average Maintained Illumination - Ambient:
- Day: 200 lx (20 FC) at finished floor
- Night/Quiet: 50 lx (5 FC) at finished floor
- ICU Night/Quiet: 100 lx (10 FC) at finished floor

(2) Uniformity Ratio (max / min):
- Ambient Day: 2:1
- Ambient Night: 3:1

(3) Color Temperature (CCT):
- Fluorescent: 3500 degrees
- LED: 3500 degrees
- Compact Fluorescent: 3500 degrees

(4) Color Rendering (CRI):
- Fluorescent: minimum of 80
- LED: minimum of 80
- Compact Fluorescent: minimum of 80

(5) Power Source:
- Normal
- Life Safety branch of the EES.

DESIGN APPROACH:

Patient circulation lighting should be consistent throughout each facility. Lighting in corridors should be coordinated with adjacent spaces for a cohesive appearance. Vertical illumination should be considered with respect to signage and wayfinding. Consider locations of decentralized nurse stations when placing luminaires.

RECOMMENDED LUMINAIRES:

(1) Recessed ceiling-mounted fluorescent or LED lensed luminaire.
(2) Recessed ceiling-mounted compact fluorescent or LED downlight or wall washer.
(3) Recessed ceiling-mounted fluorescent or LED cove or perimeter light.
(4) Decorative compact fluorescent, fluorescent or LED wall-mounted sconce.

CONTROL APPROACH:

(1) Automatic full or partial OFF or scheduled OFF with local manual control (devices for all lighting.
(2) Automatic daylight response by photocontrols for ambient lighting.

SPECIFIC COORDINATION ISSUES:

(1) Mitigate possibly glare from highly polished floors.

(2) Luminaires should be easily serviceable from below without the need to open the ceiling plenum.
(3) Wall-mounted sconces must be ADA compliant.

4.3.3 MEDICATION ROOM

DESIGN PARAMETERS:

(1) Average Maintained Illumination - Ambient: 500 lx (50 FC) at 3'-0" AFF
(2) Average Maintained Illumination - Task / Focus:
- Desk Surface: 750 lx (75 FC) at 3'-0" AFF
- Storage: 300 lx (30 FC) at vertical face of shelving

(3) Uniformity Ratio (max / min):
- Ambient: 3:1

(4) Color Temperature (CCT):
- Fluorescent: 3500 degrees
- LED: 3500 degrees

(5) Color Rendering (CRI):
- Fluorescent: minimum of 80
- LED: minimum of 80

(6) Power Source:
- Normal

DESIGN APPROACH:

A combination of general and task lighting should be utilized for medication rooms. Consider vertical illumination on storage shelves when placing light luminaires.

RECOMMENDED LUMINAIRES:

(1) Recessed ceiling-mounted fluorescent or LED lensed luminaire.
(2) Surface-mounted fluorescent or LED under-cabinet task light fixture.

CONTROL APPROACH:

(1) Multi-level switching controls for fluorescent luminaires, or dimming controls for LED luminaires.
(2) Automatic full OFF or scheduled OFF with local manual control devices for all lighting.
(3) Automatic daylight response by photocontrols for ambient lighting.
(4) Under-cabinet lights shall be controlled with integral occupancy sensors or switches.

SPECIFIC COORDINATION ISSUES:

(1) Coordinate luminaire placement with overhead cabinets and shelving. Do not install luminaires directly above.

4.3.4 PATIENT ROOM, GENERAL

DESIGN PARAMETERS:

(1) Average Maintained Illumination - Ambient: 100 lx (10 FC) at finished floor
(2) Average Maintained Illumination - Task / Focus:
- Reading: 400 lx (40 FC) at head of bed
- Hand Washing Sink: 500 lx (50 FC) at 3'-0" AFF
- Examination: 1000 lx (100 FC) at patient bed
- Night Observation: 100 lx (10 FC) at patient bed
- Night Light: 2 lx (0.2 FC) at finished floor, to toilet and corridor

(3) Uniformity Ratio (max / min):
- Ambient: 3:1

(4) Color Temperature (CCT):
- Fluorescent: 3500 degrees
- LED: 3500 degrees
- Compact Fluorescent: 3500 degrees

(5) Color Rendering (CRI):
- Fluorescent: minimum of 80
- LED: minimum of 80
- Compact Fluorescent: minimum of 80

(6) Power Source:
- Normal
- Critical branch of the EES.

DESIGN APPROACH:

A combination of general, task, and exam lighting should be provided to reach desired illumination levels. Luminaires should be provided with sufficient shielding to minimize glare during examinations and when the patient bed is reclined. Locations of patient bed, charting area, and hand washing sink should be considered when placing luminaires.

RECOMMENDED LUMINAIRES:

(1) Recessed ceiling-mounted fluorescent or LED lensed patient room luminaire (single or tandem).
(2) Recessed ceiling-mounted fluorescent or LED exam light.
(3) Recessed ceiling-mounted compact fluorescent or LED downlight.
(4) Recessed wall-mounted amber LED night light.
(5) Decorative compact fluorescent, fluorescent or LED wall-mounted sconce.

CONTROL APPROACH:

(1) Multi-level switching shall be used for tasks including general, reading, night observation, and exam lights.

(2) General and reading lights shall be controlled with the patient pillow switch.
(3) Exam light shall be controlled with a red switch at the patient headwall.
(4) Light at hand washing sink shall be controlled with a switch above the sink.
(5) Automatic full OFF or scheduled OFF with local manual control devices for all lighting.
(6) Automatic daylight response by photocontrols for general and night lighting.

SPECIFIC COORDINATION ISSUES:

(1) Luminaires must contain lamp breakage within luminaire.
(2) Avoid using luminaires with surfaces that collect dust and debris.
(3) In multi-patient rooms, night lights to toilet and corridor should not be blocked by curtains. Control devices must be accessible when curtains are closed.

4.3.5 PATIENT ROOM, ISOLATION

DESIGN PARAMETERS:

(1) Average Maintained Illumination - Ambient: Ambient: 50 lx (5 FC) at finished floor
(2) Average Maintained Illumination - Task / Focus:
- Reading: 400 lx (40 FC) at head of bed
- Hand Washing Sink: 500 lx (50 FC) at 3'-0" AFF
- Examination: 500 lx (50 FC) at patient bed
- Night Observation: 30 lx (3 FC) at patient bed
- Night Light: 2 lx (0.2 FC) at finished floor, to toilet and corridor
- Cleaning: 300 lx (30 FC) at finished floor
- Ante Room: 200 lx (20 FC) at finished floor

(3) Uniformity Ratio (max / min):
- Ambient: 3:1

(4) Color Temperature (CCT):
- Fluorescent: 3500 degrees
- LED: 3500 degrees
- Compact Fluorescent: 3500 degrees

(5) Color Rendering (CRI):
- Fluorescent: minimum of 80
- LED: minimum of 80
- Compact Fluorescent: minimum of 80

(6) Power Source:
- Normal
- Critical branch of the EES.

DESIGN APPROACH:

A combination of general, task, and exam lighting should be provided to reach desired illumination levels. Luminaires should be provided with sufficient shielding to minimize glare during examinations and when the patient bed is reclined. Locations of patient bed, charting area, and hand washing sink should be considered when placing luminaires.

RECOMMENDED LUMINAIRES:

(1) Recessed ceiling-mounted fluorescent or LED sealed lensed patient room luminaire (single or tandem).
(2) Recessed ceiling-mounted fluorescent or LED sealed exam light.
(3) Recessed ceiling-mounted compact fluorescent or LED sealed downlight.
(4) Recessed wall-mounted amber LED night light.

CONTROL APPROACH:

(1) Multi-level switching shall be used for tasks including general, reading, night observation, and exam lights.
(2) General and reading lights shall be controlled with the patient pillow switch.
(3) Exam light shall be controlled with a red switch at the patient headwall.
(4) Light at hand washing sink shall be controlled with a switch above the sink.
(5) Automatic full OFF or scheduled OFF with local manual control devices for all lighting.
(6) Automatic daylight response by photocontrols for general and night lighting.

SPECIFIC COORDINATION ISSUES:

(1) Luminaires must contain lamp breakage within luminaire.
(2) Avoid using luminaires with surfaces that collect dust and debris.
(3) In isolation rooms luminaires shall be specified as enclosed and sealed, UL listed for wet locations and have the ability to be wiped down with corrosive cleaners.

4.3.6 PATIENT ROOM, INTENSIVE CARE

DESIGN PARAMETERS:

(1) Average Maintained Illumination - Ambient: 100 lx (10 FC) at finished floor
(2) Average Maintained Illumination - Task / Focus:
- Hand Washing Sink: 500 lx (50 FC) at 3'-0" AFF
- Examination: 1000 lx (100 FC) at patient bed
- Night Observation: 100 lx (10 FC) at patient bed
- Night Light: 2 lx (0.2 FC) at finished floor, to toilet and corridor

(3) Uniformity Ratio (max / min):
- Ambient: 3:1

(4) Color Temperature (CCT):
- Fluorescent: 3500 degrees
- LED: 3500 degrees
- Compact Fluorescent: 3500 degrees

(5) Color Rendering (CRI):
- Fluorescent: minimum of 80
- LED: minimum of 80
- Compact Fluorescent: minimum of 80

(6) Power Source:
- Normal
- Critical branch of the EES.

DESIGN APPROACH:

A combination of general, task, and exam lighting should be provided to reach desired illumination levels. Luminaires should be provided with sufficient shielding to minimize glare during examinations and when the patient bed is reclined. Locations of patient bed, charting area, and hand washing sink should be considered when placing luminaires.

RECOMMENDED LUMINAIRES:

(1) Recessed ceiling-mounted fluorescent or LED lensed patient room luminaire (single or tandem).
(2) Recessed ceiling-mounted fluorescent or LED exam light.
(3) Recessed ceiling-mounted compact fluorescent or LED downlight.
(4) Recessed wall-mounted amber LED night light.

CONTROL APPROACH:

(1) Multi-level switching shall be utilized for general and exam lighting.
(2) Recessed downlights should be controlled with a dimming switch.
(3) Exam light shall be controlled with a red switch at the patient headwall.

(4) Automatic full OFF or scheduled OFF with local manual control devices for all lighting.
(5) Automatic daylight response by photocontrols for general and night lighting.

SPECIFIC COORDINATION ISSUES:

(1) Luminaires must contain lamp breakage within luminaire.
(2) Avoid using luminaires with surfaces that collect dust and debris.

4.3.7 PATIENT ROOM, RESIDENTIAL

DESIGN PARAMETERS:

(1) Average Maintained Illumination - Ambient: 50 lx (5 FC) at finished floor
(2) Average Maintained Illumination - Task / Focus:
- Reading: 400 lx (40 FC) at head of bed
- Night Light: 2 lx (0.2 FC) at finished floor, to toilet and corridor
- Cleaning: 300 lx (30 FC) at finished floor

(3) Uniformity Ratio (max / min):
- Ambient: 3:1

(4) Color Temperature (CCT):
- Fluorescent: 3500 degrees
- LED: 3500 degrees
- Compact Fluorescent: 3500 degrees

(5) Color Rendering (CRI):
- Fluorescent: minimum of 80
- LED: minimum of 80
- Compact Fluorescent: minimum of 80

(6) Power Source:
- Normal
- Critical branch of the EES.

DESIGN APPROACH:

A combination of general and task lighting should be provided to reach desired illumination levels. Luminaires should be provided with sufficient shielding to minimize glare during examinations and when the patient bed is reclined. Light luminaires should have a residential feeling, and the use of table and floor lamps is recommended.

RECOMMENDED LUMINAIRES:

(1) Recessed ceiling-mounted compact fluorescent or LED downlight or wall washer.
(2) Decorative compact fluorescent, fluorescent or LED wall-mounted sconce.
(3) Stand-mounted compact fluorescent or LED table or floor lamp.

CONTROL APPROACH:

(1) Multi-level switching controls for fluorescent luminaires, or dimming controls for LED luminaires.
(2) Table and floor lights shall be controlled with integral occupancy sensors or switches.
(3) Automatic full OFF or scheduled OFF with local manual control devices for all lighting.
(4) Automatic daylight response by photocontrols for general and night lighting.

SPECIFIC COORDINATION ISSUES:

(1) Luminaires must contain lamp breakage within luminaire.
(2) Wall-mounted sconces must be ADA compliant.

4.3.8 PATIENT TOILET/SHOWER

DESIGN PARAMETERS:

(1) Average Maintained Illumination - Ambient: 300 lx (30 FC) at 1'-6" AFF
(2) Average Maintained Illumination - Task / Focus:
- Shower: 200 lx (20 FC) at finished floor
- Night Light: 10 lx (1 FC) at finished floor

(3) Uniformity Ratio (max / min):
- n/a

(4) Color Temperature (CCT):
- Fluorescent: 3500 degrees
- LED: 3500 degrees
- Compact Fluorescent: 3500 degrees

(5) Color Rendering (CRI):
- Fluorescent: minimum of 80
- LED: minimum of 80
- Compact Fluorescent: minimum of 80

(6) Power Source:
- Normal
- Critical branch of the EES.

DESIGN APPROACH:

Provide adequate vertical illumination at the vanity.

RECOMMENDED LUMINAIRES:

(1) Recessed ceiling-mounted compact fluorescent or LED downlight.
(2) Wall-mounted compact fluorescent, fluorescent or LED mirror or vanity luminaire.
(3) Recessed wall-mounted amber LED night light.

CONTROL APPROACH:

(1) Automatic full OFF or scheduled OFF with local manual control devices for all lighting.
(2) Automatic daylight response by photocontrols for night lighting.

SPECIFIC COORDINATION ISSUES:

(1) Bariatric care rooms must coordinate luminaire placement with ceiling track and ceiling track supports.
(2) Lighting in the toilet rooms should be located to coordinate with plumbing fixtures, vanities, and wall-mounted equipment.

4.3.9 PATIENT TOILET/SHOWER - RESIDENTIAL

DESIGN PARAMETERS:

(1) Average Maintained Illumination - Ambient: 300 lx (30 FC) at 1'-6" AFF
(2) Average Maintained Illumination - Task / Focus:
- Shower: 200 lx (20 FC) at finished floor
- Night Light: 10 lx (1 FC) at finished floor

(3) Uniformity Ratio (max / min):
- n/a

(4) Color Temperature (CCT):
- Fluorescent: 3500 degrees
- LED: 3500 degrees
- Compact Fluorescent: 3500 degrees

(5) Color Rendering (CRI):
- Fluorescent: minimum of 80
- LED: minimum of 80
- Compact Fluorescent: minimum of 80

(6) Power Source:
- Normal
- Critical branch of the EES.

DESIGN APPROACH:

Provide adequate vertical illumination at the vanity.

RECOMMENDED LUMINAIRES:

(1) Recessed ceiling-mounted compact fluorescent or LED downlight.
(2) Wall-mounted compact fluorescent, fluorescent or LED mirror or vanity luminaire.
(3) Recessed wall-mounted amber LED night light.

CONTROL APPROACH:

(1) Automatic full OFF or scheduled OFF with local manual control devices for all lighting.
(2) Automatic daylight response by photocontrols for night lighting.

SPECIFIC COORDINATION ISSUES:

(1) Lighting in the toilet rooms should be located to coordinate with plumbing fixtures, vanities, and wall-mounted equipment.

4.3.10 NOURISHMENT STATION

DESIGN PARAMETERS:

(1) Average Maintained Illumination - Ambient: 150 lx (15 FC) at finished floor
(2) Average Maintained Illumination - Task / Focus:
- Food Preparation: 500 lx (50FC) at 3'-0" AFF on counter

(3) Uniformity Ratio (max / min):
- Ambient: 3:1

(4) Color Temperature (CCT):
- Fluorescent: 3500 degrees
- LED: 3500 degrees
- Compact Fluorescent: 3500 degrees

(5) Color Rendering (CRI):
- Fluorescent: minimum of 80
- LED: minimum of 80
- Compact Fluorescent: minimum of 80

(6) Power Source:
- Normal

DESIGN APPROACH:

A combination of ambient and task lighting should be used at the nourishment station.

RECOMMENDED LUMINAIRES:

(1) Recessed ceiling-mounted fluorescent or LED lensed light luminaire.
(2) Recessed ceiling-mounted compact fluorescent or LED downlight.
(3) Surface-mounted fluorescent or LED under-cabinet task light luminaire.

CONTROL APPROACH:

(1) Multi-level switching controls for fluorescent luminaires, or dimming controls for LED luminaires.
(2) Automatic full OFF or scheduled OFF with local manual control devices for all lighting.
(3) Under-cabinet lights shall be controlled with integral occupancy sensors or switches.
(4) If nourishment station is open, overhead lighting shall be controlled with adjacent area.
(5) Automatic daylight response by photocontrols for ambient lighting.

SPECIFIC COORDINATION ISSUES:

(1) If nourishment station is open, coordinate style of lighting luminaires with adjacent areas.

4.3.11 DAY ROOM

DESIGN PARAMETERS:

(1) Average Maintained Illumination - Ambient: 50 lx (5 FC) at finished floor
(2) Average Maintained Illumination - Task / Focus:
- Reading: 400 lx (20 FC) at 2'-6" AFF

(3) Uniformity Ratio (max / min):
- Ambient: 3:1

(4) Color Temperature (CCT):
- Fluorescent: 3500 degrees
- LED: 3500 degrees
- Compact Fluorescent: 3500 degrees

(5) Color Rendering (CRI):
- Fluorescent: minimum of 80
- LED: minimum of 80
- Compact Fluorescent: minimum of 80

(6) Power Source:
- Normal

DESIGN APPROACH:

The day rooms should include a combination of lighting strategies to perform a variety of tasks. Consider both horizontal and vertical illumination for day rooms.

RECOMMENDED LUMINAIRES:

(1) Recessed ceiling-mounted fluorescent or LED lensed luminaire.
(2) Recessed ceiling-mounted compact fluorescent or LED downlight or wall washer.
(3) Decorative compact fluorescent, fluorescent or LED wall-mounted sconce.
(4) Recessed ceiling-mounted fluorescent or LED cove or perimeter light.
(5) Stand-mounted compact fluorescent or LED table or floor lamp.

CONTROL APPROACH:

(1) Multi-level switching controls for fluorescent luminaires, or dimming controls for LED luminaires.
(2) Table and floor lights shall be controlled with integral occupancy sensors or switches.
(3) Automatic full OFF or scheduled OFF with local manual control devices for all lighting.
(4) Automatic daylight response by photocontrols for ambient lighting.

SPECIFIC COORDINATION ISSUES:

(1) If day room is open, coordinate style of lighting luminaires with adjacent areas.
(2) Wall-mounted sconces must be ADA compliant.

4.3.12 MULTI-PURPOSE ACTIVITY ROOM

DESIGN PARAMETERS:

(1) Average Maintained Illumination - Ambient: 50 lx (5 FC) at finished floor
(2) Average Maintained Illumination - Task / Focus:
- Games: 200 lx (20 FC) at 2'-6" AFF
- Crafts: 500 lx (50 FC) at 2'-6" AFF
- Kitchenette: 500 lx (50 FC) at 3'-0" AFF on counter

(3) Uniformity Ratio (max / min):
- Ambient: 3:1

(4) Color Temperature (CCT):
- Fluorescent: 3500 degrees
- LED: 3500 degrees
- Compact Fluorescent: 3500 degrees

(5) Color Rendering (CRI):
- Fluorescent: minimum of 80
- LED: minimum of 80
- Compact Fluorescent: minimum of 80

(6) Power Source:
- Normal

DESIGN APPROACH:

The multi-purpose activity rooms should include a combination of lighting strategies to perform a variety of tasks. Consider both horizontal and vertical illumination for multi-purpose rooms.

RECOMMENDED LUMINAIRES:

(1) Recessed ceiling-mounted fluorescent or LED lensed luminaire.
(2) Recessed ceiling-mounted compact fluorescent or LED downlight or wall washer.
(3) Recessed ceiling-mounted fluorescent or LED cove or perimeter light.

CONTROL APPROACH:

(1) Multi-level switching controls for fluorescent luminaires, or dimming controls for LED luminaires.
(2) Automatic full OFF or scheduled OFF with local manual control devices for all lighting.
(3) Automatic daylight response by photocontrols for ambient lighting.

SPECIFIC COORDINATION ISSUES:

(1) Not applicable.

4.3.13 DRESSING ROOM

DESIGN PARAMETERS:

(1) Average Maintained Illumination - Ambient: 300 lx (30 FC) at 2'-6" AFF
(2) Uniformity Ratio (max / min):
- Ambient: 3:1

(3) Color Temperature (CCT):
- Fluorescent: 3500 degrees
- LED: 3500 degrees
- Compact Fluorescent: 3500 degrees

(4) Color Rendering (CRI):
- Fluorescent: minimum of 80
- LED: minimum of 80
- Compact Fluorescent: minimum of 80

(5) Power Source:
- Normal

DESIGN APPROACH:

Consider both horizontal and vertical illumination for dressing rooms.

RECOMMENDED LUMINAIRES:

(1) Recessed ceiling-mounted fluorescent or LED lensed luminaire.
(2) Recessed ceiling-mounted compact fluorescent or LED downlight or wall washer.
(3) Recessed ceiling-mounted fluorescent or LED cove or perimeter light.

CONTROL APPROACH:

(1) Multi-level switching controls for fluorescent luminaires, or dimming controls for LED luminaires.
(2) Automatic full OFF or scheduled OFF with local manual control devices for all lighting.
(3) Automatic daylight response by photocontrols for ambient lighting.

SPECIFIC COORDINATION ISSUES:

(1) Mitigate reflections mirrors by considering luminaire position.

LABORATORIES - AIR HANDLING UNIT	
AHU System Data Sheet	
Air Handling Type	Constant or Variable Air Volume
Indoor Design Temperature	Room Data Sheets
Indoor Design Relative Humidity	Room Data Sheets
Minimum Total Air Changes Per Hour	Room Data Sheets
Minimum Outdoor Air Changes per Hour	100%
Return Air Permitted	No
Exhaust Air Required	Yes
Air Economizer Cycle Required	Yes
Heat Recovery System Required	ASHRAE Standard 90.1 - 2007
Filtration - Pre-Filters (PF-1 and PF-2)	PF-1 = MERV 7 and PF-2 = MERV 13
Cooling Source	Chilled Water
Heating Source	Steam and/or Hot Water
Humidification Source	Plant Steam or "Clean Steam"
General Exhaust System Required	Yes
Special Exhaust System Required	Yes
Emergency Power Required	Yes
Individual Room Temperature Control Required	Room Data Sheets
Room Air Balance	Room Data Sheets
Compliance	NFPA 45 and 99

Note 1 - Air-Handling Unit

A dedicated air-handling unit with 100% outdoor air is required when a group of laboratories, forming a full-fledged department is in the project scope. One or two laboratories, in the outpatient clinic or similar facilities, can be served by an air-handling unit with minimum outdoor air shown in the Room Data Sheets (Reference: ASHRAE Standard 170 -2008) and meeting the filtration requirements.

Note 2 - Fume Hoods and Biological Safety Cabinets

Coordinate exhaust needs with the laboratory equipment (fume hoods and biological safety cabinets). Room Noise Levels can be increased by NC 5 for laboratories equipped with fume hoods and/or biological safety cabinets.

Note 3 - AHU System Configuration

(a) The system configuration (CV or VAV) shall be project specific. Applications involving multiple hoods, selected to maintain fixed face velocity at varying sash positions, are ideally suited for a variable air volume system. Such VAV systems are designed to meet the simultaneous, but at times differing, needs of the room cooling load and equipment exhaust. The control system shall be designed to provide dynamic interaction between the equipment exhaust and general exhaust systems while still maintaining a constant "offset" (make-up air) from the adjoining corridor for negative air balance.

(b) Use of low flow fume hoods shall be evaluated and compared to the VAV system.

Note 4 - General Laboratory

General Laboratory or "Dry Laboratory" is defined as a space without hoods or biological safety cabinets and chemicals are not used wihtin the space. Generally used for research activities, these laboratories contain electronic equipment. Room air can be returned back to the unit, but the cost-effectiveness of doing so when using 100% outdoor air units shall be evaluated before doing so.

Note 5 - Nuclear Laboratory

Nuclear Medicine Laboratory is included in the dedicated air-handling system for the Imaging Series.

LABORATORIES - ROOM DATA SHEET													
ROOM NAME	INDOOR TEMPERATURE				INDOOR RELATIVE HUMIDITY		MIN TOTAL ACH	MIN OA ACH	ROOM AIR RETURN EXHAUST (G) EXHAUST (S)	MAX NOISE LEVEL NC	ROOM AIR BALANCE	INDIVIDUAL ROOM CONTROL	
	COOLING		HEATING		% RH	% RH						TEMP	FLOW
	F	C	F	C	MAX	MIN							
General: Coordinate supply and exhaust air volumes with the fume hoods and biological safety cabinets. A general exhaust system shall be provided where spaces are not equipped with fume hoods and/or biological safety cabinets.													
Bacteriology	75	24	70	21	60	20	6	2	Exhaust (S)	40	(-)	Yes	CV
Note - None													
Biochemistry	75	24	70	21	60	20	6	2	Exhaust (S)	40	(-)	Yes	CV
Note - None													
Cytology	75	24	70	21	60	20	6	2	Exhaust (S)	40	(-)	Yes	CV
Note - None													
Dry Laboratories	75	24	70	21	60	20	6	2	Return	40	(o)	Yes	CV
Note - None													
Glass Washing	NA	NA	NA	NA	NA	NA	10	2	Exhaust (S)	40	(-)	No	CV
Note 1 - Wet Exhaust System Provide a wet exhaust system.													
Histology	75	24	70	21	60	20	6	2	Exhaust (S)	40	(-)	Yes	CV
Note - None													
Media Transfer	75	24	70	21	60	20	4	2	Exhaust (S)	45	(+)	Yes	CV
Note 1 - Room Air Return Room air can be returned if chemicals are not used in the room.													

LABORATORIES - ROOM DATA SHEET													
ROOM NAME	INDOOR TEMPERATURE				INDOOR RELATIVE HUMIDITY		MIN TOTAL ACH	MIN OA ACH	ROOM AIR RETURN EXHAUST (G) EXHAUST (S)	MAX NOISE LEVEL NC	ROOM AIR BALANCE	INDIVIDUAL ROOM CONTROL	
	COOLING		HEATING		% RH	% RH						TEMP	FLOW
	F	C	F	C	MAX	MIN							
Microbiology	75	24	70	21	60	20	6	2	Exhaust (S)	40	(-)	Yes	CV
Note - None													
Pathology	75	24	70	21	60	20	6	2	Exhaust (S)	40	(-)	Yes	CV
Note - None													
Serology	75	24	70	21	60	20	6	2	Exhaust (S)	40	(-)	Yes	CV
Note - None													
Sterilizing	75	24	70	21	60	20	10	2	Exhaust (S)	40	(-)	Yes	CV
Note 1 - Wet Exhaust System Provide a wet exhaust system.													

MAIN COMPUTER ROOM - AIR CONDITIONING UNIT (CRAC Units)	
AHU System Data Sheet	
Air-Handling Type	Constant Volume
Indoor Design Temperature	64 F [18 C] - 75 F [24 C]
Indoor Design Relative Humidity	30% - 55%
Minimum Total Air Changes per Hour	Based on Unit Capacity
Minimum Outdoor Air Changes per Hour	ASHRAE Standard 62.1 - 2007
Return Air Permitted	Yes
Exhaust Air Required	No
Air Economizer Cycle Required	No
Heat Recovery System Required	ASHRAE Standard 90.1 - 2007
Filtration	Manufacturer's Standard
Cooling Source	Chilled Water or DX
Heating Source	Hot Water
Humidification Source	Plant Steam or "Clean Steam"
General Exhaust System Required	No
Special Exhaust System Required	No
Emergency Power Required	Yes
Individual Room Temperature Control Required	Yes
Room Air Balance	Positive (+)
Note 1 - Standby Capacity Provide N+1 computer room air-conditioning units. N = Number of units in operation and 1 is the standby unit.	
Note 2 - Unit Location and Type Locate all units in a dedicated mechanical room adjacent to the computer room. All units shall be floor-mounted. For new installations and major renovations, do not locate units in the computer room. Units shall be designed for data processing applications. See VA specification 23 81 23, Computer Room Air Conditioners, for additional information.	
Note 3 - Telephone Equipment Room and Facility Management Service Provide similar air-conditioning systems for the Telephone Equipment Room and the Facility Maintenance Service (FMS). Standby units can be shared between IT (Information Technology), FMS, and Telephone Equipment Room if a common mechanical room is provided. Ensure coordination with the office of Information and Technology (OIT) Design Guide for additional information and design criteria.	
Note 4 - Raised Floor Protection Provide an under floor, water leak detection system and a smoke detector to detect smoke and initiate corrective actions with alarms.	
Note 5 - Air Distribution System Coordinate the location and type of supply and return air distribution systems with the building design as numerous configurations outlined in the OIT Design Guide are considered as acceptable configurations.	
Note 6 - Automatic Controls Provide a local control panel in the Main Computer Room displaying temperature, RH and unit status for each AHU. Provide an open-protocol, BACnet interface between the control panel furnished with the AHU unit and the central ECC system.	
Note 7 - Space Pressurization Provide environmental air from a dedicated or a common adjoining air-handling unit to pressurize the space. Do not return air to the adjoining air handling unit.	

MAIN ENTRANCE LOBBY - AIR HANDLING UNIT	
AHU System Data Sheet	
Air Handling Type	Variable Air Volume
Indoor Design Temperature - Cooling	75 F [24 C]
Indoor Design Temperature - Heating	70 F [21 C]
Indoor Design Relative Humidity - Dehumidification	60%
Indoor Design Relative Humidity - Humidification	Optional
Minimum Total Air Changes Per Hour	6
Minimum Outdoor Air Changes Per Hour	Chapter 2
Return Air Permitted	Yes
Exhaust Air Required	Yes (From Selected Spaces)
Air Economizer Cycle Required	Yes
Heat Recovery System Required	ASHRAE Standard 90.1 - 2007
Filtration - Pre-Filters (PF-1 and PF-2)	PF-1 = MERV 7 and PF-2 = MERV 11
Cooling Source	Chilled Water
Heating Source	Steam and/or Hot Water
Humidification Source	Plant Steam or "Clean Steam"
General Exhaust System Required	Yes
Special Exhaust System Required	No
Emergency Power Required	No
Individual Room Temperature Control Required	Yes
Room Air Balance	Positive (+)
Note 1 - Areas Served The air-handling unit may serve adjoining spaces, such as, Gift Shop, Barber's Shop, Chapel, Public Toilets, and Waiting and Admitting. See Chapter 6, Non Patient Room Data Sheets, for additional information on these spaces.	
Note 2 - Air Balance Maintain lobby at positive air balance with respect to the vestibule.	

NURSING WING - AIR HANDLING UNIT	
AHU System Data Sheet	
Air Handling Type	Variable Air Volume
Indoor Design Temperature	Room Data Sheets
Indoor Design Relative Humidity	Room Data Sheets
Minimum Total Air Changes Per Hour	Room Data Sheets
Minimum Outdoor Air Changes Per Hour	Chapter 2
Return Air Permitted	Yes (Normal Mode)
Exhaust Air Required	Yes (Emergency Mode)
Air Economizer Cycle Required	Yes
Heat Recovery System Required	ASHRAE Standard 90.1 - 2007
Filtration - Pre-Filters (PF-1 and PF-2)	PF-1 = MERV 7 and PF-2 = MERV 11
Filtration - After-Filter (AF)	AF = MERV 14
Cooling Source	Chilled Water
Heating Source	Steam and/or Hot Water
Humidification Source	Plant Steam or "Clean Steam"
General Exhaust System Required	Yes
Special Exhaust System Required	Yes (Emergency Mode)
Emergency Power Required	Yes
Individual Room Temperature Control Required	Room Data Sheets
Room Air Balance	Room Data Sheets

Note 1 - Designated Emergency Epidemic Air-Handling Unit

(a) Design at least one air-handling unit for each patient wing (or as required) to operate in 100% outdoor air mode, on demand, during an emergency epidemic situation, such as pandemic flu. Location of the 100% outdoor air-handling unit shall be determined by VA Authorities. Top floor location is preferred to avoid traffic and facilitate discharge of contaminated exhaust.

(b) Provide a set of double doors as the designated entry into the designated Emergency Ward. An entry vestibule is recommended but is not mandatory.

(c) During emergency mode, the air handling unit shall operate at constant volume and the room air shall be exhausted outdoors from the highest point above the roof, through a single or multiple stacks at least 10 ft [3 m] high at a discharge velocity of 3,500 fpm [18 m/s]. Dispersion analysis recommendations may require higher stack heights.

(d) Design the utilities (chilled water, hot water, and steam) and air-handling unit system components to meet the peak cooling, heating, and humidification demands, while operating in 100% outdoor air mode. Select the controls hardware and software to ensure stable operation in normal and emergency modes.

NURSING WING - ROOM DATA SHEET													
ROOM NAME	INDOOR TEMPERATURE				INDOOR RELATIVE HUMIDITY		MIN TOTAL ACH	MIN OA ACH	ROOM AIR RETURN EXHAUST (G) EXHAUST (S)	MAX NOISE LEVEL NC	ROOM AIR BALANCE	INDIVIDUAL ROOM CONTROL	
	COOLING		HEATING		% RH	% RH						TEMP	FLOW
	F	C	F	C	MAX	MIN							
Intensive Care Units (ICU)	75	24	70	21	60	20	6	2	Return	35	(+)	Yes	VAV
Note 1 - Filtration Requirements For ICUs served by the Surgical Suite AHU, provide terminal HEPA filters on the downstream side of each air terminal unit.													
Litter Bath	82	28	70	21	60	20	15	2	Exhaust (G)	45	(-)	Yes	VAV
Note - None													
Nurses Station	75	24	70	21	60	20	6	2	Return	40	(o)	Yes	VAV
Note - None													
Patient Bedrooms	75	24	70	21	60	20	6	2	Return	35	(o)	Yes	VAV
Note 1 - Minimum Air Changes per Hour For Patient Bedrooms, a minimum of 4 ACH (in lieu of 6 ACH) are permitted when supplemental heating and/or cooling systems are used.													
Patient Bedrooms (Acute Respiratory)	75	24	70	21	60	20	6	2	Exhaust (G)	35	(-)	Yes	CV
Note 1 - Minimum Air Changes per Hour For Patient Bedrooms, a minimum of 4 ACH (in lieu of 6 ACH) are permitted when supplemental heating and/or cooling systems are used.													
Patient Bedrooms (Psychiatric Ward)	75	24	70	21	60	20	6	2	Return	35	(o)	Yes	VAV
Note 1 - Safety Requirements - Exposed Equipment Use of exposed and accessible HVAC equipment is not permitted (examples: Room-mounted fan coil units and convectors, air outlets/inlets, temperature sensors, etc.). **Note 2 - Safety Requirements - Suspended Ceiling** Do not use lay-in tile acoustical ceiling. Use hard ceiling or concealed snap in arrangement. Keep ceiling height as high as possible. Use security clips to retain radiant ceiling panels in place. Ensure coordination with the architectural discipline. **Note 3 - Safety Requirements - Suspended Air Outlets/Inlets** Provide security diffusers, grilles, and registers. **Note - 4 Minimum Air Changes per Hour** For Patient Bedrooms, only a minimum of 4 ACH (in lieu of 6 ACH) are permitted when supplemental heating and/or cooling systems are used.													

NURSING WING - ROOM DATA SHEET													
ROOM NAME	INDOOR TEMPERATURE				INDOOR RELATIVE HUMIDITY		MIN TOTAL ACH	MIN OA ACH	ROOM AIR RETURN EXHAUST (G) EXHAUST (S)	MAX NOISE LEVEL NC	ROOM AIR BALANCE	INDIVIDUAL ROOM CONTROL	
	COOLING		HEATING		% RH	% RH						TEMP	FLOW
	F	C	F	C	MAX	MIN							
Toilets - Patients (Interior)	NA	NA	NA	NA	NA	NA	10	NA	Exhaust (G)	35	(--)	No	CV
Note 1 - Air Balance Air exhausted from the toilet is transferred from the Patient Bedroom. Do not supply air to the toilet under positive air pressure.													
Toilets - Patients (Perimeter)	NA	NA	68	20	NA	NA	10	NA	Exhaust (G)	35	(--)	No	CV
Note 1 - Air Balance Air exhausted from the toilet is transferred from the Patient Bedroom. Do not supply air to the toilet under positive air pressure. **Note 2 - Perimeter Heating** For toilets with an exterior wall subject to heat loss, provide thermostatically-controlled (closed-loop local control loop) radiant panels to maintain temperature set point.													

PHARMACY SERVICE - AIR HANDLING UNIT	
AHU System Data Sheet	
Air Handling Type	Variable Air Volume
Indoor Design Temperature	Room Data Sheets
Indoor Design Relative Humidity	Room Data Sheets
Minimum Total Air Changes Per Hour	Room Data Sheets
Minimum Outdoor Air Changes Per Hour	Chapter 2
Return Air Permitted	Yes
Exhaust Air Required	Yes
Air Economizer Cycle Required	Yes
Heat Recovery System Required	ASHRAE Standard 90.1 -2007
Filtration - Pre-Filters (PF-1 and PF-2)	PF-1 = MERV 7 and PF-2 = MERV 13
Filtration - Final Filter (FF)	FF = MERV 17 (HEPA)
Cooling Source	Chilled Water
Heating Source	Steam and/or Hot Water
Humidification Source	Plant Steam or "Clean Steam"
General Exhaust System Required	Yes
Special Exhaust System Required	Yes
Emergency Power Required	Yes
Individual Room Temperature Control Required	Room Data Sheets
Room Air Balance	Room Data Sheets
Compliance	USP <797>

Note 1 - USP <797> Pharmaceutical Compounding - Sterile Preparations (CSP)

Per USP <797>, compounding of sterile products (hazardous or non-hazardous) shall be accomplished in a clean room environment. The designer shall be familiar with the environmental requirements specified in USP <797> to ensure compliance. In the Room Data Sheets for hazardous and non-hazardous clean rooms, terminology is defined.

Note 2 - Air-Handling Unit

Pharmacy areas, other than clean rooms, can be served by an air-handling unit equipped with MERV 13 pre-filters. However, an air-handling unit serving clean rooms must address the special HVAC needs of providing Final MERV 17 (HEPA) filters, extended hours of operations, and lower space temperature (68 F [20 C] compared to 75 F [24 C] for all other spaces). Evaluate the use of packaged air moving equipment with a HEPA filter, in lieu of a terminal HEPA filter, to isolate the high-static branch circuit and avoid penalizing the entire air handling unit.

Note 3 - Chilled Water

Chilled water shall be available uninterrupted and on demand. A dedicated chiller connected to emergency power shall be considered if the central plant is not equipped with emergency power.

PHARMACY SERVICE - ROOM DATA SHEET													
ROOM NAME	INDOOR TEMPERATURE				INDOOR RELATIVE HUMIDITY		MIN TOTAL ACH	MIN OA ACH	ROOM AIR RETURN EXHAUST (G) EXHAUST (S)	MAX NOISE LEVEL NC	ROOM AIR BALANCE	INDIVIDUAL ROOM CONTROL	
	COOLING		HEATING		% RH MAX	% RH MIN						TEMP	FLOW
	F	C	F	C									
Ante Room (Hazardous Clean Room)	68	20	68	20	60	35	30	30	Exhaust (S)	35	(+)	Yes	CV
Note 1 - Ante Room Per USP <797> the Ante Room shall have at least an ISO 8 classification for a standalone Buffer Room and shall be maintained at a positive air balance with respect to the Clean Room and adjoining areas.													
Ante Room (Non-Hazardous Clean Room)	68	20	68	20	60	35	30	3	Return	35	(-)	Yes	CV
Note 1 - Ante Room Per USP <797>, the Ante Room shall have an ISO Class 8 classification and shall be maintained at negative air pressure with respect to the Clean Room and positive air pressure with respect to adjoining areas.													
Clean Room (Hazardous Applications)	68	20	68	20	60	35	30	30	Exhaust (S)	35	(-)	Yes	CV
Note 1 - Definition The device used for performing the sterile compounding is located in the Buffer Room. The Buffer Room is an ISO Class 7 Clean Room. The device is known as the Primary Engineering Control (PEC). For Hazardous Clean Room, the PEC is a Biological Safety Cabinet (BSC) or any other device recommended by USP <797>. PEC is a Class 5 device. All air supplied to the BSC shall pass through HEPA filtration then exhaust to outdoors. **Note 2 - Minimum Total Air Changes per Hour** Per USP <797>, "If the area has an ISO 5 HEPA-filtered recirculating device, a minimum of 15 ACHs through the area supply HEPA filters is adequate." The 30 ACH listed above are total air changes as "the PEC is a good augmentation to generating air changes in the air supply of an area but cannot be the sole source of HEPA-filtered air". **Note 3 - Positive Air Pressure** Design the system to maintain -0.01 in [-2.5 Pa] negative air pressure differential between the Buffer Room and the Ante Room. USP <797> permits the use of a velocity meter in place of differential pressure measurement. Adjust the outdoor air volume, as required, to attain the design air pressure differential. Provide a local, visible alarm and remote alarm at the central ECC, after allowing for nuisance alarms created by door openings, etc. **Note 4 - Terminal HEPA Filter** Provide a terminal MERV 17 (HEPA) filter with 99.97% efficiency at 0.3 microns downstream of the dedicated air terminal unit serving the Buffer Room. This terminal unit shall be equipped with a booster fan to allow the terminal unit to compensate for the increased pressure drop of the HEPA filter and therefore not penalize the entire system.													

PHARMACY SERVICE - ROOM DATA SHEET													
ROOM NAME	INDOOR TEMPERATURE				INDOOR RELATIVE HUMIDITY		MIN TOTAL ACH	MIN OA ACH	ROOM AIR RETURN EXHAUST (G) EXHAUST (S)	MAX NOISE LEVEL NC	ROOM AIR BALANCE	INDIVIDUAL ROOM CONTROL	
	COOLING		HEATING		% RH	% RH						TEMP	FLOW
	F	C	F	C	MAX	MIN							
Note 5 - Air Distribution Provide unidirectional air distribution with overhead supply and bottom return air collection. Locate return air inlet(s) in the wall at 7 in [175 mm] above the floor. **Note 6 - Coordination** Coordinate USP <797> requirements for ceiling fixtures, floor, wall, ceiling surfaces, and caulking/sealing with other disciplines.													
Clean Room (Non-Hazardous Applications)	68	20	68	20	60	35	30	3	Return	40	(+)	Yes	CV
Note 1 - Definition The device used for performing sterile compounding is located in the Buffer Room. The Buffer Room is an ISO Class 7 Clean Room. The device is known as the Primary Engineering Control (PEC). For Non-Hazardous Clean Room, the PEC is a Linear Airflow Workstation (LAFW) or any other device recommended by USP <797>. A LAFW re-circulates HEPA filtered air and is an ISO Class 5 device. **Note 2 - Minimum Total Air Changes per Hour** Per USP <797>, "If the area has an ISO 5 HEPA-filtered recirculating device, a minimum of 15 ACHs through the area supply HEPA filters is adequate." The 30 ACH listed above are total air changes as "the PEC is a good augmentation to generating air changes in the air supply of an area but cannot be the sole source of HEPA-filtered air". **Note 3 - Positive Air Pressure** Design the system to maintain +0.01 in [+2.5 Pa] positive air pressure differential between the Buffer Room and the Ante Room. USP <797> permits the use of a velocity meter in place of differential pressure measurement. Adjust the outdoor air volume, as required, to attain the design air pressure differential. Provide a local, visible alarm and remote alarm at the central ECC, after allowing for nuisance alarms created by door opening etc. **Note 4 - Terminal HEPA Filter** Provide a terminal MERV 17 (HEPA) filter with 99.97% efficiency at 0.3 microns downstream of the dedicated air terminal unit serving the Buffer Room. This terminal unit shall be equipped with a booster fan to allow the terminal unit to compensate for the increased pressure drop of the HEPA filter and therefore not penalize the entire system. **Note 5 - Air Distribution** Provide unidirectional air distribution with overhead supply and bottom return air collection. Locate return air inlet(s) in the wall at 7 in [175 mm] above the floor. **Note 6 - Coordination** Coordinate USP <797> requirements for ceiling fixtures, floor, wall, ceiling surfaces, and caulking/sealing with other disciplines.													

PHARMACY SERVICE - ROOM DATA SHEET													
ROOM NAME	INDOOR TEMPERATURE				INDOOR RELATIVE HUMIDITY		MIN TOTAL ACH	MIN OA ACH	ROOM AIR RETURN EXHAUST (G) EXHAUST (S)	MAX NOISE LEVEL NC	ROOM AIR BALANCE	INDIVIDUAL ROOM CONTROL	
	COOLING		HEATING		% RH MAX	% RH MIN						TEMP	FLOW
	F	C	F	C									
Controlled Substance Vault and Secured Dispensing/Receiving Area	75	24	70	21	60	30	4	2	Return	40	(+)	Yes	VAV
Note - None													
Dispensing, Pre-Packing, and EXTEMP	75	24	70	21	60	30	4	2	Return	40	(+)	Yes	VAV
Note - None													
Drug Information Service	75	24	70	21	60	30	4	2	Return	40	(o)	Yes	VAV
Note - None													
EXTEMP Repacking and Compounding	75	24	70	21	60	30	4	2	Return	40	(+)	Yes	VAV
Note - None													
Medicine Assignment and Stat Counter	75	24	70	21	60	30	4	2	Return	40	(+)	Yes	VAV
Note - None													
Prescription Receiving, Filling Assembly	75	24	70	21	60	30	4	2	Return	40	(+)	Yes	VAV
Note - None													
Production Area - CMOP	75	24	70	21	60	30	4	2	Return	45	(+)	Yes	CV
Note - None													
Unit Dose and Ward Stock	75	24	70	21	60	30	4	2	Return	40	(+)	Yes	VAV
Note - None													

PATIENT EXAMINATION, TREATMENT, AND PROCEDURE ROOMS - ROOM DATA SHEET													
ROOM NAME	INDOOR TEMPERATURE				INDOOR RELATIVE HUMIDITY		MIN TOTAL ACH	MIN OA ACH	ROOM AIR RETURN EXHAUST (G) EXHAUST (S)	MAX NOISE LEVEL NC	ROOM AIR BALANCE	INDIVIDUAL ROOM CONTROL	
	COOLING		HEATING		% RH MAX	% RH MIN						TEMP	FLOW
	F	C	F	C									
Audiology Office/Therapy Room	75	24	70	21	60	20	6	2	Return	35	(o)	Yes	VAV
Note - None													
Audiometric	75	24	70	21	60	20	6	2	Return	25	(o)	Yes	VAV
Note 1 - Acoustic Booth Coordinate the installation of the acoustic booth (if any) and its integral HVAC system with the architectural layout and building utilities. **Note 2 - Room Noise Level** Provide acoustic measures to maintain the design NC level.													
Blood Draw Room	75	24	70	21	60	20	6	2	Return	35	(o)	Yes	VAV
Note - None													
Bone Marrow Transplant (BMT) Suite													
Donors Room	75	24	70	21	60	20	6	2	Return	35	(+ +)	Yes	CV
Medication Preparation Room	75	24	70	21	60	20	6	2	Return	35	(+ +)	Yes	CV
Patient Rooms	75	24	70	21	60	20	6	2	Return	35	(+ +)	Yes	CV
Recovery Rooms	75	24	70	21	60	20	6	2	Return	35	(+ +)	Yes	CV
Note - None													

PATIENT EXAMINATION, TREATMENT, AND PROCEDURE ROOMS - ROOM DATA SHEET													
ROOM NAME	INDOOR TEMPERATURE				INDOOR RELATIVE HUMIDITY		MIN TOTAL ACH	MIN OA ACH	ROOM AIR RETURN EXHAUST (G) EXHAUST (S)	MAX NOISE LEVEL NC	ROOM AIR BALANCE	INDIVIDUAL ROOM CONTROL	
	COOLING		HEATING		% RH	% RH						TEMP	FLOW
	F	C	F	C	MAX	MIN							
Dental Suite													
Ceramic Room	75	24	70	21	60	20	6	2	Exhaust (G)	40	(-)	Yes	CV
Note 1 - Heat Gain Coordinate equipment heat gain with the manufacturer. **Note 2 - Exhaust Air Intakes** Locate exhaust air registers at or near the technician's workbench. Ensure coordination with the architectural drawings.													
Oral Surgery Recovery Room	75	24	70	21	60	20	6	2	Return	35	(+)	Yes	CV
Note - None													
Oral Surgery Room	75	24	70	21	60	20	15	3	Return	35	(+)	Yes	CV
Note 1 - Space Classification The design criteria are based on the assumption that the Oral Surgery Room is classified as Class A Surgery/Procedure Room (ASHRAE Standard 170 - 2008). The designer shall verify the requirements with the end-users and modify the classification, if necessary. **Note 2 - Nitrous Oxide Gas** Where nitrous oxide gas is used, the design shall implement the recommendation of National Institute for Occupational Safety and Health (NIOSH) to limit the occupational exposure within the prescribed limits by installing a local scavenging system. Compliance is also required to NFPA 99 for other safety requirements.												
Prosthetic Laboratory	75	24	70	21	60	20	6	2	Exhaust (G)	40	(-)	Yes	CV
Note 1 - Exhaust from Prosthetic Dental Workstation Provide exhaust from the prosthetic dental workstation either by wall registers, installed at the table height, or by a canopy hood. Exhaust can be connected to the general exhaust system. Estimate the exhaust air volume based on the geometry of the work area. **Note 2 - Heat Gain** Coordinate equipment heat gain with the manufacturer. **Note 3 - Boil-Out Sink and Casing Soldering Areas** Provide exhaust over the boil-out sink and case-soldering area using a canopy hood, connected to a general exhaust system, and sized at 100 fpm [0.5 m/s] face velocity. Coordinate the hood size and location with the architectural drawings.												
Treatment Operatory	75	24	70	21	60	20	6	2	Return	40	(+)	Yes	CV
Note - None													

PATIENT EXAMINATION, TREATMENT, AND PROCEDURE ROOMS - ROOM DATA SHEET													
ROOM NAME	INDOOR TEMPERATURE				INDOOR RELATIVE HUMIDITY		MIN TOTAL ACH	MIN OA ACH	ROOM AIR RETURN EXHAUST (G) EXHAUST (S)	MAX NOISE LEVEL NC	ROOM AIR BALANCE	INDIVIDUAL ROOM CONTROL	
	COOLING		HEATING		% RH	% RH						TEMP	FLOW
	F	C	F	C	MAX	MIN							
Examination Rooms	75	24	70	21	60	20	6	2	Return	35	(o)	Yes	VAV

Note 1 - General

The design parameters are applicable to all examination rooms not involving treatment and/or procedures.

Note 2 - Individual Room Temperature Control

Refer to Chapter 2 for the guidelines on the individual room temperature control.

Isolation Rooms

Note 1 - General

Isolation Rooms are classified into three categories: Airborne Infection Isolation (AII), Protective Environment (PE), and Combination AII/PE Rooms.

Note 2 - Ante Room

Per ASHRAE Standard 170 and the Facility Guidelines Institue (FGI), use of an Ante Room is mandated only for Combination AII/PE, where the patient requires a protective environment and also has an airborne infectious disease. However, this manual highly recommends that ALL isolation rooms are equipped with Ante Rooms.

(a) Ante Rooms facilitate intended design air balance.

(b) Ante Rooms provide better protection by isolating PE patients from the adjoining environment and the adjoining environment from the AII patient.

(c) Ante Rooms provide the space required to don protective equipment before entering the isolation room.

(d) Ante Rooms can be used for hand hygiene and storage of personal protective equipment and clean equipment.

PATIENT EXAMINATION, TREATMENT, AND PROCEDURE ROOMS - ROOM DATA SHEET													
ROOM NAME	INDOOR TEMPERATURE				INDOOR RELATIVE HUMIDITY		MIN TOTAL ACH	MIN OA ACH	ROOM AIR RETURN EXHAUST (G) EXHAUST (S)	MAX NOISE LEVEL NC	ROOM AIR BALANCE	INDIVIDUAL ROOM CONTROL	
	COOLING		HEATING		% RH MAX	% RH MIN						TEMP	FLOW
	F	C	F	C									
Airborne Infection Isolation (AII) (Negative Air Pressure)													
AII Ante Room (Optional)	NA	NA	NA	NA	NA	NA	10	NA	Exhaust (S)	35	Note 2	No	CV
AII Isolation Room	75	24	70	21	60	20	12	2	Exhaust (S)	35	(-)	Yes	CV

Note 1 - Special Exhaust System

Provide a dedicated, special exhaust system for the Patient Bedroom, Ante Room and Patient Toilet (where present). Do not connect other rooms to the dedicated exhaust system. Discharge exhaust air above the highest roof level through a stack at least 10 ft [3 m] tall at 3,500 fpm [18 m/s] discharge velocity. The discharge air outlet shall be located at least 25 ft [8 m] from outdoor air intakes and operable windows. Follow the recommendations of the dispersion analysis for higher than minimum requirements. Provide emergency power for the exhaust fan and associated controls.

Note 2 - Instrumentation

Provide a local, visual alarm and remote alarm at the ECC to show non-compliance in maintaining negative air pressure difference. Provide an automatic (DDC) airflow control valve in the exhaust air duct to measure and modulate the airflow as required.

Note 3 - Air Distribution Layout

(a) Patiend Bedroom

Locate the exhaust air inlet over or near the patient bed to ensure that air flows into the room and away from the patient room door. Preferred location of the exhaust air inlet is in the wall, 7 in [175 mm] above the floor, and near the patient head rest.

(b) Ante Room

When an Ante Room is used, transfer air is required to maintain 0.01 in [2.5 Pa] negative air pressure. Air shall transfer from the Corridor into the Ante Room and then to the Isolation Room. The Ante Room is positive with respect to the Isolation Room and negative with respect to the Corridor.

Combination Airborne Infection Isolation/Protective Environment (AII/PE)													
AII/PE Ante Room	NA	NA	NA	NA	NA	NA	10	NA	Exhaust (S)	35	Note 3	No	CV
AII/PE Isolation Room	75	24	70	21	60	20	12	2	Exhaust (S)	35	Note 3	Yes	CV

Note 1 - Terminal HEPA Filter

Same as PE Isolation Room.

Note 2 - Exhaust Air for Isolation Room and Ante Room

Same as AII Isolation Room.

Note 3 - Ante Room Airflow

(a) Supply air from the Ante Room to the Isolation Room and the Corridor; OR

(b) Exhaust air from the Ante Room by transferring air from the Isolation Room and the Corridor.

Note 4 - Instrumentation

Provide a local, visual alarm and remote alarm at the ECC to show non-compliance in maintaining negative air pressure difference. Provide an automatic (DDC) airflow control valve in the exhaust air duct to measure and modulate the airflow as required.

PATIENT EXAMINATION, TREATMENT, AND PROCEDURE ROOMS - ROOM DATA SHEET													
ROOM NAME	INDOOR TEMPERATURE				INDOOR RELATIVE HUMIDITY		MIN TOTAL ACH	MIN OA ACH	ROOM AIR RETURN EXHAUST (G) EXHAUST (S)	MAX NOISE LEVEL NC	ROOM AIR BALANCE	INDIVIDUAL ROOM CONTROL	
	COOLING		HEATING		% RH	% RH						TEMP	FLOW
	F	C	F	C	MAX	MIN							
Protective Environment (PE) (Positive Air Pressure)													
PE Ante Room (Optional)	NA	NA	NA	NA	NA	NA	10	NA	Return	35	(-)	No	CV
PE Isolation Room	75	24	70	21	60	20	12	2	Return	35	(+)	Yes	CV
Note 1 - Terminal HEPA Filter Provide duct-mounted, terminal MERV 17 (HEPA) filter downstream of the dedicated air terminal units serving the Isolation Rooms. Ensure access for filter replacement and instrumentation. Provide a differential pressure gage and a differential pressure switch with a remote alarm to the ECC when the pressure drop exceeds the recommended pressure drop. **Note 2 - Positive Air Balance** Monitor and maintain the patient bedroom at + 0.01 in [+ 2.5 Pa] positive air pressure with respect to the adjoining spaces not associated with the Isolation Suite. Provide a local visual alarm and remote alarm at the ECC to show non-compliance in maintaining positive air pressure difference. Provide an automatic (DDC) airflow control valve in the branch return air duct to measure and modulate the airflow as required. **Note 3 - Air Distribution Layout** **(a) Patiend Bedroom** Locate the exhaust air inlet over or near the entry door to ensure that air flows into the room and away from the patient bed. **(b) Ante Room** When an Ante Room is used, airflow is required to maintain 0.01 in [2.5 Pa] positive air pressure between the patient bedroom and the corridor. Air shall transfer from the Isolation Room into the Ante Room and then to the Corridor. The Ante Room is negative with respect to the Isolation Room and positive with respect to the Corridor.													
Orthopedic Clinic (Cast Room)	75	24	70	21	60	20	6	2	Return	40	(-)	Yes	VAV
Note - None													

PATIENT EXAMINATION, TREATMENT, AND PROCEDURE ROOMS - ROOM DATA SHEET													
ROOM NAME	INDOOR TEMPERATURE				INDOOR RELATIVE HUMIDITY		MIN TOTAL ACH	MIN OA ACH	ROOM AIR RETURN EXHAUST (G) EXHAUST (S)	MAX NOISE LEVEL NC	ROOM AIR BALANCE	INDIVIDUAL ROOM CONTROL	
	COOLING		HEATING		% RH	% RH						TEMP	FLOW
	F	C	F	C	MAX	MIN							
Procedure Room/Class A Operating	75	24	70	21	60	20	15	3	Return	35	(+)	Yes	CV
Note 1 - Air Distribution Provide overhead supply and return air distribution. **Note 2 - Room Air Balance** Provide negative air balance where required by the application. **Note 3 - Minimum Filter Requirement** Provide MERV 7 and MERV 11 pre-filter and MERV 14 after-filter.													
Pulmonary Exercise Room	75	24	70	21	60	20	10	2	Exhaust (G)	40	(-)	Yes	VAV
Note - None													
Special Procedure Rooms													
Aerosolized Pentamidine	75	24	70	21	60	20	12	2	Exhaust (G)	35	(-)	Yes	CV
Bronchoscopy	75	24	70	21	60	20	12	2	Exhaust (G)	35	(-)	Yes	CV
Cardiac Catheterization	75	24	70	21	60	20	15	3	Return	35	(+)	Yes	CV
Colonoscopy/EGD	75	24	70	21	60	20	8	2	Exhaust (G)	35	(-)	Yes	CV
Cystoscopy	75	24	70	21	60	20	15	3	Return	35	(+)	Yes	CV
Endoscopy	75	24	70	21	60	20	6	2	Return	35	(+)	Yes	CV
Fluoroscopy	75	24	70	21	60	20	8	2	Exhaust (G)	35	(-)	Yes	CV
Gastrointestinal	75	24	70	21	60	20	10	2	Exhaust (G)	35	(-)	Yes	CV
Proctoscopy	75	24	70	21	60	20	6	2	Exhaust (G)	35	(-)	Yes	CV
Sigmoidoscopy	75	24	70	21	60	20	8	2	Exhaust (G)	35	(-)	Yes	CV
Sputum Collection	75	24	70	21	60	20	12	2	Exhaust (G)	35	(-)	Yes	CV
Note - None													

PATIENT EXAMINATION, TREATMENT, AND PROCEDURE ROOMS - ROOM DATA SHEET													
ROOM NAME	INDOOR TEMPERATURE				INDOOR RELATIVE HUMIDITY		MIN TOTAL ACH	MIN OA ACH	ROOM AIR RETURN EXHAUST (G) EXHAUST (S)	MAX NOISE LEVEL NC	ROOM AIR BALANCE	INDIVIDUAL ROOM CONTROL	
	COOLING		HEATING		% RH	% RH						TEMP	FLOW
	F	C	F	C	MAX	MIN							
Therapy Rooms													
Hydrotherapy/Therapeutic Pool	75	24	70	21	60	20	12	2	Exhaust (G)	45	(-)	Yes	CV
Kinesiotherapy	75	24	70	21	60	20	6	2	Return	40	(o)	Yes	VAV
Occupational Therapy	75	24	70	21	60	20	6	2	Return	35	(o)	Yes	VAV
Physical Therapy	75	24	70	21	60	20	6	2	Return	35	(-)	Yes	VAV
Note 1 - Kinesiotherapy and Hydrotherapy/Therapeutic Pool Rooms													
The reheat coil capacity shall be sized to maintain up to 82 F [28 C] space temperature for the two rooms.													
Note 2 - Hydrotherapy/Therapeutic Pool													
Provide a dedicated wet exhaust system.													
Treatment Rooms													
Chemotherapy	75	24	70	21	60	20	6	2	Exhaust (G)	35	(-)	Yes	CV
Dermatology	75	24	70	21	60	20	6	2	Return	35	(-)	Yes	VAV
Phototherapy/Shower Room	75	24	70	21	60	20	6	2	Exhaust (G)	35	(o)/(-)	Yes	VAV
Note 1 - Phototherapy/Shower Room													
Maintain negative air balance in the Shower Room and neutral air balance in the Phototherapy Room.													
Tub Room	75	24	70	21	60	20	10	2	Exhaust (G)	40	(-)	Yes	CV
Note 1 - Reheat Coil Capacity													
The reheat coil capacity shall be sized to maintain 86 F [30 C] space temperature.													
Ventilatory Test Room	75	24	70	21	60	20	12	2	Exhaust (G)	35	(-)	Yes	CV
Note 1 - Exhaust Grilles													
Provide low level exhaust grilles 7 in [175 mm] above the finished floor.													
Visual Field/Photography Room	75	24	70	21	60	20	4	2	Return	35	(o)	Yes	VAV
Note - None													
Vital Signs Station	NA	NA	NA	NA	NA	NA	4	NA	Return	35	(o)	No	VAV
Note - None													

NON PATIENT ROOMS - SUPPORT AREAS - ROOM DATA SHEET													
ROOM NAME	INDOOR TEMPERATURE				INDOOR RELATIVE HUMIDITY		MIN TOTAL ACH	MIN OA ACH	ROOM AIR RETURN EXHAUST (G) EXHAUST (S)	MAX NOISE LEVEL NC	ROOM AIR BALANCE	INDIVIDUAL ROOM CONTROL	
	COOLING		HEATING		% RH MAX	% RH MIN						TEMP	FLOW
	F	C	F	C									
Admission and Main Waiting	75	24	70	21	60	20	6	2	Exhaust (G)	40	(-)	Yes	CV
Note 1 - Waiting Area Exhaust Exhaust the designated waiting area by drawing supply and transfer air towards the space. Provide a dedicated exhaust air system, if feasible. ASHRAE recommends a dedicated air-handling unit, where the admission and waiting areas can be physically separated from the space, such as, entrance lobby. The dedicated air-handling unit shall be designed to operate from 100% outdoor air to minimum outdoor air on demand.													
Barber Shop	75	24	70	21	60	20	4	2	Return	40	(-)	Yes	VAV
Note 1 - Exhaust Requirements Per ASHRAE 62.1 - 2007, the barber shop should be exhausted at the rate of 0.5 cfm/sf [2.5 L/s/m^2], while returning the remaining air, if any.													
Chapel	75	24	70	21	60	20	4	2	Return	35	(o)	Yes	VAV
Note 1 - Dedicated Air-Handling Unit For chapels requiring 5,000 cfm [2,360 L/s] and higher supply air volume, provide a dedicated air-handling unit to facilitate energy conservation initiatives.													
Class Room	75	24	70	21	60	20	6	2	Return	35	(o)	Yes	VAV
Note 1 - Energy Conservation Initiative Evaluate the feasibility of using a carbon-dioxide (CO_2) and/or occupancy sensors to conserve energy during part load conditions. The control sequence shall be project-specific.													
Conference Room	75	24	70	21	60	20	4	2	Return	35	(o)	Yes	VAV
Note 1 - Energy Conservation Initiative Evaluate the feasibility of using a carbon-dioxide (CO_2) and/or occupancy sensors to conserve energy during part load conditions. The control sequence shall be project-specific.													
Corridors	75	24	70	21	60	20	4	2	Return	40	(+)	Yes	CV
Note 1 - Supply Air Volume Increase the supply air volume, as required, to meet the transfer air demands of the adjoining spaces, such as, toilets, janitor closets, soiled utility rooms, laboratories, spaces requiring negative air balance, and exterior doors requiring ex-filtration.													

NON PATIENT ROOMS - SUPPORT AREAS - ROOM DATA SHEET													
ROOM NAME	INDOOR TEMPERATURE				INDOOR RELATIVE HUMIDITY		MIN TOTAL ACH	MIN OA ACH	ROOM AIR RETURN EXHAUST (G) EXHAUST (S)	MAX NOISE LEVEL NC	ROOM AIR BALANCE	INDIVIDUAL ROOM CONTROL	
	COOLING		HEATING		% RH MAX	% RH MIN						TEMP	FLOW
	F	C	F	C									
Dressing Room	NA	NA	NA	NA	NA	NA	4	NA	Return	35	(o)	No	VAV
Note 1 - Room Supply Supply air from an adjoining air terminal unit with similar load characteristics.													
Gift Shop (Retail Store)	75	24	70	21	60	20	4	2	Return	40	(o)	Yes	VAV
Note - None													
Library	75	24	70	21	60	20	4	2	Return	35	(O)	Yes	VAV
Note - None													
Locker Room (with Toilets)	75	24	70	21	60	20	10	NA	Exhaust (G)	40	(-)	Yes	CV
Note 1 - Room Air Balance Transfer supply air to the toilets and showers. Maintain locker rooms under negative air balance with respect to the adjoining spaces.													
Locker Room (without Toilets)	75	24	70	21	60	20	6	NA	Exhaust (G)	40	(-)	Yes	CV
Note 1 - Room Air Balance Maintain locker rooms under negative air balance with respect to the adjoining spaces.													
Lounge	75	24	70	21	60	20	4	2	Exhaust (G)	40	(-)	Yes	CV
Note 1 - Room Air Return air is permitted if the lounge is not equipped with vending machines, microwave, refrigerator, etc.													

NON PATIENT ROOMS - SUPPORT AREAS - ROOM DATA SHEET													
ROOM NAME	INDOOR TEMPERATURE				INDOOR RELATIVE HUMIDITY		MIN TOTAL ACH	MIN OA ACH	ROOM AIR RETURN EXHAUST (G) EXHAUST (S)	MAX NOISE LEVEL NC	ROOM AIR BALANCE	INDIVIDUAL ROOM CONTROL	
	COOLING		HEATING		% RH	% RH						TEMP	FLOW
	F	C	F	C	MAX	MIN							
Medical Media Service (MMS)													
Audio Visual Storage/Checkout	75	24	70	21	60	20	4	2	Return	40	(o)	Yes	VAV
Camera Copy	75	24	70	21	60	20	6	2	Return	35	(o)	Yes	VAV
Client Review Room	75	24	70	21	60	20	4	2	Return	35	(o)	Yes	VAV
Computer Imaging System Network	75	24	70	21	60	20	6	2	Return	40	(o)	Yes	VAV
Darkroom (Printing/Enlarging)	75	24	70	21	60	20	6	2	Exhaust (G)	35	(-)	Yes	VAV
Expanded Core - Illustration Room	75	24	70	21	60	20	6	2	Return	35	(o)	Yes	VAV
Expanded Core - Stat Camera	75	24	70	21	60	20	6	2	Return	35	(o)	Yes	VAV
Photo Finishing	75	24	70	21	60	20	6	2	Exhaust (G)	35	(-)	Yes	VAV
Photo Studio/Audio Visual Recording	75	24	70	21	60	20	6	2	Return	30	(o)	Yes	VAV
Photomicrography	75	24	70	21	60	20	6	2	Return	35	(o)	Yes	VAV
Video Editing CCTV Control Room	75	24	70	21	60	20	6	2	Return	35	(o)	Yes	VAV
Note 1 - Darkroom (Printing/Enlarging) and Photo Finishing Exhaust room air if chemicals are used for film processing.													
Medical Records	75	24	70	21	60	20	4	2	Return	40	(o)	Yes	VAV
Note - None													
Medication Room	75	24	70	21	60	20	4	2	Return	40	(+)	Yes	VAV
Note - None													
Multipurpose Room	75	24	70	21	60	20	4	2	Return	40	(o)	Yes	VAV
Note 1 - Energy Conservation Initiative Evaluate the feasibility of using a carbon-dioxide (CO_2) and/or occupancy sensors to conserve energy during part load conditions. The control sequence shall be project-specific. **Note 2 - Folding Partitions** Where the room is equipped with folding partitions, provide individual room temperature control for either side of the partition.													

NON PATIENT ROOMS - SUPPORT AREAS - ROOM DATA SHEET													
ROOM NAME	INDOOR TEMPERATURE				INDOOR RELATIVE HUMIDITY		MIN TOTAL ACH	MIN OA ACH	ROOM AIR RETURN EXHAUST (G) EXHAUST (S)	MAX NOISE LEVEL NC	ROOM AIR BALANCE	INDIVIDUAL ROOM CONTROL	
	COOLING		HEATING		% RH MAX	% RH MIN						TEMP	FLOW
	F	C	F	C									
Offices	75	24	70	21	60	20	4	2	Return	40	(o)	Yes	VAV
Note 1 - Room Temperature Control See Chapter 2 for individual room temperature control requirements.													
Pool Dressing/Toilet/Shower - Male/Female	75	24	70	21	60	20	4	NA	Exhaust (G)	45	(-)	Yes	CV
Note - None													
Toilets - Public (Interior)	NA	NA	NA	NA	NA	NA	10	NA	Exhaust (G)	40	(- -)	No	CV
Note - None													
Toilets - Public (Perimeter)	NA	NA	68	20	NA	NA	10	NA	Exhaust (G)	40	(- -)	Yes	CV
Note 1 - Perimeter Heating For toilets with an exterior wall subject to heat loss, provide thermostatically-controlled (closed-loop, local control) terminal heater(s) to maintain set point.													

NON PATIENT ROOMS - MISCELLANEOUS AREAS - ROOM DATA SHEET													
ROOM NAME	INDOOR TEMPERATURE				INDOOR RELATIVE HUMIDITY		MIN TOTAL ACH	MIN OA ACH	ROOM AIR RETURN EXHAUST (G) EXHAUST (S)	MAX NOISE LEVEL NC	ROOM AIR BALANCE	INDIVIDUAL ROOM CONTROL	
	COOLING		HEATING		% RH MAX	% RH MIN						TEMP	FLOW
	F	C	F	C									
Attic Space	NA	NA	50	10	NA	NA	10	10	Exhaust (G)	45	(o)	Yes	CV
Note 1 - Heating System Provide a thermostatically controlled (closed-loop, local control) heating system utilizing terminal unit heaters or a central heating system. Ensure uniform heat distribution. Minimum outdoor ACH is not required in heating mode. The ventilation system shall be inoperative when the heating system is enabled. **Note 2 - Ventilation System** Provide an exhaust ventilation system (closed-loop, local control either thermostatically or manually operated) to prevent excessive heat build up. The exhaust ventilation system shall consist of exhaust fan(s) and exhaust/intake air louvers with motorized dampers. Provide direct-drive fan(s) to reduce maintenance. If a central, supply air heating system (Note 1) is the selected option, exhaust (relief) arrangement shall be compatible with the central heating system. **Note 3 - Access** Coordinate access to the mechanical equipment with the architectural discipline.												
Audiology Instrument Calibration and Repair Shop	75	24	70	21	60	20	4	2	Return	40	(+)	Yes	VAV
Note - None													
Battery Charging Room	75	24	70	21	60	20	8	2	Exhaust (S)	40	(-)	Yes	CV
Note 1 - Special Exhaust System Provide a dedicated, special exhaust system where lead batteries (Automatic Transport System and Wheel Chairs Charging Areas) are charged. Exhaust system is not required where Ni-Cad batteries are charged. Provide a spark-proof construction exhaust fan, explosion-proof motor, and welded stainless steel ductwork. Provide emergency power for the fan motor. Provide local and remote (at ECC) alarm capabilities for fan status and airflow interruption.													
Biomedical Instrument Repair Shop	75	24	70	21	60	20	6	2	Exhaust (S)	40	(-)	Yes	CV
Note 1 - Dedicated Exhaust System **(a)** Provide a dedicated exhaust system where chemicals, such as, xylene and iodine are used. Evaluate the use of a canopy hood or a general purpose fume hood. The system start can be manually operated by a fan switch or automatically operated by remote DDC controls. **(b)** Provide a spark-proof construction exhaust fan with bearings mounted outside the exhaust air stream and an explosion-proof motor on emergency power. **(c)** Provide local and remote alarms in the event of fan failure or exhaust airflow interruption. **(d)** Provide an airflow control valve in the exhaust air duct to ensure constant exhaust airflow. **Note 2 - Alternate Return Air Pick-Up** Provide an alternate return air connection with a motorized damper when the exhaust fan is not in use.												

NON PATIENT ROOMS - MISCELLANEOUS AREAS - ROOM DATA SHEET													
ROOM NAME	INDOOR TEMPERATURE				INDOOR RELATIVE HUMIDITY		MIN TOTAL ACH	MIN OA ACH	ROOM AIR RETURN EXHAUST (G) EXHAUST (S)	MAX NOISE LEVEL NC	ROOM AIR BALANCE	INDIVIDUAL ROOM CONTROL	
	COOLING		HEATING		% RH MAX	% RH MIN						TEMP	FLOW
	F	C	F	C									
Clean Utility/Storage Room	NA	NA	NA	NA	NA	NA	4	NA	Return	40	(+)	No	CV
Note 1 - HVAC Treatment **(a)** For a small, 100 sf [9 m^2] and smaller, unoccupied room, individual room temperature control is not required. Room can be supplied from any adjoining constant-volume air terminal unit serving similar interior or perimeter space. Ducted return air pick-up is also not required, as the room air can ex-filtrate into adjoining spaces, such as, a non-exit corridor (NFPA 90A). **(b)** Individual room temperature control is required for a large, more than 100 sf [9 m^2], occupied room. Provide a minimum of 2 ACH outdoor air. **Note 2 - Remote SPD Clean (or Sterile) Rooms or Warehouses** For a clean or sterile SPD storage room or a warehouse located remotely from the SPD Department, 100% exhaust and/or 100% outdoor air is not required.												
Computer Lab Room	75	24	70	21	60	20	4	2	Return	40	(o)	Yes	VAV
Note - None													
Copy/Printing Room (Large)	75	24	70	21	NA	NA	6	2	Return	40	(o)	Yes	CV
Note - None													
Copy/Printing Room (Small)	NA	NA	NA	NA	NA	NA	6	NA	Exhaust (G)	40	(-)	No	CV
Note 1 - Usage Copy/Printing Room (Small) is a local room serving a single department only, with no more than 2 machines. **Note 2 - Conditioning** Conditioned air is drawn from other areas to ventilate the room and reduce the heat load.													

NON PATIENT ROOMS - MISCELLANEOUS AREAS - ROOM DATA SHEET

ROOM NAME	INDOOR TEMPERATURE				INDOOR RELATIVE HUMIDITY		MIN TOTAL ACH	MIN OA ACH	ROOM AIR RETURN EXHAUST (G) EXHAUST (S)	MAX NOISE LEVEL NC	ROOM AIR BALANCE	INDIVIDUAL ROOM CONTROL	
	COOLING		HEATING		% RH	% RH						TEMP	FLOW
	F	C	F	C	MAX	MIN							
Crawl Space (Pipe Basement)	NA	NA	50	10	NA	NA	6	6	Exhaust (G)	45	NA	Yes	CV

Note 1 - Compliance

This space shall comply with PG-18-3 (Design and Construction Procedures), Topic 5 - Pipe Basements April 2001, available in the VA Technical Information Library.

Note 2 - Exhaust Ventilation System

Provide a thermostatically-controlled (closed-loop, local control), or manually-operated, exhaust system to minimize excessive heat build-up. The system shall consist of an exhaust fan(s), exhaust air louver, intake louver, and motorized intake and exhaust air dampers (two-position, open/close type). Select a direct-drive exhaust fan to minimize maintenance.

Note 3 - Heating System

Provide thermostatically-controlled (closed-loop, local control) terminal heaters to ensure uniform heat distribution. The ventilation system shall be inoperative when the heating system is enabled.

Electrical Equipment Rooms (EER)													
Electrical Equipment Closets without Internal Heat Gain	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Note 1 - HVAC

Electrical closets without internal heat gain do not require HVAC.

Satellite and Main Electrical Rooms with Internal Heat Gain	86	30	40	5	NA	NA	NA	Note 2	Return	45	(o)	Yes	CV

Note 1 - Equipment Heat Gain

Estimate transformer heat dissipation at the rate of 3% of the anticipated actual peak demand. Do not use the rated nameplate capacity for equipment heat gain.

Note 2 - Mechanical Cooling

(a) Provide a dedicated mechanical cooling unit using chilled water or refrigerant direct expansion (DX) as the cooling medium. Cooling shall be available on demand.

(b) Use economizer cycle (ASHRAE Standard 90.1 - 2007) or exhaust ventilation in mild weather.

(c) Provide minimum outdoor air (ASHRAE Standard 62.1 - 2007) in the mechanical cooling mode.

(d) Avoid installing mechanical cooling units within the electrical room to prevent possible damage due to water leakage and/or overflow of condensate drain pans.

Note 3 - Heating

Provide thermostatically-controlled heating system only if the space heat gain cannot offset the design heat loss.

Note 4 - Controls

Provide a DDC sensor to monitor the space temperature and initiate local and remote alarms in the event space temperature exceeds 95 F [35 C]. Provide a DDC sensor for monitoring and alarm with local control loop.

NON PATIENT ROOMS - MISCELLANEOUS AREAS - ROOM DATA SHEET

ROOM NAME	INDOOR TEMPERATURE				INDOOR RELATIVE HUMIDITY		MIN TOTAL ACH	MIN OA ACH	ROOM AIR RETURN EXHAUST (G) EXHAUST (S)	MAX NOISE LEVEL NC	ROOM AIR BALANCE	INDIVIDUAL ROOM CONTROL	
	COOLING		HEATING		% RH	% RH						TEMP	FLOW
	F	C	F	C	MAX	MIN							
Elevator Machine Room	77	25	NA	NA	NA	NA	NA	NA	Return	45	(o)	Yes	CV

Note 1 - Equipment Heat Gain
Coordinate equipment heat dissipation with the elevator equipment manufacturer.
Note 2 - Mechanical Cooling Unit
(a) Provide dedicated, thermostatically-controlled mechanical cooling. Use chilled water or direct-expansion (DX) or a dedicated air terminal unit from a nearby air-handling unit in use year-round.
(b) Avoid installation of the chilled-water or DX mechanical cooling units within the elevator machine room to prevent possible damage due to water leakage and/or overflowing of the condensate drain pans.
Note 3 - Controls
Provide a DDC sensor to monitor the space temperature and initiate local and remote alarms in the event the space temperature exceeds 95 F [35 C]. DDC sensor for monitoring and alarm is required with local control loop.

Engineering Control Center Room	75	24	70	21	60	20	4	2	Return	40	(o)	Yes	CV

Note 1 - HVAC Unit
Provide a dedicated HVAC unit to provide cooling and heating as required using available sources, such as, chilled water, steam or hot water, or a DX cooling unit.

Engineering Shops (Maintenance)	80	27	68	20	NA	NA	6	2	Return Exhaust (G)	45	(-)	Yes	CV

Note 1 - General
The engineering shops include Carpentry Shop, Electrical Shop, Machine Shop, Paint Shop, Plumbing Shop, and Welding Shop. HVAC requirements and design approach for the shops differ based on the site location (high-humidity or low-humidity) and the specific program requirements.
Note 2 - Room Temperature Control
Provide individual room temperature control for the shops served by mechanical cooling and/or heating systems. Provide mechanical cooling for high-humidity locations and evaluate the use of 100% outdoor air for ventilation for low-humidity locations.
Note 3 - Welding Shop
Provide a dedicated exhaust system for the welding shop.
Note 4 - Paint Shop
For the paint shop, a dedicated exhaust ventilation system may be required to dilute the paint shop fumes. Coordinate with the paint booth supplier if a packaged, dedicated ventilation system is furnished by the paint booth supplier.

NON PATIENT ROOMS - MISCELLANEOUS AREAS - ROOM DATA SHEET													
ROOM NAME	INDOOR TEMPERATURE				INDOOR RELATIVE HUMIDITY		MIN TOTAL ACH	MIN OA ACH	ROOM AIR RETURN EXHAUST (G) EXHAUST (S)	MAX NOISE LEVEL NC	ROOM AIR BALANCE	INDIVIDUAL ROOM CONTROL	
	COOLING		HEATING		% RH MAX	% RH MIN						TEMP	FLOW
	F	C	F	C									
Exterior Stairs	NA	NA	50	10	NA	NA	NA	NA	NA	NA	NA	Yes	NA
Note 1 - Heating Provide a dedicated, thermostatically-controlled terminal heater with closed-loop, non-DDC temperature control.													
Housekeeping Aid Closet (HAC)	NA	NA	NA	NA	NA	NA	10	NA	Exhaust (G)	40	(- -)	No	CV
Note - None													
Kitchenette	NA	NA	NA	NA	NA	NA	6	NA	Exhaust (G)	40	(- -)	No	CV
Note - None													
Litter Storage	NA	NA	NA	NA	NA	NA	6	NA	Exhaust (G)	40	(- -)	No	CV
Note - None													
Loading Dock	NA	NA	60	15	NA	NA	NA	NA	Return	45	(o)	Yes	CV
Note 1 - Heating System Provide an air curtain with a heating element. Interlock the air curtain start with the loading dock door operating mechanism. Activate heating when the ambient temperature drops below 45 F [7 C] temperature.													
Maintenance Garages	NA	NA	60	15	NA	NA	-	100%	Exhaust (S)	50	(-)	Yes	CV
Note 1 - Ventilation (100% Outdoor Air) Provide a ventilation system complete with fan(s), exhaust and/or supply, and air inlet and outlet connections equipped with motorized dampers. Size and select the system to move air at the rate of 1.5 cfm/sf [7.6 L/s/m^2]. **Note 2 - Heating** Provide thermostatically-controlled heat delivered either by the supply air system or individual air terminal units. During heating mode, reduce the outdoor air to minimum as mandated by ASHRAE Standard 62.1-2007 and other applicable documents. **Note 3 - Compliance and Reference** The HVAC system shall be in compliance with the American Council of Government Industrial Hygienists (ACCIH) and NFPA 88B. Refer to the ASHRAE Handbook of Applications for further information.													

NON PATIENT ROOMS - MISCELLANEOUS AREAS - ROOM DATA SHEET													
ROOM NAME	INDOOR TEMPERATURE				INDOOR RELATIVE HUMIDITY		MIN TOTAL ACH	MIN OA ACH	ROOM AIR RETURN EXHAUST (G) EXHAUST (S)	MAX NOISE LEVEL NC	ROOM AIR BALANCE	INDIVIDUAL ROOM CONTROL	
	COOLING		HEATING		% RH	% RH						TEMP	FLOW
	F	C	F	C	MAX	MIN							
Mechanical Equipment Rooms (MER)													
Air Handling Equipment Rooms	84	29	50	10	NA	NA	6	2	Return	45	(o)	Yes	CV
Note 1 - HVAC (All Locations) Provide a dedicated supply air takeoff (from the air-handling unit located in the MER) to circulate conditioned air at 0.5 cfm/sf [2.5 L/s/m^2]. Circulated air can be returned back to the unit. Thermostatically-controlled terminal heater may be required to maintain the winter set point, where the AHU is not in operation round-the-clock.													
Heating Rooms	86	30	40	5	NA	NA	6	2	Return	45	(o)	Yes	CV
Note 1 - Heating Rooms Heating Rooms are the designated mechanical equipment rooms where steam enters the building for space heating, domestic hot water production, process heating, etc. The Heating Room is equipped with heat exchangers, PRV stations, circulating pumps, and other steam and hot water specialties. **Note 2 - High Humidity Locations** **(a) HVAC Systems** Provide mechanical cooling, during peak summer season, by a thermostatically-controlled, dedicated chilled water or direct-expansion (DX) unit. The room can also be served by a thermostatically-controlled, air terminal unit from a nearby air-handling unit in operation round-the-clock. **(b) Heating Requirement** Verify the need for heating. Generally heating is not required as the heat produced within the space is sufficient enough to maintain above freezing temperatures. **Note 3 - All Other Locations** **(a) Ventilation Option** For low-humidity (dry) locations, in mild weather, exhaust and/or supply air ventilation system can be used to keep the space temperature below 86 F [30 C]. The system shall consist of fans, inlet and outlet connections with motorized dampers, ductwork, and thermostatic controls. If using this option, increase minimum total ACH to 10. **(b) Mechanical Cooling** Provide mechanical cooling, during peak summer season, by a thermostatically-controlled, dedicated chilled water or DX unit. The room can also be served by a thermostatically-controlled, air terminal unit from a nearby air-handling unit in operation round-the-clock. **(c) Heating** Verify the need for heating. Generally heating is not required as the heat produced within the space is sufficient enough to maintain above freezing temperatures.													

NON PATIENT ROOMS - MISCELLANEOUS AREAS - ROOM DATA SHEET													
ROOM NAME	INDOOR TEMPERATURE				INDOOR RELATIVE HUMIDITY		MIN TOTAL ACH	MIN OA ACH	ROOM AIR RETURN EXHAUST (G) EXHAUST (S)	MAX NOISE LEVEL NC	ROOM AIR BALANCE	INDIVIDUAL ROOM CONTROL	
	COOLING		HEATING		% RH MAX	% RH MIN						TEMP	FLOW
	F	C	F	C									
Refrigeration Equipment Rooms	86	30	40	5	NA	NA	6	NA	Return	45	(o)	Yes	CV
Note 1 - High Humidity Locations **(a) General** Provide a dedicated mechanical cooling unit, complete chilled water or direct-expansion (DX) coil and minimum MERV 7 filters. Provide minimum outdoor air per ASHRAE Standard 15 (latest version) and capability to operate at 100% outdoor air during emergency refrigerant evacuation mode. Provide a variable speed drive to facilitate system operation in the normal and emergency modes. **(b) Capacity - Mechanical Cooling Unit** Base the capacity on the maximum of: Internal heat gain (note that the heat dissipated by open chillers is much higher than hermetic chillers) Exhaust air volume required to dilute the refrigerant spill - see ASHRAE Standard 15. **Note 2 - All Other Locations** Provide an exhaust ventilation system or a dedicated air-handling system, generally as described above under Note 1, and equipped with an economizer cycle, if feasible. Evaporative cooling can be used, in lieu of mechanical cooling, for low humidity locations. **Note 3 - Emergency Refrigerant Leak Evacuation System** Provide a refrigerant leak detection system complete with field-installed refrigerant detection sensors, wiring and local control panel per ASHRAE Standard 15. Provide an open protocol BACnet interface with the building ECC system. Provide local alarms per ASHRAE Standard 15 requirements. Provide remote alarms at the ECC. **Note 4 - Emergency Exhaust System** Upon activation by the leak detection system, the room air shall be exhausted outdoors by an emergency exhaust system and supply air system shall operate in 100% outdoor air mode. Provide exhaust air inlets in accordance with the recommendations of ASHRAE Standard 15 and chiller manufacturer. Activation of the leak detection system shall also trigger local and remote alarms. Provide emergency power for the emergency exhaust and supply fans and associated controls.												
Reagent Grade Water Treatment Room	75	24	70	21	60	20	8	2	Exhaust (G)	40	(-)	Yes	CV
Note - None													
Soiled Utility and Storage Room	NA	NA	NA	NA	NA	NA	6	NA	Exhaust (G)	40	(- -)	No	CV
Note - None													

NON PATIENT ROOMS - MISCELLANEOUS AREAS - ROOM DATA SHEET													
ROOM NAME	INDOOR TEMPERATURE				INDOOR RELATIVE HUMIDITY		MIN TOTAL ACH	MIN OA ACH	ROOM AIR RETURN EXHAUST (G) EXHAUST (S)	MAX NOISE LEVEL NC	ROOM AIR BALANCE	INDIVIDUAL ROOM CONTROL	
	COOLING		HEATING		% RH MAX	% RH MIN						TEMP	FLOW
	F	C	F	C									
Standby Generator Room	80	29	40	18	NA	NA	4	NA	Return	NA	(o)	Yes	CV

Note 1 - Design Requirements

Design requirements listed above are for when the engine is not operating. During engine operation, exhaust air is required and room air balance is negative. During operation, room temperature shall not exceed maximum ambient temperature recommended by engine manufacturer.

Note 2 - Damper Requirements

Provide motorized dampers for all louvers. Dampers shall fail-open on loss of power.

Note 3 - Analysis Requirement

(a) Submit a detailed analysis showing all options and systems selected to provide proper ventilation and cooling of the standby generator space.

(b) Numerous design considerations must be included in the analysis. Once the size of the generator plant has been determined and the number of units selected then various manufacturers shall be consulted to ascertain the range of heat rejection from the various components. See Figure 6-2, Standby Generator Room, for the average heat rejection values. Assuming the prime movers are reciprocating diesel engines, consideration shall be given to the required radiator flow rates when the unit is naturally aspirated, turbocharged or is a lean burn unit. Airflow rates required for unit mounted radiators can vary substantially from one type to another and manufacturer to manufacturer.

Note 4 - Configuration Options

(a) The electrical equipment including the generator and onboard or nearby electrical equipment can be specified for wet locations, or remote radiators can be used thereby drastically reducing the louver area requirement.

(b) A system with a mix of unit mounted radiators and remote units can be proposed.

(c) The analysis shall compare unit mounted radiators to remote radiators. The analysis shall include cost of louvers and control devices. Louvers in areas prone to hurricanes or wind-debris hazards shall be meet the following Florida Building Code tests: Uniform Static Air Pressure Test, Cyclic Wind Pressure Test, Large Missile Impact Test, and Wind Driven Rain Resistance Test for Dry Areas, Enclosed.

(d) A separate detailed acoustic analysis shall be submitted for the final design of the standby generator facility.

Note 5 - Design Considerations

(a) The switchgear and control rooms shall be fully air-conditioned. If remote radiators are used and only minimal louvers are required for combustion air ventilation, consideration should be given to air conditioning the engine bay. The louvers are fitted with electrically controlled actuators to open as needed. Do not provide air conditioning during operation of the generator.

(b) If remote radiators are used, consideration of glycol addition to the system is required in freezing areas.

(c) Engine exhaust must be safely conveyed from the engine through the piping and any auxiliary equipment to the atmosphere within allowable pressure drops.

(d) Maintain separate exhaust for each engine. Provide individual silencers or mufflers for each exhaust system.

(e) Exhaust systems shall use welded tube turns with radius of 4 pipe minimum diameters.

(f) See VA Master Specification 26 32 13 ENGINE GENERATORS for additional information.

NON PATIENT ROOMS - MISCELLANEOUS AREAS - ROOM DATA SHEET													
ROOM NAME	INDOOR TEMPERATURE				INDOOR RELATIVE HUMIDITY		MIN TOTAL ACH	MIN OA ACH	ROOM AIR RETURN EXHAUST (G) EXHAUST (S)	MAX NOISE LEVEL NC	ROOM AIR BALANCE	INDIVIDUAL ROOM CONTROL	
	COOLING		HEATING		% RH MAX	% RH MIN						TEMP	FLOW
	F	C	F	C									
Trash Collection Room	NA	NA	50	10	NA	NA	10	NA	Exhaust (G)	40	(- -)	Yes	CV
Note 1 - Exhaust System Provide a dedicated general exhaust system, if a common general exhaust system is not available in the vicinity. Exhaust system shall be manually operated and shall run continuously. **Note 2 - Heating** Provide a thermostatically-controlled heating system if wet sprinkler piping and/or any other building service piping passes through the room.													
Vestibules	NA	NA	50	10	NA	NA	NA	NA	NA	40	(+)	Yes	CV
Note 1 - Heating Provide a thermostatically-controlled terminal heater. Coordinate heater type and location with the architectural discipline. Floor-mounted cabinet unit heaters with bottom horizontal supply and top return have proven effective in counter-acting cold air settling at the floor level. **Note 2 - Space Pressurization** Supply 1.0 cfm/sf [5.1 L/s/m^2] air under positive pressure from an adjoining air terminal unit serving the lobby to maintain positive air pressure by allowing air to ex-filtrate outdoors.													

Security Requirements

Security Requirements

Below are the minimum-security requirements required. Additional measures may be required upon property review.

General Conditions:

The facility is requesting an integrated system with remote access and monitoring from the main campus via internet IP high resolution cameras covering all entrances, exists, and public spaces in accordance with HIPPA requirements. This information is intended to serve as general guidance in design. During design and prior to installation police and information services shall review technical specifications and provide confirmation of compatibility, functionality, and placement of systems in accordance with VA security requirements. For any questions regarding compatibility please contact the contracting officer.

Installation of an IDS system (Intrusion Detection System) monitored by a local security firm. The IDS alarm panels should monitor the perimeter doors and the medication storage room. Previous CBOC leases were monitored by Giotto's Alarm-Tech.

Hard-wired panic alarms be installed that would notify local PD of an intrusion. Areas to be monitored should be exam rooms, the front desk, areas used by social services, and any other area recommended by the clinical nurse manager.

Access Control:

Public access entrances should be limited to one main access area for reception at the main lobby. Staff entrances shall be located independently of the main entrance while remaining within proximity to staff parking. Provide staff entrances with access control, visual monitoring, and intrusion detection system / alarm box. Locking access control should be placed outside entrances of the following locations: Patient Corridors leading into clinic suites, IT closets, Logistics, Pharmacy suite, drug dispensing / storage rooms, mechanical closets, radiology suite, staff locker room, and laboratory suite.

Surveillance Cameras:

Video cameras must be fixed mounted industry standard IP/digital high-resolution and shall be provided to monitor activities in the vestibules and lobbies and shall be located to provide views of approaching pedestrian and vehicular traffic, drop-off areas, building entrances, and departing pedestrian and vehicular traffic. Cameras will be networked to an onsite NVR which is required to integrate with the existing VA CCTV network. All networking is required to be wired with CAT-6A and all cameras must be powered over Ethernet. CAT-6A used for the security cameras shall be a different color than the CAT-6A used to network all other devices. Entire

camera system will have a dedicated patch panel to ensure clean cable management and easy identification. Additional locations may be identified upon design review and existing building conditions.

Windows

Per VA Handbook 0730/4, March 29, 2013, Security and Law Enforcement

A -Windows. When below 12 m (40 ft.) from ground level or the roof of a lower abutment, or less than 7.5 m (25 ft.) from windows of an adjoining building, or accessible by a building ledge leading to windows of other floor rooms, security mesh screening for windows is required. Security measures that exceed these requirements may be authorized in writing by OS&LE. Required specifications for stainless steel security mesh screening are:

1. All #304 stainless steel woven mesh 0.7 mm (.028 in.) wire diameter, with tensile strength of 15 kg/mm (800 pounds per linear inch).

2. Mesh 12x12 per 25 mm (1 in.) with main and sub frames of 2.7 mm (12 gauges) carbon steel with baked enamel finish and internal key locking slide bolts.

Medication Room

Windows, preferably none. Ceiling (no access by means of being able to access the room from another room, and the door is a 45mm solid core or hollow steel construction. All hinge pins on exterior must be retained with set pins or spot welded to prevent their removal. Only applies to hinges that are on the outside of the door.

Vehicular barriers such as bollards

Per Physical Security Design Manual for VA Facilities:

3.1. No vehicle shall be parked or be permitted to travel closer than 25 feet (7.6 m) to any life-safety protected VA facility.

If you have a roadway or parking lot within 25 feet (7.6 m) to the building the following will be required.

3.4.2: Stationary (Passive) Barriers

Natural or man-made stationary barriers may be used.
Landscaping examples include berms, gullies boulders, trees, and other terrain.
Hardscaping examples include benches and planters
Structural examples include walls, bollards, and cables.

3.4.2.1 Locations: Adjacent to vulnerable perimeter fences, protection for site utility equipment, at building entrance, and other areas requiring additional protection from vehicles.

0730-4, Section (C), subsection (2) (c)- Doors and Door Locks requirement: Doors set in steel frames must be fitted with a mortise lock with a deadlock feature. This requirement applies to Medication Room, IT Telecomm Closet, IT Server Room, and any room dedicated to storing Veterans Records.

0730-4, Section D - Other Room Access Means: In addition to the Medication Room, please also ensure that there is no up and over access to the following room: IT Telecom Closets, IT Server Room, and Veterans Records Storage.

0730-4, Section Q – Electronic Physical Access Control Systems (PACS): Card Reader is also required for all IT Server Rooms.

Duress Alarm

A physical duress button that alerts local police (through the use of a security monitoring company) will be accessible to reception area staff and other areas and out of sight of visitors. Refer to ASRs and design guide plates for other locations of duress alarms.

Intrusion Detection System (IDS)

Door and window alarms, glass break detection and other industry standard intrusion detection systems should be wired and ready-to-integrate with a local alarm monitoring company. Questions regarding technological specifications should be directed to the VA Security Advisor.

The VA will be consulted during design to ensure compliance with VA Directives and Physical Security Policies.