

USABILITY

Arkansas
STANDARDS
in Housing:

guidance manual for designing & constructing
inclusive, functional dwellings

***Arkansas Usability Standards in Housing:
Guidance Manual for Designing and Constructing Inclusive, Functional Dwellings***

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Part 1: Introduction

<i>Overview</i>	1.01
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OVERVIEW:

With the changing demographics of the United States (and much of the world)—i.e. the aging of the “baby-boom” generation and the increased prevalence of various disabilities—there has become an increasing importance (and demand) to develop affordable, user-friendly housing. The design and construction of inclusive housing has become most significant in the South and states such as Arkansas, where the aforementioned economic and demographic effects are most pronounced. This document serves as a guide for local, regional, and state governments, agencies, and housing authorities and for designers, developers, builders, architects, and engineers working with these organizations for designing and constructing more accessible, usable housing. This guide may be adopted or utilized (in part or in whole) by any of these organizations or individuals as a means to positively affect the quality of housing in the state of Arkansas.

HOW TO USE THIS DOCUMENT:

The *Usability Standards* contained herein provide guidance for designing and constructing more ergonomic, universally functional housing. The usability standards listed below are organized according to the traditional functions that take place within the home (e.g. sleeping, food preparation, etc.). Each category contains two components: (1) Levels of Usability (top) and (2) Usability Criteria (left). There are four types of usability: (a) mobility, (b) operability, (c) perceptibility, and (d) security. To the right of each usability criteria is a continuum of achievement levels—*Level 1: Visitable* through *Level 5: All-Inclusive*—where the usability standard is specified. The diagram below illustrates the two basic facets of the Usability Standards.

Arkansas Usability Standards in Housing		Bathing & Toileting Spaces		
	Level 1: Visitable	Level 3: Livable		Level 5: All-Inclusive
Mobility within bathroom.	<p>Each “visible” toileting space contains an area enabling diverse occupants to rest and to turn 180 degrees.</p> <p>Configuration of “visible” toileting space or adjacent “visible” space enables side approach to and use of sink for diverse occupants.</p>			<p>Every bathing and/or toileting space contains an area enabling diverse occupants to rest and to turn 180 degrees.</p> <p>Configuration of each bathing and/or toileting space enables front and side approach to and use of sink for diverse occupants.</p>
Operability of fixtures.	<p>Sink fixture in “visible” toileting space or adjacent “visible” space a) is operable with a closed fist and b) requires a minimum effort of operation.</p>	<p>All plumbing fixtures in “livable” bathing and/or toileting spaces a) are operable with a closed fist and b) require a minimum effort of operation. 3.24</p> <p>All cabinetry/storage in “livable” bathing and/or toileting spaces a) is operable with a closed fist or a flat open hand and b) requires a minimum effort of operation. 3.24</p>	<p>Cabinetry, fixtures, and assistive devices can be reconfigured to facilitate diverse arrangements w/o structural adaptation or purchase of additional components.</p>	<p>All plumbing fixtures a) are operable with a closed fist and b) require a minimum effort of operation.</p> <p>All cabinetry/storage in all bathing and/or toileting spaces a) is operable with a closed fist or a flat open hand and b) requires a minimum effort of operation.</p>
Perceptibility of plumbing fixtures.				<p>All plumbing controls (e.g. sinks and bathing fixtures) provide intuitive visual and tactile cues.</p>
Security of plumbing fixtures.		<p>All plumbing fixtures in “livable” bathing and/or toileting space(s) provide security against scalding. 3.25</p>		<p>All plumbing fixtures in all bathing and/or toileting spaces provide security against scalding.</p>

ORGANIZATION OF THE DOCUMENT

DOCUMENT TITLE		SECTION NAME OR ROOM TYPE			
	Level 1: Visitable	Level 3: Livable	Level 5: All-Inclusive		
Mobility within bathroom.	<p>Each "visitable" toileting space contains an area enabling diverse occupants to rest and to turn 180 degrees.</p> <p>Configuration of "visitable" toileting space or adjacent "visitable" space enables side approach to and use of sink for diverse occupants.</p>		<p>Each "livable" bathing and/or toileting space contains an area enabling diverse occupants to rest and to turn 180 degrees. 3.20, 3.21, 3.22, or 3.23</p> <p>Configuration of "livable" bathing and/or toileting space enables front and side approach to and use of all plumbing fixtures for diverse occupants. 3.20, 3.21, 3.22, or 3.23</p>		<p>Every bathing and/or toileting space contains an area enabling diverse occupants to rest and to turn 180 degrees.</p> <p>Configuration of each bathing and/or toileting space enables front and side approach to and use of sink for diverse occupants.</p>
Operability of fixtures.	<p>Sink fixture in "visitable" toileting space or adjacent "visitable" space a) is operable with a closed fist and b) requires a minimum effort of operation.</p>		<p>All plumbing fixtures in "livable" bathing and/or toileting spaces are operable with a closed fist and b) require a minimum effort of operation. 3.24</p> <p>All cabinetry/storage in "livable" bathing and/or toileting spaces a) is operable with a closed fist or a flat open hand and b) requires a minimum effort of operation. 3.24</p>	<p>Cabinetry, fixtures, and assistive devices can be reconfigured to facilitate diverse arrangements w/o structural adaptation or purchase of additional components.</p>	<p>All plumbing fixtures a) are operable with a closed fist and b) require a minimum effort of operation.</p> <p>All cabinetry/storage in all bathing and/or toileting spaces a) is operable with a closed fist or a flat open hand and b) requires a minimum effort of operation.</p>
Perceptibility of plumbing fixtures.					<p>All plumbing controls (e.g. sinks and bathing fixtures) provide intuitive visual and tactile cues.</p>
Security of plumbing fixtures.			<p>All plumbing fixtures in "livable" bathing and/or toileting space(s) provide security against scalding. 3.25</p>		<p>All plumbing fixtures in all bathing and/or toileting spaces provide security against scalding.</p>

USABILITY STANDARDS

SECTION & PAGE NUMBER

ORGANIZATION OF THE USABILITY STANDARDS

Arkansas Usability Standards in Housing		Bathing & Toileting Spaces		
USABILITY CRITERIA	Level 1: Visitable	LEVELS OF USABILITY		Level 5: All-Inclusive
	Mobility within bathroom.	<p>Each "visitable" toileting space contains an area enabling diverse occupants to rest and to turn 180 degrees.</p> <p>Configuration of "visitable" toileting space or adjacent "visitable" space enables side approach to and use of sink for diverse occupants.</p>		<p>Each "livable" bathing and/or toileting space contains an area enabling diverse occupants to rest and to turn 180 degrees. 3.20, 3.21, 3.22, or 3.23</p> <p>Configuration of "livable" bathing and/or toileting space enables front and side approach to and use of all plumbing fixtures for diverse occupants. 3.20, 3.21, 3.22, or 3.23</p>
Operability of fixtures.	<p>Sink fixture in "visitable" toileting space or adjacent "visitable" space a) is operable with a closed fist and b) requires a minimum effort of operation.</p>	<p>USABILITY STANDARDS WITH REFERENCED EXAMPLES</p>		<p>All plumbing fixtures a) are operable with a closed fist and b) require a minimum effort of operation.</p> <p>All cabinetry/storage in all bathing and/or toileting spaces a) is operable with a closed fist or a flat open hand and b) requires a minimum effort of operation.</p>
Perceptibility of plumbing fixtures.				<p>All plumbing controls (e.g. sinks and bathing fixtures) provide intuitive visual and tactile cues.</p>
Security of plumbing fixtures.			<p>All plumbing fixtures in "livable" bathing and/or toileting space(s) provide security against scalding. 3.25</p>	<p>All plumbing fixtures in all bathing and/or toileting spaces provide security against scalding.</p>

LEVELS OF USABILITY

Level 1: Visitable
Accommodates the brief stay of diverse visitors.

Level 3: Livable
Accommodates the needs of diverse visitors as well as most residents, and is easily adaptable to accommodate future needs.

Level 5: All-Inclusive
Accommodates the needs of all visitors and residents throughout their life spans with minimal adaptation.

USABILITY CRITERIA

- 1. **Mobility.**
Can you get to it?
- 2. **Operability.**
Can you operate it?
- 3. **Perceptibility.**
Does it communicate with you?
- 4. **Security.**
Does it provide safety/protection?

PRIMARY DEFINITIONS:

Definitions are provided below for each level of usability and each usability criterion.

LEVELS OF USABILITY

Level 1: Visitable

“Visitable” is the enabling of:

- ambulatory visitors,
- visitors utilizing assistive technologies, and
- visitors utilizing wheeled mobility devices

to:

- access, move to and through, and
- remain safe and secure in

at least one connected set of spaces, including a minimum of:

- a. one visitable approach and entry,
- b. one entry-floor visitable bathroom, and
- c. one entry-floor visitable interior space (other than the entry and bathroom).

In addition, all *Level 1* (or higher) standards must be fulfilled.

Level 3: Livable

“Livable” is the enabling of:

- ambulatory residents,
- residents who utilize assistive technologies,
- residents utilizing wheeled mobility devices,
- residents with a wide range of strengths and dexterities, and
- residents with diverse sensory abilities

to:

- access, move to and through,
- operate the fixtures within,
- receive and interpret sensory cues in, and
- remain safe and secure in

at least one connected set of spaces, including a minimum of:

- a. a visitable and operable main entry,
- b. one livable bathroom,
- c. one livable kitchen,
- d. and one livable bedroom.

In addition, all *Level 3* (or higher) standards must be fulfilled.

Level 5: All-Inclusive

“All-Inclusive” is the enabling of:

- ambulatory residents,
- residents who utilize assistive technologies,
- residents utilizing wheeled mobility devices,
- residents with a wide range of strengths and dexterities

to:

- access, move to and through,
- operate the fixtures within,
- receive and interpret sensory cues in, and
- remain safe and secure in

all connected spaces of the home, including a minimum of:

- a. all approaches and entries, and
- b. all interior spaces.

In addition, all *Level 5* (or higher) standards described below must be fulfilled.

1. Mobility.

Mobility is the enabling of ambulatory occupants, users of assistive technologies, and occupants utilizing wheeled mobility devices to access and move to and through various spaces.

2. Operability.

Operability is the enabling of users with a wide range of strengths and dexterities to properly and efficiently use fixtures, mechanisms, and controls.

3. Perceptibility.

Perceptibility is the enabling of users with diverse sensory abilities to receive and interpret a variety of sensory cues, including visual, auditory, and tactile information.

4. Security.

Security is the enabling of diverse users to remain safe and protected from injury, harm, and discomfort caused by the design of the dwelling or its immediate surrounds.

ADDITIONAL DEFINITIONS:

Definitions are provided below for terms used in this document.

All-Inclusive. Any space or feature that meets or exceeds the criteria of Level 5.

Diverse Occupants. Visitors and/or residents who may: (a) be ambulatory or non-ambulatory, or use wheeled mobility devices, (b) have motor impairments or reduced physical dexterity, (c) have cognitive or developmental disabilities, or sensory impairments, or (d) have no disabilities.

Egress. Any interior or exterior path of travel to or from any interior or exterior space.

Emergency Egress. Any means of travel that can be legally defined (by applicable national and local codes/regulations) as a safe, effective means of travel in the case of fire or other emergency.

Interior Space(s). Any environmentally-controlled space of a residence, including, but not limited to bathing, toileting, food preparation, living, eating, and sleeping spaces.

Livable. Any space or feature that exceeds the criteria of Level 3.

Main Entry. The most visually prominent and/or most proximal entry to the public right-of-way or parking.

Occupant. Any visitor, resident, or other person who temporarily or permanently inhabits a residence.

Occupants/residents of Various Heights. Visitor, residents, or other persons who temporarily or permanently inhabit a residence who (a) may be ambulatory, nonambulatory or may use wheeled mobility devices, (b) may be standing or seated, (c) may be a child or adult and male or female, and (d) may be 42-75" in height.

Parking Space. Any interior or exterior space in which the primary function is for the storage/parking of automobiles; this may be either privately owned or public.

Resident. One of the primary, permanent or semi-permanent occupants of a residence; or a person whose temporary or permanent address is at said residence. This may be an owner, a renter, or a family member/friend of the owner or renter.

Public Right-of-Way. The non-privately-owned space most proximal to an entry of a residence that is accessible to either pedestrians or vehicular traffic.

Visitable. Any space or feature that meets or exceeds the criteria of Level 1.

Visitor. Any non-resident occupant of a residence.

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Level 1: Visitable

Level 3: Livable

Level 5: All-Inclusive

	<u>Level 1: Visitable</u>	<u>Level 3: Livable</u>	<u>Level 5: All-Inclusive</u>
Mobility at parking/right-of-way.		A minimum of one parking space is easily adapted to accommodate a full-size car and side loading of diverse occupants.	A minimum of one parking space accommodates a full-size car and side loading of diverse occupants. 3.01 or 3.02
Mobility to entry (approach).	Egress from parking (or public right-of-way) to the interior of one <i>visitable entry</i> can be easily traversed by diverse visitors.		Egress from parking (or public right-of-way) to the interior of the <i>main entry</i> be easily traversed by diverse visitors. 3.01 or 3.02
Mobility at entry (int. & ext.).	An interior space <u>and</u> an exterior space, which enable diverse occupants to rest and to turn 180 degrees, are provided immediately adjacent to <i>visitable entry</i> .		An interior space <u>and</u> an exterior space, which enable diverse occupants to rest and to turn 180 degrees, are provided immediately adjacent to <i>main entry</i> . 3.03 or 3.04
Operability of entrance.	Visitable entry (a) is operable with a closed fist <u>and</u> (b) requires minimum effort for operation.		Main entry (a) is operable with a closed fist <u>and</u> (b) requires minimum effort for operation. 3.05
Perceptibility of entry signals.	Visitable entry enables visual access (interior to exterior) <u>or</u> auditory communication (between interior and exterior occupants).	Main entry provides a call device that provides visual, auditory, or tactile cues to the visitor.	Main entry enables visual access (interior to exterior) for residents of various heights. 3.06 Main entry enables auditory communication between interior and exterior occupants. 3.06 Main entry provides appropriate day- and night-time illumination. 3.06
Security against slipping/tripping.	Materials, assemblies, and transitions along approach from parking (or public right-of-way) to interior space of <i>visitable entry</i> provides security against slipping and tripping.		Materials, assemblies, and transitions along approach from parking (or public right-of-way) to interior space of <i>main entry</i> provides security against slipping and tripping. 3.07
Security from weather.			Main entry provides partial protection from the extreme weather of the region. 3.08
			A minimum of one parking space ² accommodates a full-size van and side <u>and</u> rear loading of diverse occupants. Egress from parking (or public right-of-way) to the interior of all entries can be easily traversed by diverse visitors. An interior space <u>and</u> an exterior space, which enable diverse occupants to rest and to turn 180 degrees, are provided immediately adjacent to all entries. All entries (a) are operable with a closed fist <u>and</u> (b) requires minimum effort for operation. All entries enable visual access (interior to exterior) for residents of various heights. All entries enable auditory communication between interior and exterior occupants. All entries provide appropriate day- and night-time illumination. Materials, assemblies, and transitions along approach from parking (or public right-of-way) to interior space of all entries provide security against slipping and tripping. Main entry provides full protection from the extreme weather of the region; all other entries provide partial protection.

Level 1: Visitable

Level 3: Livable

Level 5: All-Inclusive

<p>Mobility within interior.</p>	<p>Each “visitable” space contains a minimum of one area enabling diverse occupants to rest and to turn 180 degrees.</p> <p>Passage between each “visitable” space is enabled for diverse occupants.</p>		<p>Each “livable” interior space contains a minimum of one area enabling diverse occupants to rest and to turn 180 degrees. 3.09 & 3.10</p> <p>Passage between each “livable” space is enabled for diverse occupants. 3.11, 3.12, 3.13, or 3.14</p>	<p>For multi-storey units, a minimum of one defined vertical space is able to accommodate the future installation of an elevator or lift with a minimum of structural adaptation.</p>	<p>Every interior space (excluding storage spaces) contains a minimum of one area enabling diverse occupants to rest and to turn 180 degrees.</p> <p>Passage between each space is enabled for diverse occupants.</p>
<p>Operability of doors.</p>	<p>All doors connecting “visitable” spaces are operable with a closed fist.</p>		<p>All doors connecting “livable” spaces are operable with a closed fist. 3.15</p>		<p>All doors are operable with a closed fist.</p>
<p>Operability of windows.</p>				<p>Doors, windows, and finish materials and assemblies of “livable” spaces are easily maintained/cleaned.</p>	<p>All non-fixed windows are operable with a closed fist.</p>
<p>Operability of electrical fixtures.</p>	<p>All lighting controls along “visitable” means of egress are operable with a closed fist and a push-stick.</p>		<p>All lighting controls in “livable” spaces are operable with a closed fist and a push-stick by residents of various heights. 3.16</p> <p>All electrical outlets are operable by residents of various heights. 3.16</p>	<p>Interior services & communication systems are easily serviced and upgraded w/ a minimum of adaptation required.</p>	<p>All lighting and heating controls are operable with a closed fist and a push-stick by residents of various heights <u>or</u> are controlled by automated devices or external agencies.</p> <p>All electrical outlets are operable by residents of various heights.</p>
<p>Operability of storage units/spaces.</p>			<p>All doors and drawers to storage units and spaces in “livable” areas a) are operable with a closed fist or a flat open hand and b) require a minimum effort of operation. 3.17</p>		<p>All doors and drawers to storage units and spaces a) are operable with a closed fist or a flat open hand and b) require a minimum effort of operation.</p>
<p>Perceptibility of exterior</p>			<p>A minimum of one window in each living space enables residents of various heights to view out. 3.18</p>	<p>All storage spaces/units can be reconfigured w/o structural adaptation to facilitate diverse storage arrangements.</p>	<p>A minimum of one window in each living space enables residents of various heights to view out.</p>
<p>Perceptibility of controls & alarms.</p>					<p>All environmental controls (e.g. light switches, thermostats, etc.) provide visual, auditory, and tactile cues.</p>
<p>Security against slipping/tripping.</p>	<p>All interior materials, assemblies, and transitions provide security against slipping and tripping.</p>		<p>All interior materials, assemblies, and transitions provide security against slipping and tripping. 3.19</p>		<p>All interior materials, assemblies, and transitions provide security against slipping and tripping.</p>

Level 1: Visitable

Level 3: Livable

Level 5: All-Inclusive

<p>Mobility within bathroom.</p>	<p>Each “visitable” toileting space contains an area enabling diverse occupants to rest and to turn 180 degrees.</p> <p>Configuration of “visitable” toileting space or adjacent “visitable” space enables side approach to and use of sink for diverse occupants.</p>		<p>Each “livable” bathing and/or toileting space contains an area enabling diverse occupants to rest and to turn 180 degrees. 3.20, 3.21, 3.22, or 3.23</p> <p>Configuration of “livable” bathing and/or toileting space enables front and side approach to and use of all plumbing fixtures for diverse occupants. 3.20, 3.21, 3.22, or 3.23</p>		<p>Every bathing and/or toileting space contains an area enabling diverse occupants to rest and to turn 180 degrees.</p> <p>Configuration of each bathing and/or toileting space enables front and side approach to and use of sink for diverse occupants.</p>
<p>Operability of fixtures.</p>	<p>Sink fixture in “visitable” toileting space or adjacent “visitable” space a) is operable with a closed fist and b) requires a minimum effort of operation.</p>		<p>All plumbing fixtures in “livable” bathing and/or toileting spaces a) are operable with a closed fist and b) require a minimum effort of operation. 3.24</p> <p>All cabinetry/storage in “livable” bathing and/or toileting spaces a) is operable with a closed fist or a flat open hand and b) requires a minimum effort of operation. 3.24</p>	<p>Cabinetry, fixtures, and assistive devices can be reconfigured to facilitate diverse arrangements w/o structural adaptation or purchase of additional components.</p>	<p>All plumbing fixtures a) are operable with a closed fist and b) require a minimum effort of operation.</p> <p>All cabinetry/storage in all bathing and/or toileting spaces a) is operable with a closed fist or a flat open hand and b) requires a minimum effort of operation.</p>
<p>Perceptibility of plumbing fixtures.</p>					<p>All plumbing controls (e.g. sinks and bathing fixtures) provide intuitive visual and tactile cues.</p>
<p>Security of plumbing fixtures.</p>			<p>All plumbing fixtures in “livable” bathing and/or toileting space(s) provide security against scalding. 3.25</p>		<p>All plumbing fixtures in all bathing and/or toileting spaces provide security against scalding.</p>

Level 1: Visitable

Level 3: Livable

Level 5: All-Inclusive

<p>Mobility within sleeping spaces.</p>		<p>A “visitable” sleeping space is provided which meets all Level 3 criteria for sleeping spaces.</p>	<p>All “livable” sleeping spaces contain areas enabling diverse occupants to rest and to turn 180 degrees. 3.26</p>		<p>All sleeping spaces contain areas enabling diverse occupants to rest and to turn 180 degrees.</p>
<p>Perceptibility of alarms.</p>			<p>Emergency alarms in “livable” sleeping space(s) provide both visual and auditory cues. 3.27</p>		<p>Emergency alarms in all sleeping space(s) provide both visual and auditory cues.</p>
<p>Security of egress.</p>			<p>A minimum of one window in each “livable” sleeping space enables emergency egress or rescue of diverse occupants. 3.28</p>	<p>A direct route between a minimum of one bedroom and one bathroom enables the future installation of a bed-to-bath hoist.</p>	<p>A minimum of one window in each sleeping space enables emergency egress or rescue of diverse occupants.</p>

Level 1: Visitable

Level 3: Livable

Level 5: All-Inclusive

<p>Mobility within food prep spaces.</p>			<p>Each “livable” food preparation space contains a minimum of one area enabling diverse occupants to rest and to turn 180 degrees. 3.29, 3.30, 3.31, or 3.32</p> <p>Configuration of “livable” food preparation space(s) enables front or side approach to and use of sink(s), appliances, and cabinetry/storage for diverse occupants. 3.29, 3.30, 3.31, or 3.32</p>		<p>All food preparation spaces contain a minimum of one area enabling diverse occupants to rest and to turn 180 degrees.</p> <p>Configurations of all food preparation spaces enable front and side approach to and use of sink(s), appliances, and cabinetry/storage for diverse occupants.</p>
<p>Operability of fixtures.</p>			<p>Work surfaces enable usability for residents of various heights. 3.33</p> <p>All cabinetry/storage in “livable” food preparation spaces a) is operable with a closed fist or a flat open hand and b) requires a minimum effort of operation. 3.34</p> <p>All plumbing fixtures in “livable” food preparation spaces a) are operable with a closed fist and b) require a minimum effort of operation. 3.34</p>	<p>Cabinetry, fixtures, and assistive devices can be reconfigured to facilitate diverse arrangements w/o structural adaptation or purchase of additional components.</p>	<p>All cabinetry/storage in all food preparation spaces a) is operable with a closed fist or a flat open hand and b) requires a minimum effort of operation.</p> <p>All plumbing fixtures in all food preparation spaces a) are operable with a closed fist and b) require a minimum effort of operation.</p>
<p>Operability of electrical fixtures.</p>			<p>All lighting controls in “livable” spaces are operable with a closed fist and a push-stick by residents of various heights. 3.35</p> <p>All electrical outlets are operable by residents of various heights. 3.35</p>		<p>All lighting and heating controls are operable with a closed fist and a push-stick by residents of various heights <u>or</u> are controlled by automated devices or external agencies.</p> <p>All electrical outlets are operable by residents of various heights.</p>
<p>Perceptibility of plumbing fixtures.</p>					<p>All plumbing controls (e.g. sinks and bathing fixtures) provide intuitive visual and tactile cues.</p>
<p>Perceptibility of appliances.</p>			<p>All devoted outlet appliances provide intuitive visual and auditory or tactile cues. 3.36</p>		<p>All devoted outlet appliances provide intuitive visual and auditory or tactile cues.</p>
<p>Security against scalding.</p>			<p>All plumbing fixtures in “livable” food preparation spaces provide security against scalding. 3.37</p>		<p>All plumbing fixtures in all food preparation spaces provide security against scalding.</p>

Level 1: Visitable

Level 3: Livable

Level 5: All-Inclusive

	<u>Level 1: Visitable</u>	<u>Level 3: Livable</u>	<u>Level 5: All-Inclusive</u>
Mobility at exterior.			<p>An exterior space including a minimum of one area enabling diverse occupants to rest and to turn 180 degrees is provided.</p> <p>Passage between “livable” interior and exterior spaces is enabled for diverse occupants.</p>
Mobility to neighborhood/vicinity.			<p>An exterior space is provided which contains a minimum of one area enabling diverse occupants to rest and to turn 180 degrees.</p> <p>Passage between interior and exterior spaces is enabled for diverse occupants.</p>
Operability of doors.			<p>Egress from <i>main entry</i> of home to neighborhood amenities (e.g. shopping, public transportation, employment, etc.) is easily traversed by diverse visitors.</p>
Operability of exterior.			<p>All doors connecting “livable” interior spaces to exterior spaces are operable with a closed fist.</p>
Operability of exterior lighting.			<p>Exterior landscaping, finish materials, and assemblies are easily maintained.</p>
Operability of exterior lighting.			<p>All lighting controls in “livable” exterior spaces are operable with a closed fist and a push-stick.</p>
Operability of exterior lighting.			<p>All exterior lighting controls are operable with a closed fist and a push-stick <u>or</u> are controlled by automated devices or external agencies.</p>
Perceptibility of exterior controls and signage.			<p>All doors and drawers to storage units and spaces in exterior “livable” areas are operable with a closed fist.</p>
Security against slipping/tripping.			<p>All doors and drawers to exterior storage units and spaces are operable with a closed fist.</p>
			<p>All exterior controls (e.g. light switches) and neighborhood signage provides visual, auditory, and tactile cues.</p>
			<p>All materials, assemblies, and transitions in “livable” exterior spaces provide security against slipping and tripping.</p>
			<p>All exterior materials, assemblies, and transitions provide security against slipping and tripping.</p>

Level 1: Visitable

Level 3: Livable

Level 5: All-Inclusive

Mobility at electrical panels.

Security at electrical panels.

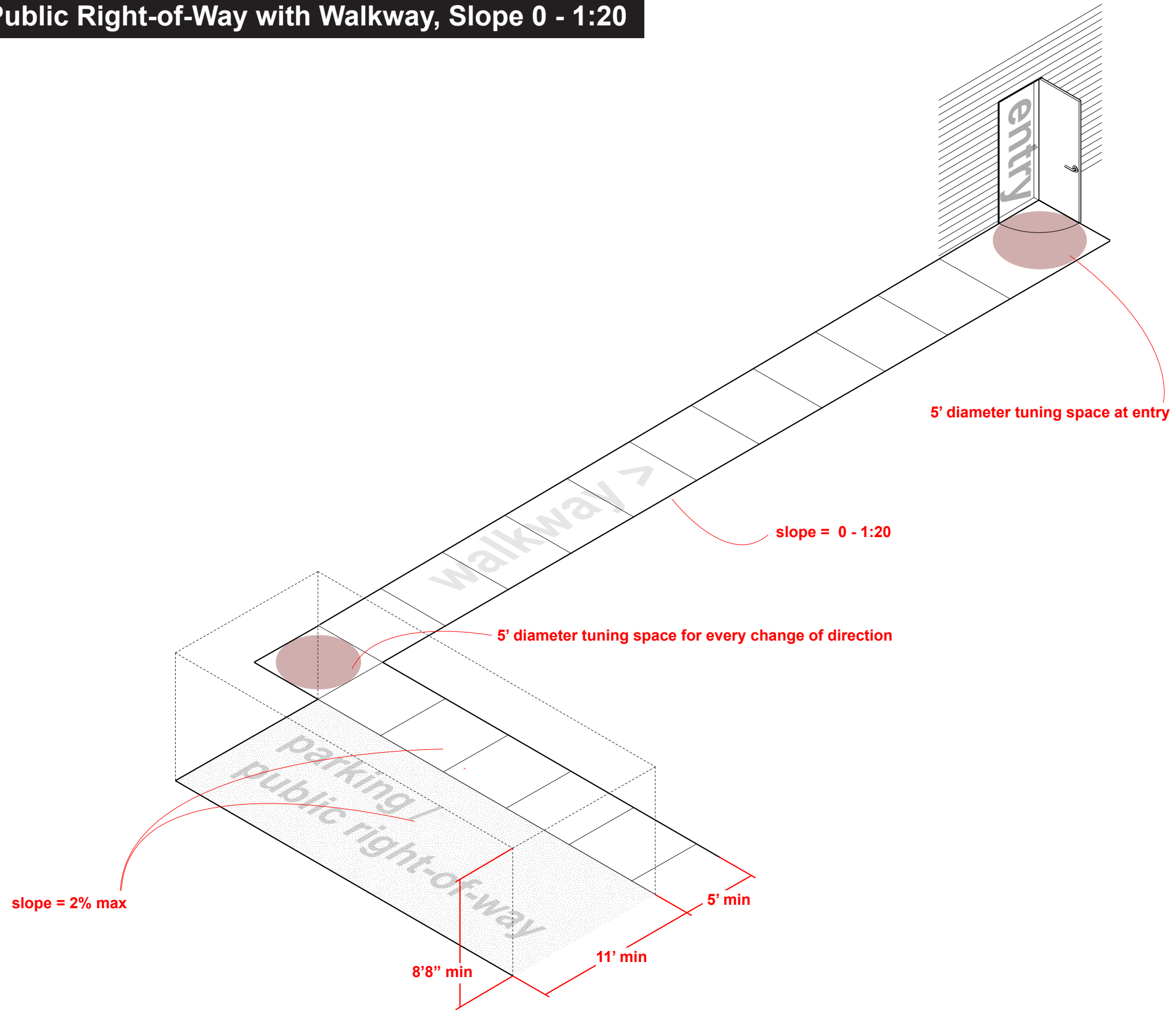
Electrical panels enable access for diverse occupants and users of various heights. 3.38
Electrical panels provide security against electrical shock. 3.38

Electrical panels enable access for diverse occupants and users of various heights.
Electrical panels provide security against electrical shock.

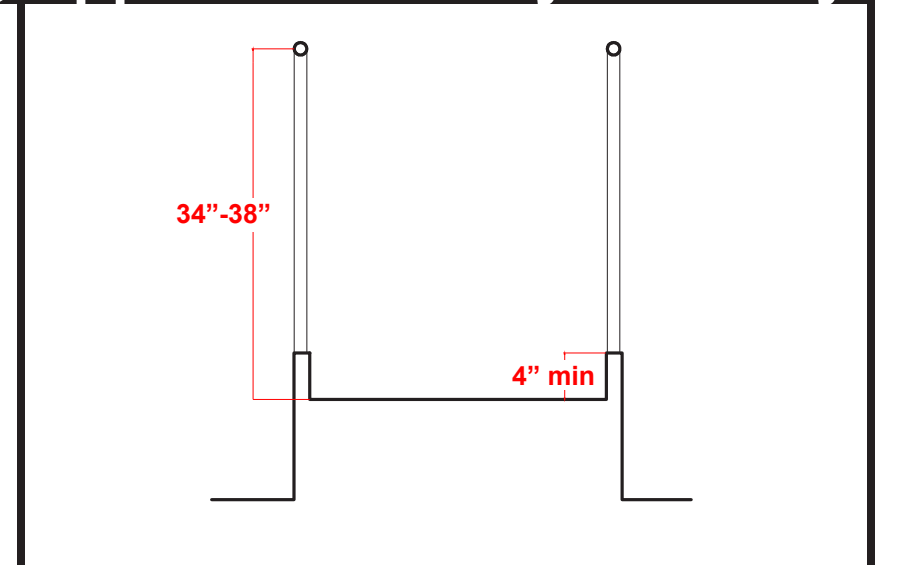
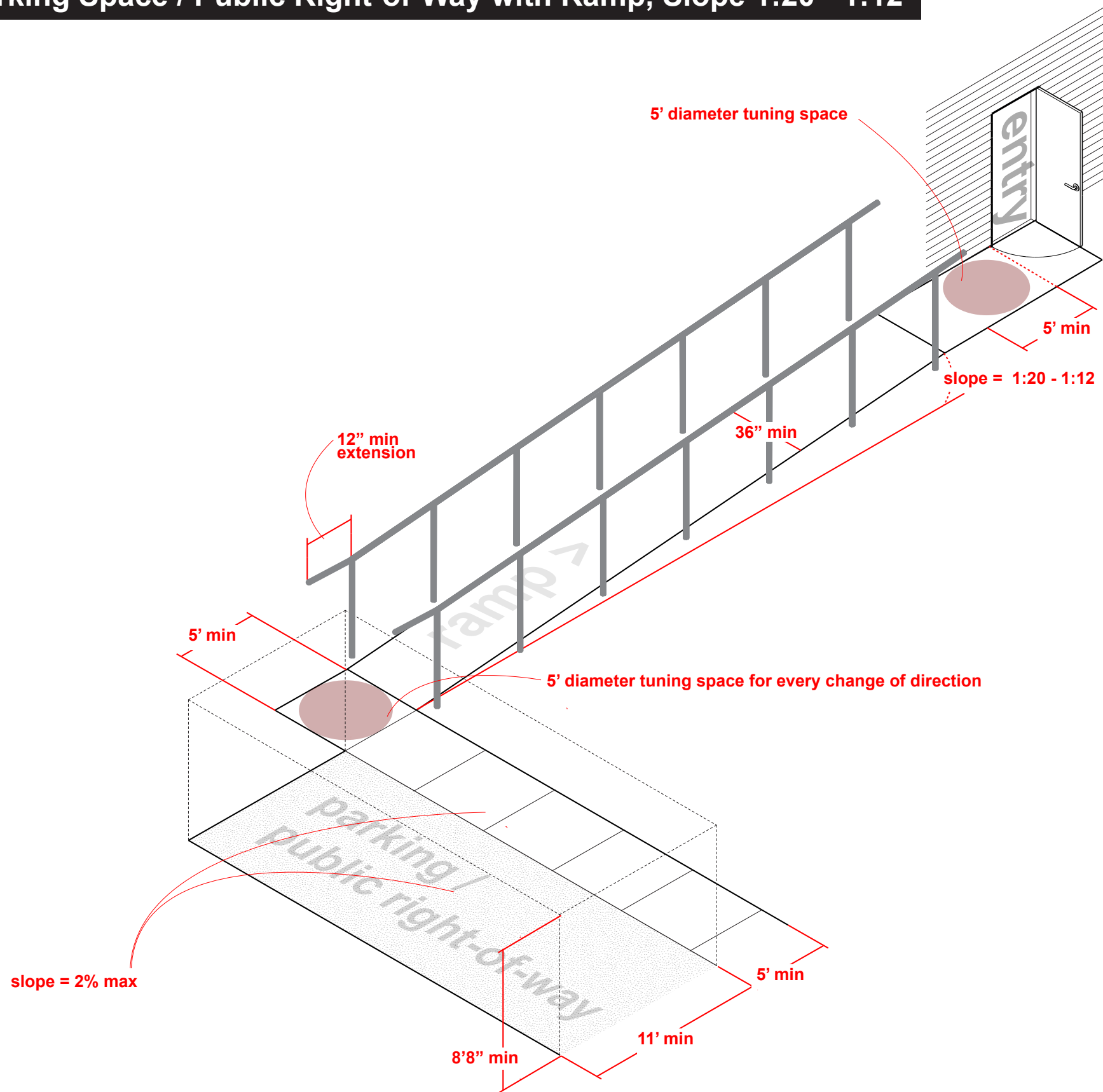
Part 3: Examples

<i>I: Parking, Approach & Entry</i>	3.01 - 3.08
<i>II: Interior Spaces (general)</i>	3.09 - 3.19
<i>III: Bathing & Toileting Spaces</i>	3.20 - 3.25
<i>IV: Sleeping Spaces</i>	3.26 - 3.28
<i>V: Food Preparation Spaces</i>	3.29 - 3.37
<i>VI: Miscellaneous</i>	3.38

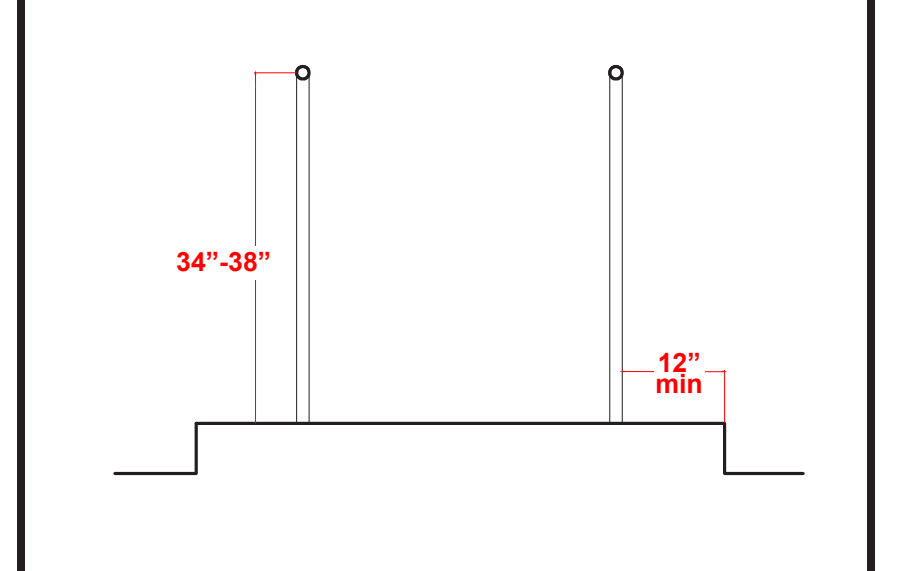
Parking Space / Public Right-of-Way with Walkway, Slope 0 - 1:20



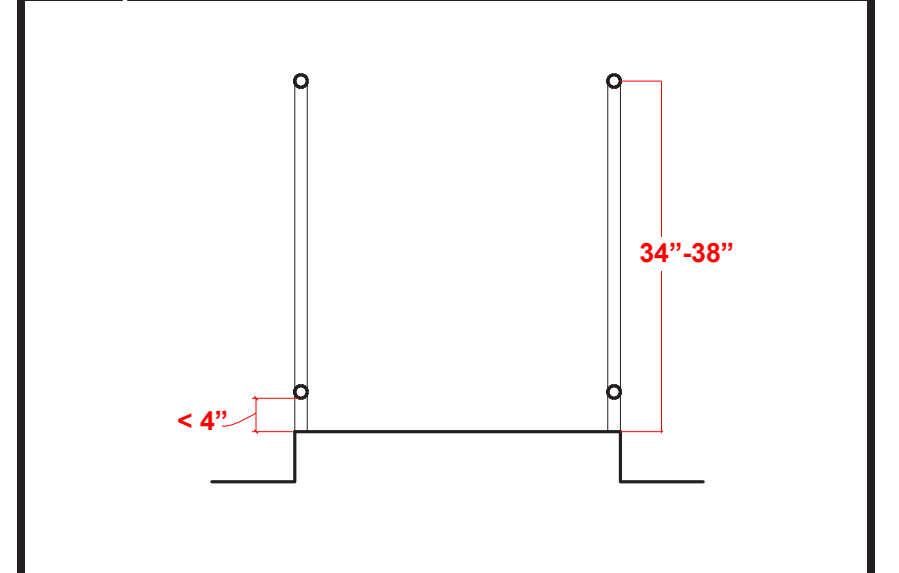
Parking Space / Public Right-of-Way with Ramp, Slope 1:20 - 1:12



base profile 1

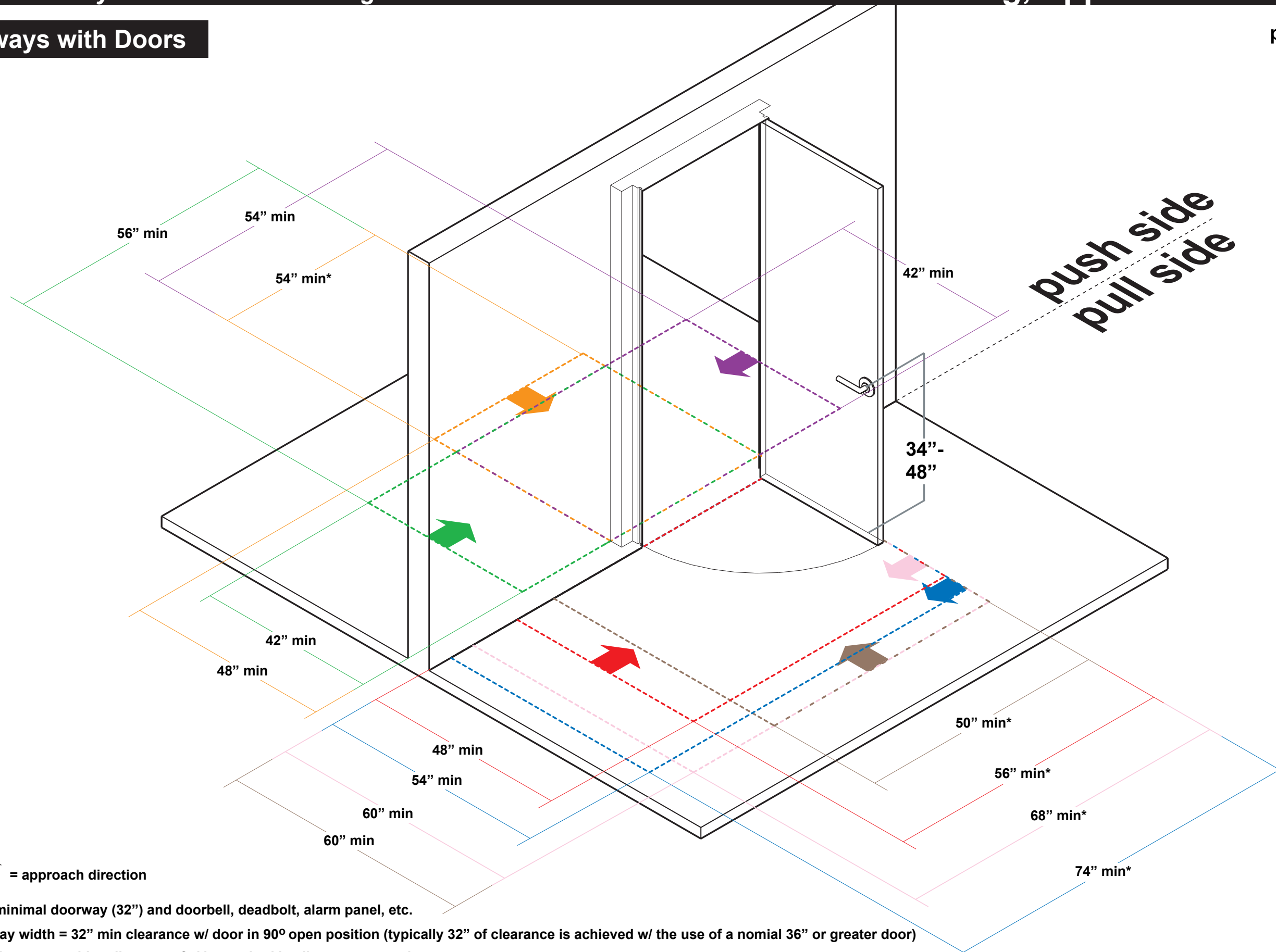


base profile 2



base profile 3

Passageways with Doors



possible combinations

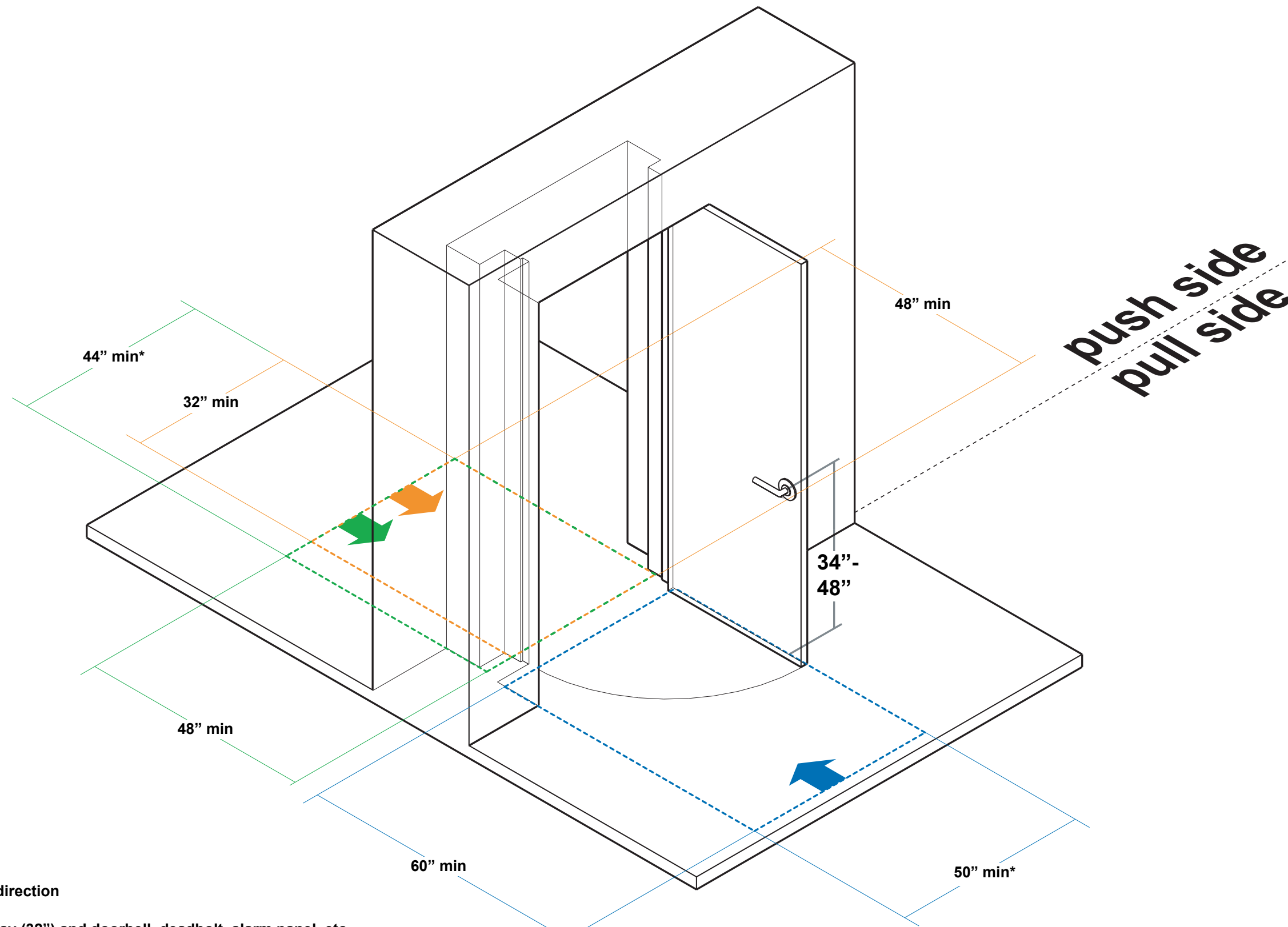
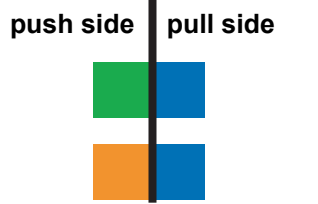
push side	pull side
purple	red
purple	pink
purple	brown
purple	blue
orange	red
orange	pink
orange	brown
orange	blue
green	red
green	pink
green	brown
green	blue

= approach direction

* = with minimal doorway (32") and doorbell, deadbolt, alarm panel, etc.
 passageway width = 32" min clearance w/ door in 90° open position (typically 32" of clearance is achieved w/ the use of a nominal 36" or greater door)
 maneuvering space with a diameter of 5' is required in all entry preparation spaces

Recessed Doors

possible combinations



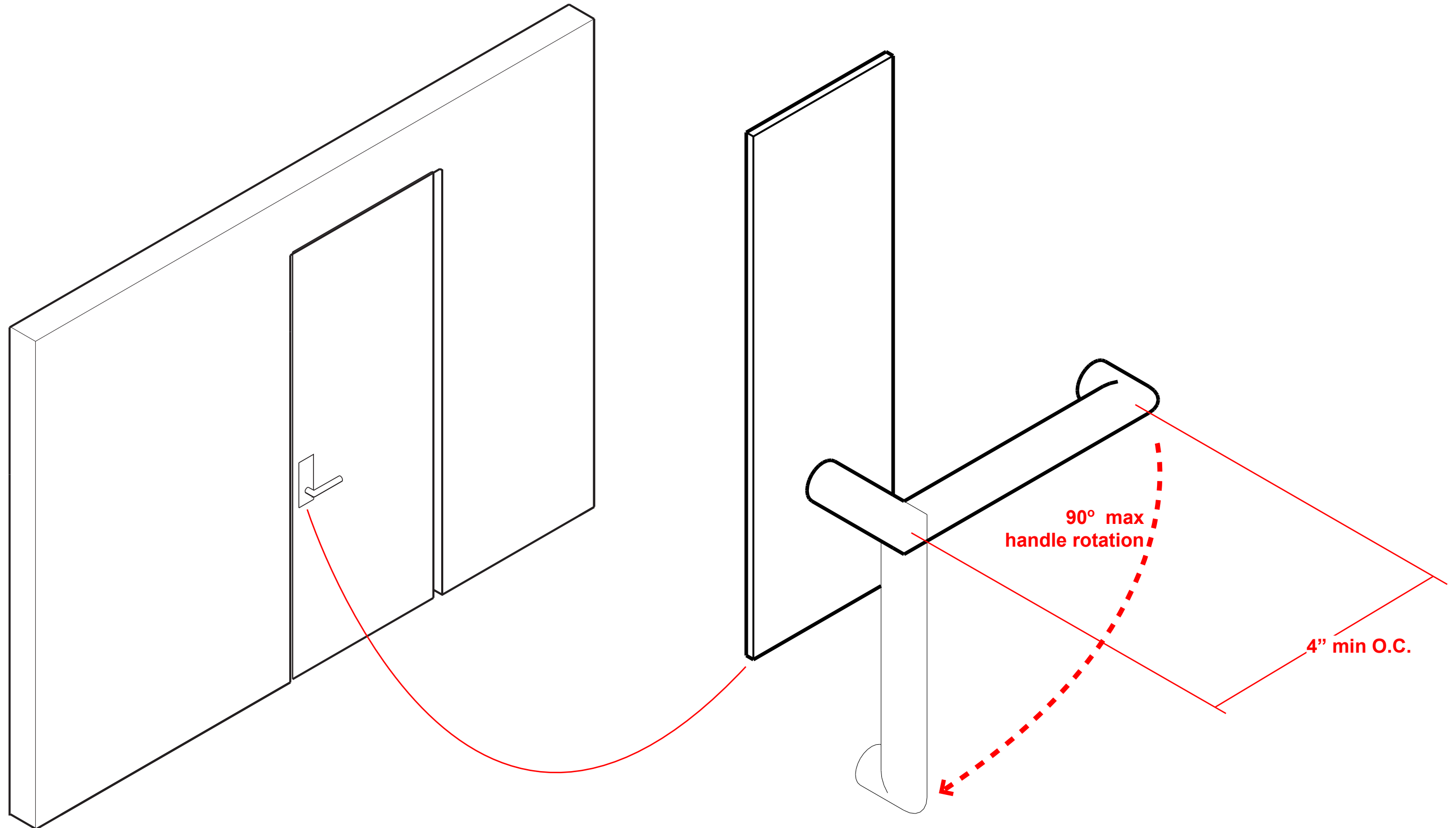
= approach direction

* = with minimal doorway (32") and doorbell, deadbolt, alarm panel, etc.

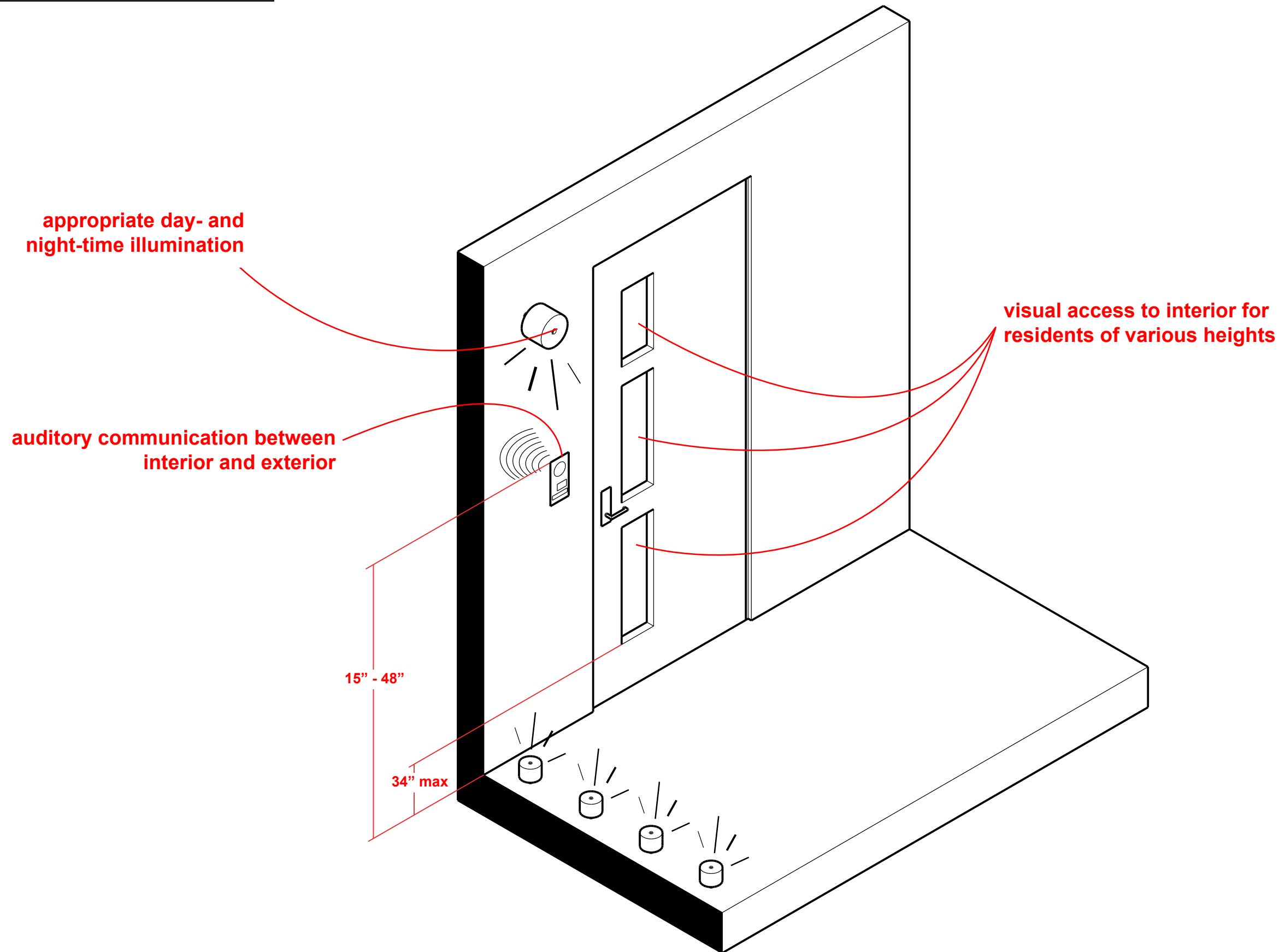
passageway width = 32" min clearance w/ door in 90° open position (typically 32" of clearance is achieved w/ the use of a nominal 36" or greater door)

maneuvering space with a diameter of 5' is required in all entry preparation spaces

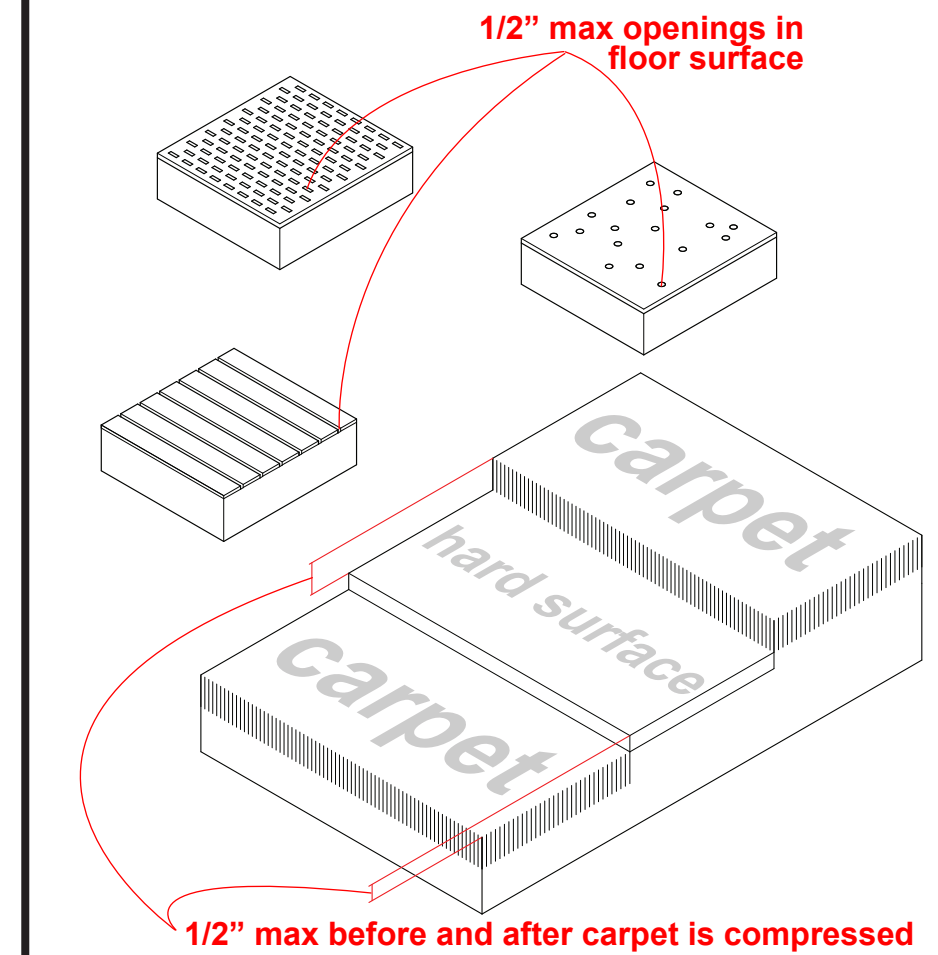
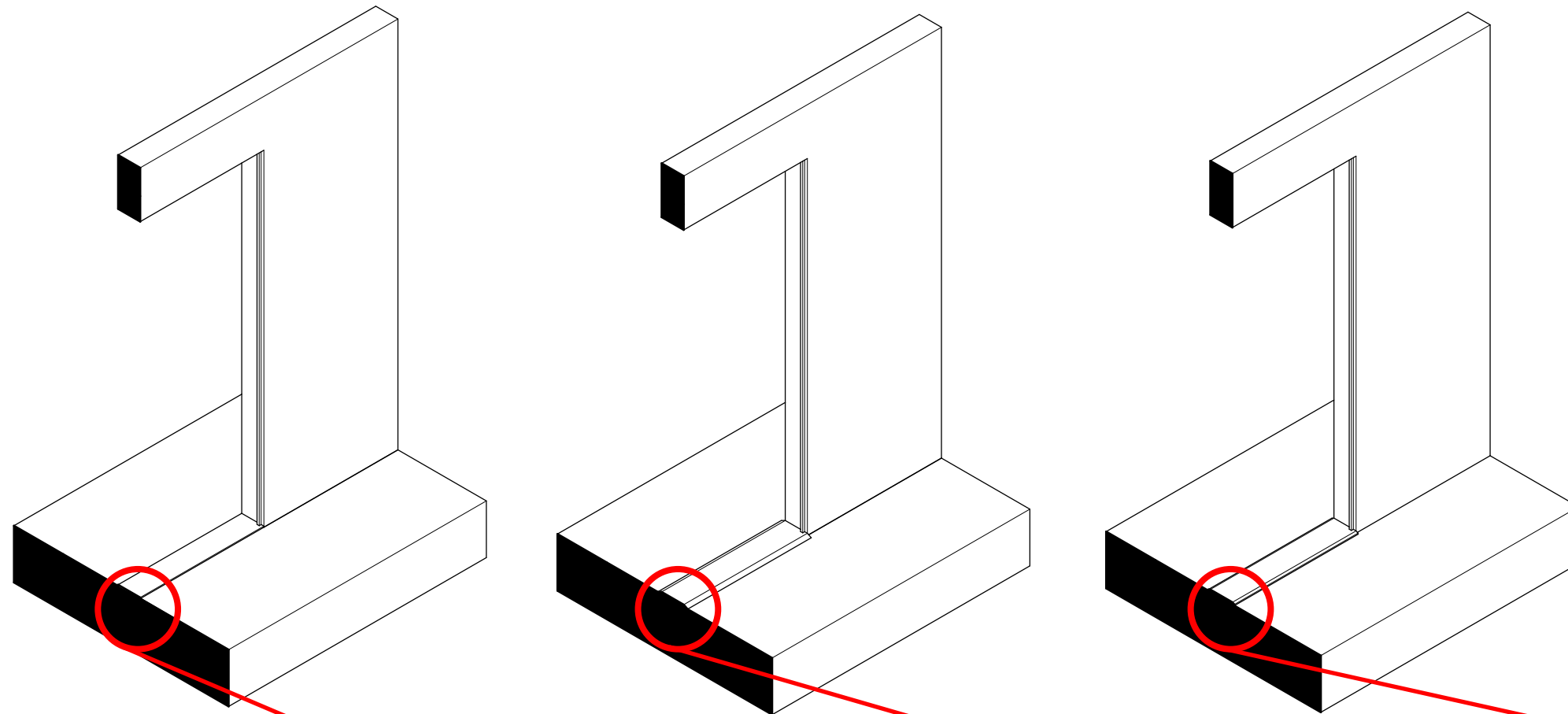
Main Entrance: Door Handles



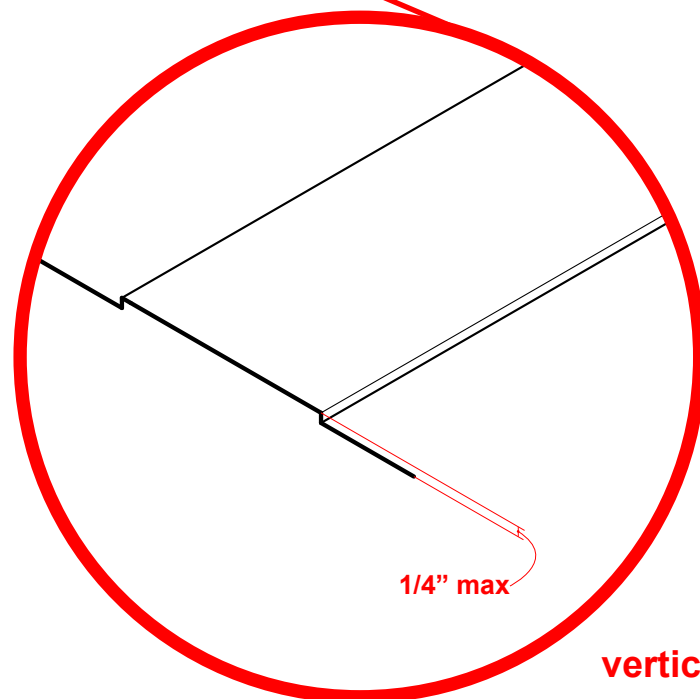
Perceptibility of Entry Signals



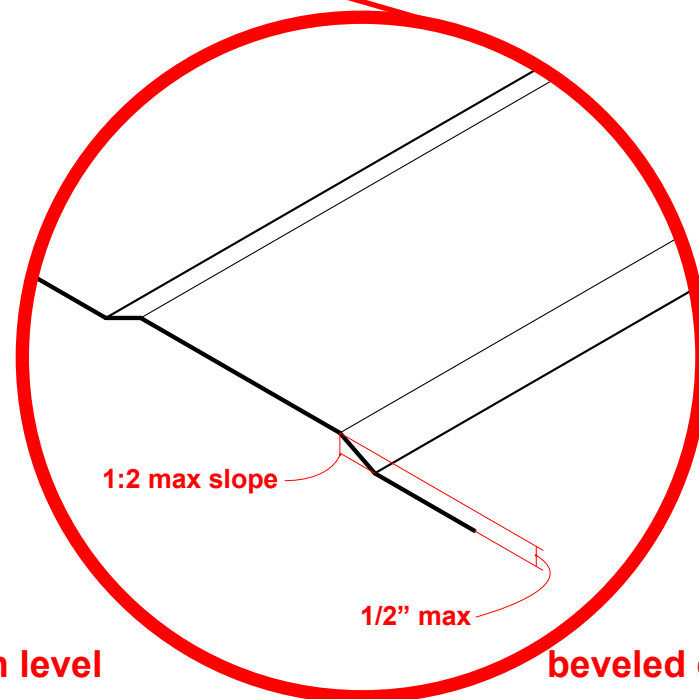
Entry Thresholds



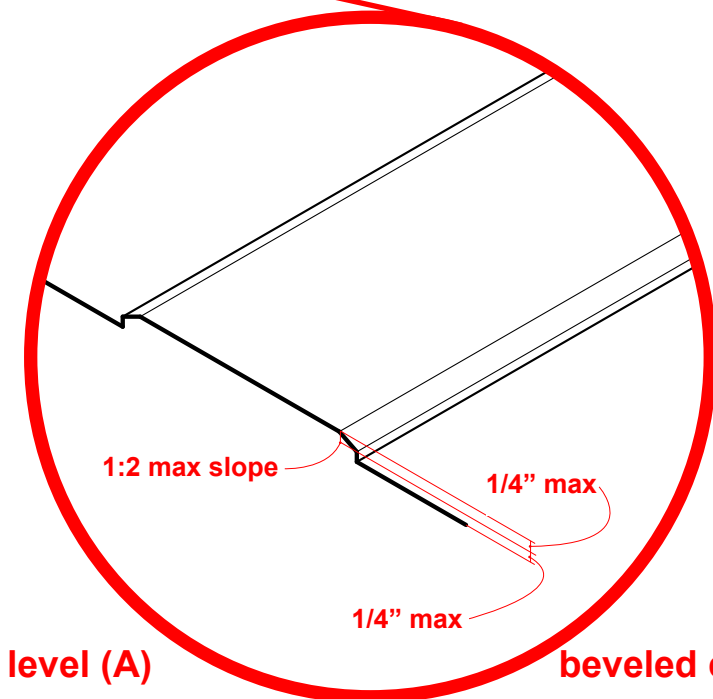
Approach Surface Openings



vertical change in level

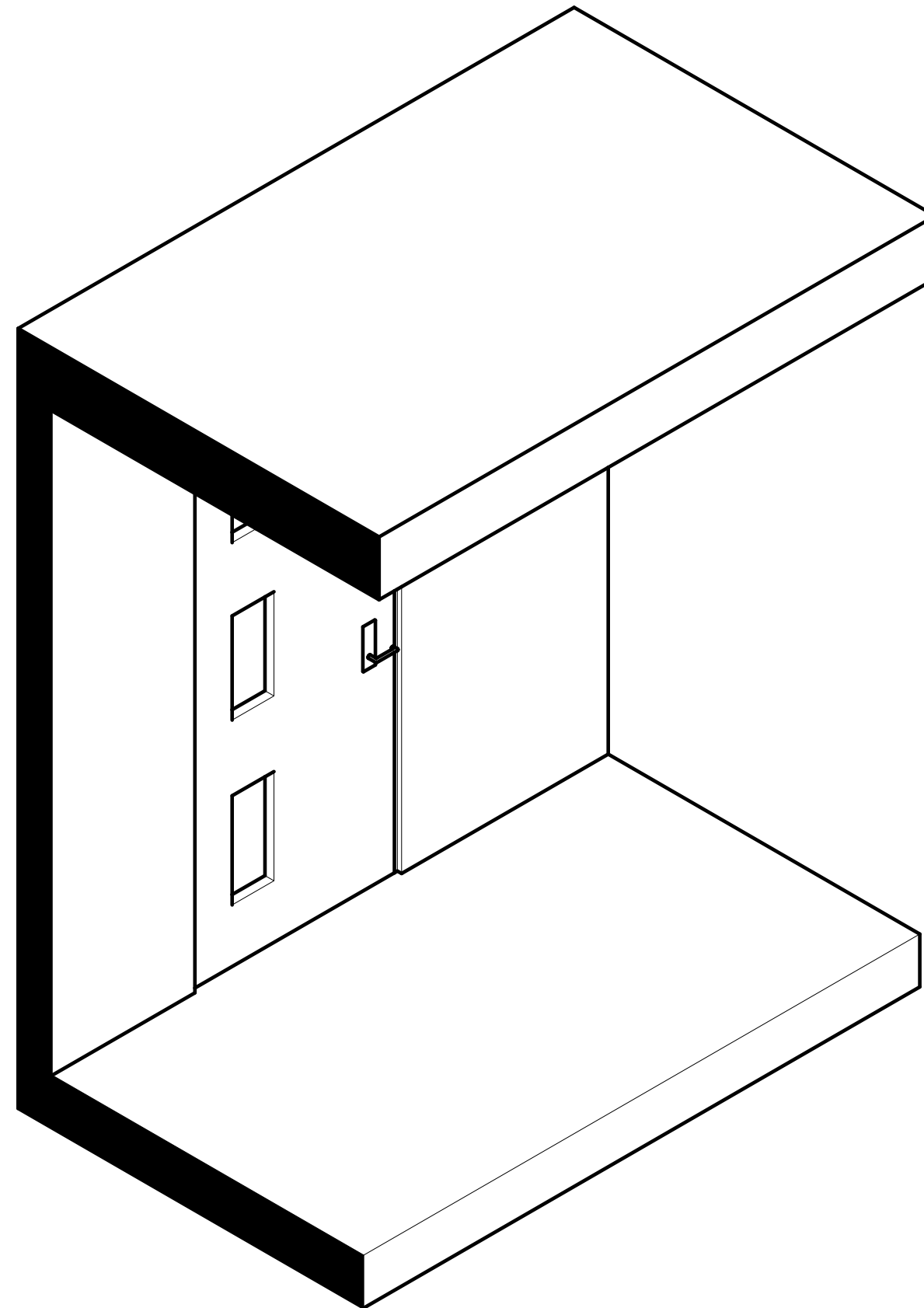


beveled change in level (A)

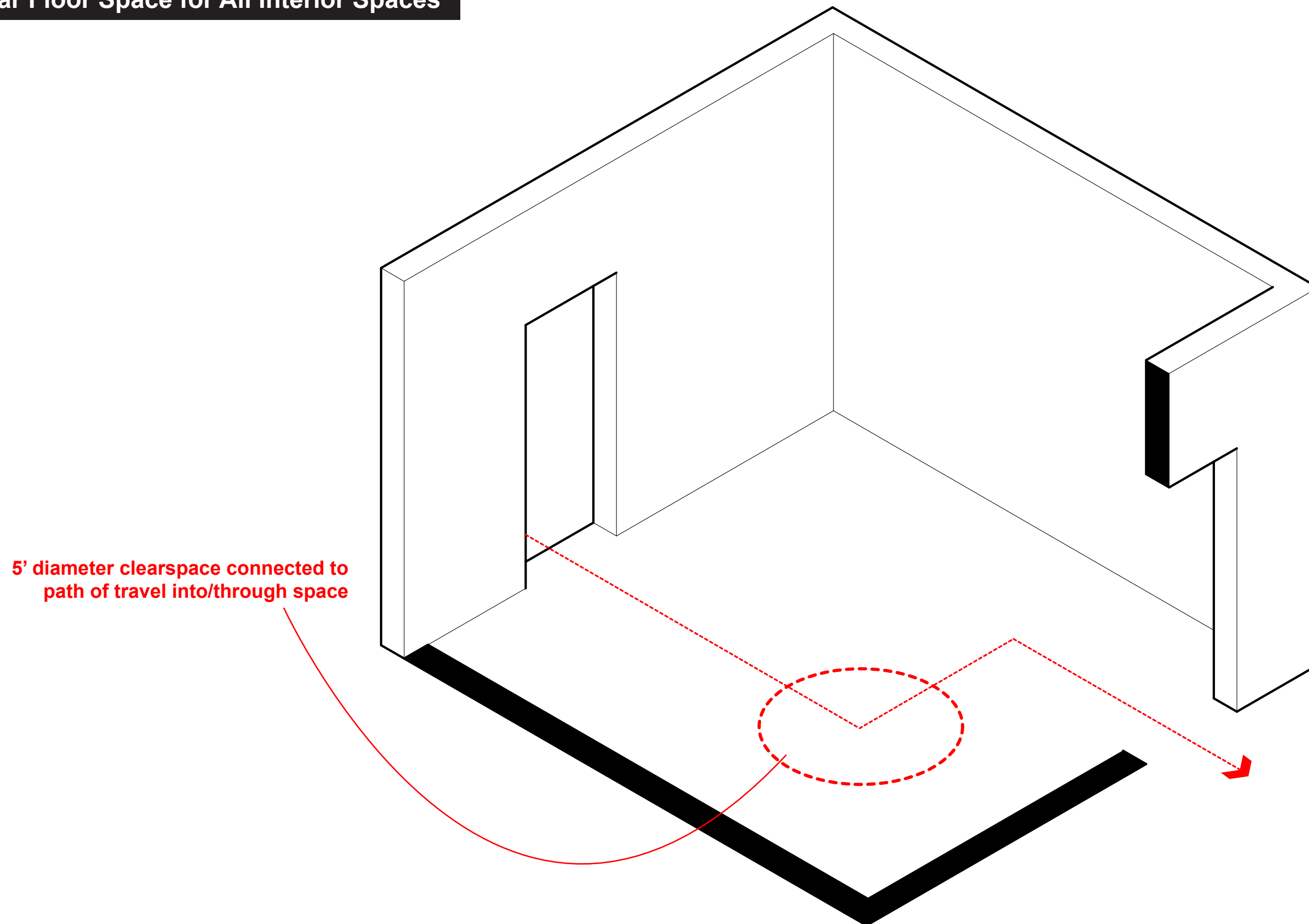


beveled change in level (B)

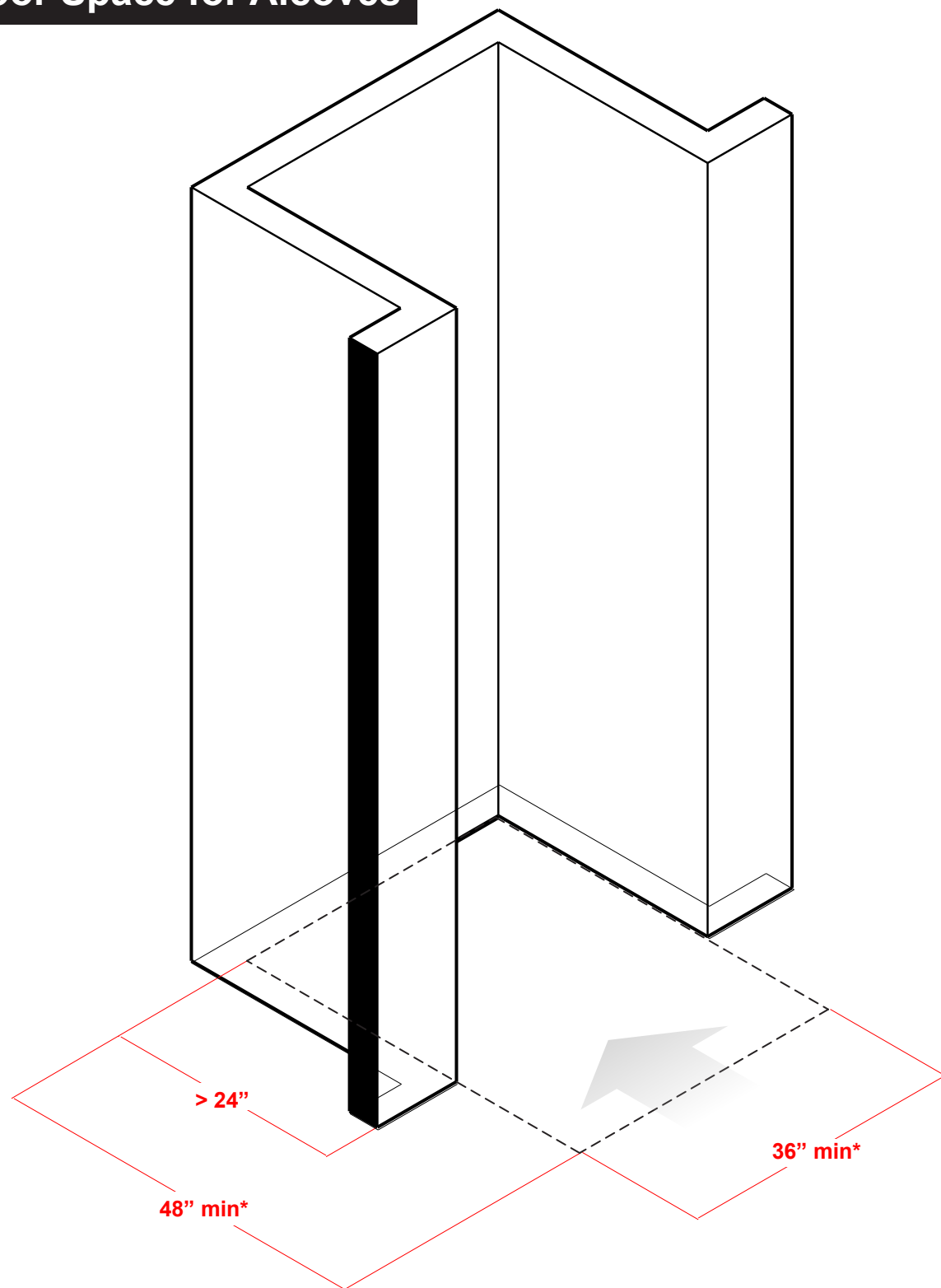
Weather Protection at Entrance



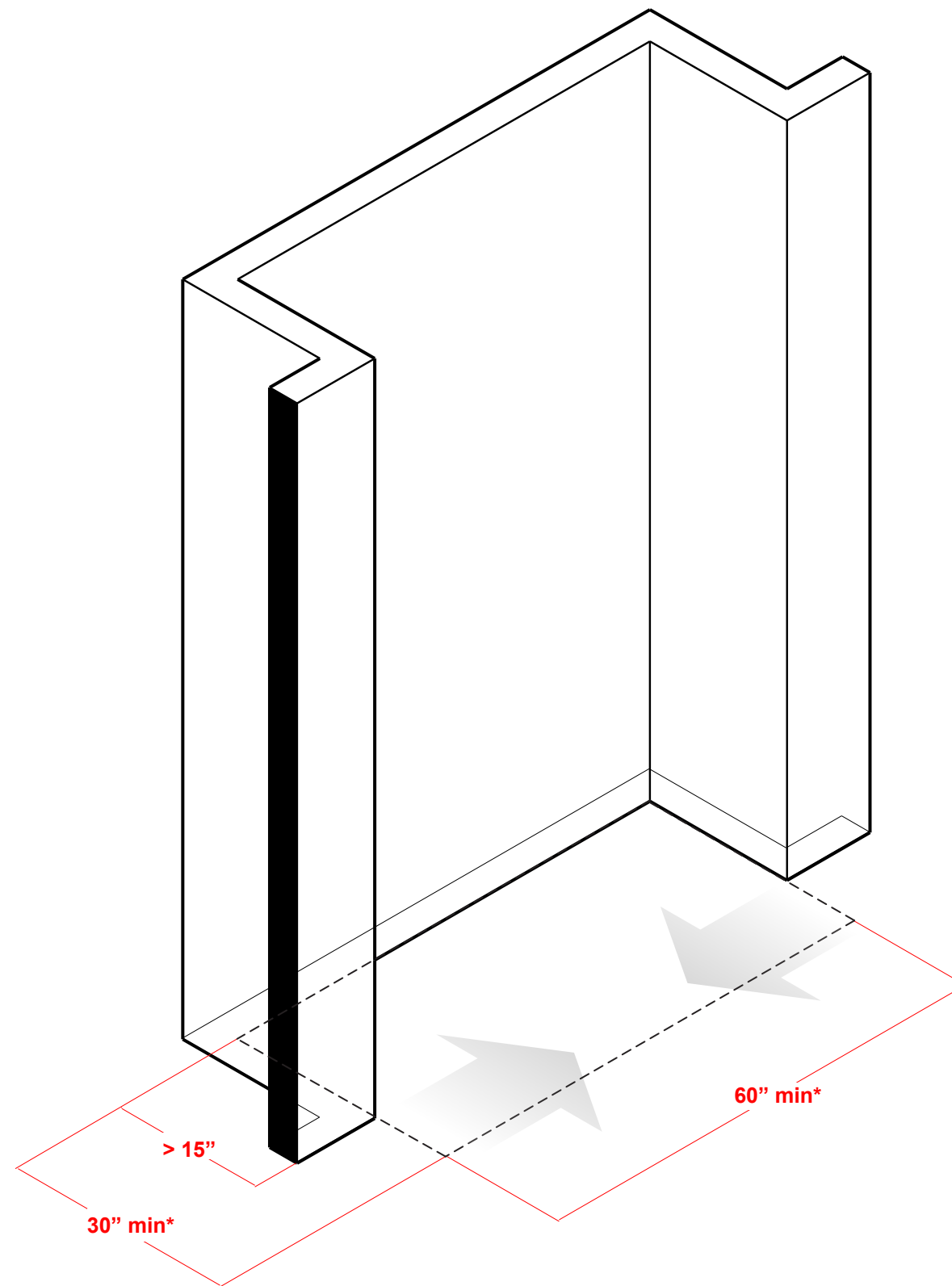
Clear Floor Space for All Interior Spaces



Clear Floor Space for Alcoves

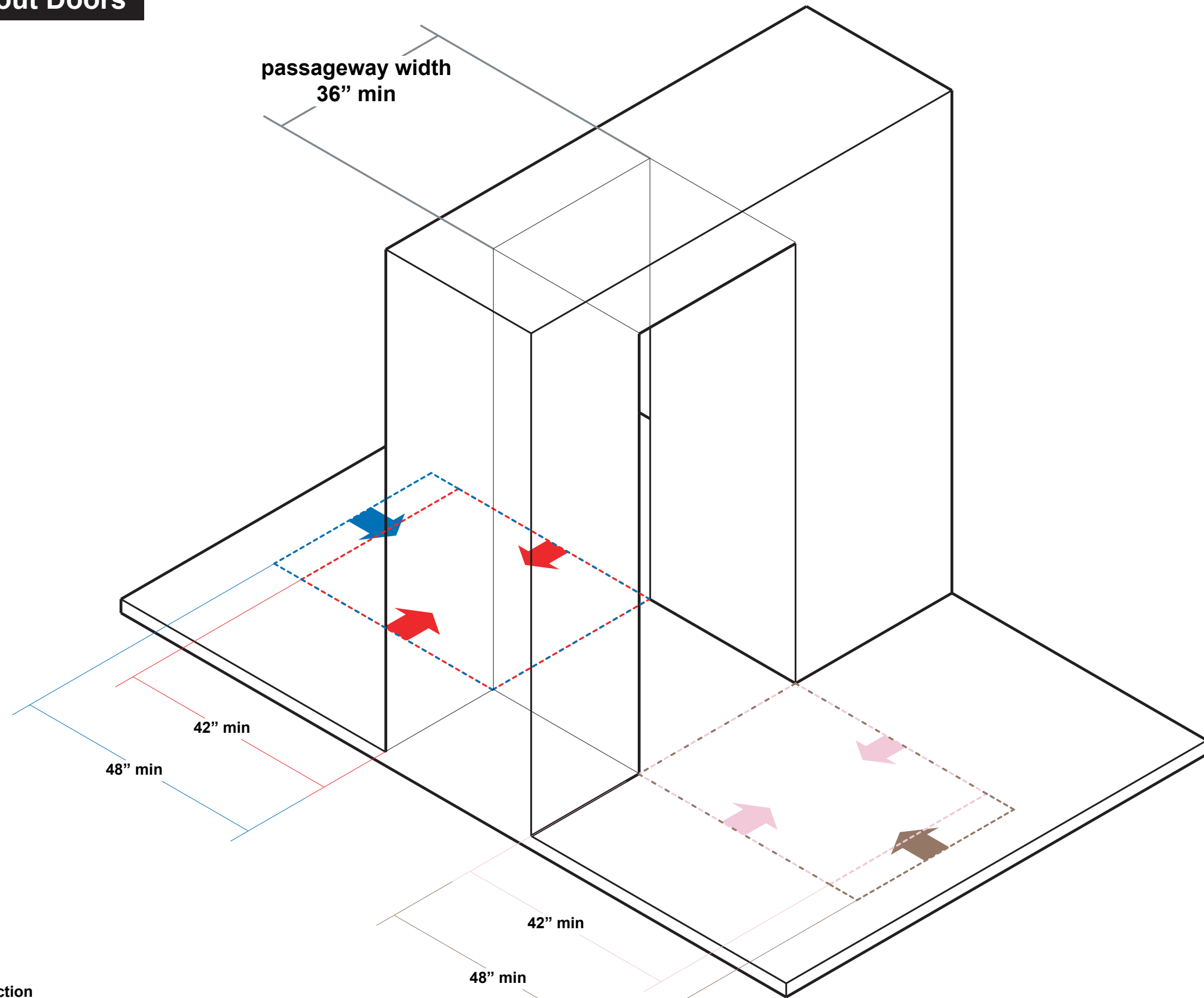


* = conditions apply where the alcove depth exceeds 24"




* = conditions apply where the alcove depth exceeds 15"

Passageways without Doors



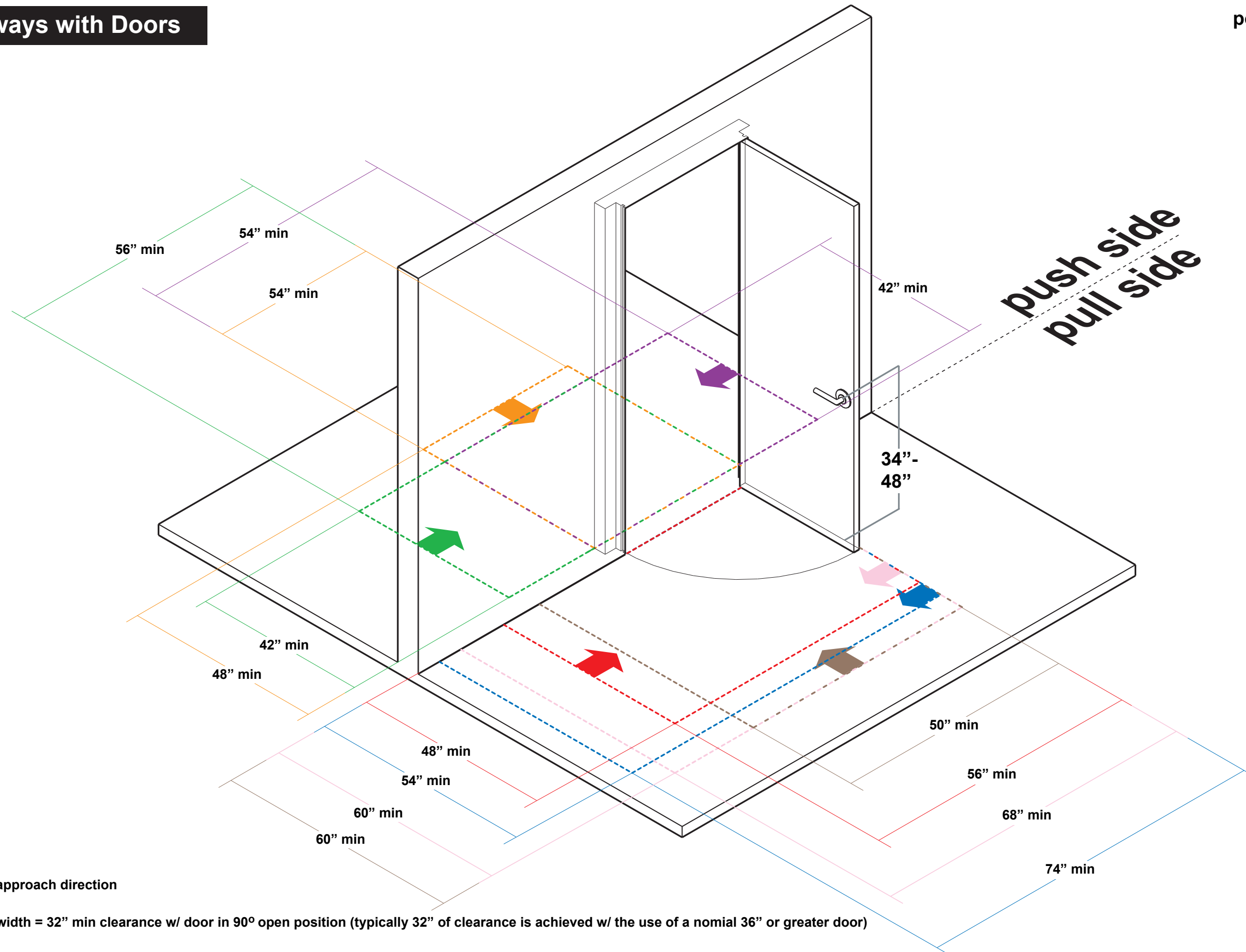
possible combinations

push side	pull side
Blue	Pink
Blue	Brown
Red	Pink
Red	Brown

 = approach direction

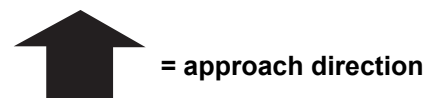
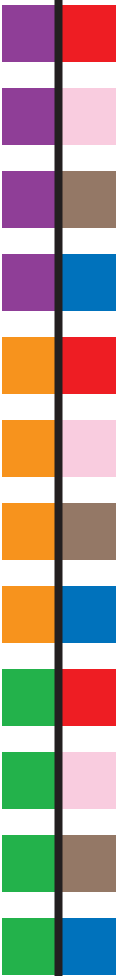
3.11 passageway width = 32" min clearance w/ door in 90° open position (typically 32" of clearance is achieved w/ the use of a nominal 36" or greater door)

Passageways with Doors



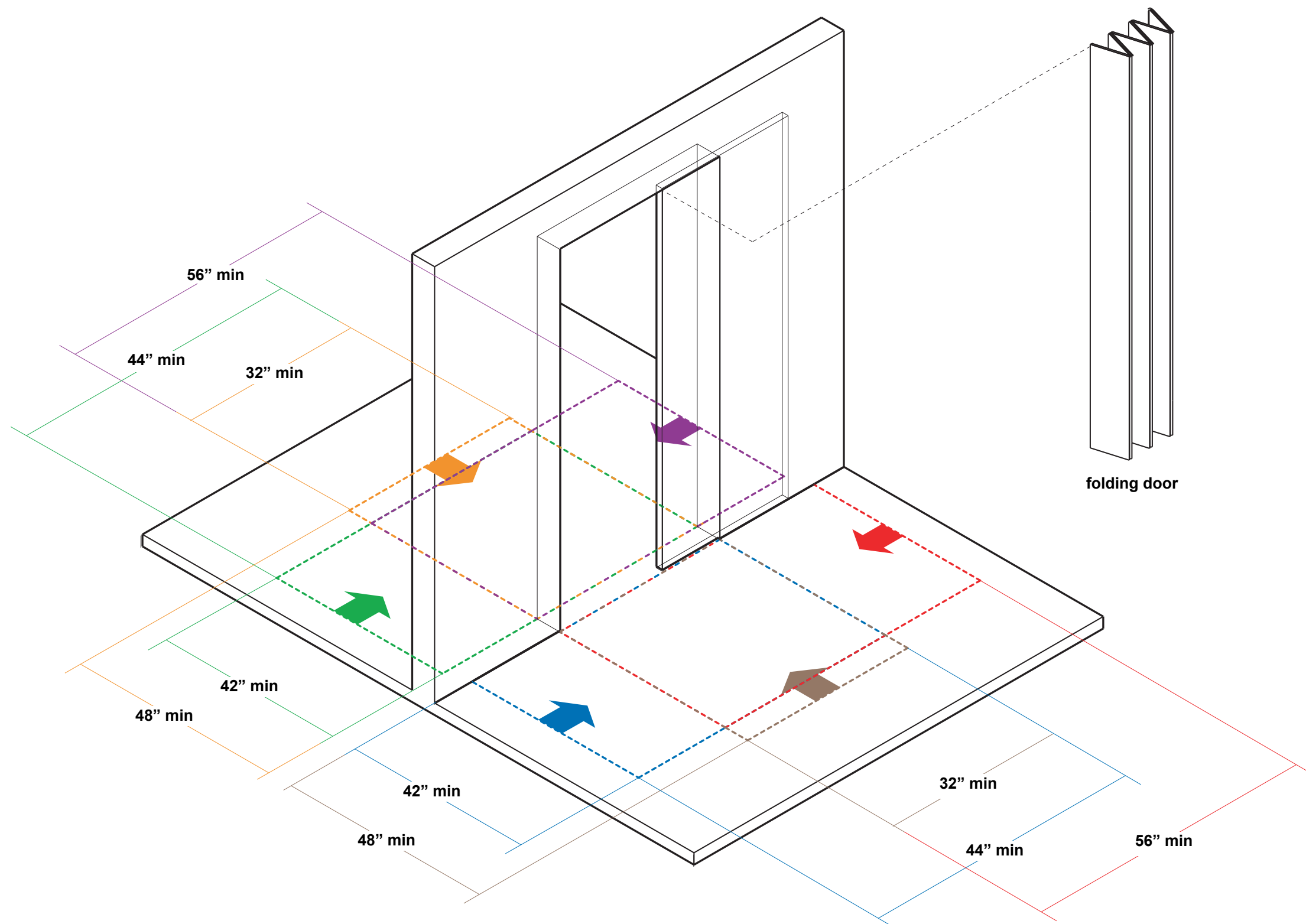
possible combinations

push side | pull side



passageway width = 32" min clearance w/ door in 90° open position (typically 32" of clearance is achieved w/ the use of a nominal 36" or greater door)

Passageways with Sliding / Folding Doors



possible combinations

push side | pull side

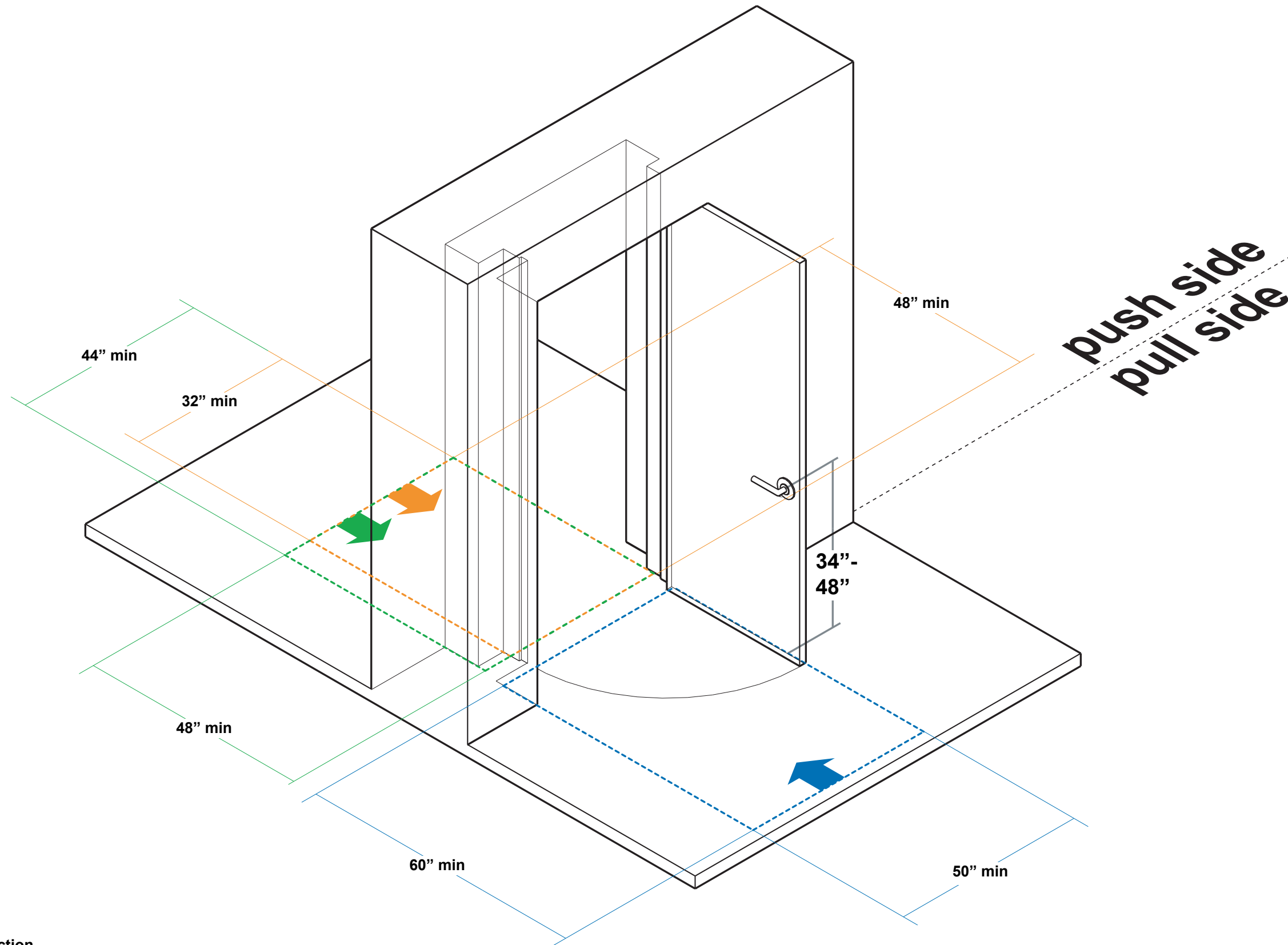
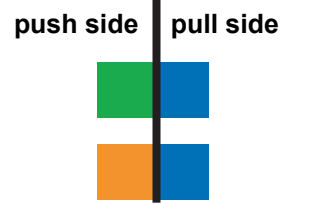



= approach direction

3.13 passageway width = 32" min clearance w/ door in 90° open position (typically 32" of clearance is achieved w/ the use of a nominal 36" or greater door)

Recessed Doors

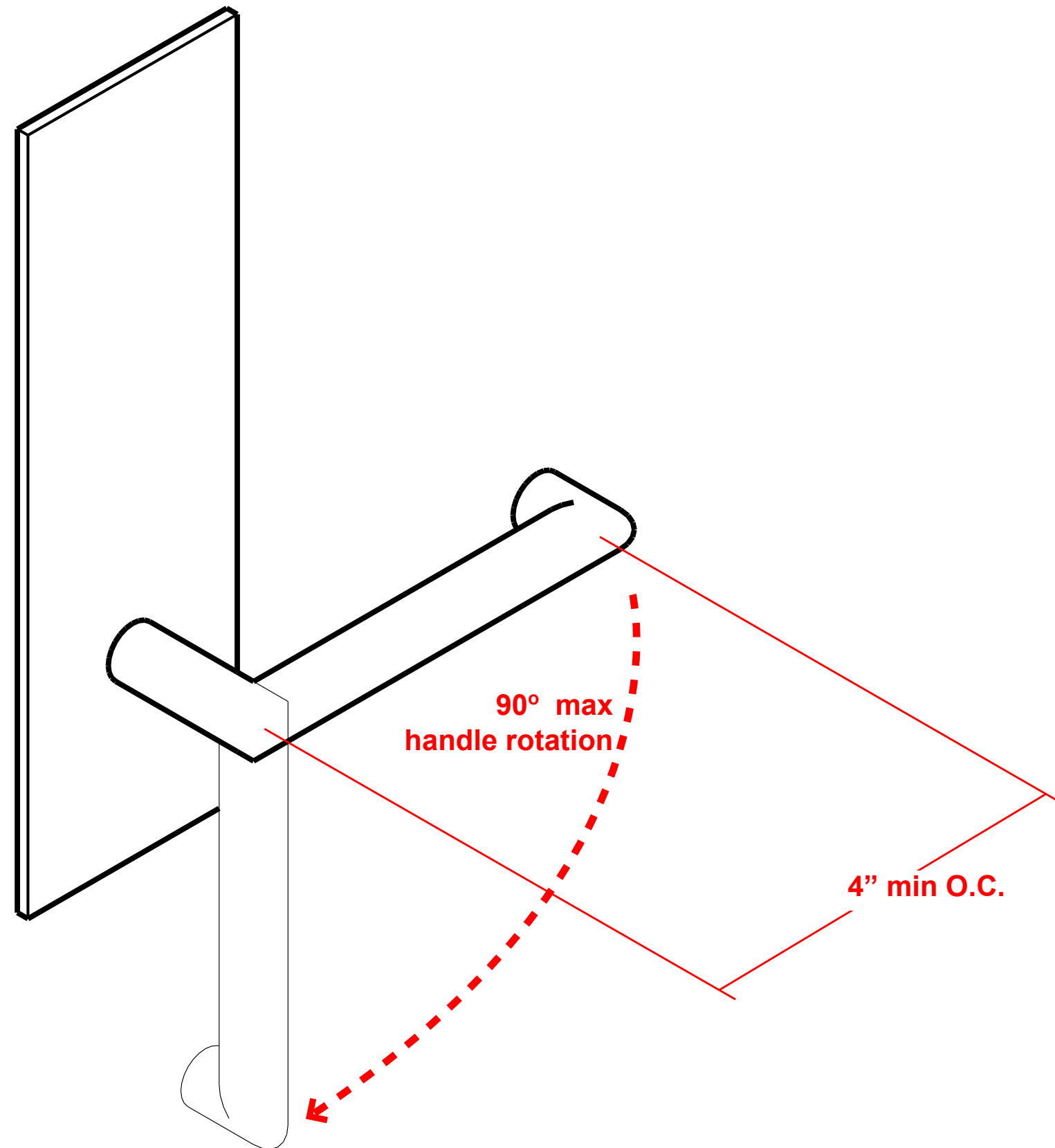
possible combinations



 = approach direction

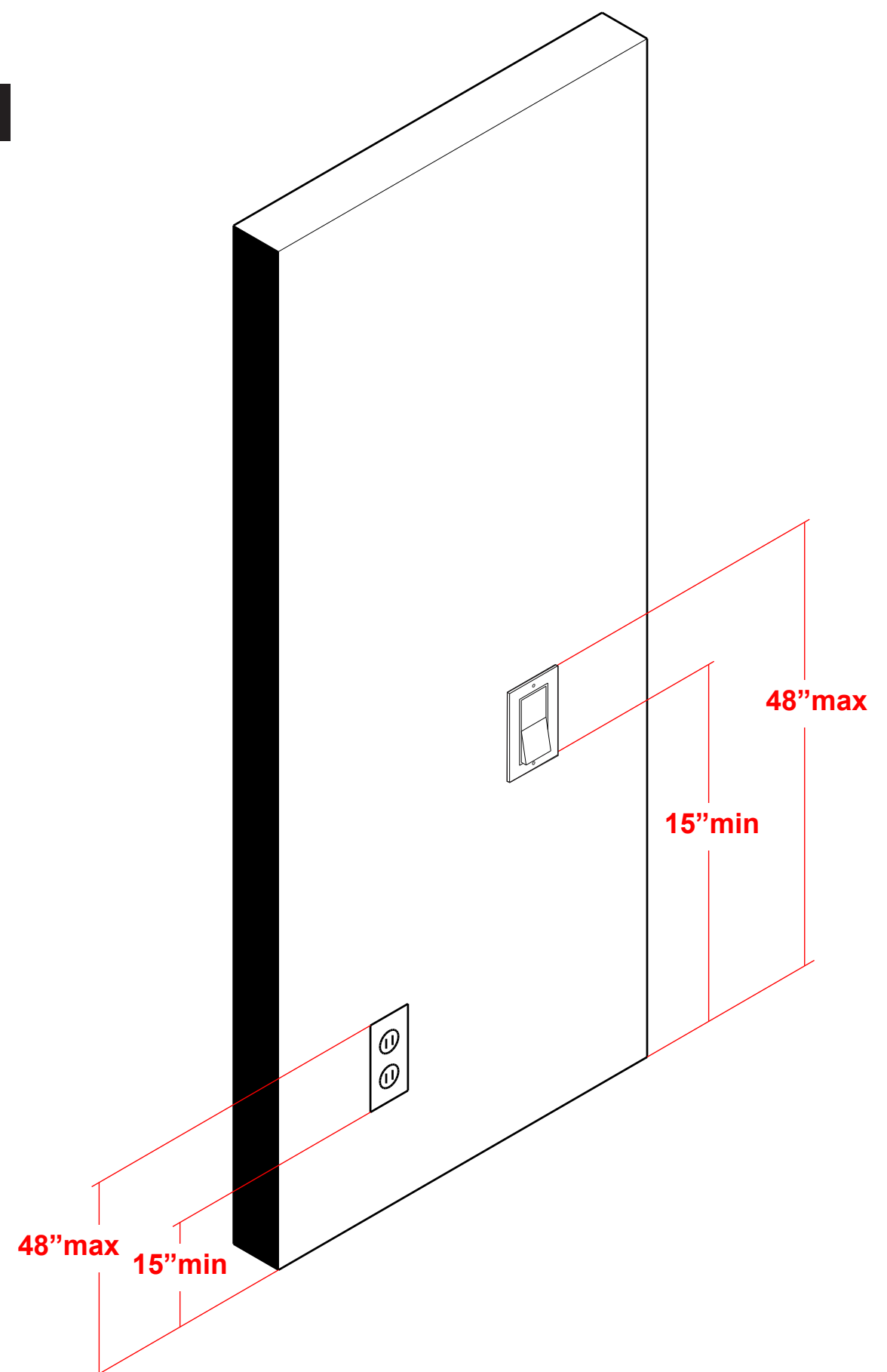
passageway width = 32" min clearance w/ door in 90° open position (typically 32" of clearance is achieved w/ the use of a nominal 36" or greater door)

Interior Door Handles

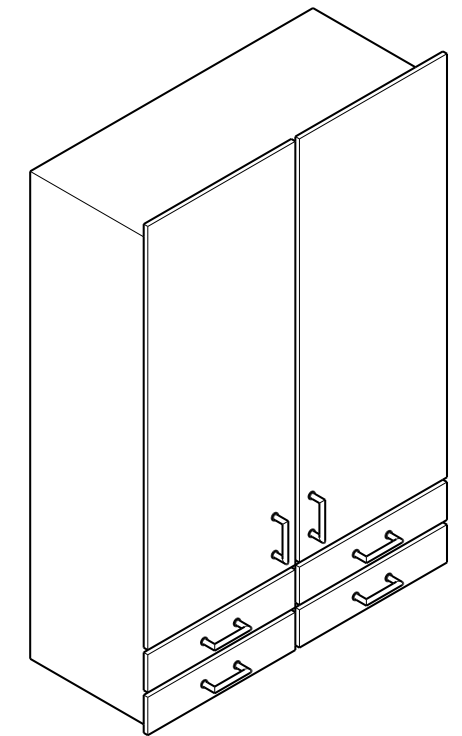
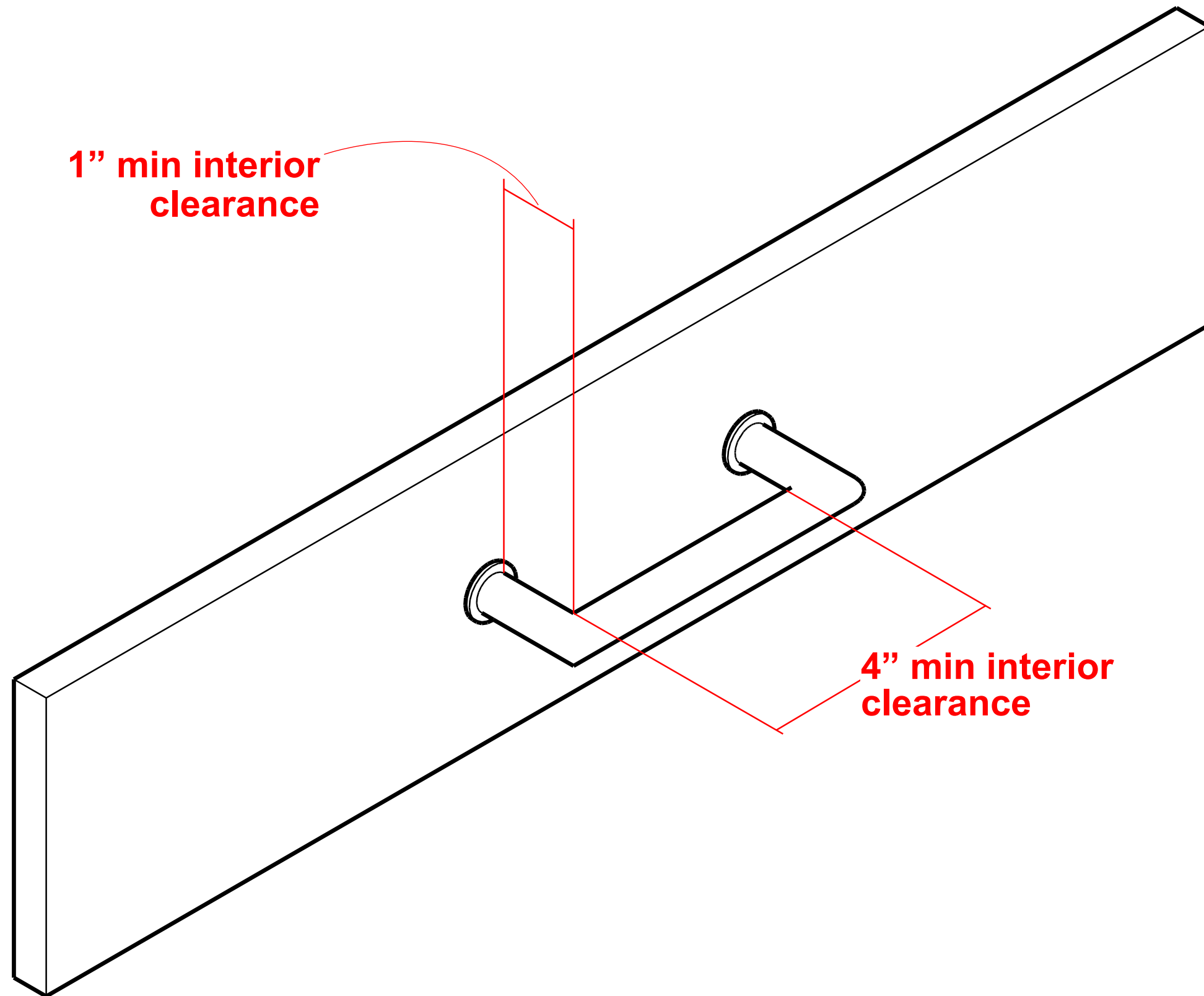


Operable Light Controls

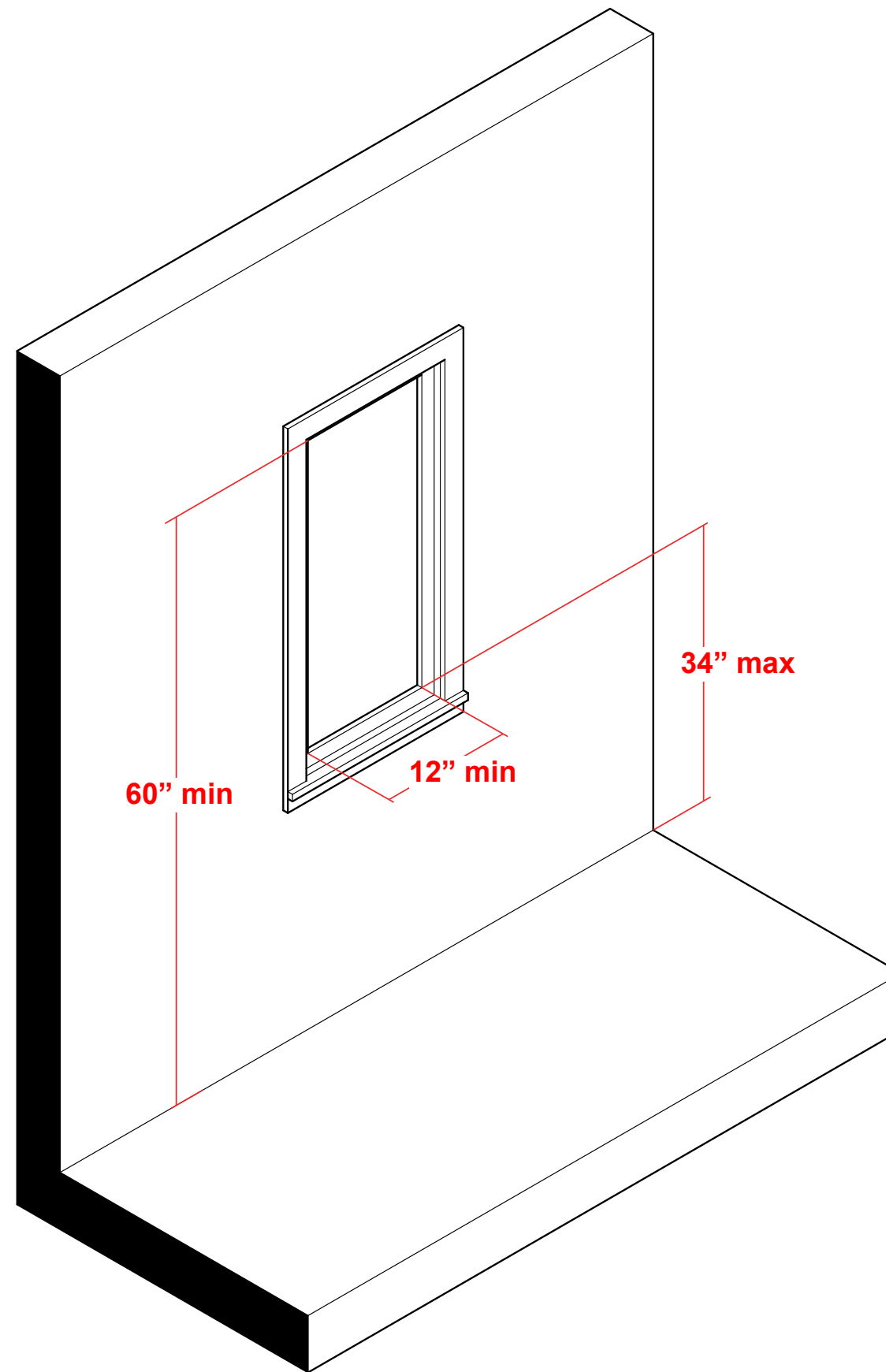
Electrical Outlets at Varying Heights



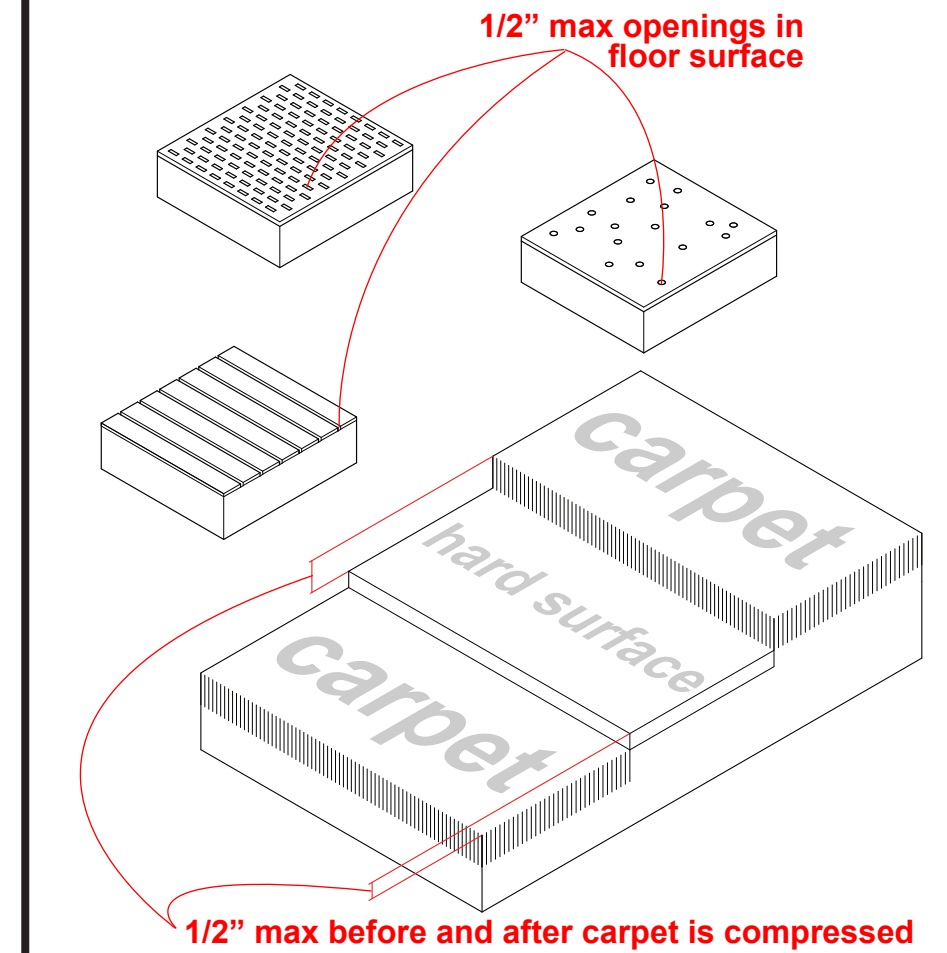
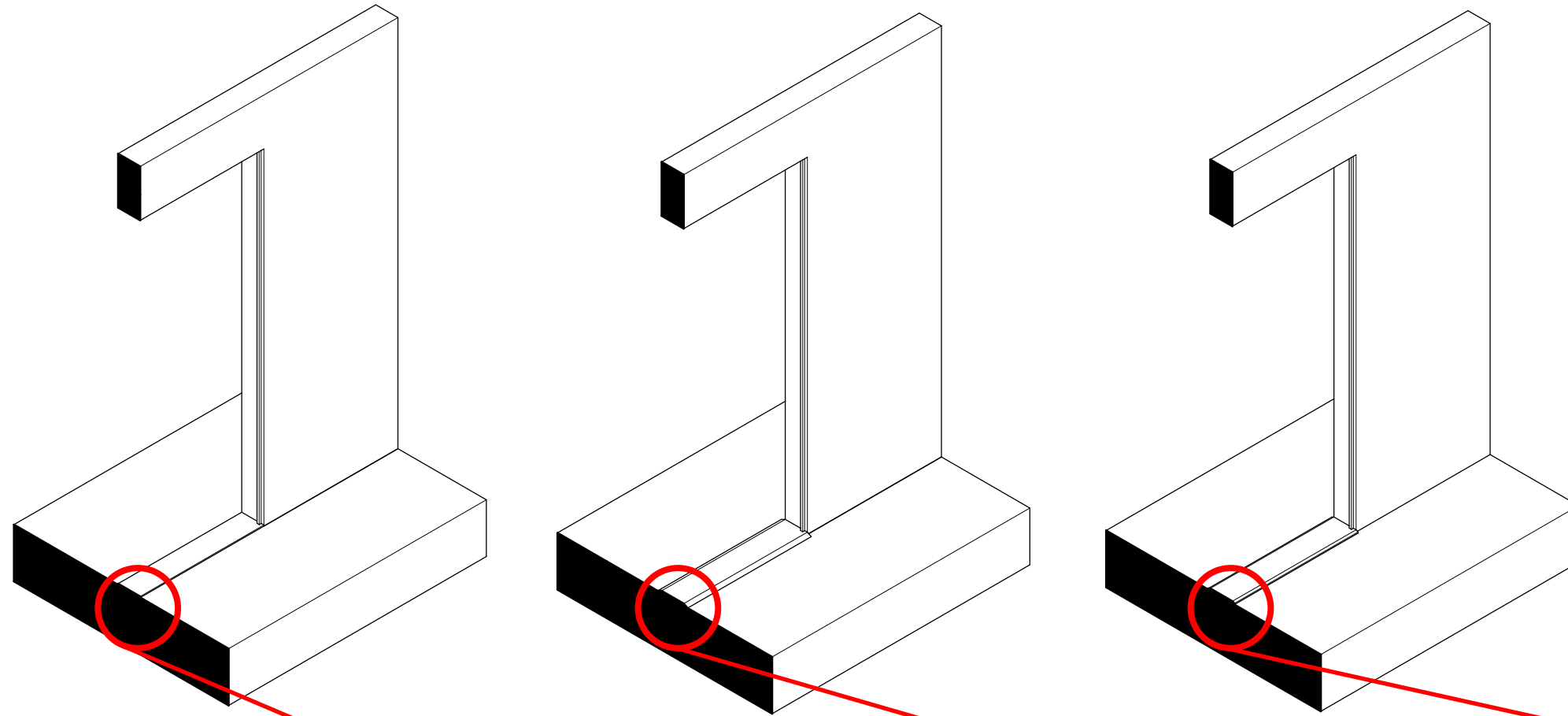
Storage Unit / Drawer Handles



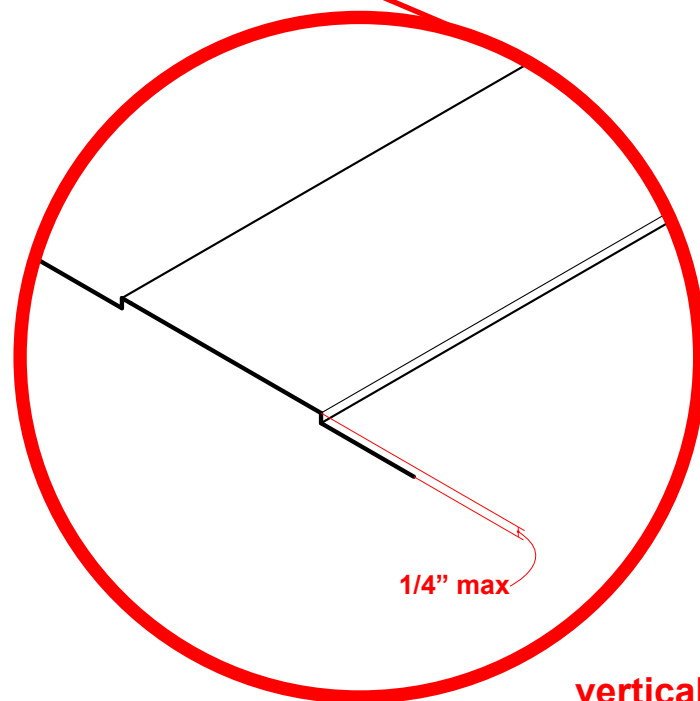
Windows at Various Heights



Door Thresholds

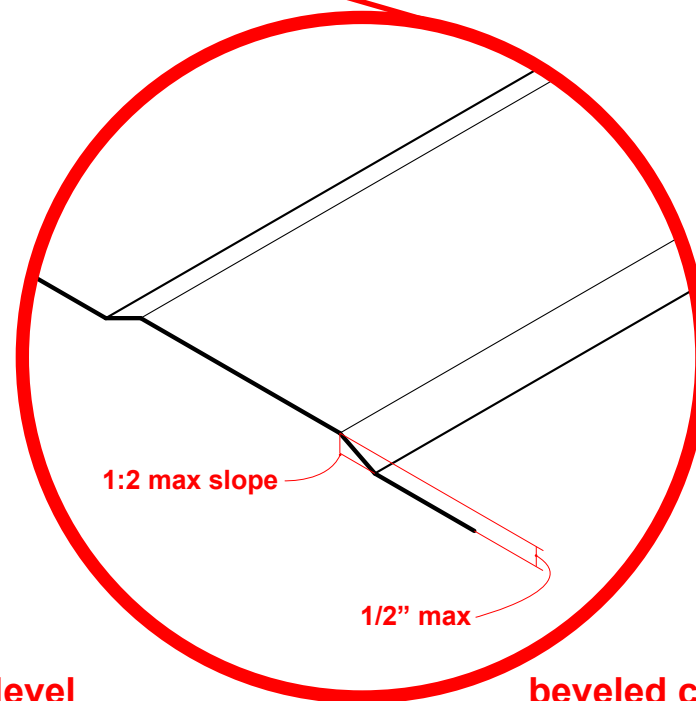


Floor Surfaces



1/4" max

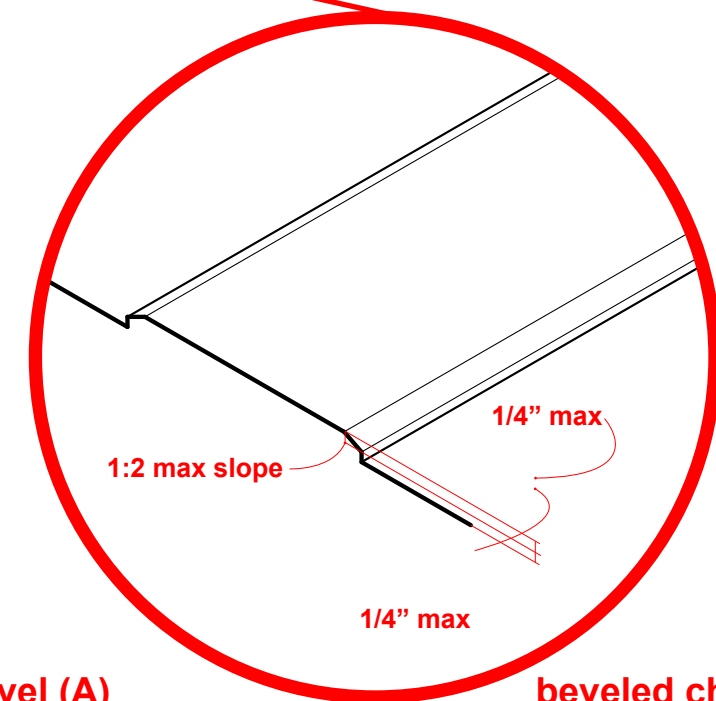
vertical change in level



1:2 max slope

1/2" max

beveled change in level (A)



1:2 max slope

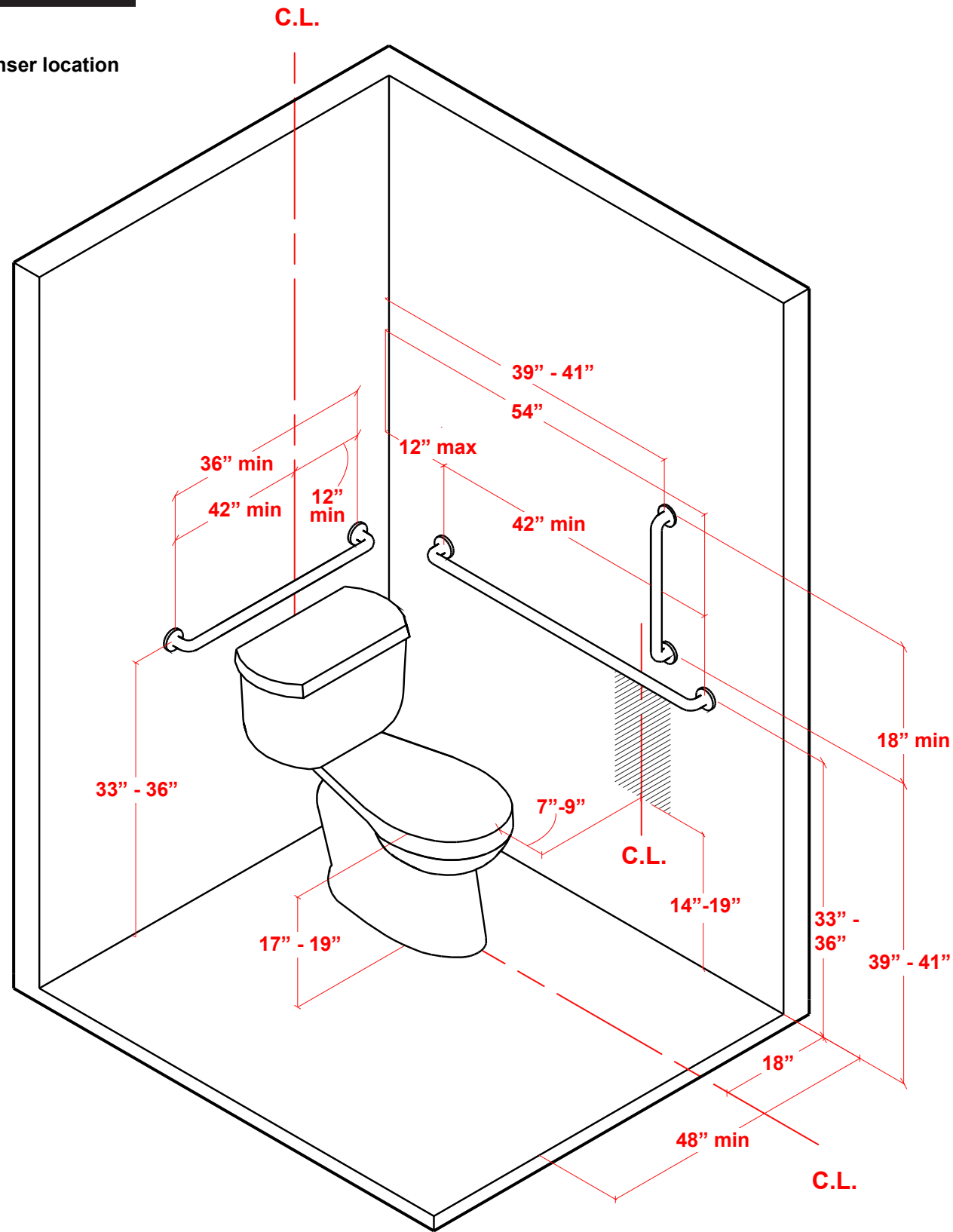
1/4" max

1/4" max

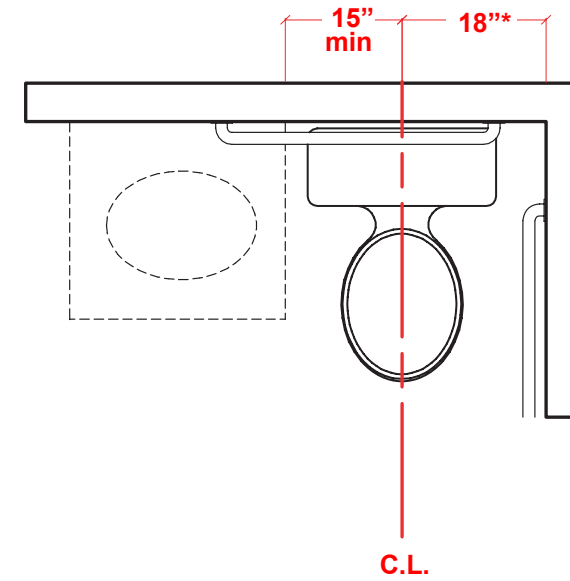
beveled change in level (B)

Water Closets

 = dispenser location

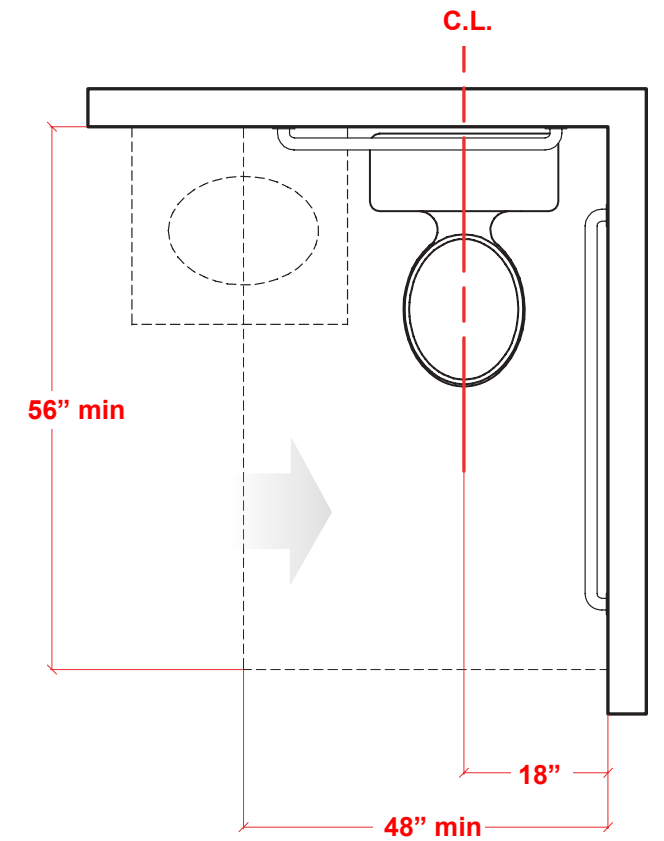


maneuvering space with a diameter of 5' which intersects the centerlines of all plumbing features is required in all toileting spaces

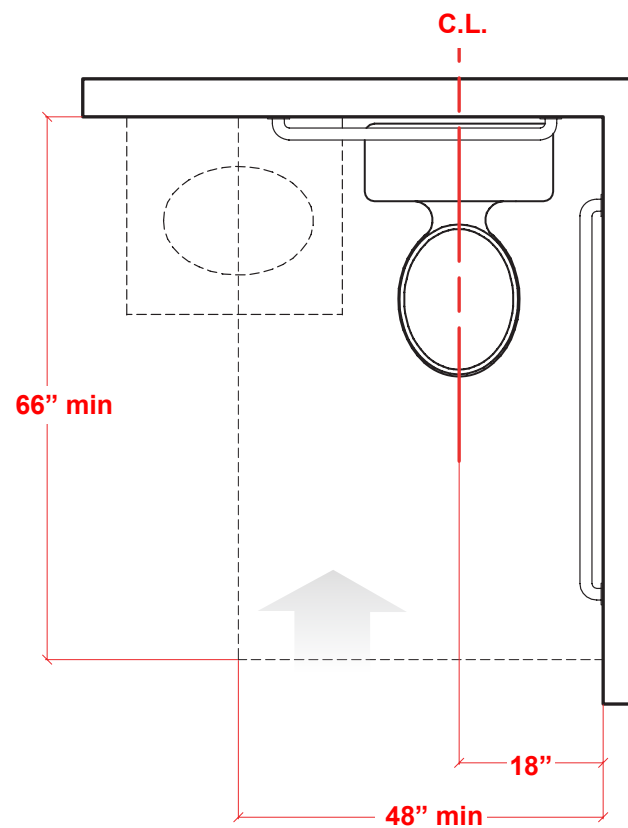


18" minimum to a fixture

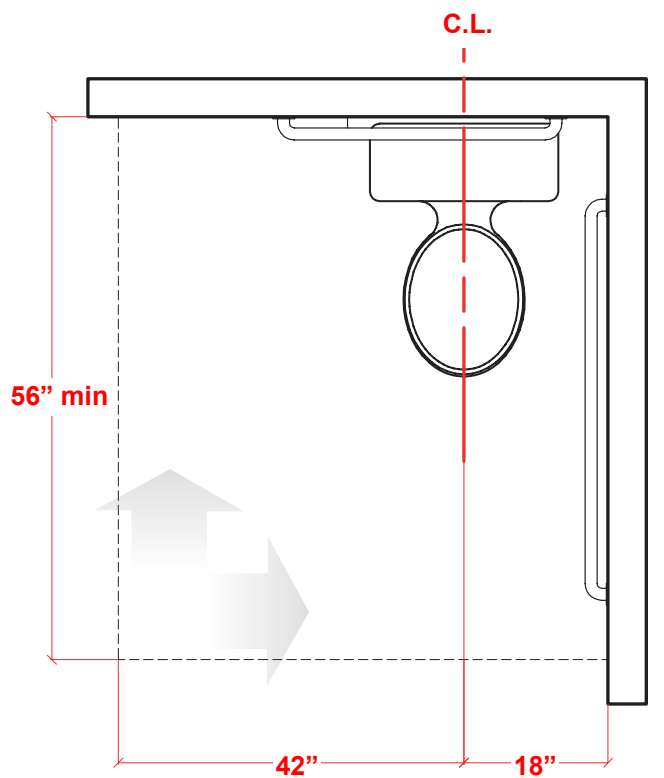
Water Closet Location (a)



Parallel Approach (b)




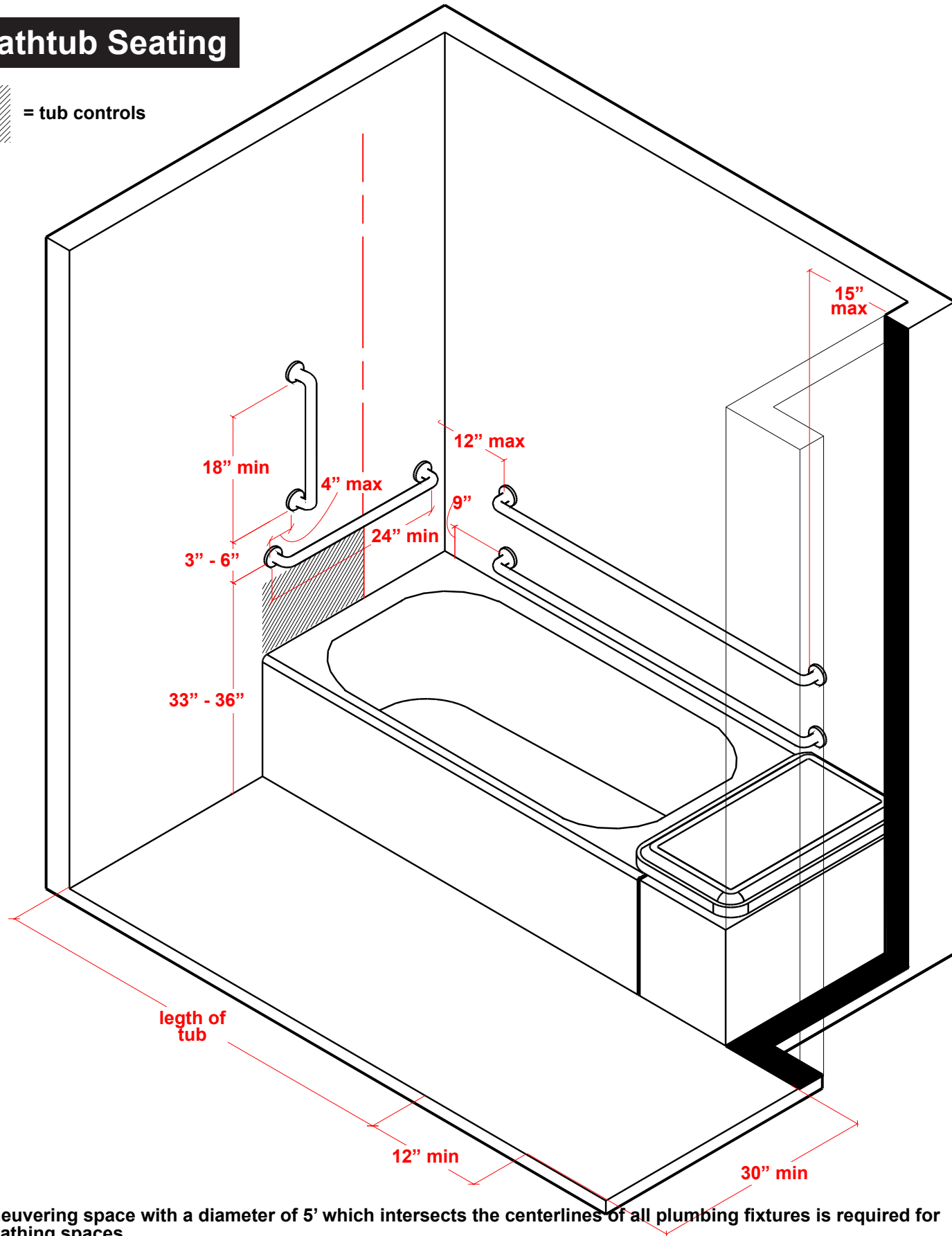
Forward Approach (a)



Parallel or Forward Approach (b)


Bathtub Seating

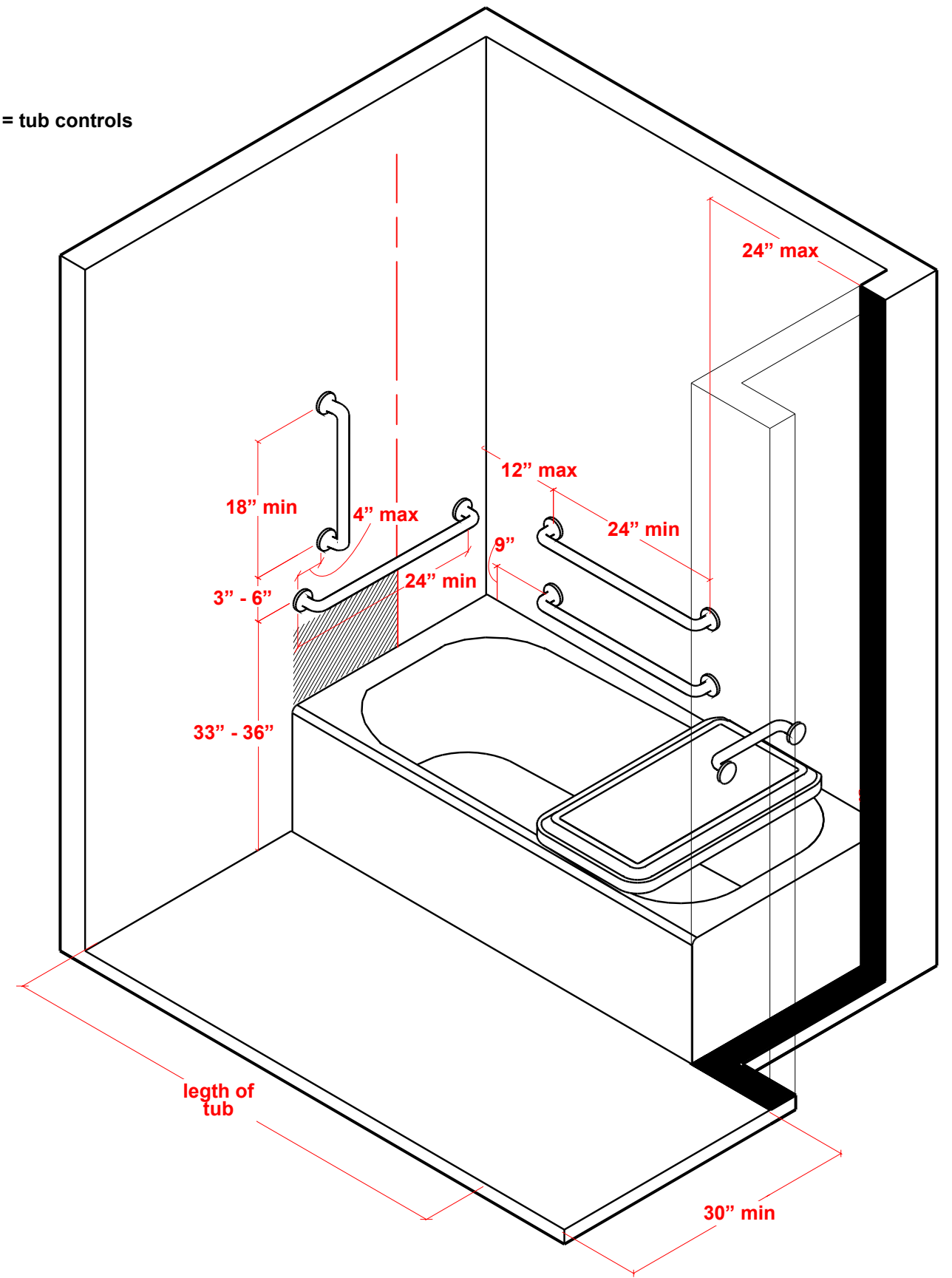
 = tub controls



maneuvering space with a diameter of 5' which intersects the centerlines of all plumbing fixtures is required for all bathing spaces

3.21 Fixed Seating

 = tub controls

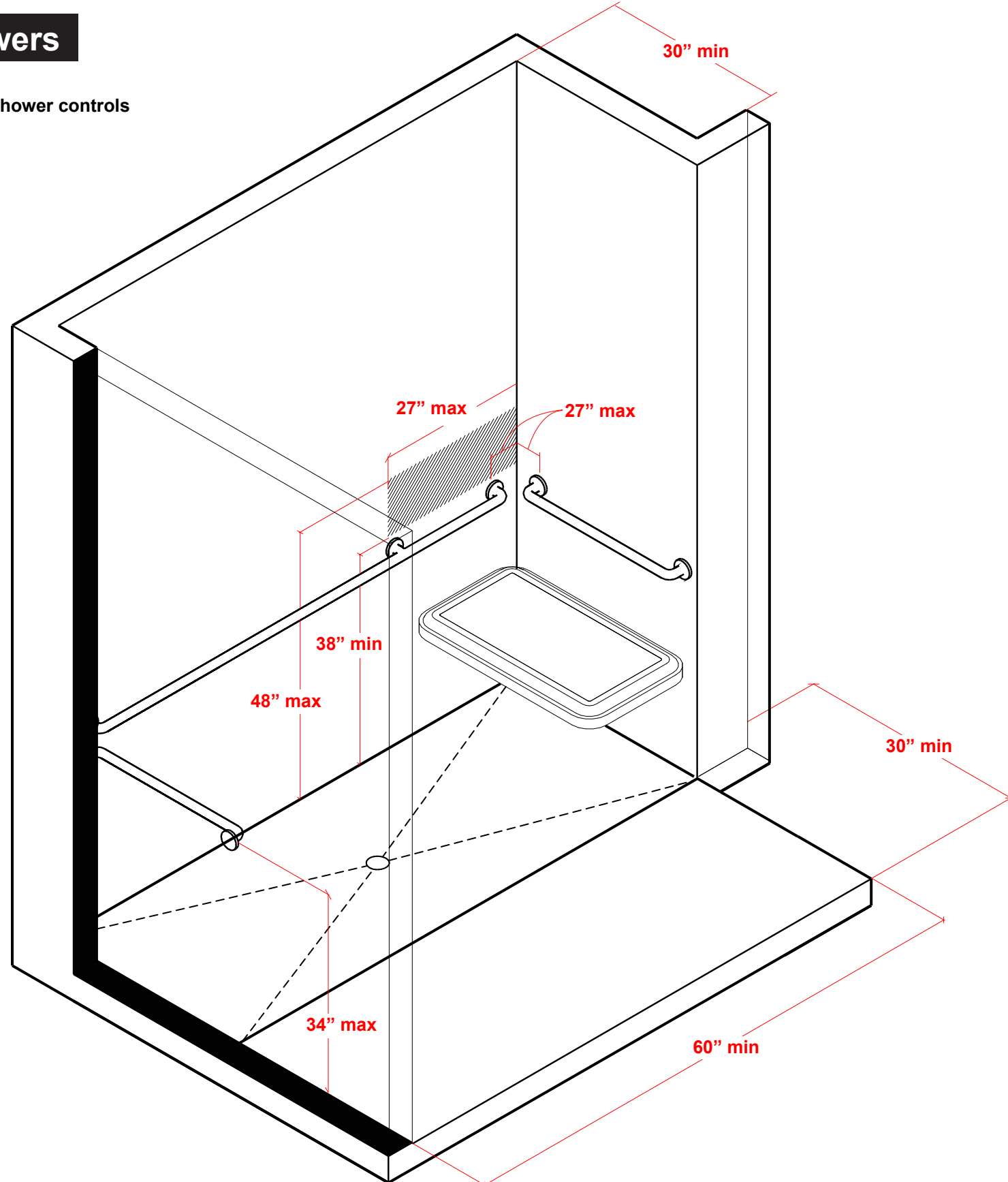


maneuvering space with a diameter of 5' which intersects the centerlines of all plumbing fixtures is required for all bathing spaces

Removable Seating


Showers

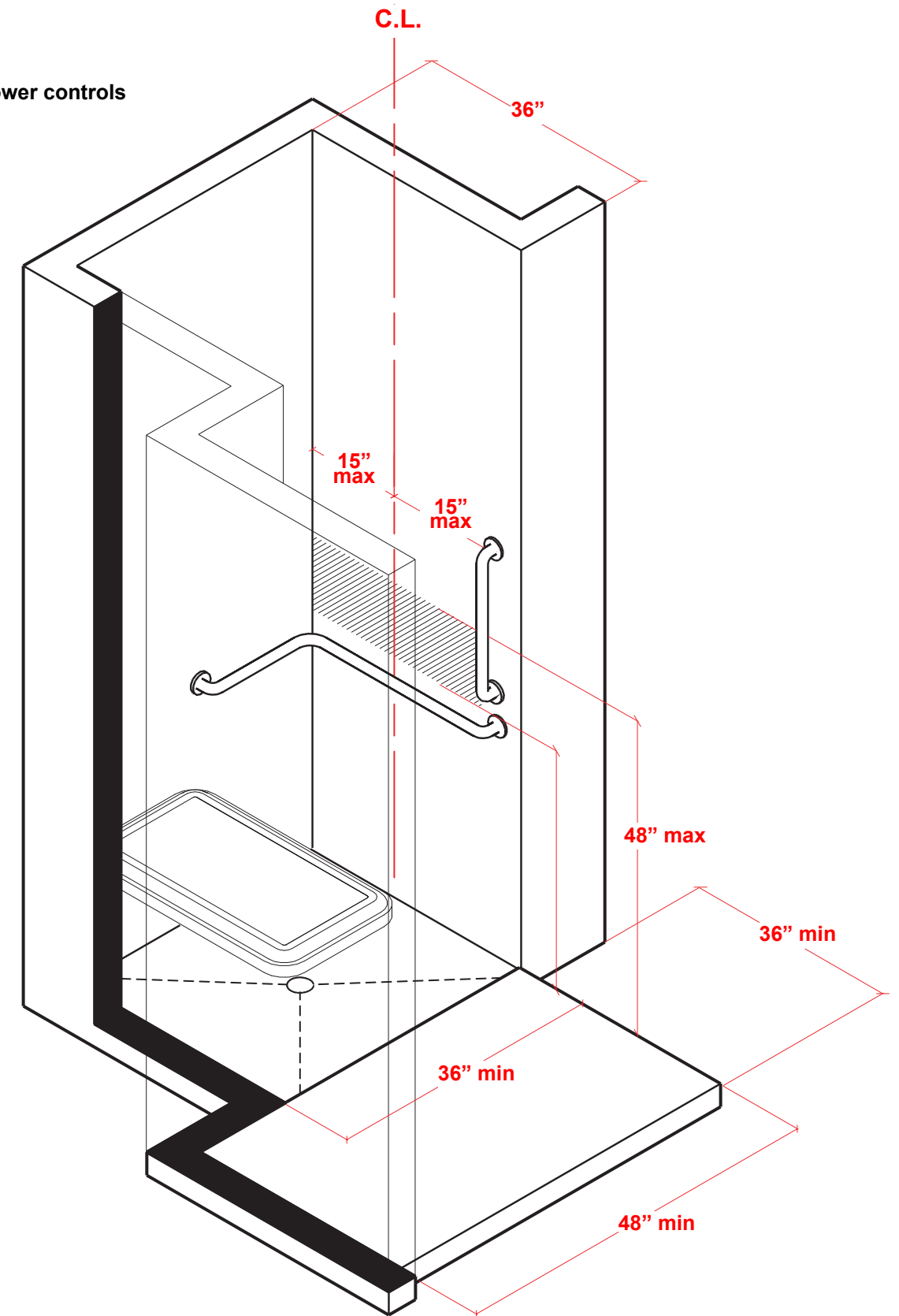
 = shower controls



maneuvering space with a diameter of 5' which intersects the centerlines of all plumbing fixtures is required for all bathing spaces

Roll-in

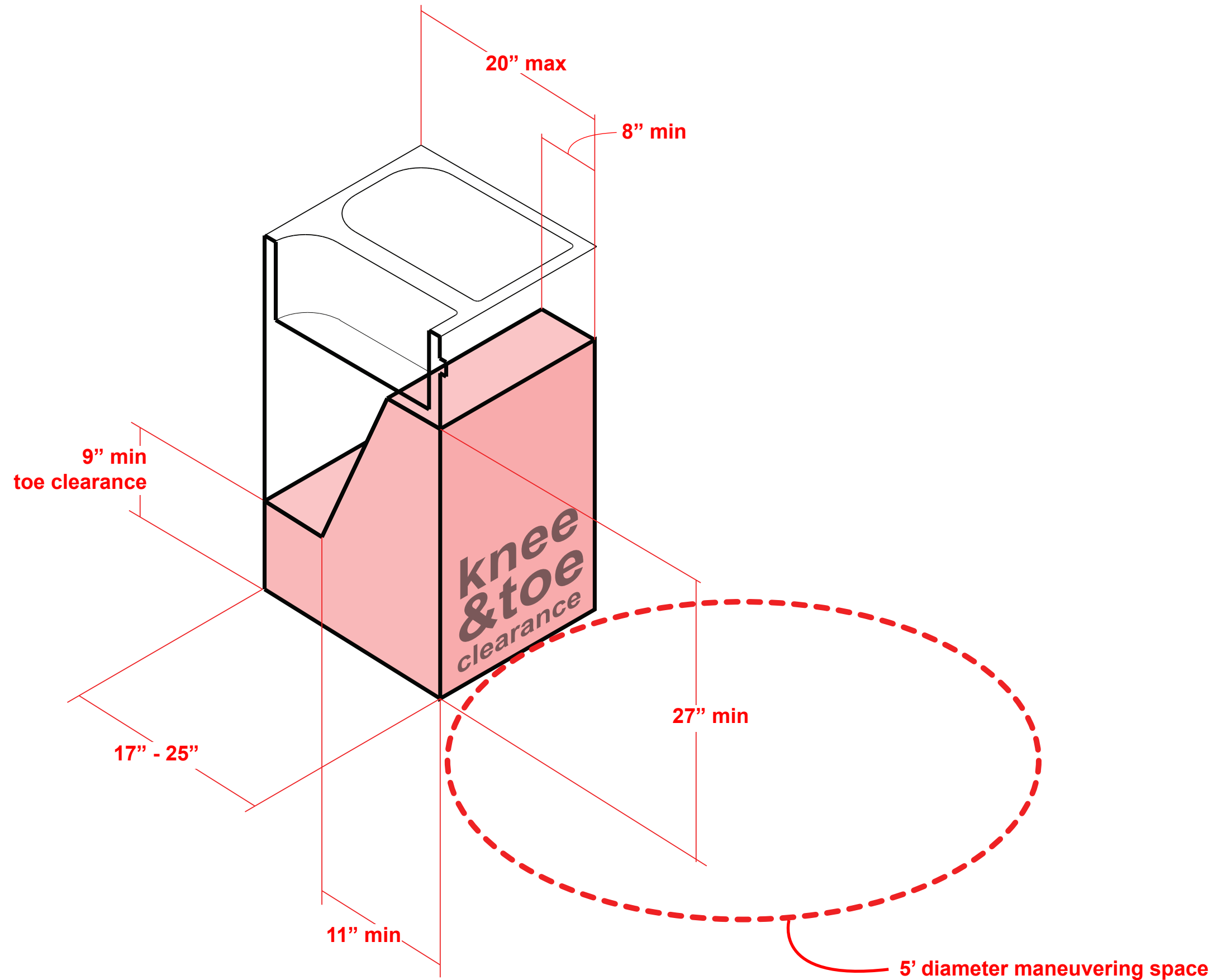
 = shower controls



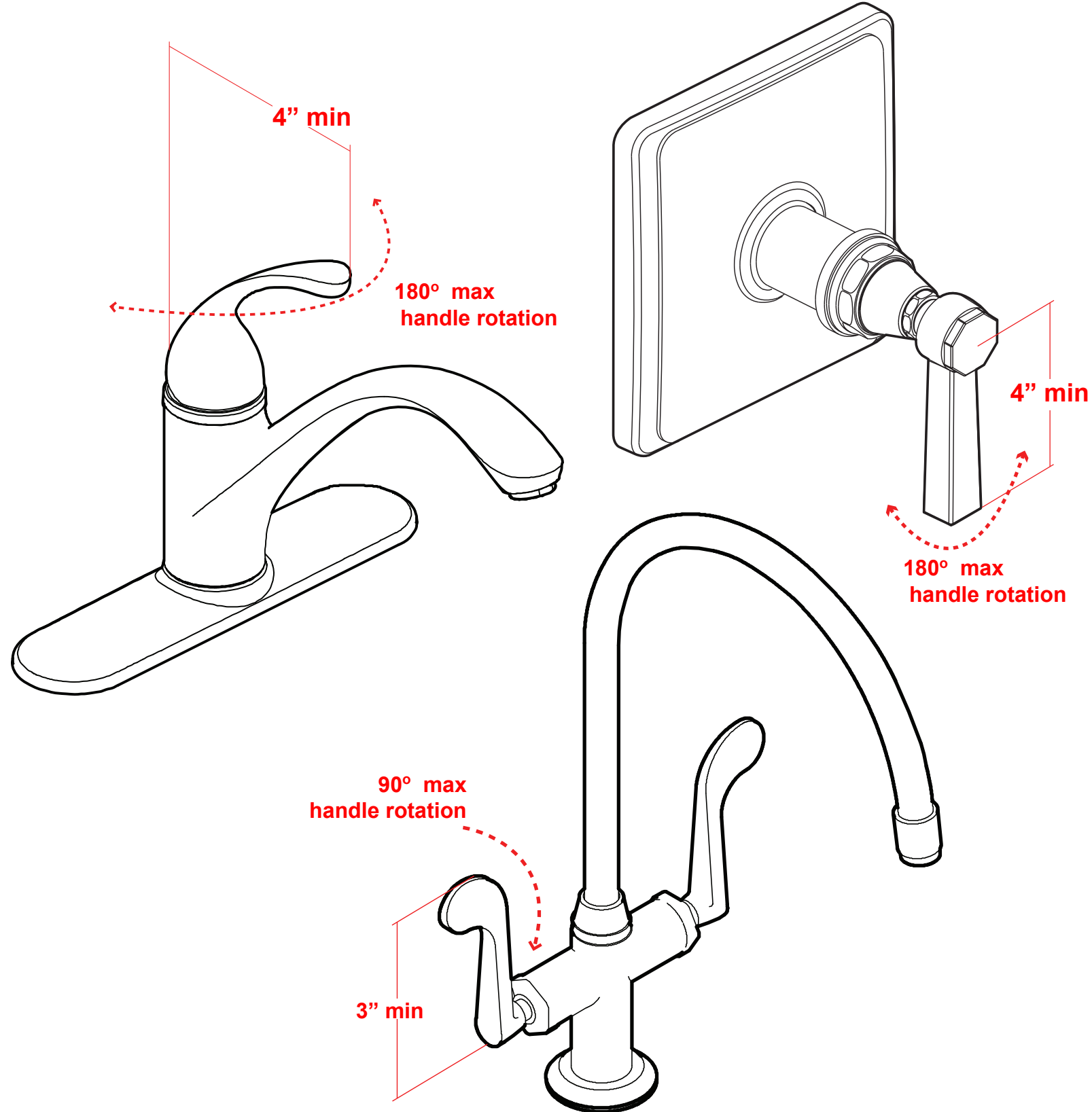
maneuvering space with a diameter of 5' which intersects the centerlines of all plumbing fixtures is required for all bathing spaces

Transfer

Sinks

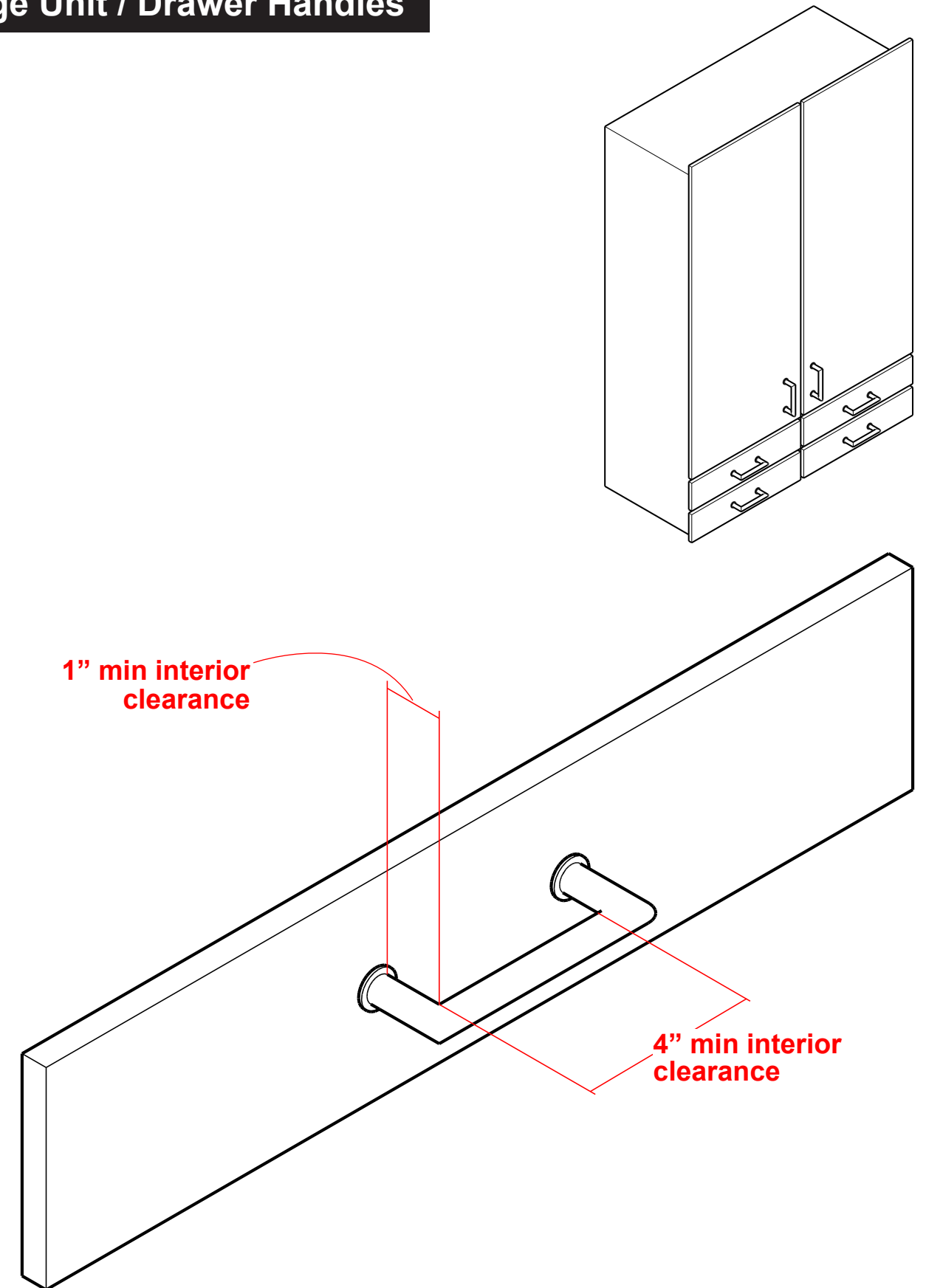


Shower, Bathtub or Sink Faucets: One Handle



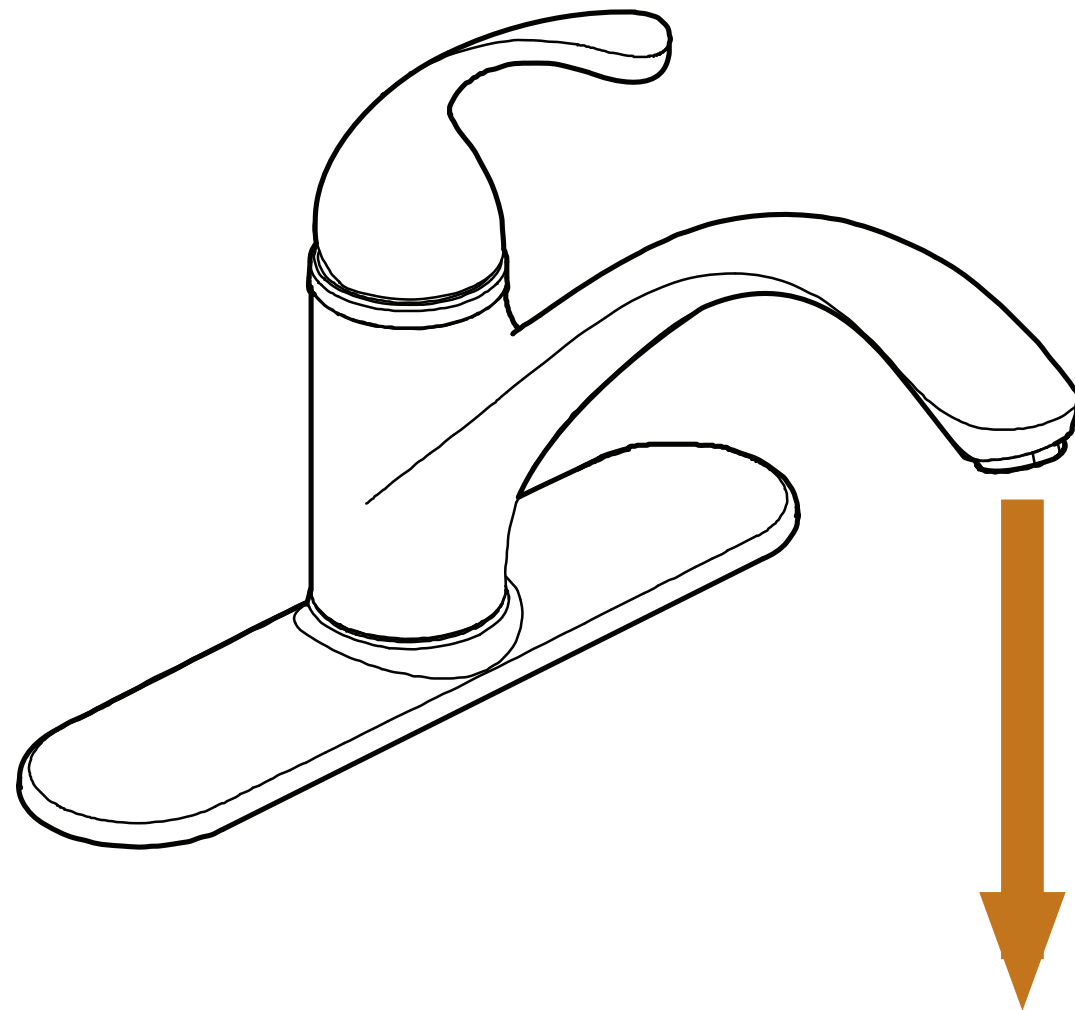
Shower, Bathtub or Sink Faucets: Two Handles

Storage Unit / Drawer Handles

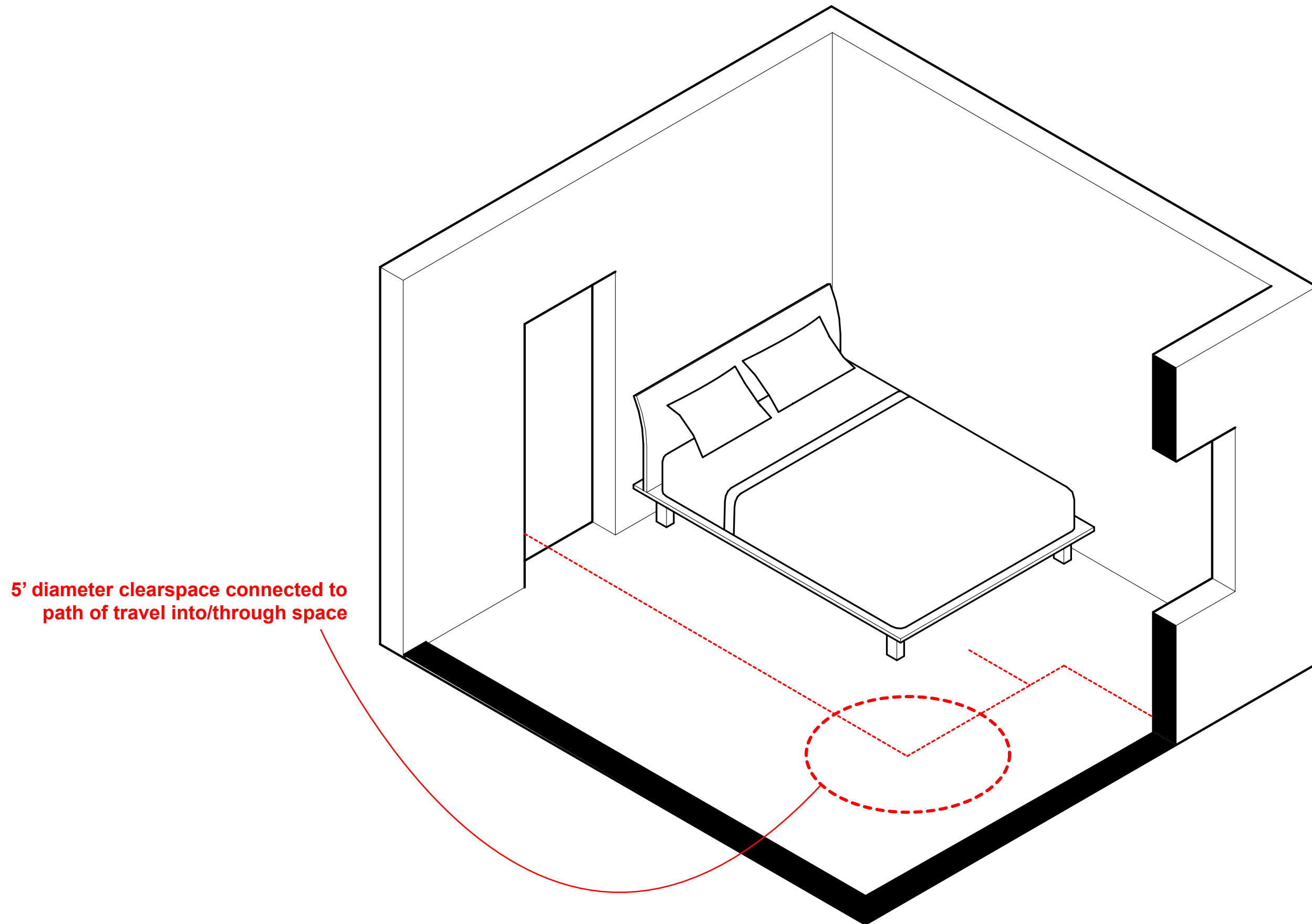


the maximum force required to operate storage units shall not exceed 5 lbs.

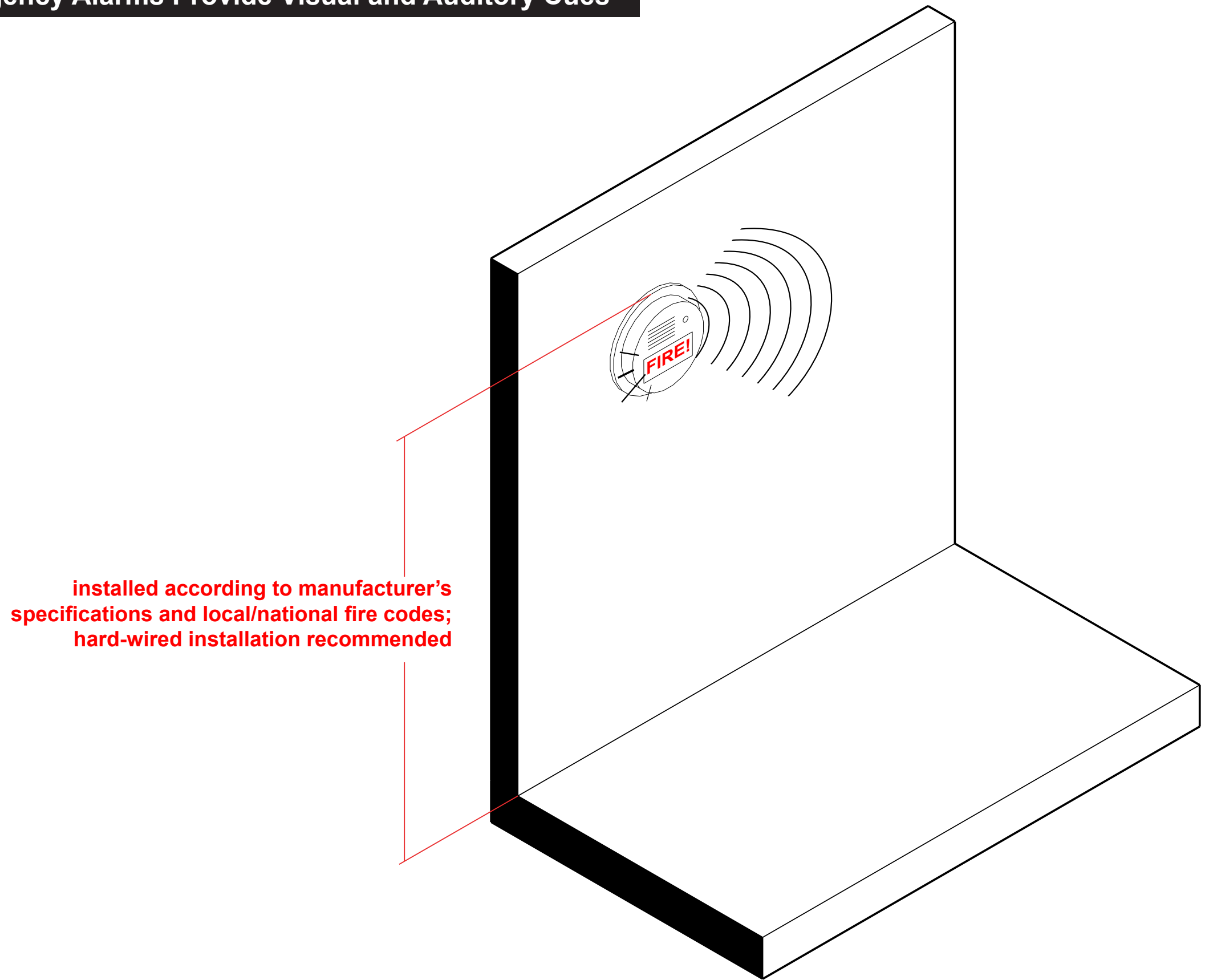
Plumbing Fixtures Prevent Scalding



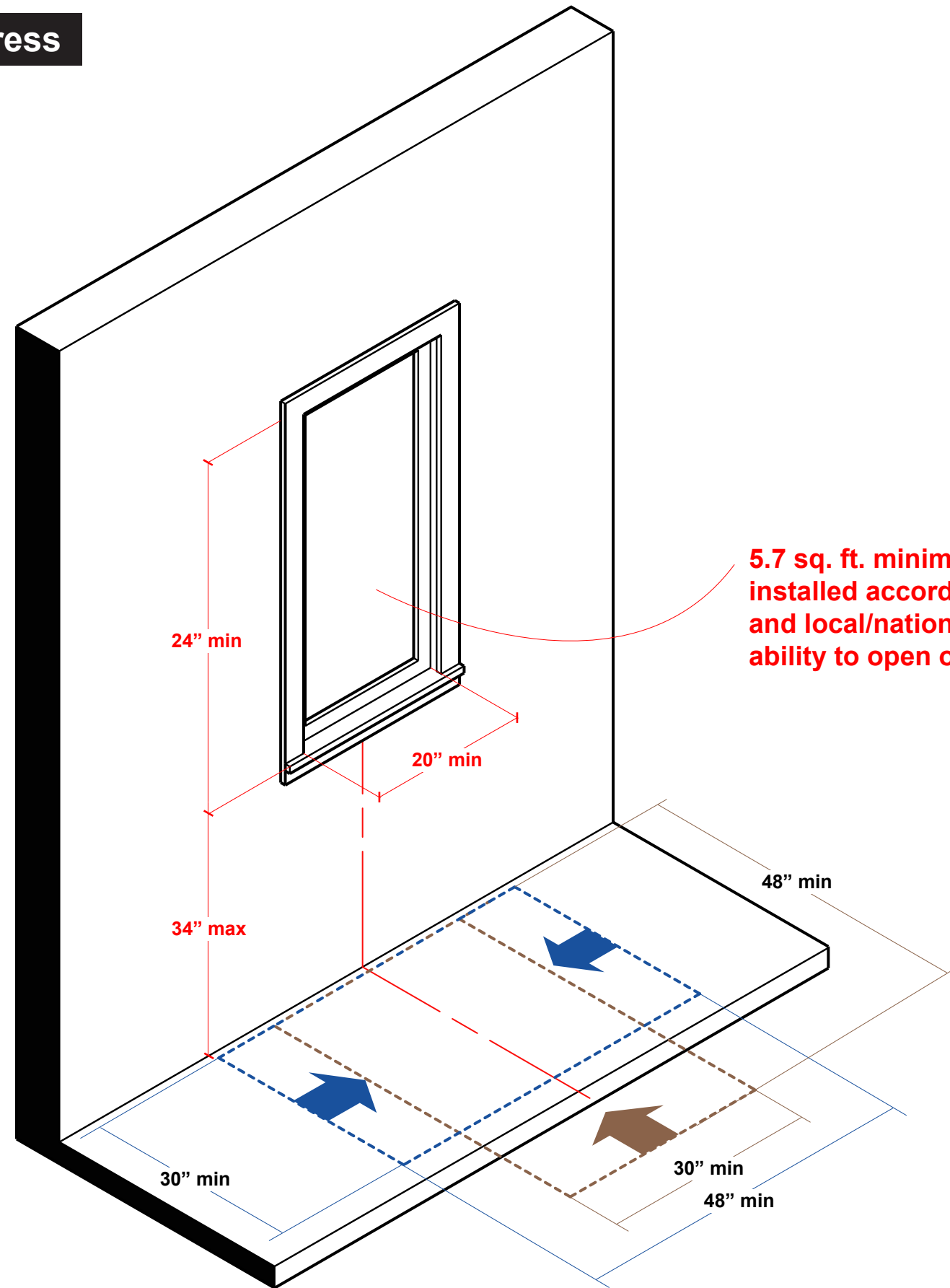
**water temperature
less than 115° F**



Emergency Alarms Provide Visual and Auditory Cues

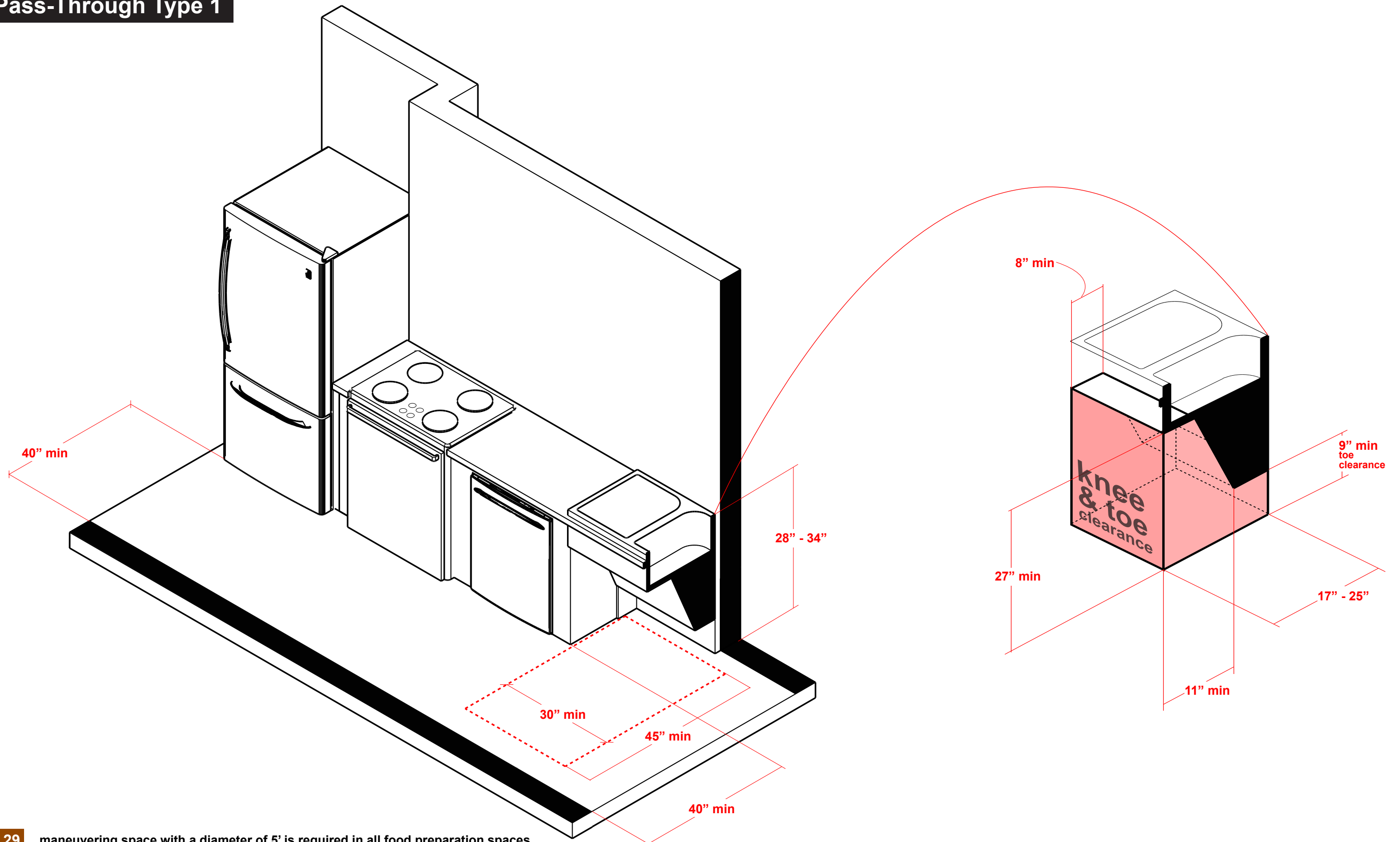


Window Egress



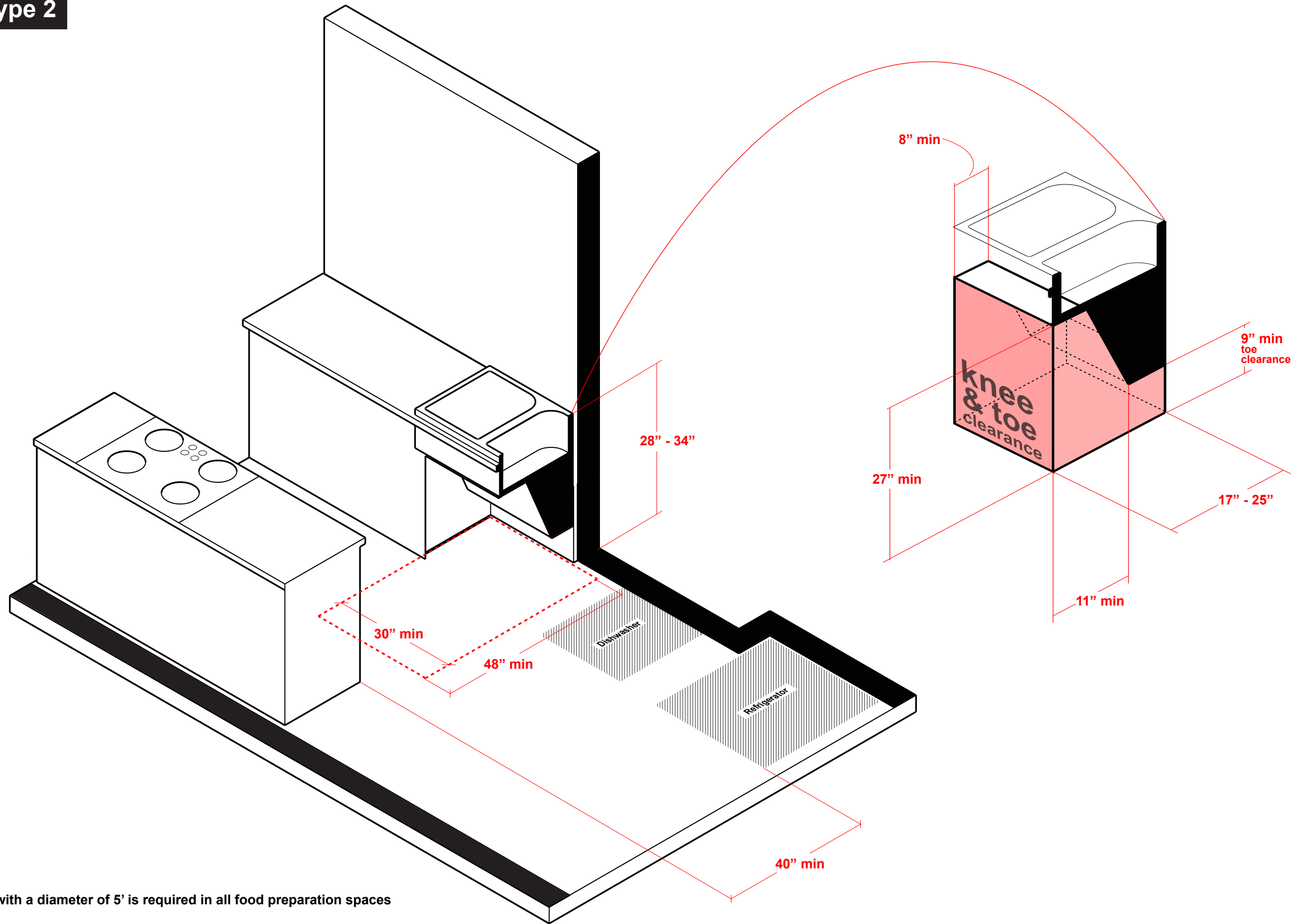
5.7 sq. ft. minimum net clear operable opening; installed according to manufacturer's specifications and local/national fire codes; egress hardware and ability to open outward 90° recommended

Pass-Through Type 1



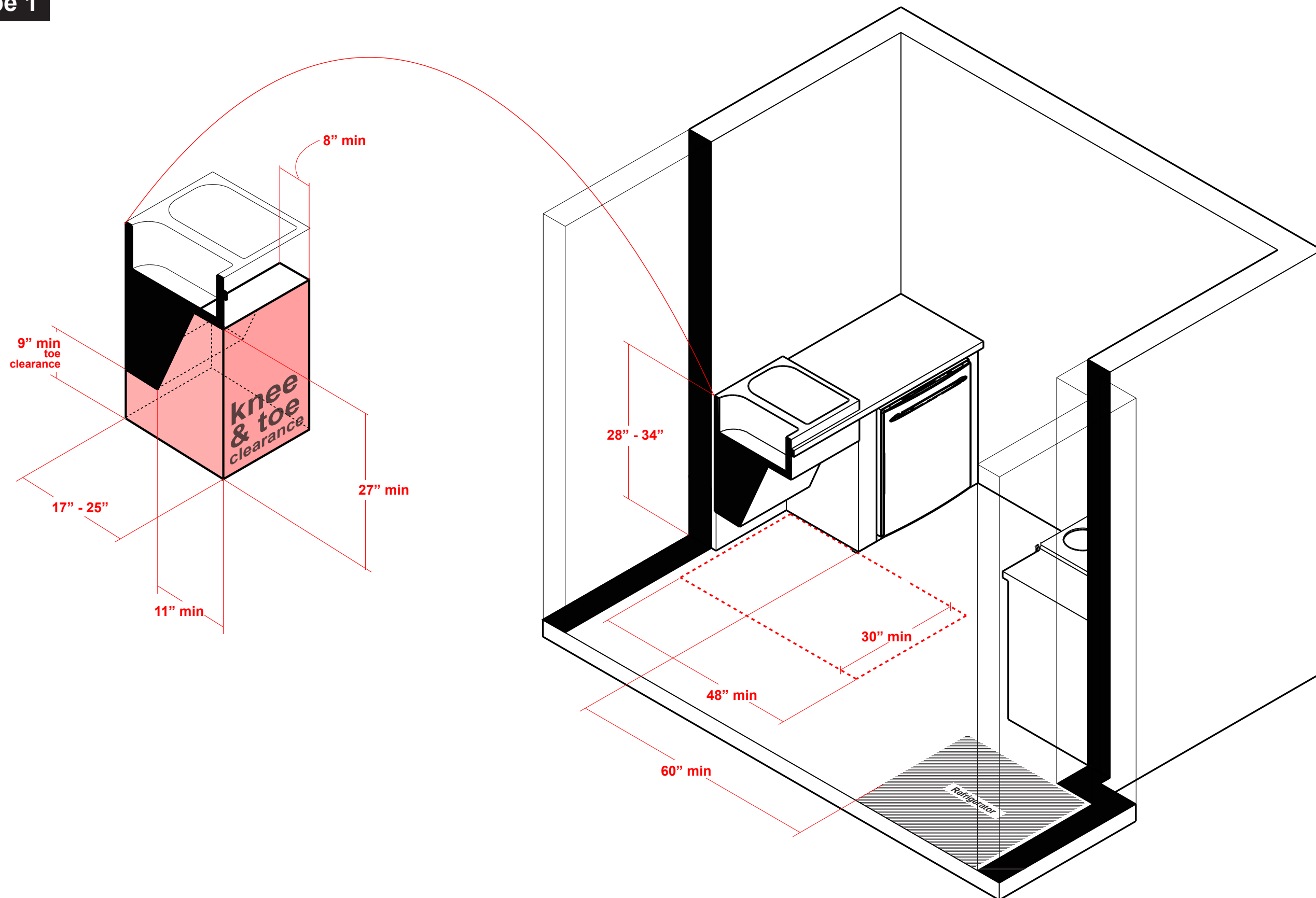
3.29 maneuvering space with a diameter of 5' is required in all food preparation spaces

Pass-Through Type 2

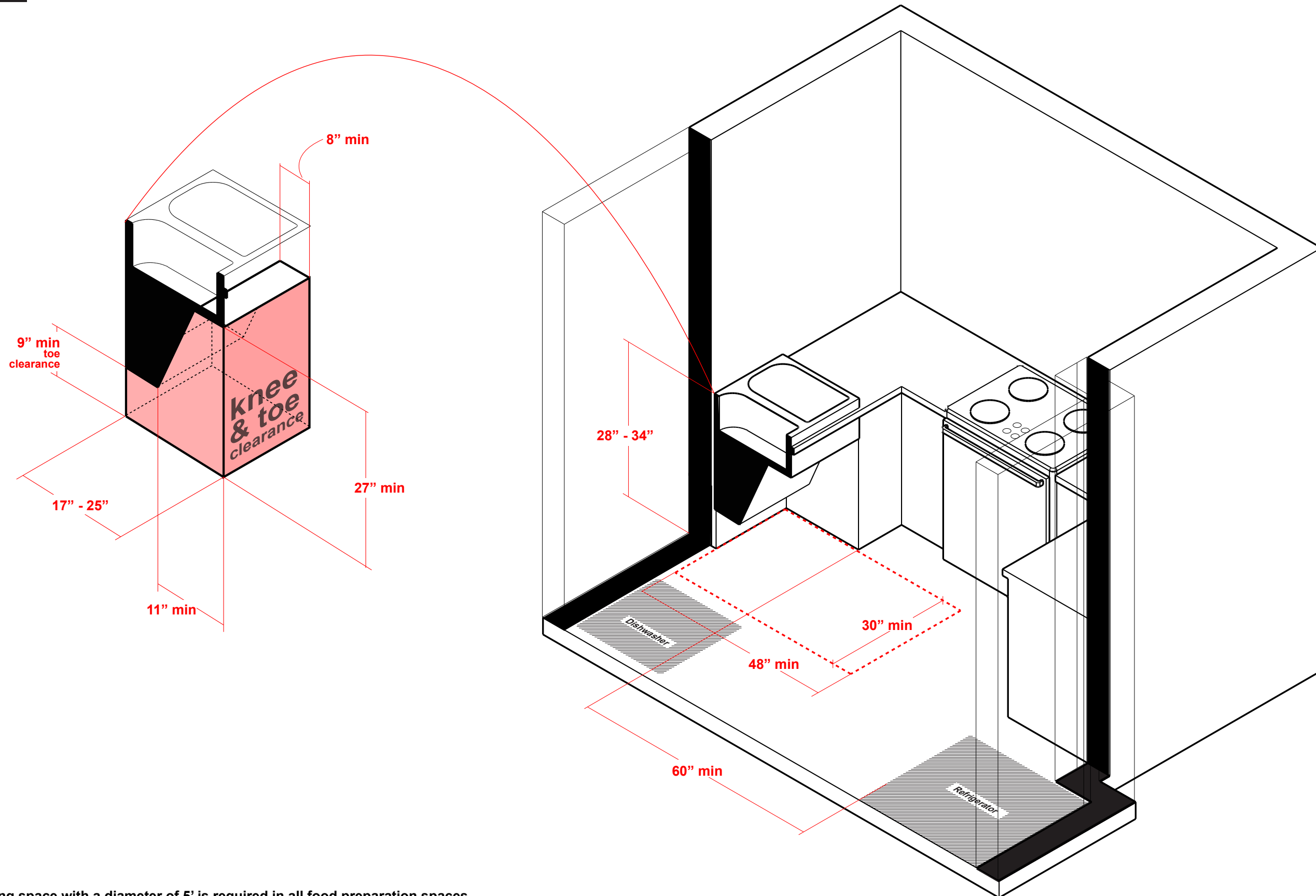


maneuvering space with a diameter of 5' is required in all food preparation spaces

“U” Type 1

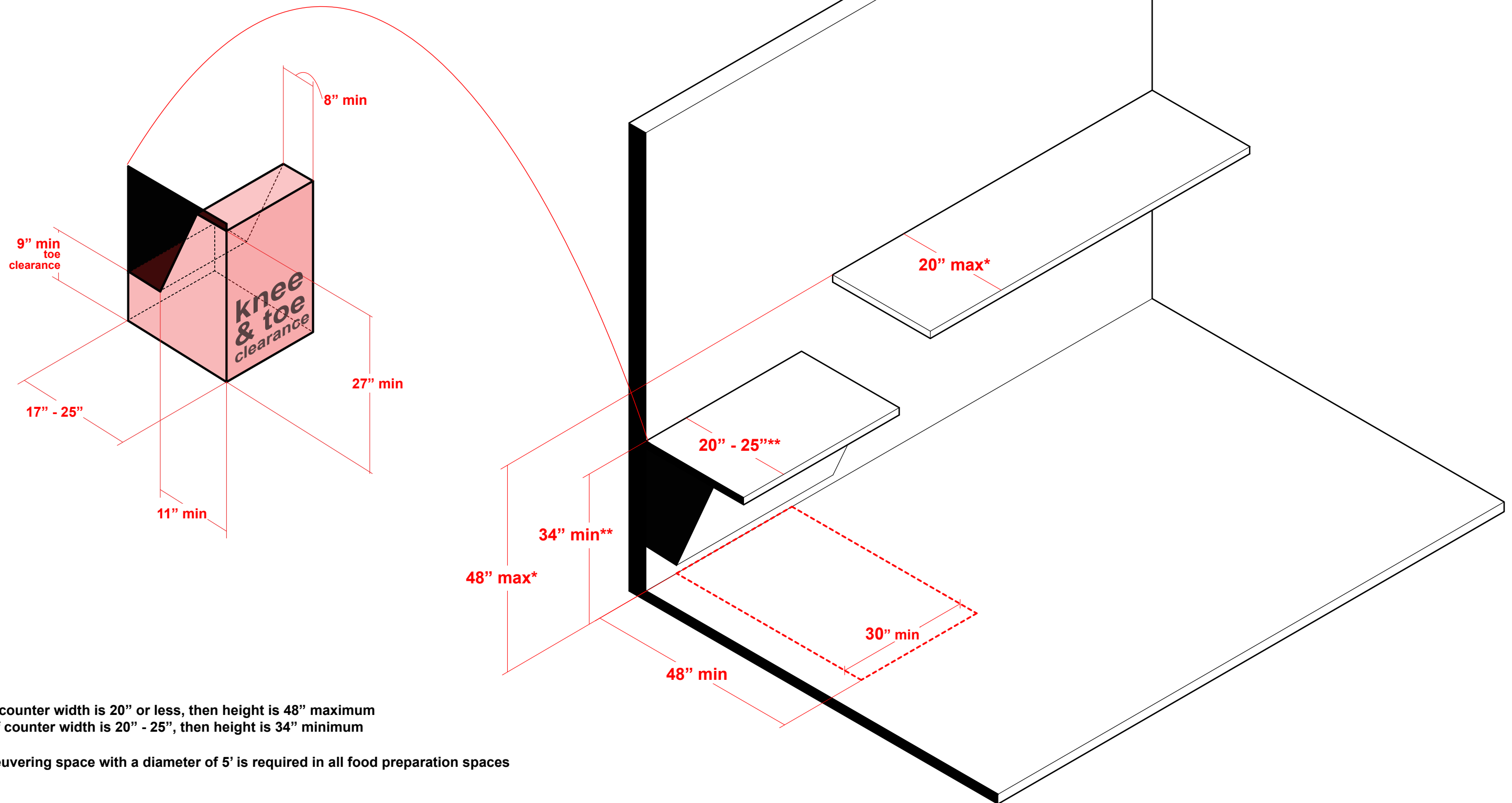


“U” Type 2



maneuvering space with a diameter of 5' is required in all food preparation spaces

Work Surfaces at Varying Heights



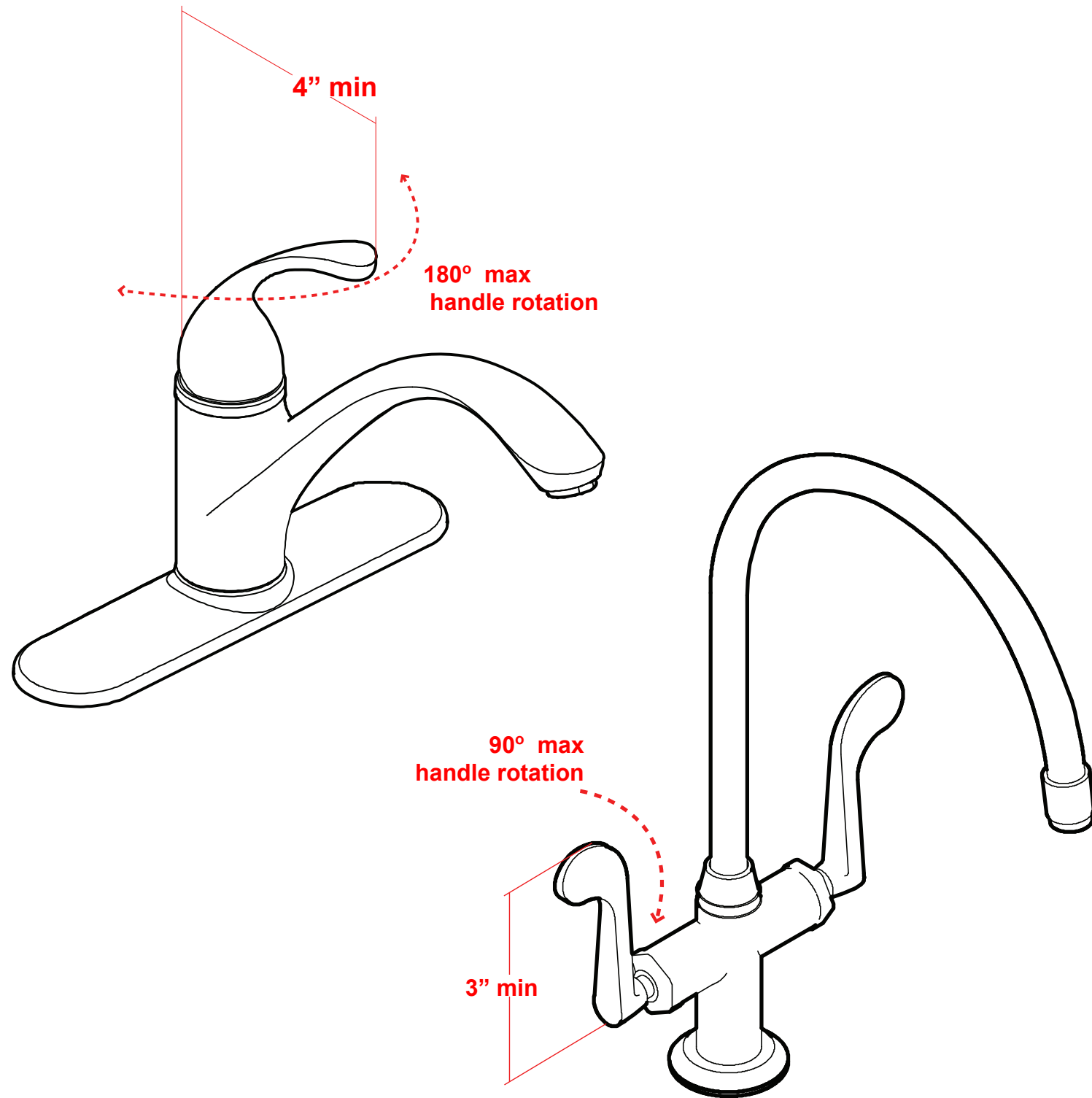
* = if counter width is 20" or less, then height is 48" maximum

** = if counter width is 20" - 25", then height is 34" minimum

3.33

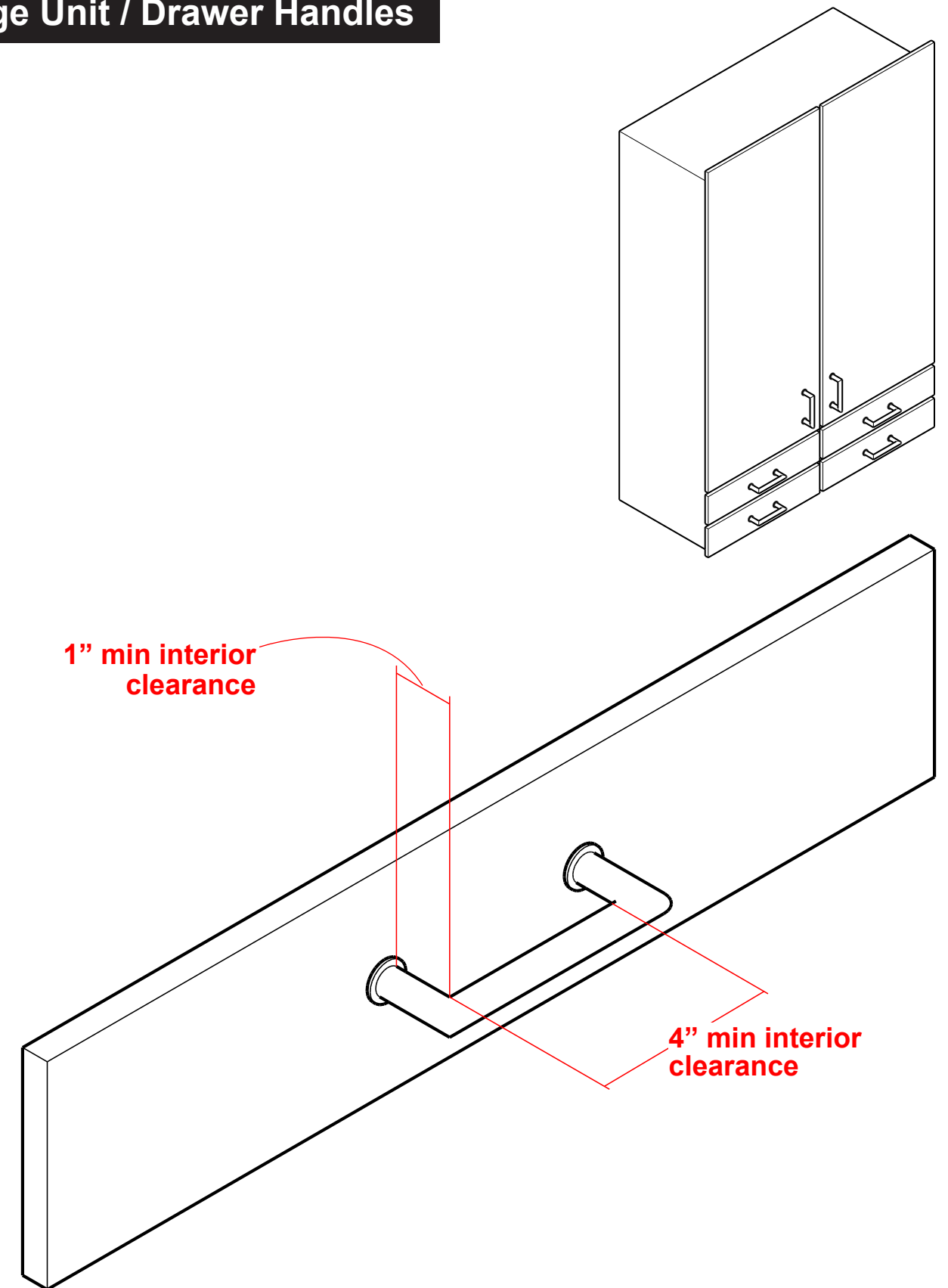
maneuvering space with a diameter of 5' is required in all food preparation spaces

Kitchen Faucets: One Handle



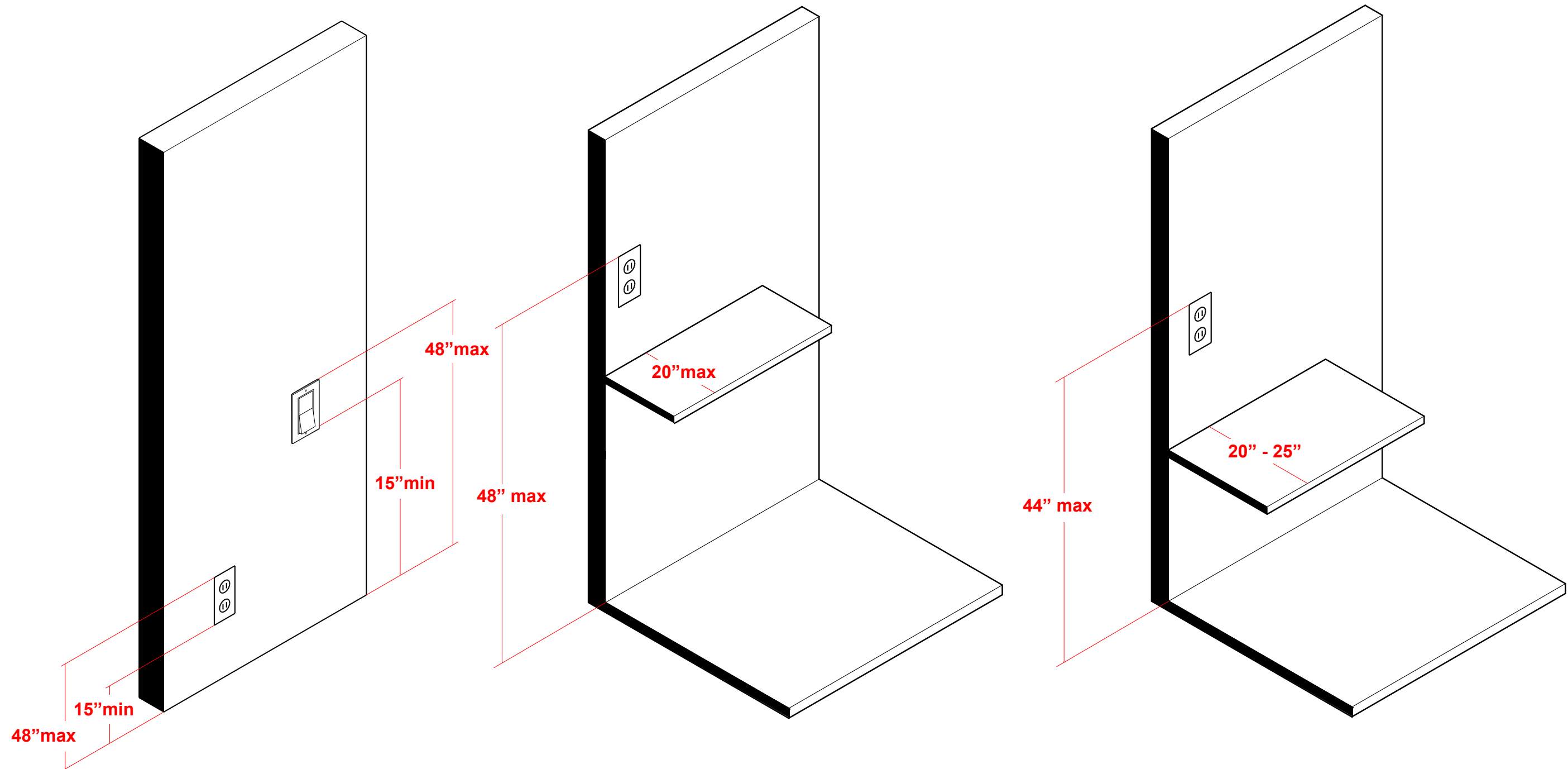
Kitchen Faucets: Two Handles

Storage Unit / Drawer Handles

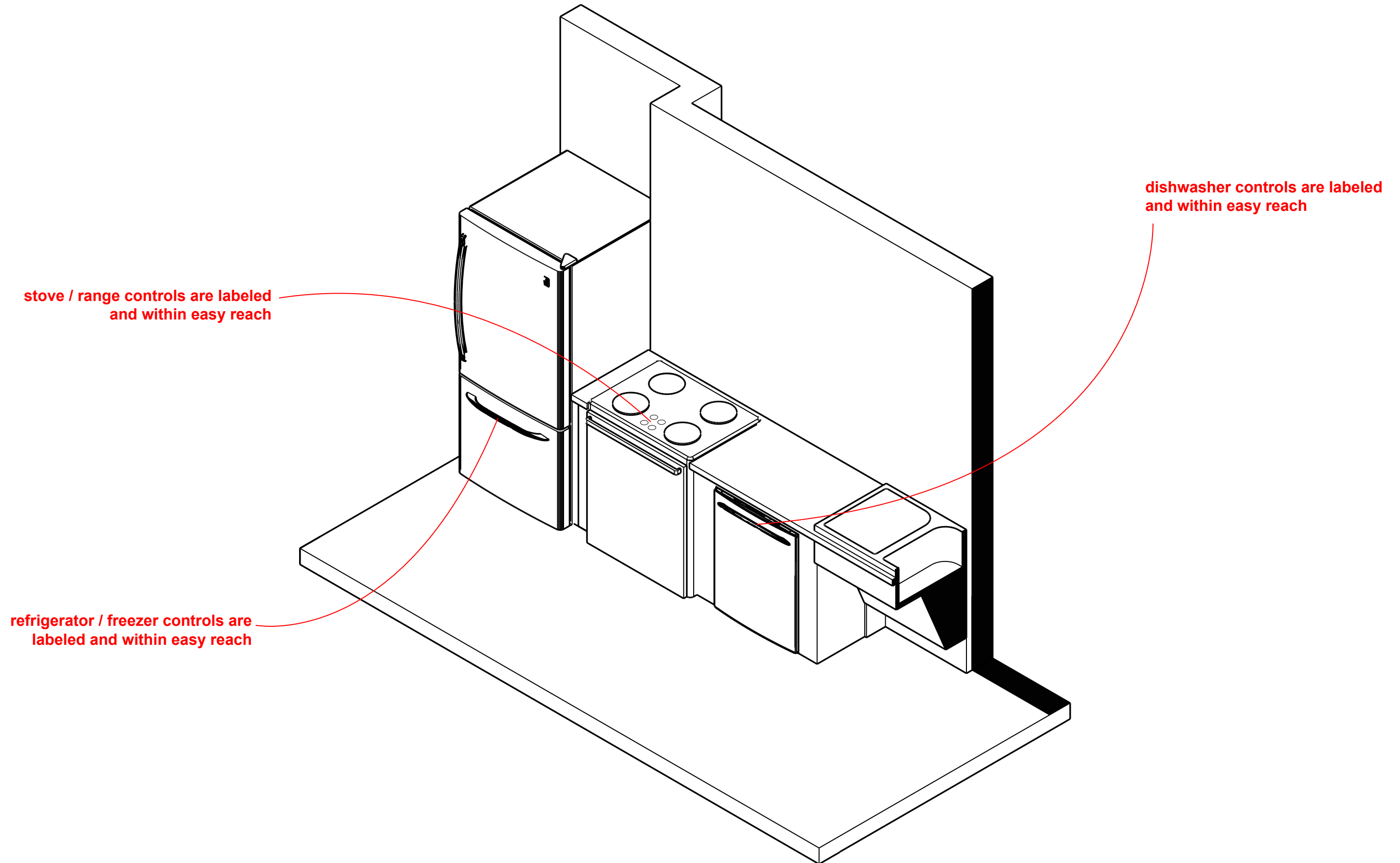


Operable Light Controls

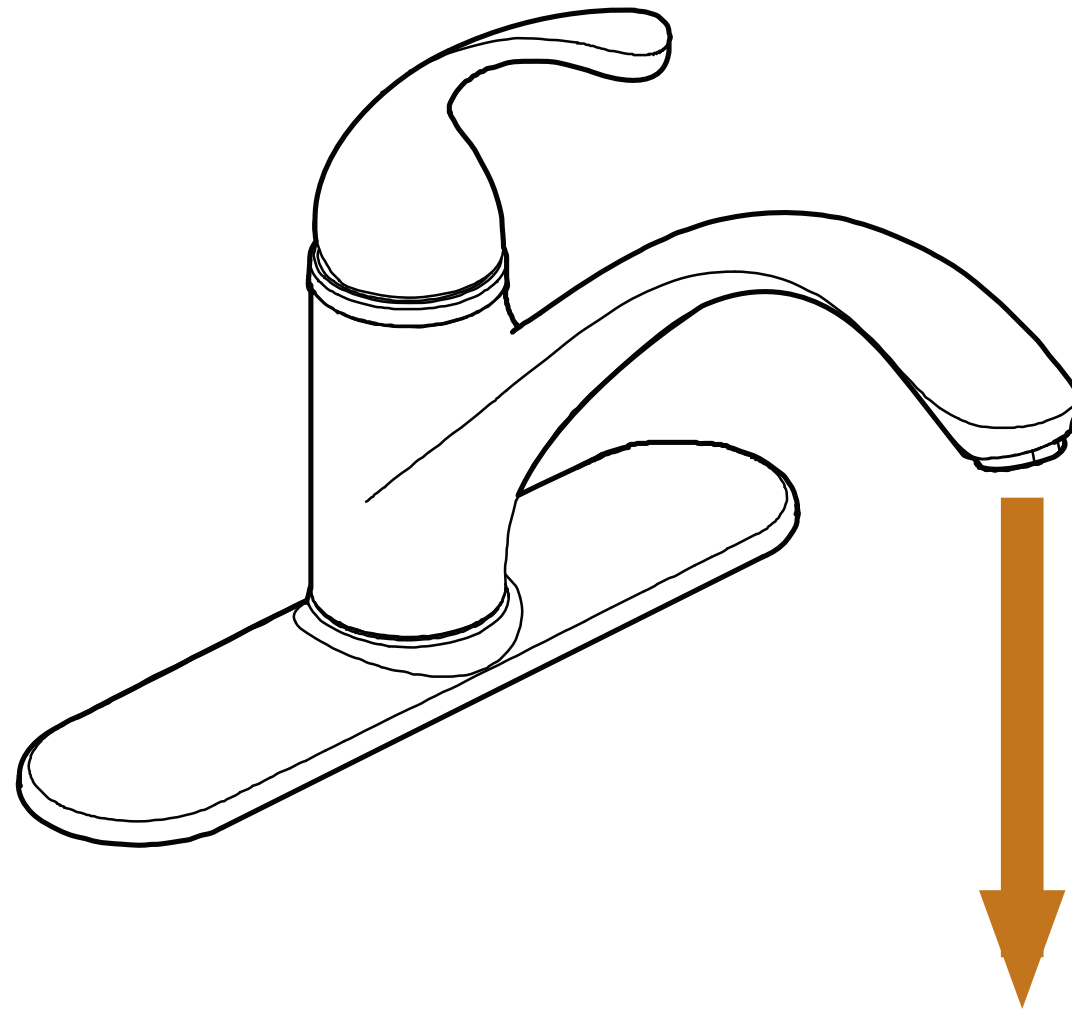
Electrical Outlets at Varying Heights



All Devoted Outlet Appliances Provide Intuitive Visual and Auditory or Tactile Cues



Plumbing Fixtures Prevent Scalding



**water temperature
less than 115° F**

Electric Panel

installed by a licensed electrician to current industry standards and federal/local codes

