

Section 1

Foreword & Acknowledgments

	Page
Foreword	1-1
Acknowledgments	1-3
Introduction	1-5
Abbreviations	1-7
Legend of Symbols	1-8

This page intentionally left blank.

Foreword

The material contained in the Outpatient Clinic Design Guide is the culmination of a partnering effort within the Department of Veterans Affairs by the Veterans Health Administration and the Office of Construction & Facilities Management, Strategic Management Office. The goal of this Design Guide is to facilitate the design process and to ensure the quality of VA facilities while controlling construction and operating costs.

This document is intended to be used as a guide and to supplement current technical manuals and other VA criteria in planning Community Based and Satellite Outpatient Clinics. The Design Guide is not to be used as a standard design. Use of this Design Guide does not preclude the need for a functional and physical design program for each specific project. It is the responsibility of the Project Architect and the Project Engineer to develop a complete and accurate project design that best meets the users' needs and applicable code requirements.

Lloyd H. Siegel, FAIA Director Strategic Management Office This page intentionally left blank.

Acknowledgments

Credit is due to the following individuals whose guidance, advice, and effort made this publication possible:

Office of Construction & Facilities Management

Donald H. Orndoff Director, Office of Construction & Facilities Management

Lloyd H. Siegel, FAIA Director, Strategic Management Office Kurt D. Knight, PE Chief, Facilities Quality Service (FQS)

Donald L. Myers, AIA, NCARB Senior Architect

Daniel Colagrande Architect

James L. McCord Architect

Satish Sehgal, PE Senior Mechanical Engineer, FQS
Mulraj P. Dhokai, PE Senior Mechanical Engineer, FQS
Dennis Sheils Management and Program Analyst

Orest Burdiak Principal Interior Designer
Khimchand Chudasama, PE Senior Electrical Engineer

Larry Lau, PE Electrical Engineer

Dat M. Tran, PE, RCDD Senior Electrical Engineer

Healthcare Engineering Office

Lam Vu, PE Senior Electrical Engineer

Advisory Group

Richard Stark, MD Director Primary Care Clinic Operations

Michael F. Mayo-Smith, MD VISN 1 Director

Madhulika Agarwal, MD

Chief Patient Care Services Officer

Gerald O. McDonald, MD Senior Surgical Consultant / Surgery Services

Anna Lythgoe, RN, MSN Clinical Program Manager

Richard D. Roth, DDS, FAGD, MBA Chief, Dental, Tennessee Valley HCS

Outpatient Clinics

William V. Chappell, Jr. VA OPC (Daytona, FL)

Roger Bower, MD Chief Medical Officer

James Borland, MD Associate Chief of Staff for Outpatient Clinics

Mike Spann Project Manager

Catherine Davis, ARNP Chief Nurse

Martinez OPC (Martinez, CA)

Kyle Hatch Chief, Engineer VANCHCS

Hilary Elkin Nurse Manager

Richard James Pharmacy Redding
David Petit Bio-Safety Martinez

Linda Reynolds Site Manager VANCHCS

Caroline Galen IC Nurse

Camille LaMontage Nurse Manager

Larry Price Assistant Chief, LMS

Anibal Santos-Rivera Chief, SPD

Consultants

GLHN Architects & Engineers, Inc.

Roger Ulrich, AIA, CSI, NCARB

Theodore C. Moeller, PE

Ellen Alexander

Bill Nelson, PE

Robert Johnson

Henry Johnstone, PE

Mark E. Barber, PE

Sandra Bilagody

Cecilia Souza

Nora Mohnsen

Nicholas C. Krauja, AIA

The CPI Group

Karl M. Kilgore, AIA, NCARB Health Care Specialist

Introduction

The Outpatient Clinic Design Guide is intended to be a graphic consolidation of existing Department of Veterans Affairs standards and criteria. It contains data from the following sources:

ADA Standards for Accessible Design

International Building Code, 2006

NFPA 101

Barrier-Free Design Guide PG-18-13

Design and Construction Procedures PG-18-3

Equipment Guide List PG-7610

Equipment Reference Manual PG-18-6

Fire Protection Design Manual

Master Construction Specifications PG-18-1

National CAD Standards and Details PG-18-4

Physical Security Design Manual (Final Draft)

Room Finishes, Door and Hardware Schedules PG-18-14

Seismic Design Requirements H-18-8

Signage Design Guide

Space Planning Criteria for VA Facilities, (formerly Handbook 7610)

Sustainable Design and Energy Reduction Manual (Final Draft)

VA Technical Criteria (PG-18-10 Design Manuals) pertaining to Architectural, Interior Design, HVAC, Plumbing, and Electrical

2006 AIA Guidelines for Design and Construction of Health Care Facilities

HVAC Design Manual for Hospital Projects

Emergency Power & Water Supply During Natural Disasters, Phase 2

Energy Conservation (EPACT 2005 and DOE – Final Rule)

Energy Conservation (Executive Order No. 13423 Dated January 24, 2007:

Strengthening Federal Environmental, Energy, and Transportation Management)

Memorandum of Understanding (MOU): Federal Leadership in High Performance and Sustainable Buildings.

Commissioning Guidelines (issuance pending)

The Design Guide refers to the above mentioned sources when data is either too detailed or too broad to be included in this guide. These sources can be accessed at www.va.gov/facmgt/standard.

The Outpatient Clinic Design Guide was developed as a design tool to assist the medical center staff and the contracting officers in better understanding the choices that designers ask them to make, and to help designers understand the functional requirements necessary for proper operation of Community Based and Satellite Outpatient Clinics.

This Design Guide is not intended to be project-specific. It addresses the general functional and technical requirements for typical VA Outpatient Clinics. While this Guide contains information for the vast majority of space types required in Outpatient Clinics, it is not possible to foresee all future requirements. The project-specific space program is the basis for an individual project design. It is important to note that the guide plates in Section 4 are generic graphic representations intended as illustrations of VA's furniture, equipment, and personnel space needs. They are not meant to limit design opportunities.



Equipment manufacturers should be consulted for actual dimensions and utility requirements. Use of this Design Guide does not supersede the project architect's and engineers' responsibilities to develop a complete and accurate design that meets the user's needs and the appropriate code requirements within the budget constraints.

Abbreviations

ABA A AC/HR A ADA A AFF A AI A AIDS A A & MM A AR A AT A AT (SP) A (v BC B C D CB C CB C CC C C	Amperes American Barriers Act Air Changes per Hour Americans with Disabilities Act Above Finished Floor Acquisition and Installation Acquired Immune Deficiency Syndrome Acquisition and Materiel Management As Required Acoustical Ceiling Tile Acoustical Ceiling Tile with Sprayed Plastic Finish) Base Cabinet Degree Celsius Circuit Breaker Community Based Outpatient Clinic	KW LB LLTS MCS MTD NFPA NSF NSM OOCFM OSD PACS PCP PEC PG	Kilowatt Pound/Pounds Lockers, Lounges, Toilets & Showers Master Construction Specifications Mounted National Fire Protection Association Net Square Feet Net Square Meters Office of Construction & Facilities Management Open Site Drain Picture Archiving and Communication System Portland Cement Plaster Primary Engineering Control
AC/HR A ADA A AFF A AI A AIDS A A & MM A AR A AT A AT (SP) A (v BC B C D CB C CB C CC C C	Air Changes per Hour Americans with Disabilities Act Above Finished Floor Acquisition and Installation Acquired Immune Deficiency Syndrome Acquisition and Materiel Management As Required Acoustical Ceiling Tile Acoustical Ceiling Tile with Sprayed Plastic Finish) Base Cabinet Degree Celsius Circuit Breaker Community Based Outpatient Clinic	LLTS MCS MTD NFPA NSF NSM OOCFM OSD PACS PCP PEC	Lockers, Lounges, Toilets & Showers Master Construction Specifications Mounted National Fire Protection Association Net Square Feet Net Square Meters Office of Construction & Facilities Management Open Site Drain Picture Archiving and Communication System Portland Cement Plaster
ADA A AFF A AI A AIDS A A & MM A AR A AT A AT (SP) A (v BC B C D CB C CB C CC C C	Americans with Disabilities Act Above Finished Floor Acquisition and Installation Acquired Immune Deficiency Syndrome Acquisition and Materiel Management As Required Acoustical Ceiling Tile Acoustical Ceiling Tile with Sprayed Plastic Finish) Base Cabinet Degree Celsius Circuit Breaker Community Based Outpatient Clinic	MCS MTD NFPA NSF NSM OOCFM OSD PACS	Master Construction Specifications Mounted National Fire Protection Association Net Square Feet Net Square Meters Office of Construction & Facilities Management Open Site Drain Picture Archiving and Communication System Portland Cement Plaster
AFF A AI A AIDS A A & MM A AR A AT A AT (SP) A (v BC B C D CB C CBOC C CC C C	Above Finished Floor Acquisition and Installation Acquired Immune Deficiency Syndrome Acquisition and Materiel Management As Required Acoustical Ceiling Tile Acoustical Ceiling Tile with Sprayed Plastic Finish) Base Cabinet Degree Celsius Circuit Breaker Community Based Outpatient Clinic	MTD NFPA NSF NSM OOCFM OSD PACS PCP PEC	Mounted National Fire Protection Association Net Square Feet Net Square Meters Office of Construction & Facilities Management Open Site Drain Picture Archiving and Communication System Portland Cement Plaster
AI A AIDS A A & MM A AR AT (SP) A (v BC B C CBOC CC A A AIDS	Acquisition and Installation Acquired Immune Deficiency Syndrome Acquisition and Materiel Management As Required Acoustical Ceiling Tile Acoustical Ceiling Tile with Sprayed Plastic Finish) Base Cabinet Degree Celsius Circuit Breaker Community Based Outpatient Clinic	NFPA NSF NSM OOCFM OSD PACS PCP PEC	National Fire Protection Association Net Square Feet Net Square Meters Office of Construction & Facilities Management Open Site Drain Picture Archiving and Communication System Portland Cement Plaster
AIDS A A & MM A AR A AT A AT (SP) A (v BC B C D CB C CBOC C CC C	Acquired Immune Deficiency Syndrome Acquisition and Materiel Management As Required Acoustical Ceiling Tile Acoustical Ceiling Tile with Sprayed Plastic Finish) Base Cabinet Degree Celsius Circuit Breaker Community Based Outpatient Clinic	NSF NSM OOCFM OSD PACS PCP PEC	Net Square Feet Net Square Meters Office of Construction & Facilities Management Open Site Drain Picture Archiving and Communication System Portland Cement Plaster
A & MM A AR A AT A AT (SP) A (v BC B C D CB C CBOC C CC C	Acquisition and Materiel Management As Required Acoustical Ceiling Tile Acoustical Ceiling Tile with Sprayed Plastic Finish) Base Cabinet Degree Celsius Circuit Breaker Community Based Outpatient Clinic	NSM OOCFM OSD PACS PCP PEC	Net Square Meters Office of Construction & Facilities Management Open Site Drain Picture Archiving and Communication System Portland Cement Plaster
AR A AT A AT (SP) A (v BC B C D CB C CB C CC C	As Required Acoustical Ceiling Tile Acoustical Ceiling Tile with Sprayed Plastic Finish) Base Cabinet Degree Celsius Circuit Breaker Community Based Outpatient Clinic	OOCFM OSD PACS PCP PEC	Office of Construction & Facilities Management Open Site Drain Picture Archiving and Communication System Portland Cement Plaster
AT A AT (SP) A (v BC B C D CB C CBOC C CC C	Acoustical Ceiling Tile Acoustical Ceiling Tile With Sprayed Plastic Finish) Base Cabinet Degree Celsius Circuit Breaker Community Based Outpatient Clinic	OSD PACS PCP PEC	Management Open Site Drain Picture Archiving and Communication System Portland Cement Plaster
AT (SP) A (v) BC B C D CB C CC CC	Acoustical Ceiling Tile with Sprayed Plastic Finish) Base Cabinet Degree Celsius Circuit Breaker Community Based Outpatient Clinic	PACS PCP PEC	Open Site Drain Picture Archiving and Communication System Portland Cement Plaster
BC B C D CB C CBOC C CC C	with Sprayed Plastic Finish) Base Cabinet Degree Celsius Dircuit Breaker Community Based Outpatient Clinic	PCP PEC	Picture Archiving and Communication System Portland Cement Plaster
BC B C D CB C CBOC C CC C	Base Cabinet Degree Celsius Circuit Breaker Community Based Outpatient Clinic	PEC	System Portland Cement Plaster
C D CB C CBOC C CC C	Circuit Breaker Community Based Outpatient Clinic	PEC	
CB CC CC	Circuit Breaker Community Based Outpatient Clinic		Primary Engineering Control
CBOC C	Community Based Outpatient Clinic	PG	
CC C		i G	Program Guide
С		PH	Phase
	Contractor Installed	PL	Plaster
CFM C	Cubic Feet per Minute	PREP	Preparation
	Ceiling	PSIG	Pounds per Square Inch Gauge
	Concrete Masonry Unit	QT	Quarry Tile
	Carpet (without cushion broadloom)	RB	Resilient Base
	Corrosion Resisting Steel (SS)	RSF	Resilient Sheet Flooring
	Ceramic Tile	SC	Special Coating (High Build Glazed
	Computerized Tomography	1	Coating)
	Design Guide	SD	Standard Detail
	Door Switch	SF	Square Feet, Square Foot
	Electrocardiogram	SOPC	Satellite Outpatient Clinic
	Esophagogastroduodenoscopy	SPD	Supply, Processing and Distribution
	Environmental Management Service	SRC	Semi-Restricted Corridor
	Emergency Room	SS	Stainless Steel (CRS)
	Exam Treatment Module	TELEC	Telecommunications
EtO E	Ethylene Oxide Gas	UC	Urgent Care
	Exhaust	UFAS	Uniform Federal Accessibility Standards
	Degrees Fahrenheit	UPS	Uninterruptable Power Supply
	Foot-candle	V	Volts
	Floor Drain	VA	Department of Veteran Affairs
	Fixture	VACO	Veterans Affairs Central Office
	Fluorescent	VAMC	Veterans Affairs Medical Center
	Ground Fault Circuit Interrupter	VC	VA Furnished
	Gastroenterology		Contractor Installed
	Gypsum Wallboard	VCT	Vinyl Composition Tile
	Gynecology	VHA	Veterans Health Administration
	Housekeeping Aids Closet	VV	VA Furnished VA Installed
	Heating, Ventilating and Air	W	Watts
	Conditioning	WSF	Welded Seamless Flooring
	Horsepower	W/SF	Watts per Square Foot
	Hour	W/SM	Watts per Square Meter
	ntensive Care Unit	W/m ²	Watts per square meter
	Kelvin		

Legend of Symbols

SYSTEM	DESCRIPTION OF SYMBOLS	SYMBOL
Wiring devices And Power	Duplex receptacle, NEMA 5-20R-20 amp-mounted 18" (450 mm) AFF unless otherwise noted	₩
	Duplex receptacle, NEMA 5-20R-20 amp-mounted 3" (75 mm) above counter top/counter top back splash	₩
	Duplex receptacle with ground fault interrupter, NEMA 5-20R- 20 amp-mounted 18" (450 mm) AFF unless otherwise noted	⊭
	Duplex receptacle with ground fault interrupter, NEMA 5-20R- 20 amp-mounted 3" (75 mm) above counter top/counter top back splash	⊢ A
	Weatherproof while in use duplex receptacle with GFI, NEMA 5-20R-20 amp-mounted 18" (450 mm) AFF unless otherwise noted	⊨⊖ _{WP}
	Quadruplex outlet, NEMA 5-20R-20 amp-mounted 18" (450 mm) AFF unless otherwise noted.	₩
	Quadruplex outlet, NEMA 5-20R-20 amp-mounted 3" (75 mm) above counter top/counter top back splash	⊨⊕ ^A
	Quadruplex outlet with ground fault interrupter, NEMA 5- 20R- 20 amp-mounted 18" (450 mm) AFF unless otherwise noted	⊨∰ GFI
	Quadruplex outlet with ground fault interrupter, NEMA 5-20R- 20 amp- mounted 3" (75 mm) above counter top/counter top back splash	A GFI
	Duplex receptacle on emergency power, NEMA 5-20R-20 amp-mounted 18" (450 mm) AFF unless otherwise noted	⊨
	Quadruplex receptacle, NEMA 5-20R-20 amp- emergency power, mounted 18" (450 mm) AFF unless otherwise noted.	+
	Special receptacle of the type required, mounted 18" (450 mm) AFF unless otherwise noted.	Ю
	Electrical surface mounted multi-outlet raceway assembly, NEMA 5-20R receptacles at 2'-0" (600 mm) intervals, single or multiple channel as required-mounted 12" (300 mm) above counter.	
	Ceiling Junction box - purpose and location as noted.	①
	Junction box in wall-purpose and location as noted, mounted 18" (450 mm) AFF unless otherwise noted.	-0
	Circuit Breaker- mounted 60" (1500 mm) AFF.	СВ
	Electrical, panelboard cabinet, flush mounted, so maximum height of top circuit breaker is no more than 78" (1980 mm) AFF.	<i>21111</i>

SYSTEM	DESCRIPTION OF SYMBOLS	SYMBOL	
Wiring devices	Single pole switch- mounted 46" (1150 mm) AFF	S	
switches	Single pole switch - suffix of "a", "b", or "c" indicates separate control of fixture(s) with same designation-mounted 46" (1150 mm) AFF	S ^a	
	Dimmer switch- mounted 46" (1150 mm) AFF	s ^D	
	Three-way switch- mounted 46" (1150 mm) AFF	s ³	
	Door switch- See architectural for mounting location.	DS	
	Emergency power off (EPO) push button- mounted 40" (1000 mm) AFF.	\triangle	
Lighting Fixtures	2'x2' (600 mm x 600 mm) fluorescent fixture	A	
	1'x4' (300 mm x 1200 mm) fluorescent fixture	A	
	2'x4' (600 mm x 1200 mm) fluorescent fixture	A	
	Wall-mounted fluorescent fixture- mounted 92" (2300 mm) AFF unless otherwise noted.	A	
	2'x2' (600 mm x 600 mm) fluorescent fixture- emergency power	A	
	2'x4' (600 mm x 1200 mm) fluorescent fixture- emergency power		
	Recess light fixture	O _A	

SYSTEM	DESCRIPTION OF SYMBOLS	SYMBOL
Auxiliary Systems	Telephone data outlet-mounted 18" (450 mm) AFF unless otherwise noted	4
	Telephone data outlet-mounted 3" (75 mm) above counter top/counter top back splash	← _A
	Wall-mounted telephone outlet-mounted 48" (1200 mm) AFF unless otherwise noted	W
	Video outlet type as noted in equipment list- mounted 18" (450 mm) AFF unless otherwise noted.	⟨v⟩
	Security/ Duress-alarm button mounted 3" (75 mm) above counter top/ counter top back splah.	⊢(P) _A
	Nurse call dome light-ceiling mounted	(N)
	Nurse call dome light-wall mounted 96" (2300 mm) AFF unless otherwise noted.	⊢(N)
	Nurse call duty station- mounted 54" (1350 mm) AFF unless otherwise noted.	⊣N D
	Emergency nurse call- mounted 40" (1000 mm) AFF for shower installations mount within 18" (450 mm) of shower head and or 72" (1800 mm) AFF	−N _E
	Nurse call staff station- mounted 54" (1350 mm) AFF unless otherwise noted.	-N _S
	Security/duress-alarm button wall mounted 40" (1000 mm) unless otherwise noted.	⊢⟨P⟩
	Junction box-purpose and location as noted- mounted 18" (450 mm) AFF unless otherwise noted.	Ĵ
	Door switch- See architectural for mounting location.	DS
Mechanical	Room humidistat-mounted 5'-0" (1520 mm) AFF	(H)
Plumbing	Medical gas outlet (letter designates service)- mounted 48" AFF unless otherwise noted.	
	Sprinklerhead	©