

## Chapter 7

# Specially Adapted Housing (SAH) Minimum Property Requirements (MPRs)

### Overview

---

**Introduction** This chapter contains information about Specially Adapted Housing (SAH) Minimum Property Requirements (MPRs).

---

**In this Chapter** This chapter includes the following sections:

Section	Topic Name	See Page
A	General Information About Specially Adapted Housing (SAH) Minimum Property Requirements (MPRs)	7-A-1
B	Minimum Property Requirements (MPRs) for Specially Adapted Housing (SAH)	7-B-1
C	Requirements for Condominiums and Townhouses	7-C-1

---

*Note:* See Chapter 9, Section F, “Specially Adapted Housing (SAH) Construction Plans, Building Code Requirements.”

---



## **Section A**

# **General Information About Specially Adapted Housing (SAH) Minimum Property Requirements (MPRs)**

### **Overview**

---

**Introduction**      This section contains general information about Specially Adapted Housing (SAH) Minimum Property Requirements (MPRs).

---

**In this Section**      This section includes the topic “About Specially Adapted Housing (SAH) Minimum Property Requirements (MPRs).”

---

## About Specially Adapted Housing (SAH) Minimum Property Requirements (MPRs)

---

<b>Introduction</b>	<p>This topic contains information about Specially Adapted Housing (SAH) Minimum Property Requirements (MPRs), including:</p> <ul style="list-style-type: none"> <li>• a description</li> <li>• how MPRs were developed</li> <li>• the statutory requirement</li> <li>• reasonably necessary adaptations for SAH cases</li> <li>• flexibility and exercise of judgment, and</li> <li>• when an existing home does not meet the MPRs.</li> </ul>
<b>Description</b>	<p><i>MPRs</i> are absolute conditions under the governing law for the housing grant.</p>
<b>How MPRs Were Developed</b>	<p>MPRs were developed over the years from the experience and knowledge of experts who have gained an understanding of the residential needs of veterans confined, or largely confined, to a wheelchair.</p>
<b>Statutory Requirement</b>	<p>38 United States Code (U.S.C.), Chapter 21 or 38 Code of Federal Regulations (CFR) 36.4401 through 36.4410 mandates that any housing unit acquired, constructed, or remodeled using proceeds from the SAH and Special Housing Adaptations (SHA) Grant Programs must:</p> <ul style="list-style-type: none"> <li>• comply with the MPRs, and</li> <li>• include features necessary to accommodate the veteran’s disabilities.</li> </ul> <p><b>Exclusion:</b> MPRs are <i>not</i> required when:</p> <ul style="list-style-type: none"> <li>• the veteran obtains a waiver, or</li> <li>• compliance with the MPR is not feasible, and the veteran requests a waiver of such feature that is approved by RLC management.</li> </ul> <p><b>Reference:</b> For more information about MPR waivers, see Chapter 11, Section B, “Processing Medical and Non-Medical Waiver Requests.”</p>

---

*Continued on next page*

## About Specially Adapted Housing (SAH) Minimum Property Requirements (MPRs), Continued

---

### Reasonably Necessary Adaptations for SAH Cases

The following adaptations are considered reasonably necessary in SAH cases:

- ramps/walkways
- doorways and hallways
- garages, carports, and passageways
- bathrooms
- bedrooms
- kitchens
- maintenance
- heating and air conditioning
- electrical
- security and emergency equipment, and
- doors, windows, and flooring materials, and
- laundry.

**Reference:** For more information about MPRs and adaptations necessary for a veteran's disability in SAH cases, see Chapter 7, Section B, "Minimum Property Requirements (MPRs) for Specially Adapted Housing (SAH)."

---

### Flexibility and Exercise of Judgment

Although the MPRs are requirements, there is still a need for flexibility and the exercise of judgment based on knowledge of the physical capabilities and limitations of the particular veteran.

In some cases, certain adaptive features may not be necessary. Therefore, some veterans may choose to submit a waiver to the Department of Veterans Affairs requesting that a requirement be eliminated from the construction plans. If a veteran requests the installation of a special feature and it is deemed necessary, the special feature is allowed if all other necessary MPR features have been completed.

**Reference:** For more information about waivers, see Chapter 11, Section B, "Processing Medical and Non-Medical Waiver Requests."

---

*Continued on next page*

## About Specially Adapted Housing (SAH) Minimum Property Requirements (MPRs), Continued

---

### **When Existing Homes Do Not Meet MPRs**

In SAH cases, there are instances in which an existing home does not meet the MPRs and cannot be remodeled to meet the MPRs, due to the:

- cost of adaptations
- physical condition/deferred maintenance, and/or
- design of the home.

As a result, the veteran has the option to:

- purchase a home that has already been specially adapted
  - purchase an existing home that is feasible to adapt, or
  - construct a new home that meets the requirements of the grant.
-

## Section B

# Minimum Property Requirements (MPRs) for Specially Adapted Housing (SAH)

## Overview

---

**Introduction** This section contains information about Minimum Property Requirements (MPRs) for Specially Adapted Housing (SAH), including the requirements for:

- ramps/walkways
  - doorways and hallways
  - garages, carports, and passageways
  - bathrooms
  - bedrooms
  - kitchens
  - maintenance
  - heating and air conditioning
  - electrical
  - security and emergency equipment
  - doors, windows, and flooring materials, and
  - laundry.
- 

**In this Section** This section includes the following topics:

Topic	Topic Name	See Page
1	Ramp/Walkway Requirements	7-B-2
2	Doorway and Hallway Requirements	7-B-6
3	Garage, Carport, and Passageway Requirements	7-B-7
4	Bathroom Requirements	7-B-8
5	Bedroom Requirements	7-B-15
6	Kitchen Requirements	7-B-16
7	Maintenance Requirements	7-B-19
8	Heating and Air Conditioning Requirements	7-B-20
9	Electrical Requirements	7-B-21
10	Security and Emergency Equipment Requirements	7-B-23
11	Door, Window, and Flooring Requirements	7-B-24
12	Laundry Appliance Requirements	7-B-26

---

## Ramp/Walkway Requirements

---

**Introduction** This topic contains information about ramp/walkway requirements, including:

- when ramps are not required
  - number and location
  - installation
  - height and width
  - slope
  - treatment
  - railing, and
  - platforms and landings.
- 

**When Ramps Are Not Required** Ramps are *not* required when topography and grading eliminate the need for ramping (for example, a no-step entry).

---

**Number and Location** The number and location of exterior ramps/walkways are determined by the site elevation, but most homes must have a minimum of two means of ingress and egress for the use of the veteran, which may require ramping. If so, the two (at least) ramps/walkways must be:

- suitable for ingress and egress, and
- at different locations within the house.

Additionally, at least one of the two ramps/walkways must:

- provide a direct means of emergency egress from the adaptive bedroom area, and
- be clear of potential fire hazards.

**Example:** An example of the placement of a ramp/walkway as a potential fire hazard is when the veteran is required to go through one of the following rooms:

- kitchen
  - garage
  - utility room, or
  - any room containing heating equipment.
- 

*Continued on next page*



## Ramp/Walkway Requirements, Continued

---

**Installation**

The ramp/walkway must:

- be permanently installed
- be a minimum of 42 inches wide if it is an existing hard-surface walkway
- be a minimum of 48 inches wide if it is a new hard surface walkway, and
- have a low curb/guardrail on both sides of the ramp with a maximum height of 5 inches and designed to provide for drainage at bottom of the curb.

**IMPORTANT:** Permanent installation in colder climates may require footings to extend below the frost line to ensure minimal movement [Thermal Cycling] due to changes in temperature. It is recommended for ramps to be covered with adequate overhang protection against inclement weather, if practical.

---

**Height**

The platform at the doorway of the ramp/walkway must have a height equal to the interior house floor.

---

**Width**

The ramp/walkway must have a minimum width of 42 inches from the inside of one handrail to the inside of the other handrail.

---

**Slope**

The ramp/walkway must have a slope of 8 percent or less. The calculation for an 8 percent slope is: **1-inch rise x 12.05 inches = length.**

For every 1-inch of rise there must be 12.05 inches of run. The rise measurement must be from the top of the final soil grade nearest the home to the top of the ramp decking. The run measurement is the length of the ramp where it connects to upper and lower platforms.

**IMPORTANT:** Driveways should comply with the same slope requirements as ramps whenever possible.

---

*Continued on next page*

## Ramp/Walkway Requirements, Continued

---

**Treatment** The ramp/walkway must be constructed to be non-slip or be treated to prevent slipping when wet, including, but not limited to:

- broom finish for concrete surfaces
  - built-in heating coils
  - ¼ inch spacing between decking boards, and
  - metal grating.
- 

**Handrail** The ramp must have a handrail.

The handrail must:

- have a maximum height of 30 inches
- have a minimum of a 1-1/2 inch diameter
- have a minimum 1-1/2 inch to a maximum 2 inches clearance from any mounting surface
- be smooth, continuous, and uninterrupted in the vertical or horizontal plane
- if necessary, extend a minimum of 1 foot beyond both ends of any stair or ramp, be turned down where there is no parallel wall, or turned in if there is a parallel wall to avoid dangerous projections, and
- be installed on both sides of the ramps or stairs.

**Note:** If the slope of an existing or new ramp/walkway is less than 5 percent, then a handrail may not be necessary. However, the ramp/walkway must have a low curb/guard rail on both sides of the ramp with a maximum height of 5 inches.

---

*Continued on next page*

## Ramp/Walkway Requirements, Continued

---

### Platforms and Landings

Platforms and landings must:

- be a minimum size of 5 feet by 5 feet, unhindered by handrails, gutters, etc.
  - be provided at any wheelchair entrance
  - be constructed of non-slip materials
  - include a clear area of 1 foot 6 inches in width beside the door on the side opposite the hinges
  - at a maximum, be provided every 30 feet or less of any ramp depending on design or the veteran's ability
  - be provided at any 90° turn in the ramp
  - be reasonably level with a maximum slope away from the structure of 1/8 inch per foot for drainage, and
  - be unobstructed.
-

## Doorway and Hallway Requirements

---

**Introduction** This topic contains information about doorway and hallway requirements, including variations to the requirements.

---

**Doorway and Entrance Requirements** All doorways that are passageways and ingress/egress routes must:

- be a minimum width of 36 inches
- have a beveled ½ inch maximum height of thresholds, including patio style doors
- be protected from inclement weather by a canopy or overhang, and
- be easy opening.

**IMPORTANT:** These doorway requirements are applicable to *every* doorway in the house, both interior and exterior doors, not only to doorway openings leading to the bathroom and other living areas used by the veteran.

---

**Variation to Doorway Requirements** In the event that an existing doorway cannot be widened to 36 inches, the doorway must have a minimum width of 32 inches except for ingress/egress doorways, which must always be a minimum of 36 inches.

---

**Hallway Requirements** All hallways must have:

- a minimum width of 48 inches (wider if possible), finished
- enough space, especially at the entry point from a hallway when a veteran must make a 90° turn, to allow for maneuverability through the hall and into all rooms, including
  - bathrooms
  - bedrooms, and
- ingress/egress routes.

**Variation to Hallway Requirements** In the event that existing hallways *cannot* be widened to 48 inches, the hallway must have a minimum width of 42 inches.

---

## Garage, Carport, and Passageway Requirements

---

**Introduction** This topic contains information about garage, carport, and passageway requirements.

---

**Height of Garage/Carport** A garage/carport must have a minimum overhead door height of:

- 8 feet for new construction, and
- 7 feet for existing construction.

---

**Width of Garage/Carport** Below is a list of requirements for the width of the garage/carport:

- A single-car garage/carport must have a minimum width of 14 feet 6 inches and 24 feet in length.
- A double car garage/carport must have a minimum width of 24 feet and minimum length of 24 feet.
- The width of the garage/carport must:
  - include a minimum of 5 feet unrestricted, wheelchair maneuverability on at least one side of the vehicle
  - allow ample space for the veteran to park specially equipped vehicle(s), and
  - provide access to the vehicle, as necessary.

**IMPORTANT:** If the veteran uses a platform on his/her vehicle, sufficient space must be provided:

- for the platform lift to ascend and descend, and
  - to allow for unrestricted maneuvering on and off of the platform lift by the veteran.
- 

**When a Walkway/Ramp Is Required** A connecting walkway/ramp to the garage or carport is required if the garage or carport is detached. This walkway's/ramp's passageway must be covered to protect the veteran from exposure to inclement weather.

---

## Bathroom Requirements

---

**Introduction** This topic contains information on bathroom requirements, including:

- an important note, and
  - the requirements for
    - location
    - flooring
    - toilets
    - pipes and radiators
    - vanity countertops
    - sinks
    - mirrors
    - medicine cabinets
    - passage doorways
    - roll-in showers, and
    - tubs.
- 

**IMPORTANT** Each veteran has individual needs and the SAH agent must research those needs and be considerate of them. Some variations to Minimum Property Requirements (MPRs) are allowed with the proper waiver request.

---

**Location** At least one wheelchair accessible bathroom must be conveniently located near the veteran's bedroom.

---

**Flooring** Floor areas must:

- allow at least one clear area for maneuvering with a minimum diameter of 5 feet
- have a minimum 4 foot clear area in front of all fixtures, and
- be made of flooring material that is non-slip under both wet and dry conditions.

---

*Continued on next page*

## Bathroom Requirements, Continued

---

### Toilets

Toilets must have:

- a 3 foot clear access for a wheelchair to the side of the toilet for side transfer
- a 4 foot clear area in front of the toilet for access
- grab bars installed on the wall to the side and rear of the toilet which must
  - support a minimum dead weight of 250 pounds (more if necessary)
  - be a minimum diameter of 1-1/2 inch
  - extend 12 inches past the front of the toilet
  - have a minimum of 1-1/2 inch to a maximum of 2 inches clearance to the mounting surface, and
  - be at approximately 2 feet 9 inches height or at a height that is convenient to the veteran's needs.

**Note:** The veteran has a choice to install a raised toilet fixture or seat.

**Reminder:** Each veteran has individual needs and the SAH agent must research those needs and be considerate of them. Some variations in the MPRs are allowable with the proper waiver request.

---

### Pipes and Radiators

All pipes and radiators must be installed to minimize the possibility of burns and abrasions.

**IMPORTANT:** Plumbing under the sink or vanity must be wrapped or covered to preclude accidental contact by the veteran.

**Rationale:** Contact with plumbing could cause burns, abrasions, and dislodging of plumbing.

---

*Continued on next page*

## Bathroom Requirements, Continued

---

### Vanity Countertops

Vanity countertops must:

- be a maximum height of 2 feet, 10 inches
- have a minimum height under the counter of 2 feet 3 inches
- be a minimum depth of 2 feet 3 inches
- have a 3 foot wide under-counter knee space for wheelchair access
- be conveniently located for the veteran's use
- have rounded corners, and
- have a Ground Fault Interrupter (GFI) electrical outlet located for ease of access to the veteran.

**Note:** In most cases, the sink is included as part of the vanity countertop, but a pedestal or wall hanging sink is allowed provided it allows unrestricted maneuverability.

---

### Sinks

All sinks must:

- be a maximum height of 2 feet 10 inches
  - have a minimum height under the sinks of 2 feet 3 inches
  - have a minimum depth of 2 feet 3 inches
  - have a 3 foot wide knee space for wheelchair access
  - be located conveniently for the veteran's use and allow the veteran easy access for personal hygiene needs
  - have single lever faucet control located within easy reach from the wheelchair, and
  - have plumbing that is wrapped or covered to prevent the veteran from abrasions or burns upon contact.
- 

### Mirrors

Mirrors must be lowered or tilted to accommodate an individual in a seated position. Maximum height of the bottom edge of a mirror is 3 feet.

---

*Continued on next page*



## Bathroom Requirements, Continued

### Medicine Cabinets

Medicine cabinets (if installed) must:

- be installed to allow easy wheelchair access
- have a height and location convenient for the veteran's use, and
- have adequate drawers and storage space for the veteran's personal hygiene equipment.

### Passage Doorways

Passage doorways to the bathroom must:

- have a minimum opening of 36 inches
- swing out of the bathroom or be pocket doors, and
- not obstruct wheelchair maneuvering when opened.

### Roll-In Showers

A roll-in shower is required and a tub is optional. The table below describes the roll-in shower requirements.

Item	Requirement
<b><i>Roll-in Shower Requirements for Existing Construction</i></b>	
Dimensions	<ul style="list-style-type: none"> <li>• A minimum of 4 feet by 4 feet interior finish, and</li> <li>• a minimum opening of 36 inches.</li> </ul>
Slope	A maximum floor slope of ¼ inch to 12 inches (1-inch slope from front to rear in a 4-foot deep roll-in shower).
Flooring	Non-slip flooring.
Drain	<p>If a roll-in shower is:</p> <ul style="list-style-type: none"> <li>• built onsite, the floor drain must be               <ul style="list-style-type: none"> <li>– 2 inches</li> <li>– located to the rear of the shower floor.</li> </ul> </li> <li>• pre-manufactured, the minimum floor drain is 1-1/2 inches, but a 2 inch drain is required if it is               <ul style="list-style-type: none"> <li>– possible to install, or</li> <li>– an option of the manufacturer.</li> </ul> </li> </ul>
Curbs	Curbs <i>cannot</i> be installed to separate the shower from the rest of the bathroom.
Built-in benches	<p>A built-in bench is the veteran's option; it is not a requirement.</p> <p><b>Note:</b> To ensure an unobstructed area of 4 feet by 4 feet, use of a fold-up bench is recommended.</p>

*Continued on next page*

## Bathroom Requirements, Continued

### Roll-In Showers (continued)

Item	Requirement
<b><i>Roll-in shower Requirements for New Construction</i></b>	
Dimensions	<ul style="list-style-type: none"> <li>• A minimum of 5 feet by 5 feet interior finish, and</li> <li>• a minimum opening of 36 inches.</li> </ul>
Slope	A maximum floor slope of ¼ inch to 12 inches (1¼ -inch slope from front to rear in a 5-foot deep roll-in shower).
Flooring	Non-slip flooring.
Drain	<p>If a roll-in shower is:</p> <ul style="list-style-type: none"> <li>• built onsite, the floor drain must be               <ul style="list-style-type: none"> <li>– 2 inches, and</li> <li>– located to the rear of the shower floor.</li> </ul> </li> <li>• pre-manufactured, the minimum floor drain is 1-1/2 inches, but a 2 inch drain is required if it is               <ul style="list-style-type: none"> <li>– possible to install, or</li> <li>– an option of the manufacturer.</li> </ul> </li> </ul>
Curbs	Curbs <i>cannot</i> be installed to separate the shower from the rest of the bathroom.
Built-in benches	<p>A built-in bench is the veteran's option; it is not a requirement.</p> <p><b>Note:</b> To ensure an unobstructed area of 5 feet by 5 feet, use of a fold-up bench is recommended.</p>

*Continued on next page*

## Bathroom Requirements, Continued

### Roll-In Showers (continued)

Item	Requirements
<i>Roll-in shower Requirements</i>	
Shower head	The shower head must be: <ul style="list-style-type: none"> <li>• hand held, and</li> <li>• detachable from a sliding bar.</li> </ul>
Controls	Controls must: <ul style="list-style-type: none"> <li>• be accessible from the wheelchair for water temperature control</li> <li>• be single lever, and</li> <li>• have thermostatic or pressure-balance control to avoid sudden change in water temperature.</li> </ul>
Grab bars	Grab bars installed to 3 walls of the shower must: <ul style="list-style-type: none"> <li>• support a minimum dead weight of 250 pounds (more if necessary)</li> <li>• have a minimum of 1-1/2 inches to a maximum of 2 inches clearance from the mounting surface</li> <li>• be a minimum of 1-1/2 inches diameter, and</li> <li>• be installed               <ul style="list-style-type: none"> <li>– approximately 2 feet 9 inches high, or</li> <li>– at a height that is convenient to the veteran's needs.</li> </ul> </li> </ul> <p><i>Note:</i> In some applications it may be necessary to also install vertical bars. This is the veteran's option and the SAH agent should research and consider the needs of the veteran.</p>

*Continued on next page*

## Bathroom Requirements, Continued

### Tubs

A roll-in shower is required and a tub is optional. The table below describes the tub requirements.

Item	Requirement
Transfer platforms	<p>The transfer platform must be:</p> <ul style="list-style-type: none"> <li>• the width of the tub and a minimum of 18 inches in length</li> <li>• installed at the rear of the tub, and</li> <li>• of a height that allows ease of transfer for the veteran from the wheelchair.</li> </ul>
Faucets	<p>Faucets must be:</p> <ul style="list-style-type: none"> <li>• accessible from the wheelchair for water temperature control (both when the veteran is in the wheelchair and when he/she is immersed), and</li> <li>• thermostatic or pressure-balance controlled to avoid sudden change in water temperature.</li> </ul>
Grab bars	<p>Grab bars installed to the side and rear wall of the tub must:</p> <ul style="list-style-type: none"> <li>• support a minimum dead weight of 250 pounds (or more if necessary)</li> <li>• have a minimum of 1-1/2 inches to a maximum of 2 inches clearance from inside the bar to the wall</li> <li>• be a minimum of 1-1/2 inches diameter, and</li> <li>• be installed at a height that is convenient to the veteran's needs.</li> </ul> <p><i>Note:</i> In some applications it may be necessary to also install vertical bars. This is the veteran's option and the SAH agent should research and consider the needs of the veteran.</p>
Access	<p>There must be an unobstructed 4-foot clear area to the side of the tub.</p>

## Bedroom Requirements

---

**Introduction** This topic contains information about bedroom requirements.

---

**Requirements** Bedrooms must:

- allow at least one clear area for maneuvering with a minimum diameter of 5 feet
  - have a minimum 4-foot clear access to the closet
  - have a minimum of 3 feet provided on at least one side of the bed for transfer
  - have a clear minimum opening of 4 feet between the end of the bed and the opposing wall
  - be accessible from a wheelchair
  - provide a direct means of emergency egress from the adaptive bedroom area, and
  - be clear of potential fire hazards.
-

# Kitchen Requirements

---

**Introduction** This topic contains information about kitchen requirements, including:

- required dimensions
  - work counters
  - ovens/ranges
  - storage areas
  - cabinets
  - electrical outlets
  - electrical switches
  - sinks, and
  - appliances.
- 

**Required Dimensions**

The kitchen arrangement must:

- allow for adequate maneuvering room for the veteran, and
- be a clear area with a minimum 5 foot by 5 foot turning radius.

**Reminder:** This Minimum Property Requirement (MPR) must be incorporated in all cases.

**Special Note:** Each veteran has individual needs and the Specially Adapted Housing (SAH) agent must research and be considerate of those needs, which may not require kitchen adaptations. Installation of any special feature must meet MPRs; however, variations are allowable with the proper waiver request.

---

**Work Counters** Standard counter heights are acceptable, but a minimum of one work counter must:

- be a minimum width of 3 feet wide
- be a maximum height of 2 feet, 10 inches, and
- have sufficient space underneath to accommodate the needs of the veteran in a wheelchair.

**Rationale:** One veteran may sit higher or lower than another or have a longer or shorter reach, etc.

---

*Continued on next page*

## Kitchen Requirements, Continued

---

### Ovens/Ranges

Ovens/Ranges must:

- be installed at a level convenient for each individual veteran, and
- include a separate built-in range countertop with
  - sufficient space underneath to accommodate the needs of the veteran in a wheelchair, and
  - controls toward the front/side for easy access.

A free standing oven/range must:

- be located at the end of the cabinets so that the veteran has side access to the oven/range , and
  - have front/side controls.
- 

### Storage Areas

Storage areas must:

- be accessible from a wheelchair, and
- contain pullout shelving.

**IMPORTANT:** Revolving shelves (which are usually built in a corner) should be avoided, unless there is ease of access from a wheelchair.

---

### Cabinets

Standard cabinet heights are acceptable but must have:

- a minimum 3 foot wide opening under the kitchen sink for wheelchair access, and
  - slide out drawers and shelves in the lower cabinets.
- 

### Electrical Outlets

Electrical outlets must be mounted so that they are accessible to the veteran while seated in the wheelchair. Outlets near sinks must be of GFI type.

---

*Continued on next page*

## Kitchen Requirements, Continued

---

### Electrical Switches

Electrical switches must be mounted on the face of the cabinet or conveniently placed for the veteran's use of the:

- garbage disposal
  - vent fan
  - range hood, and
  - lights.
- 

### Sinks

The table below describes the considerations for sinks.

Item	Requirement
Accessibility	Adequate space, with a minimum of a 3-foot wide opening under the kitchen sink, must be provided to accommodate the veteran in a wheelchair.
Depth	The basin must be shallow enough to allow for a minimum 2-foot, 3-inch clearance from the bottom of the basin to the floor, so that the veteran's access under the kitchen sink is not impeded.
Pipes	Pipes should be wrapped to prevent burns and abrasions.
Faucets	Sink faucets must be a single-lever type to allow: <ul style="list-style-type: none"> <li>• ease of operation, and</li> <li>• adjustment of water temperature.</li> </ul>
Disposal	Separate disposal sinks must be installed.  <i>Note:</i> For a sink/disposal combination, the disposal sink should be offset so that the veteran has full wheelchair access.
Hose spray	A hose spray must be provided.

---

### Appliances

Any special type of appliances to aid the veteran must be included in the kitchen (that is, a dishwasher, food warmer, microwaves, etc.).

Refrigerators must be:

- a double door, side-by-side refrigerator/freezer combination, for convenience and easy access, and
  - located where there is ample wheelchair maneuverability when the door of the refrigerator is open.
-



## Maintenance Requirements

---

**Introduction** This topic contains information about maintenance requirements, including:

- a reminder, and
  - requirements for
    - the exterior of the home, and
    - additional products or items.
- 

**Reminder** Disabled veterans should consider homes with little or no maintenance.

---

**Exterior of the Home** Below is a list of maintenance requirements for the exterior of the home.

- The total exterior of proposed construction must be maintenance-free, including window, doors, and siding.
- When a new adapted addition is added to the existing home, it is acceptable to install maintenance-free materials to the existing home to match the new addition.
- When adapting an existing home, including a new room addition, the veteran may choose to use similar materials as the existing structure. However, strongly encourage the veteran to use maintenance-free exterior materials.

**Note:** Installation of maintenance-free materials is allowable if all other Minimum Property Requirements are met.

---

**Additional Products or Items** Include products or items that make maintenance easy.

**Example:** Pivoting windows offer easy maintenance because they are hinged so the exterior may be cleaned from the inside.

---

## Heating and Air Conditioning Requirements

---

**Introduction** This topic contains information about heating and air conditioning requirements, including:

- feasibility of installation, and
  - controls.
- 

**Heating** Heating installation must:

- meet or exceed building code requirements (see Chapter 9, Section F), and
- be adequate for healthful and comfortable living conditions.

*Note:* Because of a veteran's disability, it may be necessary to add zoned heating or additional heating to some rooms of the home. This is the veteran's option and the Specially Adapted Housing (SAH) agent should research and consider the needs of the veteran.

---

**Air Conditioning** The installation of air conditioning is not required; however, a veteran's disability may dictate the need for air conditioning. The air conditioning can be installed as central or an individual room unit.

*Note:* This is the veteran's option and the SAH agent should research and consider the needs of the veteran.

---

**Thermostats** Thermostats must:

- be installed at a maximum height of 48 inches, and
- have unobstructed access from a wheelchair.

In an existing home, thermostats can remain at standard heights, as long as the veteran can reach them. If the thermostats are moved for remodeling or installed for a new addition, the thermostats must be installed within the Minimum Property Requirement height.

---

# Electrical Requirements

---

**Introduction** This topic contains information about electrical requirements, including:

- wall switches and electrical outlets
  - electrical utility boxes
  - other utility and appliance controls, and
  - garage electrical.
- 

**Wall Switches and Electrical Outlets**

Wall switches and electrical outlets must:

- be a minimum of 18 inches and a maximum of 48 inches from the floor, and
- have unobstructed access from the wheelchair.

Any electrical outlets near water (near a bathroom vanity, tub, shower, kitchen sink, or laundry tub) must be of GFI type.

In an existing home, outlets and switches can remain at standard heights, as long as the veteran can reach them. If the switches and outlets are moved for remodeling or a new addition, the relocated switches and outlets must be installed within the Minimum Property Requirement (MPR) height.

---

**Electrical Utility Boxes**

In new homes, the electrical utility boxes must be located so that the veteran has unobstructed access from the wheelchair. Maximum height of the top breaker is 48 inches. The breaker box must be near an egress point.

In an existing home, the electrical utility box can remain in the existing location. Moving the electrical utility box is an option for the veteran. However, if the utility box of an existing home is moved, it must meet the MPR of a new home.

---

**Other Utility and Appliance Control**

Other utility and appliance controls must be within the veteran's reach from his/her wheelchair.

---

*Continued on next page*

## Electrical Requirements, Continued

---

### **Garage Electrical**

Garage door openers must be automatic with direct control, opening with either a:

- remote control, or
- button.

The veteran must have adequate electrical outlets for his/her adaptive equipment needs.

---

## Security and Emergency Equipment Requirements

---

**Introduction** This topic contains information about security and emergency equipment requirements, including:

- smoke detectors
  - additional emergency equipment, and
  - lighting.
- 

**Smoke Detectors**

Smoke detectors must be:

- installed according to local and Federal regulations, which require the installation of smoke detectors in each living unit, including
    - the main portion of any living area in all levels of the home, and
    - at the entrance to each bedroom.
- 

**Additional Emergency Equipment**

The following additional emergency equipment is acceptable:

- a security alarm system
  - interior/exterior phone outlets
  - an intercom system
  - a carbon monoxide detecting unit, and
  - delay door closures, so that the door does not close on the veteran while passing through them.
- 

**Lighting**

Any exits from the home and in the interior of the garage must be well lighted for security and safety.

---

## Door, Window, and Flooring Requirements

---

**Introduction** This topic contains information about door, window, and flooring requirements.

---

**Ingress/Egress Exterior Doors** Ingress/egress exterior doors must have:

- a minimum opening of 36 inches wide (*sliding patio doors must be a minimum of 7 feet wide to accommodate the 36 inch opening*)
- a maximum height of a ½ inch for tracks for patio doors
- a maximum threshold height of ½ inch for hinged doors, and
- a 5 foot by 5 foot non-slip (in both wet and dry conditions) flooring area at the exit doorways inside the home.

---

**Windows** Windows must:

- be operational from the wheelchair in a seated position
- have a maximum sill height of 2 feet, 9 inches
- be located to allow the veteran maximum visibility to the exterior of the home
- have maintenance-free frames (aluminum, vinyl), and
- have locks that are operational from the wheelchair while in a seated position.

**Note:** Many window designs have a lock system at the upper portion of the window or have a dual locking system, which cannot be operated from a seated position.

---

**Flooring** Flooring must not impede wheelchair maneuverability. Flooring at the exit doorways inside the home must be of non-slip materials under both wet and dry conditions.

**Note:** Carpet is *not* considered a non-slip material.

---

*Continued on next page*

## Door, Window, and Flooring Requirements, Continued

---

**Carpeting**      Carpeting must be:

- low pile and closely woven, and
- padded with a durable fiber type.

*Note:* Rubber padding is not acceptable because it does not hold up under the stress of wheelchair turns and traffic.

---

## Laundry Appliance Requirements

---

**Introduction** This topic contains information about laundry appliance requirements.

---

- Requirements**
- There must be a 5 foot by 5 foot turning radius in front of all laundry appliances.
  - All laundry appliances must be front loading, to accommodate the needs of the veteran.
-



## **Section C**

### **Requirements for Condominiums and Townhouses**

#### **Overview**

---

**Introduction**      This topic contains information about requirements for condominiums and townhouses.

---

**In this Section**      This section includes the topic “Condominium and Townhouse Requirements.”

---

## Condominium and Townhouse Requirements

---

### Introduction

This topic contains information about condominium and townhouse requirements, including:

- requirements for units above the first floor
  - ingress and egress
  - evacuations and safety considerations
  - windows, and
  - balconies.
- 

### Requirements for Units Located Above the First Floor

It is most desirable that all veterans reside in a condominium or townhouse located on the first floor. However, if a veteran desires a condominium or townhouse located above the first floor of a low or high rise structure, there are requirements regarding:

- ingress and egress
  - emergency access
  - windows, and
  - balconies.
- 

### Ingress and Egress

At least one suitable means of access must be provided to furnish the veteran with level ingress and egress from the condominium or townhouse.

- If the structure does not provide one level means of access to the unit; ramps, ramp platforms, and elevators may be utilized, when necessary, to eliminate any elevation difference between interior and exterior floor levels.
- If the condominium or townhouse is located above the first floor, a single Specially Adapted Housing (SAH) qualified exit is acceptable.

**Note:** All other specially adapted features are required under this variation, with the exception of the requirement for two emergency exits.

---

*Continued on next page*

## Condominium and Townhouse Requirements, Continued

### Evacuations and Safety Considerations

The table below describes the evacuation and safety requirements.

Item	Requirement
Exterior emergency access	<ul style="list-style-type: none"> <li>• The condominium or townhouse must be accessible to fire fighting and evacuation equipment from the exterior of the unit.</li> <li>• The location of the veteran's condominium or townhouse unit must be registered with local fire authority and emergency rescue units.</li> </ul> <p><i>Note:</i> Keep in mind that no unit can be higher than the highest emergency evacuation ladder system. The SAH agent must check with the fire department that services the area of the condominium or townhouse location for the height of their evacuation equipment.</p>
Interior emergency access	<ul style="list-style-type: none"> <li>• If the veteran is completely bedridden, the condominium or townhouse must contain an externally mounted electrical device (audible, visible, etc.) which, when activated from the interior of the unit, aids a fire or emergency rescue service to locate the veteran's unit.</li> <li>• The bedroom window of the unit must:               <ul style="list-style-type: none"> <li>– be of sufficient size to allow access by emergency personnel, and</li> <li>– have exterior marking to show the location of this room.</li> </ul> </li> </ul>

### Windows

All windows in the condominium or townhouse must be large enough to be accessible to emergency personnel for entry and evacuation purposes.

### Balconies

Veterans must be encouraged to purchase a condominium or townhouse with balconies that are accessible to emergency personnel and wheelchair users.