



# GUIDELINES FOR THE DEVELOPMENT OF UNIVERSALLY DESIGNED UNITS

## New Construction & Rehab

Universal Design is the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaption or specialized design. These standards have been created by SDHDA as the minimum requirements to comply with the points taken in the *Exhibit 4 – Project Characteristics for Incorporation of the 7 Universal Design Principles under Special and Accessible Design Features*.

25% of all units or single family developments must have accessible routes into and throughout the home including zero step entry, and must be in addition to the required Section 504 units (5% mobility and 2% sensory).

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## **ESSENTIAL ELEMENTS**

<b>1. Route</b> .....	<b>3</b>	<b>4. Kitchens</b> .....	<b>6</b>
1.1 Accessible Route		4.1 Clear Floor Space	
1.2 Parking		4.2 Range	
1.3 Garbage Collection		4.3 Refrigerator	
1.4 Common Spaces		4.4 Sink	
1.5 Curb Cuts		4.5 Levered Handles on All Fixtures	
1.6 Ramps		4.6 Cabinet Hardware	
1.7 Signage		<b>5. Bathrooms</b> .....	<b>6</b>
<b>2. Movement</b> .....	<b>4</b>	5.1 Bathroom Type	
2.1 Walkways		5.2 Bathing Area	
2.2 Interior Passageways		5.3 Roll-in Shower	
2.3 Level Space at Entryways		5.4 Shower Fixtures	
2.4 Clear Space on Pull Side of Passage Doors		5.5 Levered Handles on All Fixtures	
2.5 Interior Doorways		<b>6. Laundry</b> .....	<b>7</b>
2.6 Exterior Doorways and Unit Entry		6.1 Side by Side, Front Loading Equipment	
2.7 Access to All Common Areas		<b>7. Bedroom.</b> .....	<b>7</b>
<b>3. Approach</b> .....	<b>5</b>	7.1 Closets	
3.1 Clear Floor Space		<b>8. Audio/Visual</b> .....	<b>7</b>
3.2 Reach Range		8.1 Notification	
3.3 Operation		8.2 Thermostats	
3.4 Accessible Windows			

## **Essential Elements**

**Each qualifying Universally Designed Unit must contain all of the essential elements listed below. Universal Design is not a safe harbor for other required accessibility codes such as ANSI A117.1, UFAS or the Fair Housing Act. It should be used as a supplement to required accessibility codes and building codes.**

## 1. Route

**1.1 Accessible Route** - An accessible route shall consist of a minimum 36" wide continuous, stable, firm and slip-resistant surface, free of obstructions and changes in level greater than a ¼" vertical or ½" with ¼" beveled edge. Running slopes shall not exceed 1:20 and cross slopes shall not exceed 1:50. Landings, stoops and change in direction shall be 1:50 max slope each way. A minimum 60"x60" passing space must be provided at reasonable intervals not to exceed 200'. Routes requiring 180 degree turns must have a clear width of 60" during the turn. Vertical means of transportation, other than fully handicap accessible elevators will not be acceptable.

**1.2 Parking** – Where parking is provided for all residents, one parking space on an accessible route shall be provided for each qualifying UD unit. Parking spaces should be sufficiently dispersed to serve each qualifying unit and be provided with an adjacent access aisle 60 inches wide minimum.

**1.3 Garbage Collection** - Each qualifying unit shall be located on an accessible route complying with 1.1 that leads to the resident garbage drop off area. Compactor controls and garbage shoots/dumpster openings shall be within the reach range complying with 3.2. Residents in qualifying units should not rely on property management to directly pick up their trash unless this amenity is provided to all residents.

**1.4 Common Spaces** - Each qualifying unit shall be located on an accessible route complying with 1.1. which allows pedestrian access to the leasing office, community room, laundry facility, mailboxes, and other tenant amenities provided on site, as well as public transportation pick up areas if available to the facility.

**1.5 Curb Cuts** - Shall comply with figure 1.5 (a) or 1.5 (b). The minimum width of a curb ramp landing shall be 60" exclusive of flared sides or the running slope. Flared side slopes shall not exceed 1:12. When possible, running slopes should not exceed 1:20. If a curb cut similar to that shown in figure 1.5 (b) is provided, there shall be a minimum 36" wide clear unobstructed walk way immediately behind the curb cut with cross slopes not exceeding 1:50. Built up ramps located on the parking lot side of the curb line are not permitted.

Figure 1.5 (a)

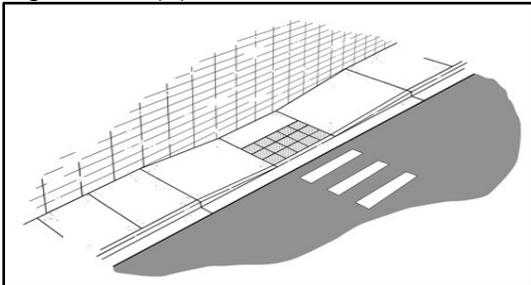
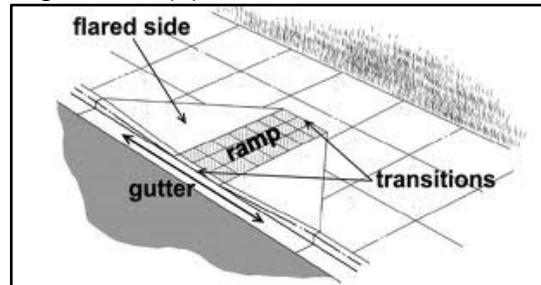


Figure 1.5 (b)



1.6 Ramps – In cases where topography and space limitations create the need for a ramp; running slopes shall not exceed 1:12. If a ramp rise is greater than 6 inches (250 mm), then handrails will be required on both sides. Ramps shall be constructed of concrete or similar cementitious/slip-resistant materials. Ramps shall comply with UFAS requirements.

1.7 Signage – Characters and symbols on all signage shall contrast with their background - either light characters on a dark background or dark characters on a light background. Provide Braille character translations on all interior signage. Use standard Braille conventions for location on signage. Sizing and spacing per standard Braille publications is acceptable.

## **2. Movement**

2.1 Walkways - All existing exterior walkways on an accessible route shall be a minimum of 36" wide. New exterior walkways shall be a minimum of 48" wide where space allows. Sidewalks at parking stalls to be 7' min to allow for accessible route beyond bumper encroachment. Curb cuts shall be required to allow access to accessible areas. Walkways shall be constructed of concrete or similar cementitious materials with a slip-resistant surface free of any obstructions and changes in level, with a cross slope not exceeding 1:50 and a running slope not exceeding 1:20. Landings, stoops and changes in direction shall not to exceed 1:50 slope each way.

2.2 Interior Passageways – Interior passageways shall have a minimum 36" clear width.

2.3 Level Space at Entry ways – Unit entryways shall have a minimum 60"X60" clear level floor space at both the interior and exterior side of the door. A maximum 1:50 slope is permitted at the exterior side of doors to allow water shed.

2.4 Clear Space on Pull Side of All Passage Doors - Passage doorways shall have a clear floor space that extends a minimum 18" past the latch on the pull side of the door.

2.5 Interior Doorways - All interior doors shall have a minimum clear opening of not less than 32" with a threshold level change not exceeding 1/2" (maximum 1/4" vertical rise + 1/4" 1:2 slope). Lever door hardware to be provided through-out unit. Push/pull/turn doorknobs to be provided throughout the unit for individuals with dexterity limitations.

2.6 Exterior Doorways and Unit Entry - All exterior and unit entry doors shall be no less than 36" wide with a threshold level change not exceeding 1/2" (maximum 1/4" vertical rise + 1/4" 1:2 slope). All doors to have lever handles and 2 door viewers. (Standard and ADA height)

2.7 Access to All Common Areas - from the qualifying unit via an accessible pedestrian route.

### 3. Approach

**3.1 Clear Floor Space** - Each qualifying unit must have clear floor space complying with 3.1 (a) or 3.1 (b) in front of all controls. Controls to include all mechanical systems, outlets, switches and etc. to be mounted at accessible heights.

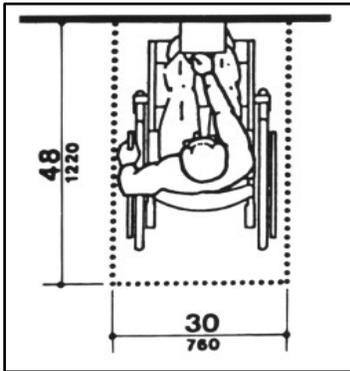


Figure 3.1 (a)

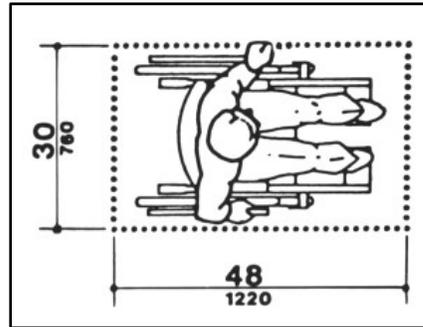
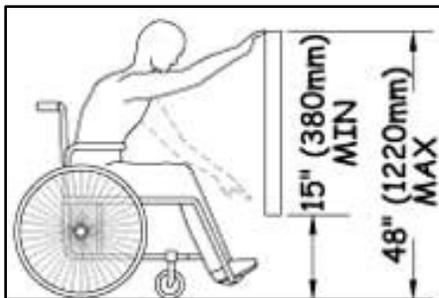


Figure 3.1 (b)

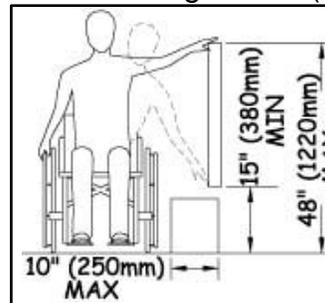
**3.2 Reach Range** – Controls shall be located in the following reach ranges. Controls to include all mechanical systems, outlets, switches and etc. to be mounted at accessible heights. – (Illustrations from ANSI A117.1)

Figure 3.2 (a)



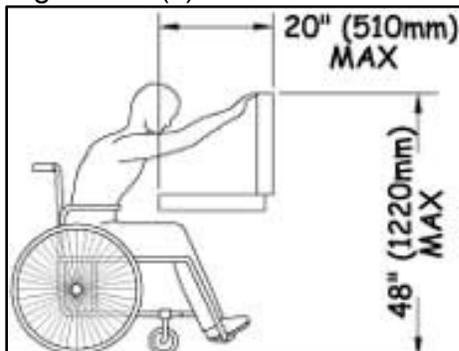
Unobstructed Forward

Figure 3.2 (b)



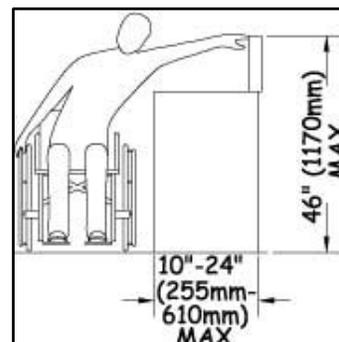
Unobstructed Side

Figure 3.2 (c)



Obstructed Forward

Figure 3.2 (d)



Obstructed Side

3.3 Operation – Controls and operating mechanisms shall be operable with one hand and shall not require tight grasping, pinching or twisting of the wrist. The force required to activate controls shall be no greater than 5 lbs.

3.4 Accessible Windows – to have a maximum sill height of 36” and clear floor space complying with 3.1 in all living spaces.

## **4. Kitchens**

4.1 Clear Floor Space - Each qualifying unit must have a minimum clear floor space complying with 3.1 centered on all appliances. The minimum clear floor space may be positioned for forward or parallel approach. Clear floor spaces are allowed to overlap.

4.2 Range – Range controls must comply with reach range requirements in 3.2. The location of controls for ranges and cook-tops shall not require reaching over burners. Ranges shall be self-cleaning.

4.3 Refrigerator – ADA compliant Energy Star qualified frost free refrigerator. 14 cu. ft. min. for 1 bedroom unit and 18 cu. ft. min for 2 & 3 bedroom units. Freezer shelf height shall be no more than 48” above the finish floor, and control placement for both the refrigerator and freezer shall comply with reach range requirements in 3.2.

4.4 Sink - Each qualifying unit shall have a sink with bowls no greater than 6 ½” in depth, drain pipes concealed behind a removable 30” wide concealment panel, or removable sink base. Concealment panel shall comply with UFAS for knee and toe clearances. If a sink base is provided, it shall be a minimum of 30” wide and easily removable using only a screwdriver. The kitchen floor finish must extend under the removable cabinet, the wall behind the cabinet must be finished.

4.5 Levered Handles on All Fixtures - In order to minimize the need for tight grasping, provide lever type fixtures only.

4.6 Cabinet Hardware - All cabinetry in a qualifying units shall have “D” type or looped shaped pull handles, touch latches, or operation such that a person with limited dexterity may operate the cabinetry easily.

## **5. Bathrooms**

5.1 Bathroom Type - Each qualifying unit shall have at least one bathroom complying with ANSI A 117.1 2009 Type B - Option A

5.2 Bathing Areas - Each qualifying unit having two or more full bathrooms shall have at least one bathroom with a step-in shower with a curb height no greater than 2"-4" or a roll-in shower. Step-in showers to be a minimum of 30" in depth and 60" in width for renovations and 36" in depth and 60" in width for new construction. Roll-in showers for renovations to be a minimum of 30" in depth and 60" in width and new construction roll-in showers to be 36" in depth and 60" in width. Roll-in shower minimum dimensions are to be clear inside dimensions.

5.4 Shower fixtures – Tub/shower unit, step-in shower, or roll-in showers shall contain an offset (close to the outside) single lever control and a handheld shower. Handheld showers controls shall be located per UFAS requirements. Handheld showers shall have a minimum 60" hose and a 30" slide bar with variable height selection.

5.5 Levered Handles on All Fixtures – all sinks to have a single lever mixed tap.

5.6 Solid in-wall blocking installed on walls around toilet, tub and shower for future grab bars and shower seat (complying with ANSI A117.1 2009). Blocking must be suitable to carry a minimum 250 lbs. load.

## **6. Laundry**

6.1 Side by Side, Front Loading Equipment – Laundry equipment in qualifying units, other than tenant supplied equipment, shall be side by side and front loading type. Control placement must comply with reach range requirements in 3.2.

## **7. Bedrooms**

7.1 Closets - Provide at least one bedroom and any common area (coat) closet with shelving at 48" above finish floor.

## **8. Audio/Visual**

8.1 Notification – A hard-wired electric or remote doorbell chime shall be provided.

8.2 Thermostat – Easy-to-read programmable thermostat to be provided. Install at height that meets 3.1-3.3.