PUBLIC COMMENT REPORT

PUBLIC COMMENTS RECEIVED ON

FIRST PUBLIC REVIEW DRAFT

DECEMBER 23, 2013

ICC/ANSI A117.1 STANDARD

DEVELOPMENT - 2014 EDITION

The comments contained in this report will be
Considered by the A117.1 Committee.
January 21 – 24, 2014.
U.S. Access Board Conference Room
Washington, DC.

ICC A117.1 Standard – Accessible and Usable Buildings and Facilities

Public Comment Report – Comments received on First Public Review Draft

December 23, 2013

The First Public Review Draft of the 2014 edition of the ICC A117.1 Standard was issued on October 25, 2013. Public comments were accepted through December 9, 2013.

This report contains the public comments received, and the changes on which the comments were made. Proposed changes for which no public comment was received are not included in this report.

The First Public Review Draft contains changes to the 2009 edition which have been approved by the A117.1 Standard Committee. Only the actual changes to the standard were shown.

For further information please see the following documents:

1. First Public Review Draft
2. First Public Review Draft Background Report.
3. First Public Review Draft – Supplement.

For these items, please go to: **www.iccsafe.org/A117**

If you have questions, please direct them to Kermit Robinson, krobinson@iccsafe.org

Chapter 1

1-1 – 12

Add new text as follows:

101 Title

These technical criteria shall be known as Accessible and Usable Buildings and Facilities, hereinafter referred to as 'this standard'.

1-1-12 PC1

Harold Kiewel, representing self

Revise as follows:

101 Title

These technical criteria shall be known as Accessible and Usable Buildings and Facilities, hereinafter referred to as 'this ~~standard~~ Standard'.

General comments of Mr. Kiewel: The following comments regarding the proposed 2014 revisions to the A117.1 are presented in the same order and under the same change-item-code as in the proposal. Where an item in the proposal is not addressed in this doucment. I have nothing to add to the conversation regarding the item.

General Notes.

I am opposed to changing dimensions to non-modular (odd) numbers. I believe that dimensional requirements for the standard should, to the maximum extent practicable, be modular in both Imperial and metric (SI(systems. Imperial dimensions should be in multiple of 4-inches, and conversion to metric measure should use 4 inches = 100 mm.

As a professional technical writer, I take exception to the modern practice of wasting the first Article of every major sub-part with the phrase "[this work] shall comply with this Standard." If the Standard has a purpose, and the Article has title, the phrase is superfluous. You could save a couple of pages by deleting these lines.

I have not pointed out spelling, tense, or minor grammatical errors. There are some, but I presume the committee has access to editors who will, in due course, correct those items.

Reason specific to 1-1-12: In keeping with proper writing technique, the word 'standards' at the end of the sentence should be capitalized; "*hereinafter as this Standard*." The rule states that, when you use a common noun to replace a proper noun, that noun should be capitalized.

1-4 – 12

Revise as follows:

102 Human Factor ~~Anthropometric~~ Provisions. The technical criteria in this standard are based on body sizes and functional abilities of adults and, in some sections, children. They provide minimum conditions of accessibility. ~~adult dimensions and anthropometrics. This standard also contains technical criteria based on children's dimensions and anthropometrics for drinking fountains, water closets, toilet compartments, lavatories and sinks, dining surfaces, work surfaces and benches.~~

1-4-12 PC1

Larry Perry, representing self

Revise as follows:

102 Human Factor Provisions. The technical criteria in this standard are based on body sizes and functional abilities of adults and, in ~~some~~ those sections where specifically noted, children. ~~They provide minimum conditions of accessibility.~~

Reason: Proposed revision to the first sentence is for clarity. The standard already specifically notes where it includes technical criteria for children, so this section should indicate that; the current vague text leaves it unclear if other criteria in the standard are also based on body sizes and abilities of children.
The second sentence is not appropriate in this section. The previous section (102 Purpose) already clearly states the broad range of abilities intended to be accommodated by the standard, and the intent to allow independent access to and use of buildings, facilities, and elements.

1-5 – 12

Revise as follows:

~~104.2 Dimensions.~~ ~~Dimensions that are not stated as "maximum" or "minimum" are absolute. All dimensions are subject to conventional industry tolerances.~~

104.2 Dimension tolerances. All dimensions are subject to conventional industry tolerances except where the requirement is as a range with stated minimum and maximum end points.

1-5-12 PC1

Harold Kiewel, representing self

Comment: "*conventional industry tolerances*" is an un-enforceable expression unless there is a reference manual or standard of construction tolerances; in which case the reference should be cited here. See Mr. Kiewel's general comments at 1-1-12.

1-5-12 PC2

Tim Larson, representing self; Fritz Rasmussen, representing Kwik Trip, Inc.

Comment: -Good- *This eliminates all absolute dimensions. This takes into consideration true field tolerances.*

1-5-12 PC3

Larry Perry, representing self

Further revise as follows:

104.2 Dimension tolerances. All dimensions are subject to conventional industry tolerances ~~except where the requirement is as a range with stated minimum and maximum end points~~.

Reason: Besides editorial tweaking, the only rationale for the added prohibition from applying tolerance where the standard states a 'range' of dimensions is because the language 'is very similar to ADA'. The committee has considered, and rejected, similar language numerous times in both the 2003 and 2009 edition revision cycles. Establishing different rules for tolerances based on the editorial format remains fundamentally flawed, and should not be done. The following excerpt shows how the new language would establish arbitrary rules:

> **307.2 Protrusion Limits.** Objects with leading edges **more than 27 inches (685 mm) and not more than 80 inches (2030 mm)** ***(no tolerance allowed)*** above the floor shall protrude **4 inches (100 mm) maximum** ***(tolerance OK)*** horizontally into the circulation path.
>
> **EXCEPTION:** Handrails shall be permitted to protrude **4 $^{1}/_{2}$ inches (115 mm) maximum** ***(tolerance OK)***.
>
> **307.3 Post-Mounted Objects.** Objects on posts or pylons shall be permitted to overhang **4 inches (100 mm) maximum** ***(tolerance OK)*** where **more than 27 inches (685 mm) and not more than 80 inches (2030 mm)** ***(no tolerance allowed)*** above the floor. Objects on multiple posts or pylons where the clear distance between the posts or pylons is **greater than 12 inches (305 mm)** ***(tolerance OK)*** shall have the lowest edge of such object ***either 27 inches (685 mm) maximum or 80 inches (2030 mm) minimum above the floor. (tolerance OK below 27" or above 80" – not stated as 'end points')***

307.4 Vertical Clearance. Vertical clearance shall be **80 inches (2030 mm) minimum *(tolerance OK)*** in height. Rails or other barriers shall be provided where the vertical clearance **is less than 80 inches (2030 mm) *(tolerance OK)*** in height. The leading edge of such rails or barrier shall be located **27 inches (685 mm) maximum *(tolerance OK)*** above the floor.

A rail or barrier added in accordance with 307.4 (which allows tolerance above 27") would violate 307.2, since that section would not allow tolerance above 27".

1-7– 12

Add new text as follows:

104.2 Calculation of Percentages. Where the determination of the required size or dimension of an *element* or *facility* involves ratios or percentages, rounding down for values less than one half shall be permitted.

1-7-12 PC1

Tim Larson, representing self

Comment: -Good- *This allows reasonable rules for rounding decimals.*

1-10 – 12

Revise or add the following definitions:

106.5 Defined terms

assembly area. A *building* or *facility*, or portion thereof, used for the purpose of entertainment, worship, educational or civic gatherings, or similar purposes. For the purposes of these requirements, *assembly areas* include, but are not limited to, classrooms, lecture halls, courtrooms, public meeting rooms, public hearing rooms, legislative chambers, spaces utilized for viewing motion picture projections, auditoria, theaters, playhouses, dinner theaters, concert halls, centers for the performing arts, amphitheaters, arenas, stadiums, grandstands, places of religious worship or convention centers.

assistive listening system (ALS). An amplification system utilizing transmitters, receivers, and coupling devices to bypass the acoustical *space* between a sound source and a listener by means of induction loop, radio frequency, infrared, or direct-wired equipment.

place of religious worship. A building or a portion thereof intended for the performance of religious services.

space. A definable area, such as a room, toilet room, hall, *assembly area*, *entrance*, storage room, alcove, courtyard, or lobby.

transition plate. A sloping pedestrian walking surface located at the ends of a *gangway*.

vehicular way. A route provided for vehicular traffic, such as in a street, driveway, or parking *facility*.

1-10-12 PC1

Larry Perry, representing self

Delete without substitution:

106.5 Defined terms

~~**space.** A definable area, such as a room, toilet room, hall, *assembly area*, *entrance*, storage room, alcove, courtyard, or lobby.~~

Reason: This definition was deleted from the standard during the 1992 edition revision cycle. It adds no clarity to the standard; the standard definition is adequate.

1-10-12 PC2

Curt Wiehle, Minnesota Construction Codes and Licensing, representing self

Delete without substitution:

~~**place of religious worship.** A building or a portion thereof intended for the performance of religious services.~~

Reason: The term place of religious worship only appears in the definition of assembly area in this same section. There is a list of areas that are included in the definition of assembly area, none are of which are further defined in Section 107.5. It is inconsistent to define one term at the exclusion of the others.

Chapter 3

3-2 – 12

Revise as follows:

302.1 General. Floor surfaces shall be stable, firm, and slip resistant, and shall comply with Section 302. Changes in level in floor surfaces shall comply with Section 303.

EXCEPTIONS:

1. Within animal containment areas not exempted by Section 1101.2.1, floor and ground surfaces shall not be required to be stable, firm, and slip resistant.

2. Within areas of sports activity exempted in Chapter 11, the floor and ground surfaces shall not be required to comply with this section.

303.1 General. Changes in level in floor surfaces shall comply with Section 303.

EXCEPTIONS:

1. Animal containment areas not exempted by Section 1101.2.1 shall not be required to comply with this section.

2. Within areas of sports activity exempted in Chapter 11, the changes in level shall not be required to comply with this section.

3-2-12 PC1

Harold Kiewel, representing self

Further revise as follows:

302.1 General. Floor surfaces shall be stable, firm, and slip resistant, and shall comply with Section 302. Changes in level in floor surfaces shall comply with Section 303.

EXCEPTIONS:

1. Within animal containment areas not exempted by Section 1101.2.1, floor and ground surfaces shall not be required to ~~be stable, firm, and slip resistant~~ comply with this section.

2. Within areas of sports activity exempted in Chapter 11, the floor and ground surfaces shall not be required to comply with this section.

303.1 General. Changes in level in floor surfaces shall comply with Section 303.

EXCEPTIONS:

1. Animal containment areas not exempted by Section 1101.2.1 shall not be required to comply with this section.

2. Within areas of sports activity exempted in Chapter 11, the changes in level shall not be required to comply with this section.

Reason: If, as is shown in 3.02.1 Exception 2, and 3.03.1 Exceptions 1 & 2, the preferred phasing is "*shall not be required to comply with this section,*" then for clarity and consistency Article 302.1, Exception 1 should also use that phrase. Failure to do so

makes the phrase "*shall not be required to be firm, stable, and slip-resistant*" used in Exception 1 stand out as meaning something different; if you didn't mean something different, why did you write something different? For additional information from Mr. Kiewel, see 1-1--12.

3-4 – 12

Revise as follows:

303 Changes in Level

303.1 General. Changes in level in floor surfaces shall comply with Section 303.

303.2 Vertical. Changes in level of 1 /4 inch (6.4 mm) maximum in height shall be permitted to be vertical.

303.3 Beveled. Changes in level greater than 1/4 inch (6.4 mm) in height and not more than 1/2 inch (13 mm) maximum in height shall comply with one of the following:

1. The change in level shall be beveled with a slope not steeper than 1:2.

2. The change in level shall be a combination of vertical change in level of ¼ inch (6.4 mm) maximum below a bevel with a slope not steeper than 1:2.

3-4-12 PC1

Gene Boecker, Code Consultants, Inc, representing National Association of Theatre Owners

Further revise as follows:

302.3 Openings. Openings in floor surfaces shall be of a size that does not permit the passage of a 1/2 inch (13 mm) diameter sphere, except as allowed in Sections 407.4.3, 408.4.3, 409.4.3, 410.4, and 805.10. Elongated openings shall be placed so that the long dimension is perpendicular to the predominant direction of travel.

EXCEPTION: Where the opening is no greater than 1/4 inch (6.5 mm), the orientation of the elongated opening shall not be required to be perpendicular to the predominant direction of travel.

303.2 Vertical. Changes in level of 1 /4 inch (6.4 mm) maximum in height shall be permitted to be vertical.

EXCEPTION: Where the gap between adjacent surfaces complies with Section 302.3, the change in level shall be measured from adjacent surfaces.

Reason: The proposal is an attempt to address the unresolved issues included within proposal 3-5 which sought to address allowed changes of level. Proposal 305 failed to gather sufficient support due to some flaws in the manner in which it was presented. As originally proposed, it would have allowed changes within the floor surface for turning spaces, door landings, within stair treads and surfaces. It was stated during the committee discussions on 3-5 that the problem was in the manner in which Section 303 addresses changes in level; most areas allow the changes in level implicitly due to omission of any prohibition. While proposal 3-5 sought to address this bey stating in each location where changes in level could and could not take place, the fundamental issue was how changes in level are addressed for surfaces such as ceramic tile and wood decks where a change takes place at each gap between adjacent surfaces.

The proposal above seeks to solve the underlying problem by addressing the adjacent surfaces issue. Where the gap between adjacent surfaces meets the requirements for openings, the proposal would recognize the fact that there is a change due to the opening can be ignored. This would allow gaps between wood decking to be up to 1/2 inch. If so, the vertical change would be measured between the adjacent surfaces and the gap itself would be ignored as a change in level.

A companion change is necessary to Section 302.3 to address small gaps such as what takes place in ceramic tile. According to the Tile Council of America the standard for tile joints is less than 1/2 inch in almost all conditions. A "wide" joint is considered 3/8 inch (http://www.tcnatile.com/faqs/40-grout-joint-size.html#faq29). Most joints are 1/4 inch or less. The proposal would recognize those 1/4 inch gaps by allowing them to be treated like openings. Additionally, close-mesh bar grating (one example:

http://www.mcnichols.com/product/6601319999?navCode=cc:bar&navCode=avc:bargrtclosemsh) would be allowed for floor surfaces where the direction of travel may be unclear such as at large areas. The 1/4 –inch gap at tile has been in place for some time and has not been identified as a problem. Therefore, it is used as the basis for this dimension. The difference in wording is due to the fact that in the first case, the intent is to limit openings to be less than 1/2 inch (due to the requirement to refuse a 1/2 inch sphere); and, in the second case, the 1/4 inch gap is standard spacer dimension for tile grout joints and spacing between the bars in grating.

The end result should be that the issue in proposal 3-5 can be addressed by this change to 3-4. For any floor surface with a gap less than 1/2 inch, the gap is treated like an opening. For any gap that is less than 1/4 inch, the orientation of those gaps is irrelevant.

3-4-12 PC2

Gene Boecker, Code Consultants, Inc, representing National Association of Theatre Owners

Add text as follows:

303.4 Series of changes. Changes in level which occur within a 10 inch (255 mm) horizontal dimension shall be considered in aggregate.

> **EXCEPTION:** Changes in level not exceeding 1/4 inch (6.4 mm) shall be permitted within 5 inches (130 mm) maximum of another change in level.

Reason: The proposal seeks to address an aspect of proposal 3-5 that was left unresolved. Where changes in level occur, it was not clear how those changes can be addressed when viewed in sequence. One point in the committee discussion was that if changes in level would be allowed in all the places proposed, then it would be possible to "piggy-back" those changes into a significant change by adding a beveled change, then another, then another, and so on.

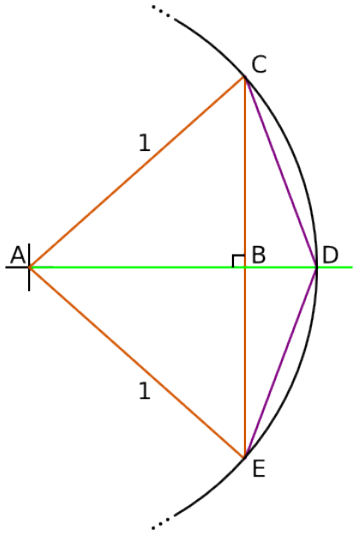
The proposal would limit the allowable change to be what is measured within a 10 inch horizontal dimension. Because the allowable maximum change is 1/2 inch, if a line was to be drawn from the top of that change in level to the base level, it would equate to a 1:20 slope; the maximum allowed before the slope must be addressed as a ramp. A series of such changes could be combined to form a slope which is the maximum allowed according to Section 403.3.

The allowance for a vertical change to be closer than 10 inches is based on the physical dimensions of the large wheel of a standard wheelchair. The large wheel is generally 26 inches in diameter. Using geometry as expressed by the image at right, the number "1" is the wheel radius (13") and a 1/4 inch (0.25") vertical change is the segment B-D. Therefore, the segment A-B would be 12-3/4 inches (12.75"). The question is: what the length is for Segment B-C.

Using Pythagorean's Theorem: $(A\text{-}B)^2 + (B\text{-}C)^2 = (A\text{-}C)^2$.

Or, $13^2 - (12.75)^2 = (B\text{-}C)^2$

Solving, the result is 2.54 inches.



The decision to use 5 inches was to provide a dimension with a safety factor of two which allows the wheel to be placed on a flat surface before negotiating the next change. The fact that it coincides with a horizontal dimension that is half the 10 inch measurement is not part of the rationale but makes the concept easier to remember.

The application to the small wheels of a wheelchair is the limitation on the height of the vertical change itself. That is unaffected by this.

Although this seeks to address the unresolved issues expressed in Proposal 3-5, the solution can be placed within the text in Proposal 3-4. This will allow a better understanding of how to address multiple allowable changes in level.

3-4-12 PC3

Larry Perry – representing self

Further revise as follows:

303.3 Beveled. Changes in level greater than 1/4 inch (6.4 mm) in height and not more than 1/2 inch (13 mm) maximum in height shall comply with one of the following:

1. The change in level shall be beveled with a slope not steeper than 1:2.
2. The change in level shall be a combination of vertical change in level of ¼ inch (6.4 mm) maximum ~~below~~ and a bevel with a slope not steeper than 1:2.

Reason: The proposed change to allow a 1/4" vertical portion of a 1/2" high overall level change to be only below the bevel is overly restrictive, and was made with no substantiation. Prohibiting the 1/4" vertical change from being above the beveled portion would eliminate a great number of metal threshold profiles that are currently permitted.

3-4-12 PC4

Hope Reed, – representing New Mexico Governor's Commission on Disability (NMGCD)

Revise as follows:

~~**303.3 Beveled.** Changes in level greater than 1/4 inch (6.4 mm) in height and not more than 1/2 inch (13 mm) maximum in height shall comply with one of the following:~~

1. ~~The change in level shall be beveled with a slope not steeper than 1:2.~~

2. ~~The change in level shall be a combination of vertical change in level of ¼ inch (6.4 mm) maximum below a bevel with a slope not steeper than 1:2.~~

303.3 Beveled. Changes in level greater than 1/4 inch (6.4 mm) in height and not more than 1/2 inch (13 mm) maximum in height shall be beveled with a slope not steeper than 1:2.

Reason: The new language does not improve accessibility, understanding, or enforcement. Leave the language to remain in compliance with 2010 ADA. Provide exception for door thresholds. See companion proposal 404.2.4.

3-4-12 PC5

Michael Tierney, – representing The Builders Hardware Manufacturers Association

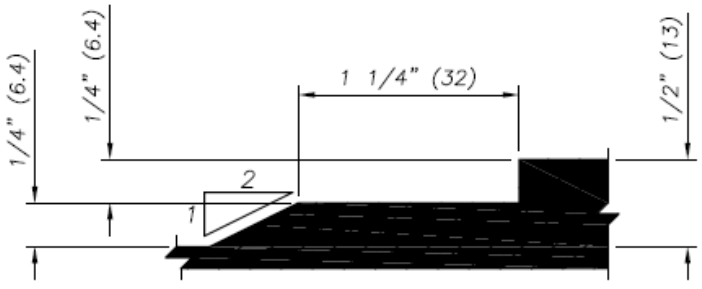
Revise as follows:

~~**303.3 Beveled.** Changes in level greater than 1/4 inch (6.4 mm) in height and not more than 1/2 inch (13 mm) maximum in height shall comply with one of the following:~~

1. ~~The change in level shall be beveled with a slope not steeper than 1:2.~~

2. ~~The change in level shall be a combination of vertical change in level of ¼ inch (6.4 mm) maximum below a bevel with a slope not steeper than 1:2.~~

303.3 Beveled. Changes in level greater than 1/4 inch (6.4 mm) in height and not more than 1/2 inch (13 mm) maximum in height shall be beveled with a slope not steeper than 1:2.



Reason: The current committee action would render hundreds of thousands of existing openings noncompliant – the bumper seal threshold style illustrated below has been in use for over two decades, and there is no record of any deleterious effects on accessibility.

The design, with the ¼ inch vertical above the ¼ inch bevel, functions, along with an applied gasket, to seal the bottom of the door from air, smoke or water infiltration, increasingly necessary for energy and other code requirements. Although not addressed currently, the ¼ inch vertical rise is separated by a minimum one inch horizontal run as shown in the proposed illustration. This design is clearly permitted by the 2009 A117.1 language of section 303.3.

3-6 – 12

Revise as follows:

304.3.1 Circular Space. The turning space shall be a circular space with a ~~60~~ 67 inch (~~1525~~ 1700 mm) minimum diameter. The turning space shall be permitted to include knee and toe clearance complying with Section 306.

3-6-12 PC1

Brian Black, – representing self

Revise as follows:

304.3.1 Circular Space. The turning space shall be a circular space with a 67 inch (1700 mm) minimum diameter. The turning space shall be permitted to include knee and toe clearance complying with Section 306.

> **Exception:** In existing buildings and facilities, a circular space with a 60 inch (1525 mm) minimum diameter shall be permitted.

Reason: The 2012 *International Existing Building Code* (IEBC) states:

> **705.2 Alterations affecting an area containing a primary function.** Where an *alteration* affects the accessibility to a, or contains an area of, *primary function*, the route to the *primary function* area shall be accessible. The accessible route to the *primary function* area shall include toilet facilities or drinking fountains serving the area of *primary function*.
>
> **Exceptions:**
>
> 1. The costs of providing the accessible route are not required to exceed 20 percent of the costs of the alterations affecting the area of *primary function*.
> 2. This provision does not apply to *alterations* limited solely to windows, hardware, operating controls, electrical outlets and signs.
> 3. This provision does not apply to *alterations* limited solely to mechanical systems, electrical systems, installation or *alteration* of fire protection systems and abatement of hazardous materials.
> 4. This provision does not apply to *alterations* undertaken for the primary purpose of increasing the accessibility of a *facility*.
> 5. This provision does not apply to altered areas limited to Type B dwelling and sleeping units.

Consider a building constructed in 2013 under the 2012 *International Building Code* that complies with all of the accessibility requirements of that code and its referenced ICC A117.1-2009 standard. If a primary function area of that building is altered under a future edition of the IEBC that references ICC A117.1-2014, and if that future edition of the IEBC retains language similar to that cited above, the building owner may be required to make significant modifications to the primary function area and toilet facilities serving that area to comply with the increased turning and clear floor space requirements of the 2014 standard. A minimal increase in accessibility may result even where costs and structural changes are significant. Adding exceptions for existing buildings and facilities that permit the turning and clear floor spaces that are considered accessible under the 2009 edition of the standard would resolve this problem.

I appreciate there has been a continuing "technical *vs*. scoping" tension between the A117.1 accessibility standard and the model building codes, and that some may argue that these exceptions belong in the model codes, not the accessibility standard. I believe the technical expertise needed to determine where exceptions for existing buildings are appropriate is in the A117 Accredited Standards Committee and not the committees or voting memberships of the model code groups. This committee should decide whether exceptions are warranted and, if so, where they should be permitted.

The 2009 edition of ICC A117.1 has at least 23 exceptions that can be applied in existing buildings and facilities, making allowances for side reaches, door thresholds, ramp slopes, LU/LA sizes, shower thresholds, play areas and boat slips. There are 11 exceptions for existing passenger elevators alone. All of these exceptions belong in the standard and not a building code to ensure that the A117 Accredited Standards Committee retains control of what are essentially technical access considerations. Adding additional exceptions for the larger floor spaces of the 2014 standard would merely continue this policy.

3-6-12 PC2

Ron Burton, PTW Advisors LLC, representing Building Owners and Managers Association, International; David S. Collins, The Preview Group, representing American Institute of Architects

(AIA); Ron Nickson, representing the National Multi-housing Council; Steve Orlowski, representing the National Association of Home Builders; Kim Paarlberg, representing International Code Council

Revise as follows:

~~106.5~~ 107.5 Defined Terms.
Existing building. A building erected prior to the date of adoption of this standard, or one for which a legal building permit has been issued.

304.3.1 Circular Space.

304.3.1.1 New buildings. In new buildings, the turning space shall be a circular space with a 67 inch (1700 mm) minimum diameter. The turning space shall be permitted to include knee and toe clearance complying with Section 306. Where the turning space includes knee and toe clearances under an obstruction, the overlap shall comply with all of the following: . (3-6-12) (3-8-12)

1. The depth of the overlap shall not be more than 10 inches (255 mm), and

2. The depth shall not exceed the depth of the knee and toe clearances provided, and

3. The overlap shall be permitted only within the turning circle area shown shaded in Figure 304.3.1. (3-8-12)

304.3.1.2 Existing buildings. In existing buildings, the turning space shall be a circular space with a 60 inch (1525 mm) minimum diameter. The turning space shall be permitted to include knee and toe clearance complying with Section 306.

304.3.2 T-Shaped Space.

304.3.2.1 New construction. In new buildings, the turning space shall be a T–shaped space complying with one of the following:

1. A T-shaped space, clear of obstruction, that fits within an area 68 inches (1725 mm) wide and 60 inches (1525 mm) deep, with two arms and one base that are all 36 inches (915 mm) minimum in width. Each arm shall extend 16 inches (405 mm) minimum from each side of the base located opposite the other, and the base shall extend 24 inches (610 mm) minimum from the arms. At the intersection of each arm and the base, the interior corners shall be chamfered for 8 inches (205 mm) minimum along both the arm and along the base.

2. A T-shaped space, clear of obstruction, that fits within an area 64 inches (1625 mm) wide and 60 inches (1525 mm) deep, with two arms 38 inches (965 mm) minimum in width and a base 42 inches (1065 mm) minimum in width. Each arm shall extend 11 inches (280 mm) minimum from each side of the base, located opposite the other, and the base shall extend 22 inches (560 mm) minimum from each arm.

3. A T-shaped space, clear of obstruction, that fits within an area 64 inches (1625 mm) wide and 60 inches (1525 mm) deep, with two arms and one base 40 inches (1015 mm) minimum in width. Each arm shall be 16 inches (405 mm) minimum in each direction from the base and the base shall extend 24 inches (610 mm) minimum from each arm. (3-9-12)

T-TURN DIMENSIONS

	Rectangular Space		Widths		Chamfer	Length Clear of Obstructions	
	Width	Depth	Arms	Base		Arms	Base
1	68	60	36	36	8	16	24
2	64	60	38	42		11	22

3	64	60	40	40		12	20

304.3.2.2 Existing buildings. In existing buildings, the turning space shall be a T-shaped space within a 60-inch (1525 mm) minimum square, with arms and base 36 inches (915 mm) minimum in width. Each arm of the T shall be clear of obstructions 12 inches (305 mm) minimum in each direction, and the base shall be clear of obstructions 24 inches (610 mm) minimum. The turning space shall be permitted to include knee and toe clearance complying with Section 306 only at the end of either the base or one arm.

305.3 Size.

305.3.1 New buildings. In new buildings, the clear floor space shall be 52 inches (1320 mm) minimum in length and 30 inches (760 mm) minimum in width. (3-13-12)

305.3.2 Existing buildings and within new Type B units. In existing construction and within new Type B units, the clear floor space shall be 48 inches (1220 mm) minimum in length and 30 inches (760 mm) minimum in width.

305.7.2 Forward Approach.

305.7.2.1 New buildings. In new buildings, Where the clear floor space is positioned for a forward approach, the alcove shall be 36 inches (915 mm) minimum in width where the depth exceeds 20 inches (510 mm). (3-13-12)

305.7.2.2 Existing buildings and within new Type B units. In existing buildings and within new Type B units, where the clear floor space is positioned for a forward approach, the alcove shall be 36 inches (915 mm) minimum in width where the depth exceeds 24 inches (610 mm).

308.2 Forward Reach.

308.2.1 Unobstructed.

308.2.1.1 New buildings. In new buildings, where a forward reach is unobstructed, the high forward reach shall be 48 inches (1220 mm) maximum and the low forward reach shall be 23 inches (585 mm) minimum above the floor. (3-20-12)

308.2.1.2 Existing buildings and within new Type B units. In existing buildings and within new Type B units, where a forward reach is unobstructed, the high forward reach shall be 48 inches (1220 mm) maximum and the low forward reach shall be 15 inches (380 mm) minimum above the floor.

403.5.1 General. The clear width of an accessible route shall be 36 inches (915 mm) minimum. The clear width of an exterior accessible route shall be 48 inches (1220 mm) minimum. (4-7-12) (4-5-12)

EXCEPTIONS:

1. In new buildings, the clear width shall be permitted to be reduced to 32 inches (815 mm) minimum for a length of 24 inches (610 mm) maximum provided the reduced width segments are separated by segments that are 52 inches (1320 mm) minimum in length and 36 inches (915 mm) minimum in width. (4-6-12)
2. In existing buildings and within new Type B units, the clear width shall be permitted to be reduced to 32 inches (815 mm) minimum for a length of 24 inches (610 mm) maximum provided the reduced width segments are separated by segments that are 48 inches (1220 mm) minimum in length and 36 inches (915 mm) minimum in width.

3. The clear width of an exterior ramp shall comply with Section 405.5. (4-7-12)

~~**403.5.1**~~ **403.5.2 Clear Width at 180 Degree Turn**.

403.5.2.1 New buildings. In new buildings, where an accessible route makes a 180 degree turn around an object that is equal to or greater than 52 inches (1320 mm) in width, the clear widths in the turn shall comply with Section 405.5.1. Where an accessible route makes a 180 degree turn around an object that is less than 52 inches (1320 mm) inches in width, the clear widths approaching the turn, during the turn and leaving the turn, shall be one of the following sets of dimensions: (4-5-12)

1. Approaching width is 36 inches (915 mm) minimum, during width is 60 inches (1525 mm) minimum, and leaving width is 36 inches (915 mm) minimum.

2. Approaching width is 42 (1065 mm) inches minimum, during width is 48 inches (1220 mm) minimum, and leaving width is 42 (1065 mm) inches minimum.

3. Approaching width is 43 inches (1090 mm) minimum, during width is 43 inches (1090 mm) minimum, and leaving width is 43 inches (1090 mm) minimum. (4-8-12)

403.5.2.2 Existing buildings and within new Type B units. In existing buildings and within new Type B units, where an accessible route makes a 180 degree turn around an object that is less than 48 inches (1220 mm) in width, clear widths shall be 42 inches (1065 mm) minimum approaching the turn, 48 inches (1220 mm) minimum during the turn and 42 (1065 mm) inches minimum leaving the turn.

EXCEPTION: Section 403.5.1 shall not apply where the clear width during the turn is 60 inches (1525 mm) minimum.

403.5.3 Clear Width at 90 Degree Turn.

403.5.3.1 New buildings. In new buildings, where an accessible route makes a 90 degree turn the clear widths approaching the turn and leaving the turn shall be one of the following sets of dimensions:

1. Both legs of the turn shall be 40 inches (1016 mm) minimum in width The width of each leg of the turn shall be maintained for 28 inches minimum from the inner corner.

2. Where the interior corners of the turn are chamfered for 8 inches minimum (205 mm) along both walls, both legs of the turn shall be 36 inches (915 mm) minimum in width. (4-9-12)(4-10-12)

EXCEPTIONS:

1. Where one leg of the turn is 42 inches (1065 mm) minimum in width, the other shall be permitted to be 38 inches (965 mm) minimum in width. (4-10-12)

2. Where one leg of the turn is 44 inches (1115 mm) minimum in width, the other shall be permitted to be 36 inches (915 mm) minimum in width. (4-10-12)

403.5.3.2 Existing buildings and within Type B units. In existing buildings and within new Type B units, where an accessible route makes a 90 degree turn the clear widths approaching the turn and leaving the turn shall be 36 inches (915 mm) minimum.

403.5.4 ~~403.5.2~~ Passing Space.

403.5.4.1 New construction. In new buildings, An accessible route with a clear width less than 60 inches (1525 mm) shall provide passing spaces at intervals of 200 feet (61 m) maximum. Passing spaces shall be either a 60-inch (1525 mm) minimum by 60-inch (1525 mm) minimum space, or an intersection of two walking surfaces that provide a T-shaped turning space

complying with Section 304.3.2, provided the base and arms of the T-shaped space extend 52 inches (1320 mm) minimum beyond the intersection. (4-6-12) (4-5-12)

403.5.4.2 Existing buildings and within new Type B units. In existing buildings and within new Type B units, an accessible route with a clear width less than 60 inches (1525 mm) shall provide passing spaces at intervals of 200 feet (61 m) maximum. Passing spaces shall be either a 60-inch (1525 mm) minimum by 60-inch (1525 mm) minimum space, or an intersection of two walking surfaces that provide a T-shaped turning space complying with Section 304.3.2, provided the base and arms of the T-shaped space extend 48 inches (1220 mm) minimum beyond the intersection. (4-6-12) (4-5-12)

404.2.3.2 Swinging Doors and Gates. Swinging doors and gates shall have maneuvering clearances complying with Table 404.2.3.2. (4-11-12)

Table 404.2.3.2—Maneuvering Clearances at Manual Swinging Doors and Gates

TYPE OF USE		**MINIMUM MANEUVERING CLEARANCES**	
Approach Direction	**Door or Gate Side**	**Perpendicular to Doorway**	**Parallel to Doorway (beyond latch unless noted)**
From front	Pull	60 inches (1525 mm)	18 inches (455 mm)
From front	Push	52 inches [5] (1320 mm)	0 inches (0 mm)3
From hinge side	Pull	60 inches (1525 mm)	36 inches (915 mm)
From hinge side	Pull	54 inches (1370 mm)	42 inches (1065 mm)
From hinge side	Push	42 inches (1065 mm)[1]	22 inches (560 mm)3 & 4
From latch side	Pull	48 inches (1220 mm)[2]	24 inches (610 mm)
From latch side	Push	42 inches (1065 mm)[2]	24 inches (610 mm)

1. Add 6 inches (150 mm) if closer and latch provided.
2. Add 6 inches (150 mm) if closer provided.
3. Add 12 inches (305 mm) beyond latch if closer and latch provided.
4. Beyond hinge side. (4-11-12) (4-14-12)(4-15-12)
5. In existing buildings and within new Type B buildings the dimension perpendicular to the door for the front direction on the push side shall be 48 inches (122 mm) minimum.

404.2.3.3 Sliding and Folding Doors. Sliding doors and folding doors shall have maneuvering clearances complying with Table 404.2.3.3.

Table 404.2.3.3—Maneuvering Clearances at Sliding and Folding Doors

Approach Direction	**MINIMUM MANEUVERING CLEARANCES**	
	Perpendicular to Doorway	**Parallel to Doorway (beyond stop or latch side unless noted)**
From front	52 inches [2] (1320 mm)	0 inches (0 mm)
From nonlatch side	42 inches (1065 mm)	22 inches (560 mm)[1]

From latch side	42 inches (1065 mm)	24 inches (610 mm)

1. Beyond pocket or hinge side. (4-15-12)
2. In existing buildings and within new Type B buildings the dimension perpendicular to the door for the front direction shall be 48 inches (122 mm) minimum.

404.2.3.4 Doorways without Doors or Gates. Doorways without doors or gates that are less than 36 inches (915 mm) in width shall have maneuvering clearances complying with Table 404.2.3.4. (4-11-12)

Table 404.2.3.4—Maneuvering Clearances for Doorways without Doors (4-15-12)

Approach Direction	MINIMUM MANEUVERING CLEARANCES Perpendicular to Doorway
From front	52 inches (1320 mm) [1]
From side	42 inches (1065 mm)

1. In existing buildings and within new Type B buildings the dimension perpendicular to the doorway for the front direction shall be 48 inches (122 mm) minimum.

408 Limited-Use/Limited-Application Elevators

408.4.1 Inside Dimensions. Elevator cars shall provide a clear floor width of 42 inches (1065 mm) minimum. The clear floor area shall not be less than 15.75 square feet (1.46 m^2). The elevator car shall provide a clear floor space complying with Section 305.3.

EXCEPTIONS:

1. For installations in existing buildings, elevator cars that provide a clear floor area of 15 square feet (1.4 m^2) minimum, and provide a clear inside dimension of 36 inches (915 mm) minimum in width and 54 inches (1370 mm) minimum in depth, shall be permitted. This exception shall not apply to cars with doors on adjacent sides.

2. For installations in existing buildings, cars that provide a clear width 51 inches (1295 mm) minimum shall be permitted to provide a clear depth 51 inches (1295 mm) minimum provided that car doors provide a clear opening 36 inches (915 mm) wide minimum. (**4-56–12)**

409 Private Residence Elevators *(no exceptions for existing PRE currently)*

409.4.1 Inside Dimensions.

409.4.1.1 New buildings. In new buildings, elevator cars shall provide a clear floor area 36 inches (915 mm) minimum in width and 52 inches (1322 mm) minimum in depth. (3-13B-12)

409.4.1.2 Existing buildings and within new Type B units. In existing buildings and within new Type B units, elevator cars shall provide a clear floor area 36 inches (915 mm) minimum in width and 48 inches (1220 mm) minimum in depth.

410 Platform Lifts

410.5.1 Lifts with Single Doors or Doors on Opposite Ends.

410.5.1.1 New buildings. In new buildings, platform lifts with a single door or doors on opposite ends shall provide a clear floor width of 36 inches (915 mm) minimum and a clear floor depth of 52 inches (1322 minimum). (3-13C-12)

Exception: Incline platform lifts with passenger restraining arms, shall be permitted to provide a clear floor width of 36 inches (915 mm) minimum and a clear floor depth of 48 inches (1220) mm. (3-13C-12)

410.5.1.2 Existing buildings and within new Type B units. In existing buildings and within new Type B units, platform lifts with a single door or doors on opposite ends shall provide a clear floor width of 36 inches (915 mm) minimum and a clear floor depth of 48 inches (1220 minimum).

502.4.2 Width.

502.4.2.1 New buildings. In new buildings, access aisles serving car and van parking spaces shall be 67 inches (1700 mm) minimum in width**. (3-6C – 12)**

502.4.2.2 Existing buildings and within new Type B units. In existing buildings and seving new Type B units, access aisles serving car and van parking spaces shall be 60 inches (1525 mm) minimum in width.

503 Passenger Loading Zones

503.3.2 Width.

503.3.2.1 New buildings. In new buildings, access aisles serving vehicle pull-up spaces shall be 67 inches (1700 mm) minimum in width. (3-6D-12)

503.3.2.2 Existing buildings and within new Type B units. In existing buildings and seving new Type B units, access aisles serving vehicle pull-up spaces shall be 60 inches (1525 mm) minimum in width.

608.2.1.2 Clearance.

608.2.1.2.1 New buildings. In new buildings, a clearance of 52 inches (? mm) minimum in length measured perpendicular from 12 inches beyond the seat wall, and 36 inches (915 mm) minimum in depth shall be provided adjacent to the open face of the compartment. (6-46-12)

608.2.1.2.2 Existing buildings and within new Type B units. In existing buildings and within new Type B units, a clearance of 48 inches (1220 mm) minimum in length measured perpendicular from the control wall, and 36 inches (915 mm) minimum in depth shall be provided adjacent to the open face of the compartment.

802 Assembly Areas

802.4 Depth.

802.4.1 New buildings. In new buildings, where a wheelchair space can be entered from the front or rear, the wheelchair space shall be 52 inches (1320 mm) minimum in depth. Where a wheelchair space can only be entered from the side, the wheelchair space shall be 60 inches (1525 mm) minimum in depth. (8-3-12)

802.4.2 Existing buildings. In existing buildings, where a wheelchair space can be entered from the front or rear, the wheelchair space shall be 48 inches (1220 mm) minimum in depth. Where a wheelchair space can only be entered from the side, the wheelchair space shall be 60 inches (1525 mm) minimum in depth.

802.5 Approach. The wheelchair space shall adjoin an accessible route. The accessible route shall not overlap the wheelchair space.

802.5.1 Overlap. A wheelchair space location shall not overlap the required width of an aisle.

Exception: In new buildings, the depth of the wheelchair space shall be permitted to overlap the required aisle width a maximum of 4 inches (100 mm). (3-13D-12)

802.7.2 Companion Seat Alignment. In row seating, the companion seat shall be located to provide shoulder alignment with the wheelchair space occupant. ~~The shoulder of the wheelchair space occupant is considered to be 36 inches (915 mm) from the front or 16 inches (??? mm) from the rear of the wheelchair space.~~ The floor surface for the companion seat shall be at the same elevation as the wheelchair space floor surface. (3-13E-12)

EXCEPTION: Companion seat alignment is not required in tiered seating that includes dining surfaces or work surfaces. (8-2-12)

802.7.2.1 New buildings. In new buildings, the shoulder of the wheelchair space occupant is considered to be 36 inches (915 mm) from the front or 16 inches (??? mm) from the rear of the wheelchair space.

802.7.2.2 Existing buildings. In existing buildings, The shoulder of the wheelchair space occupant is considered to be 36 inches (915 mm) from the front or 12 inches (305 mm) from the rear of the wheelchair space.

804 Kitchens and Kitchenettes

804.2.2 U-Shaped Kitchens.

804.2.2.1 New buildings. In new buildings, in kitchens enclosed on three contiguous sides, clearance between all opposing base cabinets, countertops, appliances, or walls within kitchen work areas shall be 67 inches (1700 mm) minimum. (3-6E-12)

EXCEPTION: U-shaped kitchens with an island shall be permitted to comply with Section 804.2.1. (8-9-12)

804.2.2.2 Existing buildings. In existing buildings, in kitchens enclosed on three contiguous sides, clearance between all opposing base cabinets, countertops, appliances, or walls within kitchen work areas shall be 60 inches (1525 mm) minimum. (3-6E-12)

EXCEPTION: U-shaped kitchens with an island shall be permitted to comply with Section 804.2.1. (8-9-12)

805 Transportation Facilities

805.2.2 Dimensions.

805.2.2.1 New buildings and sites. In new buildings and sites, bus stop boarding and alighting areas shall have a 100-inch (2540 mm) minimum clear length, measured perpendicular to the curb or vehicle roadway edge, and a 60-inch (1525 mm) minimum clear width, measured parallel to the vehicle roadway. (3-13F-12)

805.2.2.2 Existing buildings and sites. In existing buildings and sites, bus stop boarding and alighting areas shall have a 96 -inch (2540 mm) minimum clear length, measured perpendicular to the curb or vehicle roadway edge, and a 60-inch (1525 mm) minimum clear width, measured parallel to the vehicle roadway.

1007.3.2 Golf Club Reach Range Area.

1007.3.2.1 New buildings. In new buildings, all areas within holes where golf balls rest shall be within 36 inches (915 mm) maximum of a clear floor space 36 inches (915 mm) minimum in width and 52 inches (1320 mm) minimum in length complying with Section 305 having a running slope not steeper than 1:20. The clear floor space shall be served by an accessible route. (3-13H-12)

1007.3.2.2 Existing buildings. In existing buildings, all areas within holes where golf balls rest shall be within 36 inches (915 mm) maximum of a clear floor space 36 inches (915 mm) minimum in width and 48 inches (1220 mm) minimum in length complying with Section 305 having a running slope not steeper than 1:20. The clear floor space shall be served by an accessible route.

1009.2.3 Clear Deck Space.

1009.2.3.1 New buildings. In new buildings, on the side of the seat opposite the water, a clear deck space shall be provided parallel with the seat. The space shall be 36 inches (915 mm) minimum in width and shall extend forward 52 inches (1320 mm) minimum from a line located 12 inches (305 mm) behind the rear edge of the seat. The clear deck space shall have a slope not steeper than 1:48. (3-13K-12)

1009.2.3.2 Existing buildings. In existing buildings, on the side of the seat opposite the water, a clear deck space shall be provided parallel with the seat. The space shall be 36 inches (915 mm) minimum in width and shall extend forward 48 inches (1220 mm) minimum from a line located 12 inches (305 mm) behind the rear edge of the seat. The clear deck space shall have a slope not steeper than 1:48.

Reason: The A117.1 Committee has proposed major changes to the basic building blocks in Chapter 3, accessible routes in Chapter 4, general site and building elements in Chapter 5, plumbing elements and facilities in Chapter 6, special rooms and spaces in Chapter 8, and recreational facilities in Chapter 10. The Committee debated both the need and cost of these changes prior to the release of the current Public Review Draft. While these major changes represent a significant construction cost increase for new buildings, they would represent a much more significant cost impact to existing buildings. More importantly, in many cases these changes will impose an impossible burden on these facilities by requiring dimensions that cannot be implemented given structural and other limitations in existing buildings. This comment proposes to include separate existing building provisions, most of which leave in place the current dimensions for the affected sections of the Standard for existing buildings while continuing to incorporate the revised dimensions included in the current Public Review draft for new buildings. This approach follows historical trends in recognizing the need to have exceptions for existing accessibility regulations such as in the ADAAG and earlier editions of Standard A117.1.

3-6-12 PC3

Chad Beebe, – representing American Society for Healthcare Engineering (ASHE)

Disapprove this change. Return the text to that found in existing standard.

Reason: In review of the 2014 Final Draft of the ICC A117.1 document, it has come to our attention that several of the proposed changes will have a significantly negative impact to the healthcare industry design/built environment of buildings designed under the 2015 IBC. Further, it is our understanding that the overwhelming majority of these changes have been derived from a single uncorroborated report which has neither been properly vetted nor adopted by any other credible agency or (similar) jurisdictional body.

As we do not feel these dramatic and substantial changes have been given proper and appropriate consideration by all interested stakeholders in this process, and since we question the authenticity of the underlying premise used to make such changes, we respectfully request they either be removed entirely from consideration in this draft, or that the entire draft adoption process be held in abeyance for a minimum of 12-months so that further collaboration can be conducted with all interested parties. If the Committee opts to delay this process for 12-months, it will be in keeping with the mission of the ICC, and best assure that all parties can be provided with the opportunity to reasonably participate in this process.

3-6-12 - The increasing of the 60-inch diameter turning space to 67-inches, an increase of 5 square feet for every required turning space and approximately 15 – 20 square feet for every patient room.

These new requirements would add thousands of required square feet to a new hospital and significantly impact any renovations to an existing hospital by requiring increased patient room sizes to meet the new requirements and thus, due to the fixed square footage within the building foot print, will reduce the number of allowable beds the hospital can maintain. With hospital construction cost averaging around $300.00 per square foot these additional increases in square footage will significantly impact the cost of construction. Thank you for your consideration of this request, and in keeping alive the goals and mandates of the entire ICC organization and membership.

3-6-12 PC4

Tony Ewalt, representing Sletten Construction of Nevada, Inc.; Michael Gentille, representing Philip Chun North America, Inc.; Michael McGettigan, representing Terracon Consultant; Robert W. Potter, Construction Company, representing Affordable Concepts; Eric J. Rowland, representing Rowland Design;

Disapprove the change. Return the text to that found in existing standard.

Reason: In review of the 2014 Final Draft of the ICC A117.1 document, it has come to my attention that several of the proposed changes (ratified by this Committee) will have a significantly negative impact to the design/built environment of buildings designed under the 2015 IBC. Further, it is my understanding that the overwhelming majority of these changes have been derived from a single uncorroborated report which has neither been properly vetted nor adopted by any other credible agency or (similar) jurisdictional body.

As I do not feel these dramatic and substantial changes have been given proper and appropriate consideration by all interested stakeholders in this process, and I question the authenticity of the underlying premise used to make such changes, I respectfully request they either be removed entirely from consideration in this draft, or that the entire draft adoption process be held in abeyance for a minimum of 12-months.

If the Committee opts to delay this process for 12-months, it will be in keeping with the mission of the ICC, and best assure that all parties can be provided with the opportunity to reasonably participate in this process.

3-6-12 PC5

Rob Gilkerson – representing self

Disapprove the change. Return the text to that found in existing standard.

Reason: The impact of increasing the circular space from 60 to 67 is so vast, I believe most states, regional building departments, or municipalities will never adopt the 2014 ANSI A117.1; thereby never implementing other good code changes like curb ramps, 48 inch wide exterior routes and accessible routes through parking (507) that are contained within ANSI A117.1-2014.

3-6-12 PC6

Karen Gridley, representing Target Corporation

Disapprove the change. Return the text to that found in existing standard.

Reason: The size of the circular turning space should remain at the current dimension of 60 inches, and not be increased to 67 inches. Several reasons are noted here to demonstrate that the increase to 67 inches will ultimately result in a reduction of access from a broader perspective.

During the July 2013 Committee Action Meeting we heard comments by committee members wondering if there is data available regarding how the size of the current turning space works in “real world” applications as compared to findings in the study completed by Dr. Steinfeld.

In response, Target can offer some data that will help add real world context to the discussion.
For reference, Dr. Steinfeld’s study, which lead the committee to propose a new 67” circular turning space, included 500 participants from a localized geographic area, as we understand it.

Target’s data is based on feedback from people across the nation who visit our stores, totaling nearly 36 million transactions *per week*, on average. Keeping in mind that often the person making the transaction has another person with them so there are well into the multi-millions of guests at Target stores every week. Of these guests, many share comments of all sorts with Target (not just access related) through various channels. We find that of the guests who contacted us in 2012, the percentage of comments related to accessibility of the building was limited to an extremely small fraction of less than 1%. (Less than .0003% of 1%.). Of that fraction of 1%, an even smaller fraction of those comments were related to concerns about turning space for wheeled mobility devices. This tells us that the current sizes and dimensions in the existing Standard work for circular turning space, as-is, for the greater majority of guests using wheeled mobility devices. The data presents no compelling evidence or reason to change the existing dimension.

Additional Information:
During the July 2013 Committee Action Meeting, members of the committee commented that the committee’s job was to look at the A117.1 Standard and implement changes to increase access through that document. In response, we urge the committee to consider that ‘bigger is not always better, sometimes it’s just bigger’.

Supporting this would be the observation that the committee has not done its due diligence in evoking or investigating the Wheeled Mobility Device Manufacturing Industry to see what can be accomplished to improve maneuvering through existing engineering practices in ‘Like’ industry trends and innovation in designs on their end, as that industry as a whole is changing too. Like the automotive industry that went from large cars, trucks and vans to smaller frame vehicles to achieve sustainable efficiencies throughout their redesign all while maintaining safety and functionality.

From an architectural perspective, designers and building owners do not have the luxury of looking at a building in isolation through only a single Standard or Regulation when we design buildings. We must consider many regulations and standards, each having an impact and interplay with other requirements that ultimately drive the size, shape and design of the spaces we provide for people. Considering this interplay, Target respectfully submits that increasing the size of the Circular Space, and other building block sizes, will actually result in decreased accessibility when applied in conjunction with forces in place from other codes and standards.

For example: Green codes and standards are increasingly challenging us to "reduce our carbon footprint", and be responsible stewards of the environment, which includes making buildings smaller in order to achieve compliance with those standards and newly developing regulations. While at the same time, the proposed increases in size of accessibility building blocks within the A117.1 standard would have us increasing our building size.

It is true that designers can adjust, tweak, push and pull designs of the physical buildings to meet these conflicting requirements. In the past we've had the luxury of being able to make buildings larger. However that luxury is increasingly limited in today's environment. The cost comes in what will subsequently be able to fit within in these buildings that are experiencing a compound squeeze (squeezed smaller in footprint on the outside, but interior spaces pushed larger from within). From a retail perspective, this will reduce capacity for merchandise offerings. What was once able to be provided on store shelves may no longer be available due to compromised available space for shelving to house merchandise, having a negative impact on guest's shopping trips.

From a product perspective, of the guest comments received in 2012, approximately 12% were related to product, as compared to the less-than 1% of comments related to building accessibility. Product availability is already of greater concern to guests than building access. Thus, increasing the building blocks of accessibility would drive product concern even higher, since the very things that persons with disabilities might travel to a store to purchase could no longer be available. Considering the effort it takes to travel to shopping destinations for many persons with disabilities, it is a disservice to them for retailers to not be able to offer the items that they currently go there for, forcing them to extend strenuous shopping trips to additional stores in search of what they are looking for, and for some, making the shopping trip as a whole inaccessible all together.

Finally, from an existing building perspective, increased sizes in existing buildings where in many cases barrier removal has already been accomplished in compliance with existing codes and the "20% rule" as triggered by a previous alteration project, will be extremely onerous and in some cases not possible at all. For example restroom fixture count may have already been reduced in order to comply with the current codes and standards sizes. It will not be possible to reduce fixture counts further in order to comply with the proposed building block size increases when new alterations occur, without creating a violation of plumbing codes.

We encourage the committee to reconsider the proposals that would increase the size of the circular space, and other building block sizes, and instead maintain the current sizes. At least until such time as more investigation of the Wheeled Mobility Device Manufacturing Industry can take place to identify what can be done to improve design of those devices via engineering and technology advancements, towards improved access.

3-6-12 PC7

Douglas Kantor, Steptoe & Johnson, LLP, representing National Association of Convenience Stores

Disapprove the change. Return the text to that found in existing standard.

Reason: NACS is not in favor of this proposed change. We believe that the impact of this change could be significantly negative to the convenience and fuel retailing industry.

This proposed change could increase the floor area required for a turning space by 25% or 6.2 SF. We anticipate that this change would primarily impact the size of the toilet rooms causing them to become larger. This change to the toilet rooms would therefore lead to a loss in selling space or an increase in store size which will have significant impact to our members. It is estimated that this change would have a negative impact on sales of $600 per month, based upon 2 toilet rooms per store.

Based upon this negative impact to sales NACS is not in favor of this proposal without evidence that this proposal is absolutely necessary for the accessibility of persons with disabilities. While we recognize that the research provided indicates that wheeled mobility devices are becoming larger we do not see any research or reason provided for the increase in size in wheeled mobility devices. Should we, as an industry, be required to pay this cost or increased size out of the choice for bigger devices or should the necessity of larger devices be provided prior to requiring larger spaces.

3-6-12 PC8

Jeffrey T. O'Neill, AIA, ACHA – representing self

Disapprove the change. Return the text to that found in existing standard.

Reason: In review of the 2014 Final Draft of the ICC A117.1 document, it has come to my attention that several of the proposed changes (ratified by this Committee) will have a significantly negative impact to the design/built environment of buildings designed under the 2015 IBC. Further, it is my understanding that the overwhelming majority of these changes have been derived from a single uncorroborated report which has neither been properly vetted, peer-reviewed, nor adopted by any other credibleagency or (similar) jurisdictional body.

I respectfully request they either be removed entirely from consideration in this draft, or that the entire draft adoption process be held in abeyance for a minimum of 12-months, to give time for these proposed changes to be properly discussed and vetted. If the

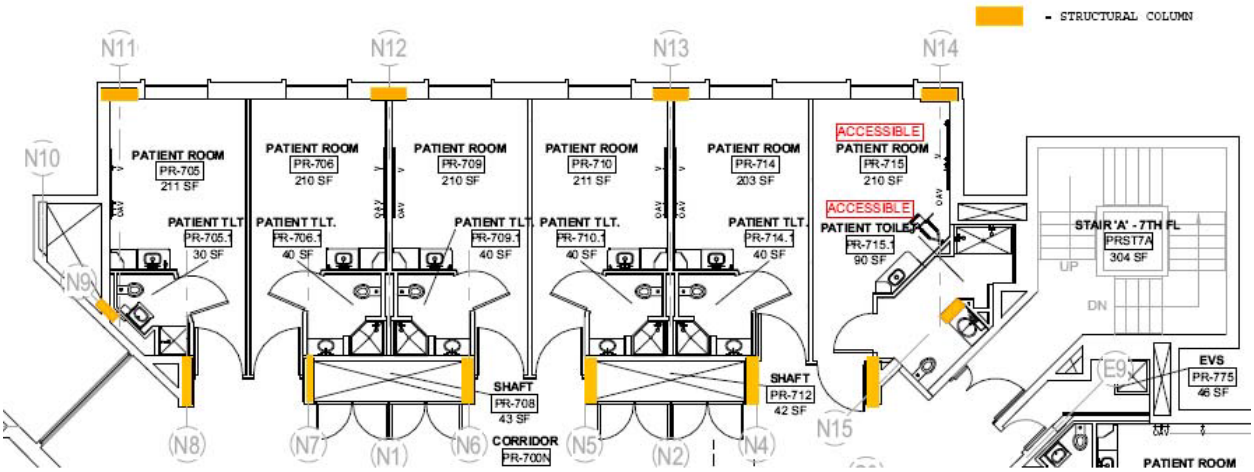
Committee opts to delay this process for 12-months, it will be in keeping with the mission of the ICC, and best assure that all parties can be provided with the opportunity to reasonably participate in this process.

From the healthcare perspective, hospitals are places that are designed to create an accessible environment for patients, visitors and staff. Clearances are developed for patient movement operations, and for those with mobility issues. The newly proposed requirements, however will have a dramatic effect on the delivery of patient care, by reducing the amount of treatment spaces available to patients, especially in renovation areas. Clearances are required around every bed per the FGI Guidelines, in addition to accessibility requirements.

For example, if designing a new 18 bed inpatient unit in an existing hospital, the existing structure cannot be avoided. The floorspace is a finite quantity. Since there would be two required accessible patient rooms. The larger toilet room would need to expand, eliminating the adjacent patient room because the Guideline requirements cannot be met. This make what currently can be an 18 bed unit into a 16 bed unit, which is an 11% reduction, while still requiring the two accessible rooms.

The example below shows a design for a new inpatient bed unit in an existing structure. One of the required accessible rooms is on the right, and clearly shows moving outside the "box" of the other regular rooms.

These additional requirements noted above would add to this situation. Also, note that the existing structure forces the accessible toilet room to be fragmented. Although maintaining the required clearances at each fixture, the columns and structure of the stair make for a highly inefficient layout.



SAMPLE PATIENT UNIT
RENOVATION IN EXISTING BUILDING STRUCTURE
DECEMBER 2013

Reducing possible beds is a significant issue in healthcare today. The Affordable Care Act strives to improve access for patients in pursuit of universal coverage. An 11% reduction in beds means that those beds are not available to patients. This means patients will be waiting in Emergency Departments for beds to become available, and in turn could potentially cause that hospital to divert patients away from the hospital, reducing access to that institution. Although well intended, the newly proposed accessibility requirements will have the opposite effect of reducing the amount of treatment spaces in an existing healthcare institution.

Thank you for your consideration of this request, and in keeping alive the goals and mandates of the entire ICC organization and membership.

3-6-12 PC9

Hope Reed – representing New Mexico governor's Commission on Disability (NMGCD)

Disapprove the change. Return the text to that found in existing standard.

Reason: Do not adopt 67" turning circle and other increased clear floor areas. ANSI Section 304.3 should remain consistent with 2010 ADA Standards. The **2010 ADA Standards for Accessible Design** became effective just 21 months ago. The 2010 ADA requires a 60 inch turning circle. Why would anyone choose to use this stricter requirement in ANSI-2014? Many jurisdictions will not adopt the ANSI-2014 and will just use the 2010 ADA Standards.

At this time people already have a hard time getting the turning circle and door clearances correct, but at least all the dimensions are logical and similar so we can easily understand what is required and we don't have to argue about a few inches. Changing the current basic clearances will throw out all the progress we have earned to this point.

Adopting larger turning and maneuvering clearances in ANSI-2014 negates all the careful progress the Committee has made toward harmonization. There are too many variations in the proposed floor clearances. No one will remember these tiny variations in the field, and it is difficult to figure out and explain with contractors under a deadline.

The larger turning circle and clearances should go in the **Appendix** with good diagrams and rationale supporting the increased areas. Designers need to understand the reason for larger areas and be encouraged to choose them for airports, convention centers, stadiums, theaters, shopping malls, and similar.

Placing these larger clearances in the **Appendix** will prepare us for the time when the ADA adopts them. Then implementation will be easy and understandable.

3-6-12 PC10

Minh N. Vu – American Hotel & Lodging Association

Disapprove the change. Return the text to that found in existing standard.

Reason: Reason: AH&LA COMMENTS ON PROPOSED CHANGES TO TURNING RADIUS AND CLEAR FLOOR SPACE REQUIREMENTS AND ALL RELATED CHANGES.

The American Hotel & Lodging Association (1) (hereinafter, "AH&LA") strongly objects to the proposal to (1) increase the minimum turning radius space from 60" to 67" (Section 304.3.1); and (2) increase the minimum clear floor space required to accommodate a manual or power wheelchair and scooter (referred to herein as "wheeled mobility device or WhMD") from 30"x48" to 30"x52" (Section 305.3).

The proposed increase in the minimum size of the turning radius has resulted in proposals to change the following additional requirements:

- Parking Access Aisle Width: Increase the width of parking access aisle from 60" to 67" (Section 502.4.2)
- Access Aisle For Passenger Loading Zone: Increase the width of access aisles serving vehicle pull up spaces from 60-67" (Section 503.3.2)
- Clear Space in U-Shaped Kitchens: Increase the clear space in middle of U-shaped kitchens from 60" to 67" (Section 804.2.2)

The proposed increase in the minimum clear floor space required to accommodate a WhMD has prompted proposals to change the following additional requirements:

- T-Turn Space: Increase the amount of space required for a T-turn from a 60" square with two arms and a base that are at least 36" wide to three different configurations that are all significantly larger (60" x 68" or 60" x 64", depending on the width of the arms and base) and the removal of an existing provision that allows one of the arms or the base to overlap knee and toe space under an obstruction. (Section 304.3.2)
- Platform Lift Size: Increase the minimum depth of platform lifts from 48" to 52" (Section 410.5.1)
- Lavatory Knee/Toe Space: Increase the clear floor space required at lavatories to reflect larger clear floor space (Section 1004.11.3.1.1)

  180 Degree Turn Space: Increase the required width of an accessible route at 180 degree turns (Sections 403.5.1, 403.5.2)
- 90 Degree Turn Space: Increase the required width of an accessible route at 90 degree turns (Section 403.5.3)
- Door Maneuvering Space: Increase the amount of maneuvering space on the push side of doorways and gates to 52" deep (Tables 404.2.3.2, 404.2.3.3, and 404.2.3.4)
- Clear Floor Space at Transfer Shower Compartment: Increase the clear floor space outside of a transfer shower compartment from 48" (L) to 52" (L) (Section 608.2.1.2)

As discussed below, the AH&LA opposes all of the changes listed above (the "Proposed Changes") because they are not justified by any relevant data, would impose enormous unnecessary costs on the lodging and other industries in new construction and future alterations of existing facilities, and would undo the efforts of the ANSI Committee, the Access Board, and the U.S. Department of Justice (DOJ) to harmonize building code accessibility requirements with the 2010 ADA Standards. The lack of consistency between building code requirements and the ADA Standards that would result if the Proposed Changes are adopted would cause unnecessary confusion, undermine compliance efforts, and fuel frivolous ADA Title III lawsuits.

The purported reason for the Proposed Changes is that many WhMDs used by individuals with mobility disabilities in the United States (1) are not able to make a 360 degree turn within the current 60" radius, and (2) occupy a footprint larger than 30" x 48". *There is no factual basis for these assumptions.* AH&LA's review of WhMDs sold in the United States shows that there are more than 129 models of WhMDs (including manual and power wheelchairs and scooters) on the market that can make a 360 degree turn within a 60" turning radius and have a footprint that is smaller than the 30" x 48" clear floor space currently required by the ANSI A117.1 and the 2010 ADA Standards. Thus, the use of any WhMD that is larger than optimal for the existing built environment is rarely, if ever, out of necessity. Among the WhMDs that AH&LA identified, virtually all can accommodate a load of 350 lbs., and some as much as 600 lbs.

The incorrect assumption that current standards do not accommodate many WhMDs used in the United States is based on findings from a study conducted by the Center for Inclusive Design and Environmental Access (hereinafter, "IdeA"), *Anthropometry of Wheeled Mobility Project,* Final Report (December 31, 2010) (hereinafter, the "Study"). As explained below, the Study provides no insight into the space requirements of WhMD users in the United States because it is based on a group of participants who do not constitute a representative sample of WhMD users in the United States. The Study made no attempt to ensure that its participants reflected the U.S. population of WhMD users with respect to (1) the type of WhMDs used *(i.e.* manual wheelchair, power wheelchair, or scooter), (2) the models of manual wheelchair, power wheelchair, or scooters used, or (3) their medical conditions. In fact, the study authors readily admit that their sample was neither random nor representative. Accordingly, no conclusions about WhMD users in the United States can be drawn from the Study and the Study provides no basis or justification for changing longstanding accessibility standards for the entire United States.

AH&LA supports the issuance of ANSI A117.1 standards that promote access for people who use WhMDs. However, the

Proposed Changes will have an extreme impact on lodging and all other types of commercial facilities and should only be adopted if there are *legitimate and compelling reasons,* and only after a *meaningful analysis ofthe impact of such changes* on existing and new facilities. As explained below, the record, as it exists today, contains no such reasons or meaningful analysis. The ANSI Committee also has conducted no cost/benefit analysis for the proposed changes. AH&LA's preliminary analysis of how some of the Proposed Changes would affect spaces such as accessible guest rooms and restrooms shows that the cost impact would be enormous, would put owners of existing buildings in very difficult situations in future renovations, and expose them to frivolous lawsuits. These reasons, when combined with mass confusion that will result from having an ANSI A117.1 that is different from the 2010 ADA Standards that just went into effect last year, all support the rejection of all the Proposed Changes.

I. The Proposed Changes Are Based On The Baseless Assumption That WhMDs Are Unable To Operate Under The Current Standards.

A. At Least 129 WhMD Models on the U.S. Market Can Operate Within The Current Standards.

The AH&LA strongly disputes the notion that WhMDs in the United States cannot operate within the current standards. To address this misconception, AH&LA undertook a review of the specifications of all models of power wheelchairs, manual wheelchairs, and scooters manufactured for sale by the top eleven (11) manufacturers in the United States (2). *See* Chart at Attachment A. This review revealed the following facts:

- At least forty-eight (48) power wheelchairs have a footprint smaller than 30" x 48" and can make a 360 degree turn within a 60" radius. *See id.* The weight capacity of this group of power wheelchairs ranges from 242 to 600 lbs. The count may actually be as high as sixty-six (66) power wheelchairs but AH&LA excluded from this count chairs whose reported lengths (usually substantially less than 48") did not include footrests. Of the group of forty-eight (48) twenty-eight (28) have lengths of 40" or less -- eight inches shorter than the current required clear floor space of 48".
- Fifty (50) scooter models have a footprint that is smaller than 30" x 48" and can make a 360 degree turn within a 60" radius. *!d.* The weight capacity of this group of scooters ranges from 250 to 500 lbs. Of this group of scooters, fifteen (15) have lengths of 40" or less-- eight inches shorter than the current required clear floor space of 48".
- At least thirty-one (31) manual wheelchair models have a footprint smaller than 30" x 48" and can make a 360 degree turn within a 60" radius. The weight capacity of this group of wheelchairs ranges from 250 to 450 lbs. Of this group, nineteen (19) have lengths of 40" or less -- eight inches shorter than the current required clear floor space of 48".

AH&LA's review makes clear that individuals who need to use WhMDs for mobility can choose from a wide array of manual wheelchairs, power wheelchairs, and scooters that are able to maneuver within facilities constructed in accordance with existing accessibility standards. The fact that some individuals choose larger WhMDs is largely a matter of personal choice which should not dictate changes to accessibility standards that have been in place for decades. By way of analogy, roads are not widened simply because some people might want to drive larger cars. Car manufacturers can and must produce cars that can operate within current road standards. WhMD manufacturers can also produce devices that work within the current accessibility standards, as shown by AH&LA's review. Accordingly, there is no need to enlarge turning radius or clear floor space requirements.

B. The Study's Conclusion That WhMD Users In The United States Cannot Operate Under The Current Standards Is Baseless.

The Study which forms the sole basis for the Proposed Changes is somewhat inconsistent about whether its findings can be generalized to the U.S. population of WhMD users. The Study limits the findings to the Study participants in some places but then extends the findings to the entire U.S. population ofWhMD users in others. *(Compare* Study Finding 10 to Study Finding 7, p. 4). One basic fact is clear, however: Because the Study participants were not a representative sample of WhMD users in the United States, the Study could not be the basis for any findings about WhMD users in the United States. As two statistics experts have written: "If you happen to choose a sample that is very unrepresentative of the corresponding population, you will make very inaccurate predictions when you try to estimate the characteristics of the population based on that sample." (3)

In this case, the Study authors readily admit that their participant pool did not a represent a sample ofWhMD users in the United States. (Study at 13). For example:

- The 495 study participants were not randomly selected WhMD users. Instead, they were recruited from: Buffalo, NY; Pittsburg, PA; and Ithaca, NY. (Study at 3).
- The study "intentionally oversampled powered wheelchair users," so that the relative percentage of users of manual wheelchairs, power wheelchairs, and scooters did not reflect the breakdown in the U.S. population. (Study at 13). Because power wheelchairs tend to require more room, this oversampling of power wheelchair users resulted in a larger number of WhMDs in the study that were not able to operate within the current standards.
- Within each of the three (3) categories (manual wheelchair, power wheelchair and scooter), the Study made no attempt to correlate the models of WhMDs used by the study participants with those currently used in the United States. This is an important point because, as shown in Attachment A, there are many different models of manual wheelchairs, power wheelchairs and scooters. Within each category, there are variations with regard to turning

radii and footprint. Thus, it is entirely possible -- in fact quite likely -- that a greater percentage of study participants choose larger WhMD models which would drive the finding that the existing standards provide inadequate space.

- The Study also made no attempt to choose participants whose medical conditions proportionately reflect the medical conditions of WhMD users in the United States. (Study at 36). The Study's authors stated that there was "a higher prevalence of spinal cord injuries" in the Study sample, in addition to a larger percentage of participants with "nervous system disorders," relative to the percentage of people with this condition in the U.S. population (indeed, 32% of study participants had "nervous system disorders," whereas only 8% ofthe general population ofWhMD users have such disorders). (Study at 36). The disproportionately higher percentage of study participants with spinal cord and central nervous system injuries likely increased the number of people who would have difficulty controlling their WhMDs in making turns.

Although they were not were not always so careful with their language, the Study's authors did acknowledge the Study's limitations on several occasions by limiting their findings to the participants *in the survey.* For example, Finding Number 7 about "clear floor space" states: "A large minority of *participants in our research* would not be accommodated by the current U.S. Standards for clear floor space, especially for length." (Study at 4) (emphasis added). Finding Number 10 about "maneuvering clearances" states that "the current standards do not accommodate *most of our sample* for completing a 360 degree turn." (Study at 4) (emphasis added). In short, no conclusions can be drawn from the Study's findings about whether WhMD users in the United States can operate under the current standards or whether the standards need to be changed.

II. The ANSI Committee Has Not Studied The Impact Of The Proposed Changes On Various Types Of Facilities; AH&LA's Analysis Shows That The Proposed Changes Will Have A Radical Impact On Lodging Facilities.

A. The Larger Turning Radius Will Require Larger Accessible Guest Rooms, Single User Restrooms, U-Shaped Kitchens, And Access Aisles.

Before approving any new requirements, the ANSI Committee should, at a minimum, review the impact of the proposed changes on the different types of affected facilities to appreciate the magnitude of the consequences of its actions. Even the Study's authors acknowledged that there must be careful consideration of the impact of any proposed changes. With regard to the 360 degree turning space, the Study stated: "The implications of these findings are *so significant* that the authors recommend starting [sic] broad discussion of options among stakeholders before a concrete proposal is made to adopt a particular strategy." (Study at 83) (emphasis added). It is also undisputed that the ANSI Committee's Wheeled Mobility Task Force has not completed its work and any decisions on proposed changes are, therefore, premature.

Attachment B contains some preliminary drawings showing the impact of the larger proposed turning radius and clear floor space requirement on a typical accessible guestroom, a single user restroom and aU-shaped kitchen. *See* Attachment B. The drawings show that the enlarged turning radius will require a typical 13' wide accessible guest room to be at least 7" wider and 14 square feet larger overall. Because a typical hotel is required to have a number of accessible guest rooms (approximately three percent (3%) of inventory), the impact will be very significant. Single-user restrooms will have to be at least 4.5 square feet larger and U-shaped kitchens will have to be at least 8 square feet larger. Every access aisle for accessible parking spaces also will have to be 7" wider, thereby decreasing the overall number of parking spaces that can be provided on a site.

In new construction, the increased space requirements for accessible guest rooms will result in a decrease in revenue generating space for the entire life of a building because a building will be able to accommodate fewer rooms than it would have under existing standards. Alternatively, if a building can be made larger to accommodate the same number of rooms, owners will incur additional construction and land acquisition costs.

The impact on existing facilities will be even more serious because the diagrams plainly show that there would be no way to comply with the new turning space requirement in future renovations within the existing footprint of the rooms. Accessible rooms and restrooms are typically built just large enough meet current accessibility requirements. The owners of existing facilities seeking to renovate will either have to demolish existing walls to create new room footprints that will reduce room count, or seek variances from local building officials who may or may not agree to issue them. The process of seeking variances will inject additional delays, cost, and uncertainty to the renovation process.

The requirement to make wider accessible parking access aisles to accommodate the larger turning radius will reduce the number of parking spaces that can be constructed in a new parking facility. Existing parking facilities that are renovated also would lose spaces because of the proposed change and this could be problematic for facilities that already have a shortage of parking spaces. The potential shortage of parking spaces will be compounded by the proposed new requirement that accessible routes in parking facilities be "physically separated" from that proposed change, the physical separation requirement would presumably require the creation of a path that is distinct from the vehicular drive. This path will further reduce the amount of space available for parking.

B. Increasing The Length Of The Minimum Clear Floor Space Requirement From 30" x 48" To 30" x 52" Will Impact Small Spaces Such As Accessible Guest Rooms, Restrooms, Gym Facilities, Locker Rooms And Business Centers.

Operable controls in accessible spaces must be adjacent to a clear floor space. Increasing the size of that clear floor space by 4" in length likely will result in accessible guest rooms having to be larger in order to provide the larger clear floor space at climate controls, light switches, lavatories, in-room safes and drapery pulls. In AH&LA's experience, providing a 30" x 48" clear floor space at all controls in an accessible guestroom, while retaining the same furniture that is

offered in non-accessible rooms, already presents a spacial challenge. An increase in the clear floor space length will exacerbate the problem, particularly in existing facilities. The same is true in other spaces where clear floor space is at a premium. In gym facilities, the enlarged clear floor space would have to be provided at one of each type of exercise equipment (e.g., cardio machines, weight machines, free weights, exercise tools), as well as the house phone and water fountain/cooler. In locker rooms, the enlarged clear floor space would have to be provided at the entry to transfer showers, lavatories, accessible lockers, clothing hooks, hairdryers, dispensers and towels. In business centers, the clear floor space would have to be increased at printers, computer stations and house phones.

C. The Proposed Increase In Space Requirements For T-Turns At 90 Degree Turns And At 180 Degree Turns Will Require Many Spaces To Be Enlarged And Decrease The Amount Of Productive Space.

(304.3.2), 180 degree turns (403.5.) and 90 degree turns (404.2.3) will result in the decrease of productive, revenue generating space in retail and food and beverage venues. Space for seating and product displays are at a premium in these types of spaces. Increasing the amount of space required for the T-turn and the 180 degree turn, and introducing an entirely new space requirement for 90 degree turns, will decrease the amount of merchandise that can be displayed in a retail venue and the number of tables that can be placed in a restaurant.

Another very significant proposed change to the T-turn provision is the elimination of an existing provision that allows a portion of the T-turn space to overlap the knee/toe clear space that must be provided under an obstruction such as a bathroom vanity. As shown in Attachment C, this deletion, when combined with the increased space requirements for a T-turn, results in an accessible guest room that must be approximately 10 square feet larger. In a single user restroom, the proposed T-turn changes would require an increase of 3.5 square feet to a typical single user restroom.

The impact of the T-turn change is especially problematic in the accessible guestroom scenario because the length of the entire room would have to be increased by 9", making the accessible room longer than the standard room. This is an untenable situation in both new construction and alterations. In new construction, the lengthening of one room type would cause all other rooms on that corridor to be deeper, resulting in decreased room count. In existing facilities, there would be no way to lengthen the room because doing so would intrude into the corridor. Thus, the better option for providing a turning space in this room configuration is to use the 67" radius shown in Attachment B which would require the room to be 14 square feet larger.

D. Increasing The Minimum Maneuvering Space On The Push Side Of Doors From 48" To 52" (D) Would Require the Enlargement of Small Spaces.

The ANSI Committee has proposed to increase the depth of the maneuvering space on the push side of a door or gate from 48" to 52" for a perpendicular approach. (Tables 404.2.3.2, 404.2.3.3, and 404.2.3.4). In a lodging facility, this change would require more clear floor space at a swinging doorway. This change would impact small spaces such as business centers, retail spaces, and entries into fitting rooms and restrooms which would have to be made larger to accommodate the same amount of furniture, fixtures, and equipment.

In existing facilities that are renovated, most owners will not have the option of making these impacted spaces larger because doing so will impact the space on the other side of the wall. Owners would then have to seek variances from this new requirement. In the best case scenario, owners would experience additional costs, delays, and uncertainty in the renovation process. In the worst case scenarios, the variance would not be granted and the renovation would not take place.

E. Increasing the Minimum Depth Of Platform Lifts From 48" To 52" Will Make It More Difficult To Provide Access.

The proposed increase in the minimum length of platform lifts from 48" to 52" (Section 409.51) could make it substantially more difficult for owners of existing lodging facilities to use a platform lift as a means for providing access because more space will be required for a larger lift. There may not be room for a larger lift in which case a facility may be able to take the position that putting one in is not technically feasible. In short, this proposed rule may negatively impact access.

III. The Proposed Changes Will Make The ANSI A117.1 Standard Inconsistent With The New 2010 ADA Standards And Undermine Harmonization And Compliance Objectives.

As the ANSI Committee is well aware, for the first twenty (20) years of the Americans with Disabilities Act of 1990 (hereinafter, "ADA"), the ANSI A117.1 Standard was not the same as the ADA Standards for Accessible Design adopted by the DOJ. The lack of harmonization caused a great deal of confusion among owners of public accommodations and commercial facilities who had to comply with building code and ADA requirements that differed. In September 2010, the DOJ issued the 2010 ADA Standards which was the culmination of an effort by the ANSI Committee and the Access Board to harmonize the ANSI A117.1 Standard with the 2010 ADA Standards. The 2010 ADA Standards have only been in effect for fewer than two years.

If adopted, the proposed changes to the ANSI A117.1 Standard will undo this harmonization effort by introducing entirely different standards into future editions of the International Building Code (IBC) which will then be adopted by state governments as their building codes. Owners seeking to comply with both sets of requirements will, yet again, be thrown into a state of confusion even though, as discussed above, there is no need for the changes in the first place. In AH&LA's experience, compliance regimes that are confusing or difficult to understand/implement usually result in less accessibility and operate to the detriment of individuals with disabilities. AH&LA, thus, urges the ANSI Committee to reject any rule changes that would conflict with the 2010 ADA Standards, including those

discussed above.

IV. At A Minimum, The Proposed Changes Should Not Apply To Existing Buildings.

As can be seen throughout the preceding discussion, the proposed changes -- once they are adopted by jurisdictions as part of their building codes -- will be particularly problematic for existing facilities that will have to comply with them in future renovations. In most instances, lodging facility owners will face three alternatives: (1) comply with the new requirements by moving walls and radically changing the footprint of the accessible guest rooms, restrooms, locker rooms and other spaces; (2) attempt to obtain a variance from local building officials assuming such a process is available; and (3) not renovate. All options are highly undesirable. The first two options add substantial cost and uncertainty to renovation projects. The last option would undermine accessibility because renovations usually improve access. Accordingly, if the ANSI Committee is unwilling to postpone the adoption of the Proposed Changes for further study, it should, at a minimum, limit their application to facilities constructed after a jurisdiction adopts the changes.

1. The American Hotel & Lodging Association is a membership organization that represents the interests of every segment of the lodging industry, including REITs, brand, franchisee, management companies, independent property owners, and state associations.

2 The manufacturers reviewed were Afikim, Drive Medical, Graham Field, Innovation in Motion, Golden Technologies, Hoveround, Invacare, Ottobock, Permobil, Pride, and Sunrise Medical.

3 D. Downing and **J.** Clark, *Business Statistics* at 3. Barron's Education Series, 2003 Print.

ATTACHMENT A
AMERICAN HOTEL & LODGING ASSOCIATION REVIEW OF
POWER WHEELCHAIRS, MANUAL WHEELCHAIRS, AND SCOOTERS WITH FOOTPRINTS AND TURNING RADII WITHIN CURRENT STANDARDS
DECEMBER 9, 2013

COUNT[1]	TYPE	TERRAIN	MODEL	MANUFACTURER[2]	WIDTH (INCHES)[3]	LENGTH (INCHES)[4]	TURNING RADIUS (INCHES)[5]	WEIGHT CAPACITY (POUNDS)
POWER WHEELCHAIRS								
1	Power	Heavy-Duty	Super Compact	Innovation in Motion	24.8	35.8 base only	19.3	242
2	Power	Compact	Cobalt	Drive Medical	24	38.5	29	250
3	Power	Standard	Cobalt X 16	Drive Medical	24	38.5	29	250
4	Power	Compact	Cobalt X 14	Drive Medical	24	38.5	29	250
5	Power	Standard	Cobalt X 23	Drive Medical	24	38.5	29	250

[1] Sorting scheme is by type of device, then by ascending weight.

[2] Survey includes models of power wheelchairs, manual wheelchairs, and scooters manufactured by Afikim, Drive Medical, Graham Field, Innovation in Motion, Golden Technologies, Hoveround, Invacare, Ottobock, Permobil, Pride, and Sunrise Medical.

[3] Unless otherwise noted, width information was obtained from the respective manufacturer's literature and represents the width of the entire mobility device. In all instances where multiple configurations existed for a given mobility device, the largest configuration was selected. Width measurements with respect to manual wheelchairs manufactured by Sunrise Medical is not available in the literature; but upon telephonic inquiry, the technical support department advised to add 8.5 inches to the listed seat width to calculate overall mobility device width.

[4] Unless otherwise noted, length information was obtained from the respective manufacturer's literature and represents the length of the entire mobility device. In all instances where multiple configurations existed for a given mobility device, the largest configuration was selected. Length measurements with respect to manual wheelchairs manufactured by Sunrise Medical is not available in the literature; but upon telephonic inquiry, the technical support department advised to add 12 inches to the listed seat depth to calculate overall mobility device length.

[5] Unless otherwise noted, turning radius information was obtained from the respective manufacturer's literature and represents the turning radius of the entire mobility device. In all instances where multiple configurations existed for a given mobility device, the largest configuration was selected. Turning radius measurements with respect to manual wheelchairs were not available in the literature. Upon telephonic inquiry, the technical support department of Drive Medical advised that each manual wheelchair has a turning radius of 24 inches. Upon telephonic inquiry, the technical support departments of Graham Field and Invacare advised to use the given length measurement as the turning radius measurement due to the fact that the pivot point in a manual wheelchair would make the radius no greater than the overall length of the wheelchair. Upon telephonic inquiry, Sunrise Medical and Ottobock were unable to verify this information; however for purposes of this survey, where the radius was unavailable, the length measurement was used.

COUNT[1]	TYPE	TERRAIN	MODEL	MANUFACTURER[2]	WIDTH (INCHES)[3]	LENGTH (INCHES)[4]	TURNING RADIUS (INCHES)[5]	WEIGHT CAPACITY (POUNDS)
6	Power	Standard	P9000 XDT	Invacare	24.5 w/o joystick	47	36	250
7	Power	Standard	Intrepid	Drive Medical	24.5	40	18	300
8	Power	Standard	Trident	Drive Medical	27.25	42.25	24	300
9	Power	Standard	Titan	Drive Medical	25	40	25	300
10	Power	Standard	Image EC	Drive Medical	24	42	27.5	300
11	Power	Standard	Medalist	Drive Medical	26	41	31	300
12	Power	Standard	Sunfire Plus	Drive Medical	24	39	33	300
13	Power	Compact	Cirrus Plus	Drive Medical	28	42.5	33	300
14	Power	Standard	Compass 605	Golden Technologies	24	39	19.5	300
15	Power	Standard	Compass 600	Golden Technologies	24.5	38.5	19	300
16	Power	Standard	Compass 615	Golden Technologies	26.2	42.7	21.95	300
17	Power	Standard	Alante 204	Golden Technologies	24	40	24.5	300
18	Power	Standard	Alante 215	Golden Technologies	24	40	24.5	300
19	Power	Standard/Large	Metro Power	Graham Field	27.5	41	33.5	300
20	Power	Standard	MPV 5	Hoverround	24	38	22.7	300
21	Power	Compact	Teknique FWD	Hoverround	25	41.9	24	300
22	Power	Standard	Pronto M51	Invacare	24 w/o	40	19.5	300

COUNT[1]	TYPE	TERRAIN	MODEL	MANUFACTURER[2]	WIDTH (INCHES)[3]	LENGTH (INCHES)[4]	TURNING RADIUS (INCHES)[5]	WEIGHT CAPACITY (POUNDS)
					joystick			
23	Power	Standard	Pronto M41	Invacare	24	39.4	19.5	300
24	Power	Standard	Pronto M61	Invacare	24	40	19.5	300
25	Power	Standard	FDX	Invacare	24	41.5	23	300
26	Power	Standard	R51	Invacare	26	40.75	33	300
27	Power	Standard	Nutron	Invacare	26	40.75	45	300
28	Power	Rehab Standard	M 300	Permobil	24	36.5	20	300
29	Power	Rehab Standard	M 400	Permobil	24	36.5	20	300
30	Power	Rehab Standard	C 300	Permobil	24	40	25	300
31	Power	Rehab Standard	C 400	Permobil	24	35	26	300
32	Power	Rehab Standard	C 350	Permobil	24.5	36	26	300
33	Power	Rehab Standard	C 500	Permobil	26	36.5	27	300
34	Power	Compact	J6	Pride	23.5	34.25 w/o riggings	19 w/o riggings	300
35	Power	Standard	Quantum Q6	Pride	24	35.5 w/o riggings	20 w/o riggings	300
36	Power	Midsize	Jazzy 600 ES	Pride	24.5	40.25	20.5	300
37	Power	Midsize	Jazzy Select 6	Pride	23.5	35.625 w/o	21.5	300

COUNT[1]	TYPE	TERRAIN	MODEL	MANUFACTURER[2]	WIDTH (INCHES)[3]	LENGTH (INCHES)[4]	TURNING RADIUS (INCHES)[5]	WEIGHT CAPACITY (POUNDS)
						riggings		
38	Power	Standard	Jazzy Elite 14	Pride	24.5	42.5	24	300
39	Power	Midsize	Jazzy Select Elite	Pride	23	35 w/o riggings	24.75	300
40	Power	Compact	Jazzy Sport 2	Pride	23	35 w/o riggings	24.75	300
41	Power	Standard	Jazzy Elite ES	Pride	23	42 w/o riggings	24.75	300
42	Power	Compact	Pulse	Sunrise Medical	24	34 w/o footrests	18	300
43	Power	Standard	S6	Sunrise Medical	27.75	33.5	24	300
44	Power	Standard	Pronto M91	Invacare	25.75 w/o joystick	29 w/o footrests	21.5	300
45	Power	Heavy Duty	Renegade	Drive Medical	26	41	31	350
46	Power	Standard	P222	Sunrise Medical	24.5	31.5 w/o footrests	25	350
47	Power	Heavy Duty	Cirrus Plus HD	Drive Medical	29	42.5	35	400
48	Power	Heavy-Duty	Compact 40	Innovation in Motion	24.8	35.8 base only	20.9	400
49	Power	Heavy-Duty	Compact 73	Innovation in Motion	24.8	37.4 base only	20.9	400
50	Power	Heavy-Duty	Hybrid	Innovation in Motion	26.4	41.33 base only	22.8	400
51	Power	Heavy-Duty	All Terrain	Innovation in Motion	27.95	41.33 base only	22.8	400
52	Power	Heavy-Duty	RWD	Innovation in Motion	28	32 base only	27	400
53	Power	Heavy-Duty	FWD	Innovation in	28	35.8 base only	27.5	400

COUNT[1]	TYPE	TERRAIN	MODEL	MANUFACTURER[2]	WIDTH (INCHES)[3]	LENGTH (INCHES)[4]	TURNING RADIUS (INCHES)[5]	WEIGHT CAPACITY (POUNDS)
				Motion				
54	Power	Heavy-Duty	Extreme X8	Innovation in Motion	28	45.25	52	400
55	Power	Bariatric	QM7	Sunrise Medical	25	36 w/o footrests	20	400
56	Power	Heavy Duty	Medalist 450	Drive Medical	24	40	31	450
57	Power	Heavy Duty	Wildcat 450	Drive Medical	26.5	48	41	450
58	Power	Standard	Compass 620	Golden Technologies	25	40	20	450
59	Power	Bariatric	Teknique XHD	Hoverround	27.5	47	28	450
60	Power	Standard	TDX	Invacare	24	38.5	23	450
61	Power	Rehab Bariatric	M 300 HD	Permobil	26	38	22	450
62	Power	Bariatric	Jazzy 614 HD	Pride	25.125	35.5	22.75	450
63	Power	Bariatric	Jazzy Elite HD	Pride	24.5	42.5	24	450
64	Power	Standard	Pronto M94	Invacare	28	36 w/o footrests	19.5	500
65	Power	Bariatric	Teknique HD6	Hoverround	29	47	28	600
66	Power	Bariatric	Jazzy 1450	Pride	29.25	38.25	26.5	600
MANUAL WHEELCHAIRS								
67	Manual	Standard	Blue Streak	Drive Medical	26	42	24	250
68	Manual	Standard	Cougar	Drive Medical	26	44	24	250
69	Manual	Standard	Traveler L3	Graham Field	28.5	29	29	250
70	Manual	Standard	Traveler SE	Graham Field	28.5	31.5	31.5	250

COUNT[1]	TYPE	TERRAIN	MODEL	MANUFACTURER[2]	WIDTH (INCHES)[3]	LENGTH (INCHES)[4]	TURNING RADIUS (INCHES)[5]	WEIGHT CAPACITY (POUNDS)
71	Manual	Top End	Terminator Everyday	Invacare	24.75	18	18	250
72	Manual	Top End	Reveal	Invacare	20	20	20	250
73	Manual	Top End	Crossfire T6	Invacare	26.75	20	20	250
74	Manual	Top End	Crossfire Titanium	Invacare	20	21	21	250
75	Manual	Standard	TRAN19FR	Invacare	21	27 w/o riggings	27	250
76	Manual	Standard	V16RFR	Invacare	23	30 w/o riggings	30	250
77	Manual	Standard	V18LR	Invacare	25	30 w/o riggings	30	250
78	Manual	Standard	Tracer EX2	Invacare	28.25	31.88 w/o riggings	31.88	250
79	Manual	Standard	Tracer EX2P	Invacare	28.25	31.88 w/o riggings	31.88	250
80	Manual	Standard	Q7	Sunrise Medical	28.5	32	32	265
81	Manual	Standard	GT	Sunrise Medical	28.5	32	32	265
82	Manual	Standard	QRi	Sunrise Medical	28.5	32	32	265
83	Manual	Standard	QXi	Sunrise Medical	28.5	32	32	265
84	Manual	Standard	SR45	Sunrise Medical	28.5	34	34	265
85	Manual	Standard	Silver Sport	Drive Medical	24	42	24	300
86	Manual	Standard	Cirrus IV	Drive Medical	28	42	24	300
87	Manual	Standard	Viper	Drive Medical	28	42	24	300
88	Manual	Standard	Rebel	Drive Medical	25.5	43	24	300
89	Manual	Standard	Traveler L4	Graham Field	27	33	33	300
90	Manual	Standard	Traveler	Graham Field	28.25	34	34	300

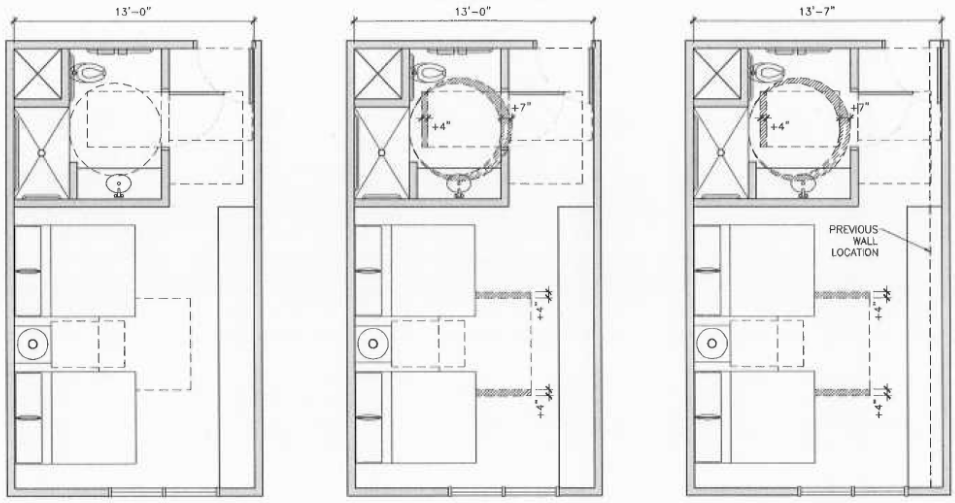
COUNT[1]	TYPE	TERRAIN	MODEL	MANUFACTURER[2]	WIDTH (INCHES)[3]	LENGTH (INCHES)[4]	TURNING RADIUS (INCHES)[5]	WEIGHT CAPACITY (POUNDS)
91	Manual	Standard	Metro IC3 Plus	Graham Field	29.5	41	41	300
92	Manual	Standard	Metro IC4	Graham Field	25	45	45	300
93	Manual	Standard	Motus	Ottobock	28	44.5	44.5	308
94	Manual	Standard	Silver Sport II	Drive Medical	28	42	24	350
95	Manual	Standard	Cruiser III	Drive Medical	28	42	24	350
96	Manual	Standard	Chrome	Drive Medical	28	42	24	350
97	Manual	Standard	Viper GT	Drive Medical	30	42	24	350
98	Manual	Bariatric	XDT	Invacare	29	29	29	350
99	Manual	Top End	Terminator	Invacare	24.75	18	18	400
100	Manual	Bariatric	Transport	Invacare	28	36.5	36.5	400
101	Manual	Bariatric	Heavy-Duty Silver	Invacare	29	30	30	450
102	Manual	Bariatric	Tracer	Invacare	29	30	30	450
103	Manual	Bariatric	Heavy-Duty Silver Vein	Invacare	29	30	30	450
SCOOTERS								
104	Scooter	Compact	Caddy	Afikim	24	48	41	220
105	Scooter	All-Purpose	GB 106	Golden Technologies	21.5	36.5	31	250
106	Scooter	Compact	Go Go ES2	Pride	19.5	37	31	250
107	Scooter	Compact	Go Go Ultra	Pride	19.5	39.75	44	260
108	Scooter	Compact	Bobcat 3	Drive Medical	19	38	32	285

COUNT[1]	TYPE	TERRAIN	MODEL	MANUFACTURER[2]	WIDTH (INCHES)[3]	LENGTH (INCHES)[4]	TURNING RADIUS (INCHES)[5]	WEIGHT CAPACITY (POUNDS)
109	Scooter	Compact	Dart 3	Drive Medical	19	38	32	285
110	Scooter	Compact	Bobcat 4	Drive Medical	19	37	35.5	285
111	Scooter	Compact	Dart 4	Drive Medical	19	37	35.5	285
112	Scooter	Compact	Spitfire EX 1320	Drive Medical	19.5	39	46	300
113	Scooter	Compact	Spitfire Scout 3 DLX	Drive Medical	20.5	42.5	51.2	300
114	Scooter	Compact	Spitfire Scout 4	Drive Medical	20.5	42.5	53.75	300
115	Scooter	Compact	Spitfire Scout 4 DLX	Drive Medical	20.5	42.5	53.75	300
116	Scooter	Compact	Spitfire Scout 3	Drive Medical	20.5	42.5	53.75	300
117	Scooter	Compact	Spitfire EX 1420	Drive Medical	20	42	54	300
118	Scooter	All-Purpose	GB 116	Golden Technologies	21.5	40.5	37	300
119	Scooter	All-Purpose	GL 110	Golden Technologies	22	41.5	39	300
120	Scooter	All-Purpose	GC 240	Golden Technologies	23.5	42.5	39	300
121	Scooter	All-Purpose	GL 140	Golden Technologies	22	43.25	48	300
122	Scooter	All-Purpose	GB 146	Golden Technologies	21.5	42	48.5	300
123	Scooter	Compact	Spitfire EX3	Hoveround	20	41	46	300
124	Scooter	Standard	Lynx 3R	Invacare	22	39.8	39.4	300
125	Scooter	Standard	Lynx L3	Invacare	22	39.8	39.4	300

COUNT[1]	TYPE	TERRAIN	MODEL	MANUFACTURER[2]	WIDTH (INCHES)[3]	LENGTH (INCHES)[4]	TURNING RADIUS (INCHES)[5]	WEIGHT CAPACITY (POUNDS)
126	Scooter	Standard	Lynx 3X	Invacare	22	44	44.7	300
127	Scooter	Standard	Lynx 3XR	Invacare	22	44	44.7	300
128	Scooter	Standard	Lynx L4	Invacare	22	39.9	51.2	300
129	Scooter	Standard	Lynx 4R	Invacare	22	39.9	51.2	300
130	Scooter	Standard	Go Go Elite Traveler	Pride	19.5	39.5	44	300
131	Scooter	Standard	Go Go LX	Pride	20.5	41	44.75	300
132	Scooter	Standard	Go Go Elite +	Pride	21	40.25	45.75	300
133	Scooter	Standard	Victory 9	Pride	22.5	45.5	51	300
134	Scooter	Standard	Go Go Sport	Pride	20	43	52	325
135	Scooter	Compact	Phoenix HD 3	Drive Medical	22.5	39	43	350
136	Scooter	Full-Size	Pilot 2310	Drive Medical	22	47	53	350
137	Scooter	Full-Size	Pilot 2410	Drive Medical	22	47	53	350
138	Scooter	Full-Size	Ventura 3	Drive Medical	25	48	53	350
139	Scooter	Full-Size	Ventura 3 DLX	Drive Medical	25	48	53	350
140	Scooter	Compact	Phoenix HD 4	Drive Medical	22.5	41.5	54	350
141	Scooter	Full-Size	Ventura 4	Drive Medical	25	48	54	350
142	Scooter	Full-Size	Ventura 4 DLX	Drive Medical	25	48	54	350
143	Scooter	All-Purpose	GC 340	Golden Technologies	23.5	45.5	40.5	350
144	Scooter	All-Purpose	GC 440	Golden Technologies	23.5	47.5	53.5	350

COUNT[1]	TYPE	TERRAIN	MODEL	MANUFACTURER[2]	WIDTH (INCHES)[3]	LENGTH (INCHES)[4]	TURNING RADIUS (INCHES)[5]	WEIGHT CAPACITY (POUNDS)
145	Scooter	Compact	Phoenix	Hoveround	19	37	43	350
146	Scooter	Standard	Ventura	Hoveround	25	48	54	350
147	Scooter	Standard	Leo 3	Invacare	23.6	47.5	47.2	350
148	Scooter	Standard	Leo 3S	Invacare	23.6	47.5	47.2	350
149	Scooter	Standard	Leo 4	Invacare	23.6	47.5	51	350
150	Scooter	Standard	Leo 4S	Invacare	23.6	47.5	51	350
151	Scooter	Standard	Victory Sport	Pride	26	47	51.75	350
152	Scooter	Standard	Victory 10	Pride	22.5	47	54	400
153	Scooter	Bariatric	Maxima	Pride	28.5	46.9	54	500

ATTACHMENT B TO AMERICAN HOTEL & LODGING COMMENTS
IMPACT OF PROPOSED CHANGES TO TURNING RADIUS

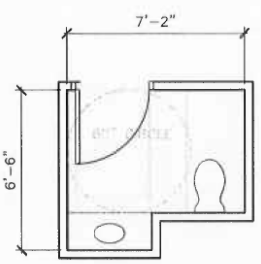


2010 ADA STDS.
(311 SQ. FT. ROOM)

2014 ANSI
(311 SQ. FT. ROOM)

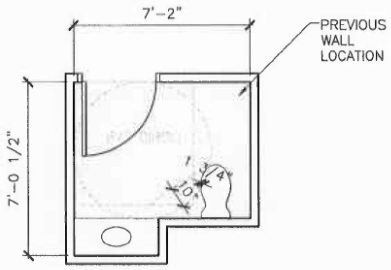
2014 ANSI (W/ ENLARGED ROOM)
(325 SQ. FT. ROOM)

- INCREASE IN ROOM SIZE: 14 SQ. FT.
- COST PER SQ. FT. OF CONSTRUCTION: X
- ADDITIONAL COST PER ROOM = 14 x X



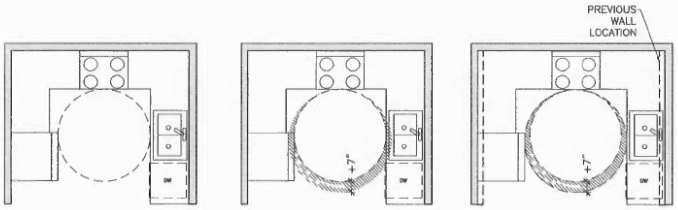
2010 ADA STDS.
(40.3 SQ. FT. ROOM)

BASE ROOM LAYOUT BASED ON DIAGRAM ON PAGE 103 OF THE GUIDANCE ON THE 2010 STANDARDS



2014 ANSI (W/ ENLARGED ROOM FOR LARGER TURNING CIRCLE)
(44.8 SQ. FT. ROOM)

-INCREASE IN ROOM SIZE: 4.5 SQ. FT.
-COST PER SQ. FT. OF CONSTRUCTION: X
-ADDITIONAL COST PER ROOM = 4.5 x X



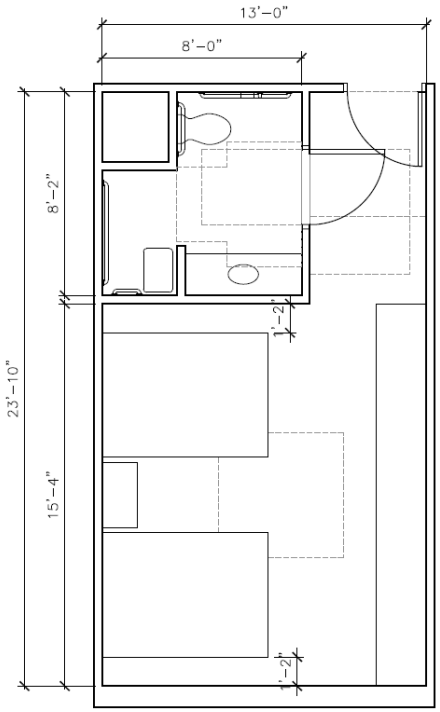
2010 ADA STDS.
(80 SQ. FT. ROOM)

2014 ANSI
(80 SQ. FT. ROOM)

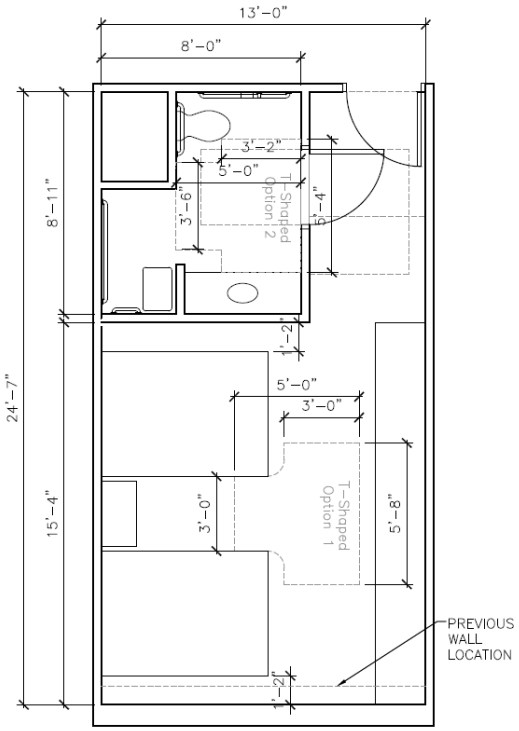
2014 ANSI (W/ ENLARGED ROOM)
(85 SQ. FT. ROOM)

- INCREASE IN ROOM SIZE: 5 SQ. FT.
- COST PER SQ. FT. OF CONSTRUCTION: X
- ADDITIONAL COST PER ROOM = 5 x X

IMPACT OF PROPOSED CHANGES TO T-TURN

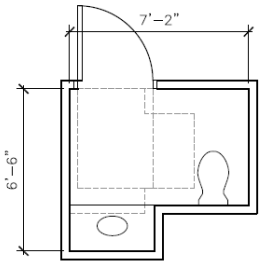


2010 ADA STDS.
(310 SQ. FT. ROOM)

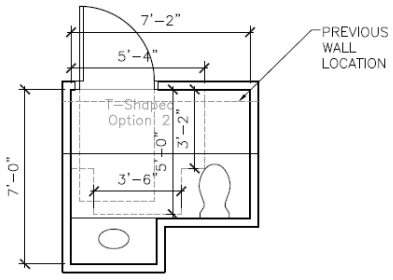


2014 ANSI (W/ ENLARGED ROOM FOR LARGER T-SHAPED TURN)
(320 SQ. FT)

-INCREASE IN ROOM SIZE: 10 SQ. FT.
-COST PER SQ. FT. OF CONSTRUCTION: X
-ADDITIONAL COST PER ROOM = 10 x X



2010 ADA STDS.
(39.7 SQ. FT. ROOM)



2014 ANSI (W/ ENLARGED ROOM FOR LARGER T-SHAPED TURN)
(43.2 SQ. FT. ROOM)

-INCREASE IN ROOM SIZE: 3.5 SQ. FT.
-COST PER SQ. FT. OF CONSTRUCTION: X
-ADDITIONAL COST PER ROOM = 3.5 x X

3-6B – 12

Revise as follows:

Table 407.4.1—Minimum Dimensions of Elevator Cars

Door Location	Door Clear Opening Width	Inside Car, Side to Side	Inside Car, Back Wall to Front Return	Inside Car, Back Wall to Inside Face of Door
Centered	42 inches (1065 mm)	80 inches (2030 mm)	51 inches (1295 mm)	54 inches (1370 mm)
Side (Off Center)	36 inches (915 mm)[1]	68 inches (1725 mm)	51 inches (1295 mm)	54 inches (1370 mm)
Any	36 inches (915 mm)[1]	54 inches (1370 mm)	80 inches (2030 mm)	80 inches (2030 mm)
Any	36 inches (915 mm)[1]	60 inches (1525 mm)[2]	60 inches (1525 mm)[2]	60 inches (1525 mm)[2]

[1]A tolerance of minus 5/8 inch (16 mm) is permitted.

[2]Other car configurations that provide a 36-inch (915mm) door clear opening width and a 60 inch (1525 mm) ~~turning~~ diameter space ~~complying with Section 304~~ with the door closed are permitted.

3-6B-12 PC1

Harold Kiewel, representing self

Revise as follows:

Table 407.4.1—Minimum Dimensions of Elevator Cars

Door Location	Door Clear Opening Width	Inside Car, Side to Side	Inside Car, Back Wall to Front Return	Inside Car, Back Wall to Inside Face of Door
Centered	42 inches (1065 mm)	80 inches (2030 mm)	51 inches (1295 mm)	54 inches (1370 mm)
Side (Off Center)	36 inches (915 mm)[1]	68 inches (1725 mm)	51 inches (1295 mm)	54 inches (1370 mm)
Any	36 inches (915 mm)[1]	54 inches (1370 mm)	80 inches (2030 mm)	80 inches (2030 mm)
Any	36 inches (915 mm)[1]	60 inches (1525 mm)[2]	60 inches (1525 mm)[2]	60 inches (1525 mm)[2]

[1]A tolerance of minus 5/8 inch (16 mm) is permitted.

[2]Other car configurations ~~that provide a~~ are permitted provided that car has 36-inches (915mm) ~~door~~ clear opening width ~~and a 60 inch (1525 mm) diameter space with the door closed are permitted~~ at the door or doors, a 67 inch (1700 mm) diameter, clear-floor-space for turning complying with Section 304 when the door is closed, and the control panel is centered in one edge of its required clear-floor-space..

Reason: If 67-inches is the new standard, then why regress to 60-inches for elevators? For additional comments from Mr. Kiewel see 1-1-12.

3-6C – 12

Revise as follows:

502.4.2 Width. Access aisles serving car and van parking spaces shall be ~~60~~ 67 inches (~~1525~~ 1700 mm) minimum in width.

3-6C-12 PC1

Tim Larson – representing self

Comment: -OK- This will affect all parking layouts. The HC access isle is proposed to go from 60" to 67" wide. *It doesn't affect many sites. Our standard site design uses a full 8' width for the access isle*.

3-6C-12 PC2

Ron Burton, PTW Advisors LLC, representing Building Owners and Managers Association, International; David S. Collins, The Preview Group, representing American Institute of Architects (AIA); Ron Nickson, representing the National Multi-housing Council; Steve Orlowski, representing the National Association of Home Builders; Kim Paarlberg, representing International Code Council

See comment under 3-6-12 PC2

3-6C-12 PC3

Chad Beebe, – representing American Society for Healthcare Engineering (ASHE)

Disapprove the change. Return the text to that found in existing standard.

Reason: In review of the 2014 Final Draft of the ICC A117.1 document, it has come to our attention that several of the proposed changes will have a significantly negative impact to the healthcare industry design/built environment of buildings designed under the 2015 IBC. Further, it is our understanding that the overwhelming majority of these changes have been derived from a single uncorroborated report which has neither been properly vetted nor adopted by any other credible agency or (similar) jurisdictional body.

As we do not feel these dramatic and substantial changes have been given proper and appropriate consideration by all interested stakeholders in this process, and since we question the authenticity of the underlying premise used to make such changes, we respectfully request they either be removed entirely from consideration in this draft, or that the entire draft adoption process be held in abeyance for a minimum of 12-months so that further collaboration can be conducted with all interested parties. If the Committee opts to delay this process for 12-months, it will be in keeping with the mission of the ICC, and best assure that all parties can be provided with the opportunity to reasonably participate in this process.

3-6C-12 / 3-6D-12 – The increasing of the accessible parking aisles being changed from 60-inches wide to 67-inches wide at both regular and van accessible spaces, an increase of 12 square feet for every required accessible parking aisles.

These new requirements would add thousands of required square feet to a new hospital and significantly impact any renovations to an existing hospital by requiring increased patient room sizes to meet the new requirements and thus, due to the fixed square footage within the building foot print, will reduce the number of allowable beds the hospital can maintain. With hospital construction cost averaging around $300.00 per square foot these additional increases in square footage will significantly impact the cost of construction. Thank you for your consideration of this request, and in keeping alive the goals and mandates of the entire ICC organization and membership.

3-6C-12 PC4

Larry Eberly, – representing Pennsylvania Builders Association

Disapprove the change. Return the text to that found in existing standard.

Reason: The size of a standard Handicap Accessible parking space which is widely accepted, planned in residential communities and consistent with other laws and standards is based on an aisle width of 60" adjacent to a parking space 96" with a typical total width of 13' wide; this change would increase total width to 13'-7" wide. This may conflict with existing approved site plans, increase impervious coverage and be difficult to implement.

This proposed change relates to the anthropometric study of mobility device users by The Center for IDeA at the University at Buffalo, SUNY which questions decades of universally accepted accessibility clearances and maneuverability contained within

Chapter 3: Building Blocks. This revision is based on this single study and should be researched further before such changes occur in the standard.

Pennsylvania Builders Association opposes any change to the ANSI 117.1 building blocks for numerous reasons. The requirements within Chapter 3: Building Blocks are the standard and precedent for the development of decades of accessibility required clearances, maneuverability and reach ranges both in ANSI A117.1 and federal accessibility laws and their standards (ADA/FHA/ ABA/ UFAS, etc).

Any changes will conflict with and be more stringent than these accepted laws and standards and contradictory to the efforts of the ADA/A117 Harmonization Task Group (HTG) to provide consistent language with the ADA. Residual unforeseen consequences and conflicts with these laws and within the ANSI 117.1 standard itself due to the vast references to this chapter will require extensive future coordination, revisions and clarifications and create a financial burden for residential communities.

These changes are predicated on the anthropometric study of mobility device users by The Center for IDeA at the University at Buffalo, SUNY which predominantly addresses the potential need to accommodate existing electric mobility devices. The Committee's and Wheeled Mobility Task Group's (WMTG) supporting documentation and comments contained in the Background Report raises serious questions to the study's testing methods, criteria and results and clearly acknowledges the unforeseen residual impact and consequences.

Instead of changing the Building Blocks, a more prudent approach would be to require mobility device manufacturers to comply with the decades of accepted standards, particularly taking in consideration future technology and advances in design. Stringent changes to the requirements in the ANSI 117.1 standards make private residential communities more handicap accessible than public, institutional and commercial buildings and sites including USPS postal centers, hospitals, schools, retail, office, recreational and cultural establishments. A substantial disparity and financial burden is placed on residential communities, homeowners and builders by requiring residential buildings to comply with stricter standards. In addition, any change to these basic building blocks may also set a precedent for a re-evaluation of all other clearances and requirements not currently included in these proposed changes, particularly dwelling unit bathroom and kitchens.

Pennsylvania adopts the accessibility provisions of the newest triennial revisions to the ICC Family of Codes that have been adopted in PA, which includes the IBC, IRC, IMC, IPC and IEBC. without modification. This includes the references to ICC/ANSI A117.1. Mandatory adoption in Pennsylvania, without modification, has unforeseen consequences to the building industry, both commercial and residential communities.

3-6C-12 PC5

Tony Ewalt, representing Sletten Construction of Nevada, Inc.; Michael Gentille, representing Philip Chun North America, Inc.; Michael McGettigan, representing Terracon Consultant; Robert W. Potter, Construction Company, representing Affordable Concepts; Eric J. Rowland, representing Rowland Design;

Disapprove the change. Return the text to that found in existing standard.

Reason: In review of the 2014 Final Draft of the ICC A117.1 document, it has come to my attention that several of the proposed changes (ratified by this Committee) will have a significantly negative impact to the design/built environment of buildings designed under the 2015 IBC. Further, it is my understanding that the overwhelming majority of these changes have been derived from a single uncorroborated report which has neither been properly vetted nor adopted by any other credible agency or (similar) jurisdictional body.

As I do not feel these dramatic and substantial changes have been given proper and appropriate consideration by all interested stakeholders in this process, and I question the authenticity of the underlying premise used to make such changes, I respectfully request they either be removed entirely from consideration in this draft, or that the entire draft adoption process be held in abeyance for a minimum of 12-months.

If the Committee opts to delay this process for 12-months, it will be in keeping with the mission of the ICC, and best assure that all parties can be provided with the opportunity to reasonably participate in this process.

3-6C-12 PC6

Karen Gridley, representing Target Corporation

Disapprove the change. Return the text to that found in existing standard.

Reason: Since we are proposing in 3-6 – 12 that the size of the circular turning space should remain at the current dimension of 60 inches, and not be increased to 67 inches. We are also proposing that the width of the car and van access aisles remain at 60 inches. The reasoning is similar to our comment provided on proposal 3-6 – 12, as follows.

During the July 2013 Committee Action Meeting we heard comments by committee members wondering if there is data available regarding how the size of the current turning space works in "real world" applications as compared to findings in the study completed by Dr. Steinfeld.

In response, Target can offer some data that will help add real world context to the discussion. For reference, Dr. Steinfeld's study, which lead the committee to propose a new 67" wide access aisle space, included 500 participants from a localized geographic area, as we understand it.

Target's data is based on feedback from people across the nation who visit our stores, totaling nearly 36 million transactions *per week*, on average. Keeping in mind that often the person making the transaction has another person with them so there are well into the multi-millions of guests at Target stores every week. Of these guests, many share comments of all sorts with Target (not just access related) through various channels. We find that of the guests who contacted us in 2012, the percentage of comments

related to accessibility of the building (which includes our parking facilities) was limited to an extremely small fraction of less than 1%. (Less than .0003% of 1%.). Of that fraction of 1%, an even smaller fraction of those comments were related to concerns about turning space for wheeled mobility devices. This tells us that the current sizes and dimensions in the existing Standard work for circular turning space, as-is, for the greater majority of guests using wheeled mobility devices. The data presents no compelling evidence or reason to change the existing dimension.

Additional Information:
During the July 2013 Committee Action Meeting, members of the committee commented that the committee's only job was to look at the A117.1 Standard and implement changes to increase access through that document. In response, we urge the committee to consider that 'more and bigger is not always better, sometimes it's just more and bigger'.

Supporting this would be the observation that the committee has not done its due diligence in evoking or investigating the Wheeled Mobility Device Manufacturing Industry to see what can be accomplished to improve maneuvering through existing engineering practices in 'Like' industry trends and innovation in designs on their end, as that industry as a whole is changing too. Like the automotive industry that went from large cars, trucks and vans to smaller frame vehicles to achieve sustainable efficiencies throughout their redesign all while maintaining safety and functionality.

From an architectural perspective, designers and building owners do not have the luxury of looking at a building in isolation through only a single Standard or Regulation when we design buildings. We must consider many regulations and standards, each having an impact and interplay with other requirements that ultimately drive the size, shape and design of the spaces we provide for people. Considering this interplay, Target respectfully submits that increasing the width of the access aisle for cars and vans will actually result in decreased accessibility when applied in conjunction with forces in place from other codes and standards.

For example: Zoning regulations drive design, layout and quantity of parking stalls required on a site. The increase to the proposed odd dimension of 67 inches at access aisles would increasingly put us in violation of zoning regulations for loosing stalls in order to accommodate the wider access aisle width, Parking lots in most cases do not have space to expand or grow; they are bounded and constricted by property lines that are fixed.

It is true that designers can adjust, tweak, push and pull designs of the physical facilities to meet these conflicting requirements. However, the cost comes in what will subsequently be able to fit within in these facilities that are experiencing a compound squeeze (squeezed smaller in footprint on the outside, but interior spaces pushed larger from within). This will reduce capacity for parking stalls overall, which in turn reduces the required quantity of accessible parking stalls, limiting access to parking availability for person with disabilities, and ultimately reducing access in the larger picture. What was once able to be provided may no longer be available due to compromised available space, having a negative impact on guest's shopping trips. Considering the effort it takes to travel to shopping destinations for many persons with disabilities, it is a disservice to them to not be able to offer enough available parking stalls due to reduced ratios, making the trip as a whole inaccessible all together.

We encourage the committee to reconsider the proposals that would increase the width of the access aisle space, and other building block sizes, and instead maintain the current sizes. At least until such time as more investigation of the Wheeled Mobility Device Manufacturing Industry can take place to identify what can be done to improve design of those devices via engineering and technology advancements, towards improved access.

3-6C-12 PC7

Jeffrey T. O'Neill, AIA, ACHA – representing self

Disapprove the change. Return the text to that found in existing standard.

Reason: In review of the 2014 Final Draft of the ICC A117.1 document, it has come to my attention that several of the proposed changes (ratified by this Committee) will have a significantly negative impact to the design/built environment of buildings designed under the 2015 IBC. Further, it is my understanding that the overwhelming majority of these changes have been derived from a single uncorroborated report which has neither been properly vetted, peer-reviewed, nor adopted by any other credible agency or (similar) jurisdictional body.

I respectfully request they either be removed entirely from consideration in this draft, or that the entire draft adoption process be held in abeyance for a minimum of 12-months, to give time for these proposed changes to be properly discussed and vetted. If the Committee opts to delay this process for 12-months, it will be in keeping with the mission of the ICC, and best assure that all parties can be provided with the opportunity to reasonably participate in this process.

3-6C-12 PC8

Kimberly Paarlberg,– representing ICC

Disapprove the change. Return the text to that found in existing standard.

Reason: The access aisle is not confined. Since it is at the same level, there will always be an overlap with the adjacent parking space. Even more so if this is a shared access aisle. In addition, this should be consistent with the access aisle recommended by DOT for street parking and approved by this committee in 5-1-12.

3-6C-12 PC9

Robin Roberts, Chair, Technical Standards Committee, representing Accessibility Professionals Association

Disapprove the change. Return the text to that found in existing standard.

Comment: Many of the comments provided in the background reports expressed reservations regarding the study upon which the proposals are based.

Because the proposed changes would have an enormous impact on the design and construction community, further investigation is necessary.

3-6C-12 PC10

Minh N. Vu – representing American Hotel and Lodging Association

Disapprove the change. Return the text to that found in existing standard.

Reason: See comment under 3-6-12.

3-6D – 12

Revise as follows:

503.3.2 Width. Access aisles serving vehicle pull-up spaces shall be ~~60~~ 67 inches (~~1525~~ 1700 mm) minimum in width.

3-6D-12 PC1

Ron Burton, PTW Advisors LLC, representing Building Owners and Managers Association, International; David S. Collins, The Preview Group, representing American Institute of Architects (AIA); Ron Nickson, representing the National Multi-housing Council; Steve Orlowski, representing the National Association of Home Builders; Kim Paarlberg, representing International Code Council

See comment under 3-6-12 PC2

3-6D-12 PC2

Chad Beebe, – representing American Society for Healthcare Engineering (ASHE)

Disapprove the change. Return the text to that found in existing standard.

Reason: In review of the 2014 Final Draft of the ICC A117.1 document, it has come to our attention that several of the proposed changes will have a significantly negative impact to the healthcare industry design/built environment of buildings designed under the 2015 IBC. Further, it is our understanding that the overwhelming majority of these changes have been derived from a single uncorroborated report which has neither been properly vetted nor adopted by any other credible agency or (similar) jurisdictional body.

As we do not feel these dramatic and substantial changes have been given proper and appropriate consideration by all interested stakeholders in this process, and since we question the authenticity of the underlying premise used to make such changes, we respectfully request they either be removed entirely from consideration in this draft, or that the entire draft adoption process be held in abeyance for a minimum of 12-months so that further collaboration can be conducted with all interested parties. If the Committee opts to delay this process for 12-months, it will be in keeping with the mission of the ICC, and best assure that all parties can be provided with the opportunity to reasonably participate in this process.

3-6C-12 / 3-6D-12 – The increasing of the accessible parking aisles being changed from 60-inches wide to 67-inches wide at both regular and van accessible spaces, an increase of 12 square feet for every required accessible parking aisles.

These new requirements would add thousands of required square feet to a new hospital and significantly impact any renovations to an existing hospital by requiring increased patient room sizes to meet the new requirements and thus, due to the fixed square footage within the building foot print, will reduce the number of allowable beds the hospital can maintain. With hospital construction cost averaging around $300.00 per square foot these additional increases in square footage will significantly impact the cost of construction. Thank you for your consideration of this request, and in keeping alive the goals and mandates of the entire ICC organization and membership.

3-6D-12 PC3

Larry Eberly – representing Pennsylvania Builders Association

Disapprove the change. Return the text to that found in existing standard.

Reason: This proposed change relates to the anthropometric study of mobility device users by The Center for IDeA at the University at Buffalo, SUNY which questions decades of universally accepted accessibility clearances and maneuverability contained within Chapter 3: Building Blocks. This revision is based on this single study and should be researched further before such changes occur in the standard.

Pennsylvania Builders Association opposes any change to the ANSI 117.1 building blocks for numerous reasons. The requirements within Chapter 3: Building Blocks are the standard and precedent for the development of decades of accessibility required clearances, maneuverability and reach ranges both in ANSI A117.1 and federal accessibility laws and their standards (ADA/ FHA/ ABA/ UFAS, etc).

Any changes will conflict with and be more stringent than these accepted laws and standards and contradictory to the efforts of the ADA/A117 Harmonization Task Group (HTG) to provide consistent language with the ADA. Residual unforeseen consequences and conflicts with these laws and within the ANSI 117.1 standard itself due to the vast references to this chapter will require extensive future coordination, revisions and clarifications and create a financial burden for residential communities.

These changes are predicated on the anthropometric study of mobility device users by The Center for IDeA at the University at Buffalo, SUNY which predominantly addresses the potential need to accommodate existing electric mobility devices. The Committee's and Wheeled Mobility Task Group's (WMTG) supporting documentation and comments contained in the Backround Report raises serious questions to the study's testing methods, criteria and results and clearly acknowledges the unforeseen residual impact and consequences.

Instead of changing the Building Blocks, a more prudent approach would be to require mobility device manufacturers to comply with the decades of accepted standards, particularly taking in consideration future technology and advances in design.

Stringent changes to the requirements in the ANSI 117.1 standards make private residential communities more handicap accessible than public, institutional and commercial buildings and sites including USPS postal centers, hospitals, schools, retail, office, recreational and cultural establishments. A substantial disparity and financial burden is placed on residential communities, homeowners and builders by requiring residential buildings to comply with stricter standards. In addition, any change to these basic building blocks may also set a precedent for a re-evaluation of all other clearances and requirements not currently included in these proposed changes, particularly dwelling unit bathroom and kitchens.

Pennsylvania adopts the accessibility provisions of the newest triennial revisions to the ICC Family of Codes that have been adopted in PA, which includes the IBC, IRC, IMC, IPC and IEBC. without modification. This includes the references to ICC/ANSI A117.1.Mandatory adoption in Pennsylvania, without modification, has unforeseen consequences to the building industry, both commercial and residential communities.

3-6D-12 PC4

Tony Ewalt, representing Sletten Construction of Nevada, Inc.; Michael Gentille, representing Philip Chun North America, Inc.; Michael McGettigan, representing Terracon Consultant; Robert W. Potter, Construction Company, representing Affordable Concepts; Eric J. Rowland, representing Rowland Design;

Disapprove the change. Return the text to that found in existing standard.

Reason: In review of the 2014 Final Draft of the ICC A117.1 document, it has come to my attention that several of the proposed changes (ratified by this Committee) will have a significantly negative impact to the design/built environment of buildings designed under the 2015 IBC. Further, it is my understanding that the overwhelming majority of these changes have been derived from a single uncorroborated report which has neither been properly vetted nor adopted by any other credible agency or (similar) jurisdictional body.

As I do not feel these dramatic and substantial changes have been given proper and appropriate consideration by all interested stakeholders in this process, and I question the authenticity of the underlying premise used to make such changes, I respectfully request they either be removed entirely from consideration in this draft, or that the entire draft adoption process be held in abeyance for a minimum of 12-months.

If the Committee opts to delay this process for 12-months, it will be in keeping with the mission of the ICC, and best assure that all parties can be provided with the opportunity to reasonably participate in this process.

3-6D-12 PC5

Jeffrey T. O'Neill, AIA, ACHA – representing self

Disapprove the change. Return the text to that found in existing standard.

Reason: In review of the 2014 Final Draft of the ICC A117.1 document, it has come to my attention that several of the proposed changes (ratified by this Committee) will have a significantly negative impact to the design/built environment of buildings designed

under the 2015 IBC. Further, it is my understanding that the overwhelming majority of these changes have been derived from a single uncorroborated report which has neither been properly vetted, peer-reviewed, nor adopted by any other credible agency or (similar) jurisdictional body.

I respectfully request they either be removed entirely from consideration in this draft, or that the entire draft adoption process be held in abeyance for a minimum of 12-months, to give time for these proposed changes to be properly discussed and vetted. If the Committee opts to delay this process for 12-months, it will be in keeping with the mission of the ICC, and best assure that all parties can be provided with the opportunity to reasonably participate in this process.

3-6D-12 PC6

Kimberly Paarlberg,– representing ICC

Disapprove the change. Return the text to that found in existing standard.

Reason: The access aisle is not confined. Since it is at the same level, there will always be an overlap with the adjacent pull-up space. Even more so where there is a blended transition to the adjacent sidewalk (common at entrances).

3-6D-12 PC7

Robin Roberts, Chair, Technical Standards Committee, representing Accessibility Professionals Association

Disapprove the change. Return the text to that found in existing standard.

Comment: Many of the comments provided in the background reports expressed reservations regarding the study upon which the proposals are based.

Because the proposed changes would have an enormous impact on the design and construction community, further investigation is necessary.

3-6D-12 PC8

Minh N. Vu – representing American Hotel and Lodging Association

Disapprove the change. Return the text to that found in existing standard.

Reason: See comment under 3-6-12.

3-6E – 12

Revise as follows:

804.2.2 U-Shaped Kitchens. In kitchens enclosed on three contiguous sides, clearance between all opposing base cabinets, countertops, appliances, or walls within kitchen work areas shall be ~~60~~ 67 inches (~~1525~~ 1700 mm) minimum.

3-6E-12 PC1

Tim Larson, representing self, Fritz Rasmussen, representing Kwik Trip, Inc

Comment:: -OK- 304.3.1 Circular Spaces. This better defines the rules for circular turning spaces. It keeps the diameter at 60".

Staff note. The comments of Mr. Larson and Mr. Rasmussen seem to be misplaced by them.

3-6E-12 PC2

Ron Burton, PTW Advisors LLC, representing Building Owners and Managers Association, International; David S. Collins, The Preview Group, representing American Institute of Architects (AIA); Ron Nickson, representing the National Multi-housing Council; Steve Orlowski,

representing the National Association of Home Builders; Kim Paarlberg, representing International Code Council

See comment under 3-6-12 PC2

3-6E-12 PC3

Kimberly Paarlberg, representing International Code Council

Further revise as follows:

804.2.2 U-Shaped Kitchens. In kitchens enclosed on three contiguous sides, clearance between all opposing base cabinets, countertops, appliances, or walls within kitchen work areas shall be 67 inches (1700 mm) minimum.

EXCEPTIONS:

1. U-shaped kitchens with an island shall be permitted to comply with Section 804.2.1.
2. U-shaped kitchens shall be permitted to clearances shall be permitted to be 60 inches (1525 mm) minimum where a T-turn is provided at either the accessible work surface or at the sink.

Reason: Several items have resulted in changes for kitchens. All rooms within an Accessible unit are required to have the larger turning space. Due to the changes for the alcove provisions now limited to 20", the space under the kitchen and work surface will already be required to have a width of 36". The larger clear floor space is required at all appliances. For sinks and cooktops, the requirement for centering will force these items further from corners.

The new exception is intended to allow for some design options in kitchens. If that turning space is provided in U-shaped kitchen under the sink or work surface, then the provisions to access each side of the kitchen is addressed through the alcove provisions (which the committee decided to leave at 60".) It a T-turn is not provided because the work surface or sink is near a corner, then the space between the counter will provide a circular space. See figures for examples. In addition, this will maintain the 15 step work triangle which is important to the efficiency of a kitchen for standing persons.

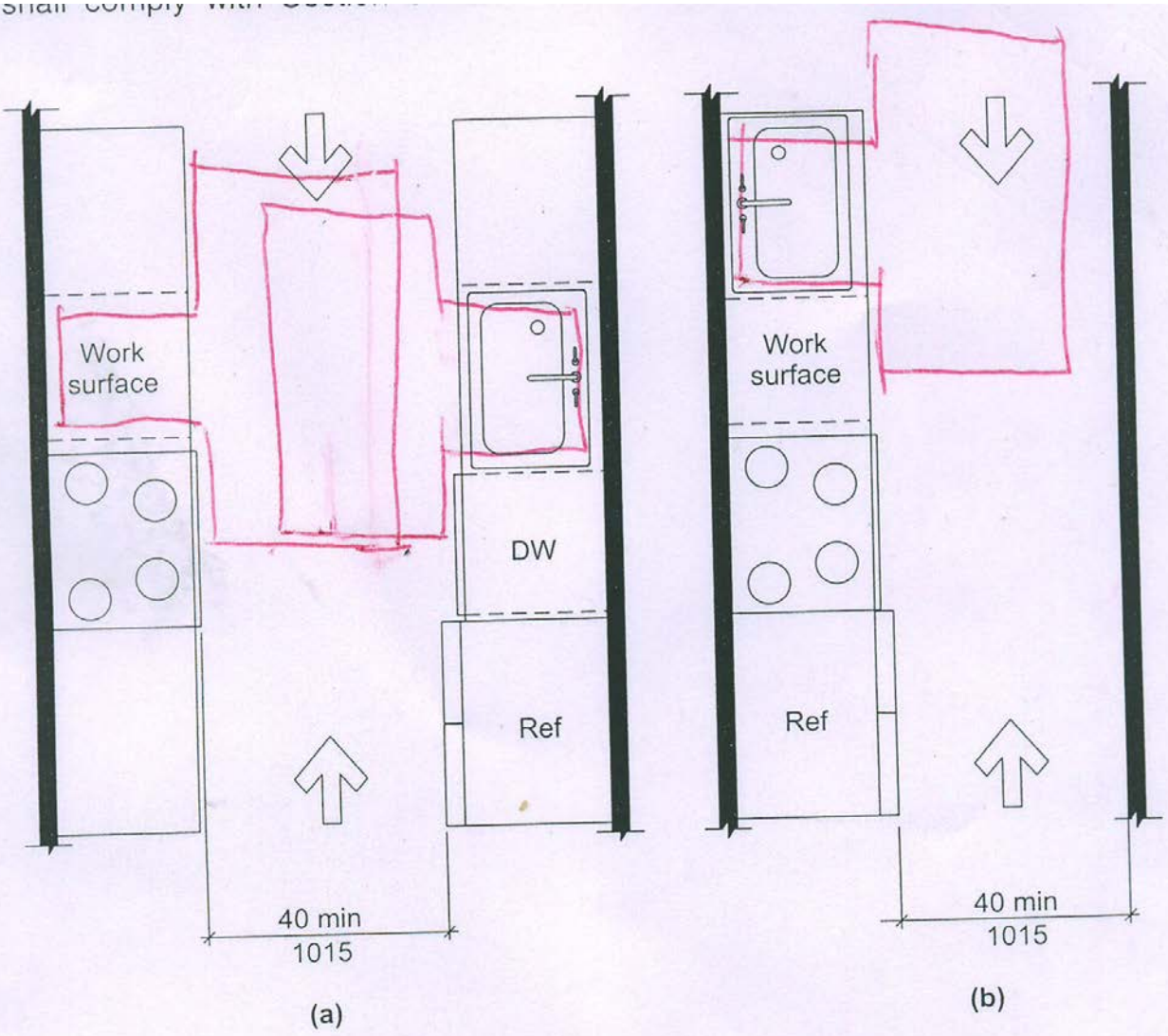


FIG. 804.2.1
PASS-THROUGH KITCHEN CLEARANCE

3-6E-12 PC4

Larry Eberly, representing Pennsylvania Builders Association

Disapprove the change. Return the text to that found in existing standard.

Reason: This proposed change relates to the anthropometric study of mobility device users by The Center for IDeA at the University at Buffalo, SUNY which questions decades of universally accepted accessibility clearances and maneuverability contained within Chapter 3: Building Blocks. This revision is based on this single study and should be researched further before such changes occur in the standard.

Pennsylvania Builders Association opposes any change to the ANSI 117.1 building blocks for numerous reasons. The requirements within Chapter 3: Building Blocks are the standard and precedent for the development of decades of accessibility required clearances, maneuverability and reach ranges both in ANSI A117.1 and federal accessibility laws and their standards (ADA FHA/ ABA/ UFAS, etc).

Any changes will conflict with and be more stringent than these accepted laws and standards and contradictory to the efforts of the ADA/A117 Harmonization Task Group (HTG) to provide consistent language with the ADA. Residual unforeseen consequences and conflicts with these laws and within the ANSI 117.1 standard itself due to the vast references to this chapter will require extensive future coordination, revisions and clarifications and create a financial burden for residential communities. These changes are predicated on the anthropometric study of mobility device users by The Center for IDeA at the University at Buffalo, SUNY which predominantly addresses the potential need to accommodate existing electric mobility devices. The Committee's and Wheeled Mobility Task Group's (WMTG) supporting documentation and comments contained in the Backround Report raises serious questions to the study's testing methods, criteria and results and clearly acknowledges the unforeseen residual impact andconsequences.

Instead of changing the Building Blocks, a more prudent approach would be to require mobility device manufacturers to comply with the decades of accepted standards, particularly taking in consideration future technology and advances in design. Stringent changes to the requirements in the ANSI 117.1 standards make private residential communities more handicap accessible than public, institutional and commercial buildings and sites including USPS postal centers, hospitals, schools, retail, office, recreational and cultural establishments. A substantial disparity and financial burden is placed on residential communities, homeowners and builders by requiring residential buildings to comply with stricter standards. In addition, any change to these basic building blocks may also set a precedent for a re-evaluation of all other clearances and requirements not currently included in these proposed changes, particularly dwelling unit bathroom and kitchens.

Pennsylvania adopts the accessibility provisions of the newest triennial revisions to the ICC Family of Codes that have been adopted in PA, which includes the IBC, IRC, IMC, IPC and IEBC. without modification. This includes the references to ICC/ANSI A117.1.
Mandatory adoption in Pennsylvania, without modification, has unforeseen consequences to the building industry, both commercial and residential communities.

3-6E-12 PC5

Tony Ewalt, representing Sletten Construction of Nevada, Inc.; Michael Gentille, representing Philip Chun North America, Inc.; Michael McGettigan, representing Terracon Consultant; Robert W. Potter, Construction Company, representing Affordable Concepts; Eric J. Rowland, representing Rowland Design;

Disapprove the change. Return the text to that found in existing standard.

Reason: In review of the 2014 Final Draft of the ICC A117.1 document, it has come to my attention that several of the proposed changes (ratified by this Committee) will have a significantly negative impact to the design/built environment of buildings designed under the 2015 IBC. Further, it is my understanding that the overwhelming majority of these changes have been derived from a single uncorroborated report which has neither been properly vetted nor adopted by any other credible agency or (similar) jurisdictional body.

As I do not feel these dramatic and substantial changes have been given proper and appropriate consideration by all interested stakeholders in this process, and I question the authenticity of the underlying premise used to make such changes, I respectfully request they either be removed entirely from consideration in this draft, or that the entire draft adoption process be held in abeyance for a minimum of 12-months.

If the Committee opts to delay this process for 12-months, it will be in keeping with the mission of the ICC, and best assure that all parties can be provided with the opportunity to reasonably participate in this process.

3-6E-12 PC6

Robin Roberts, Chair, Technical Standards Committee, representing Accessibility Professionals Association

Disapprove the change. Return the text to that found in existing standard.

Reason: Many of the comments provided in the background reports expressed reservations regarding the study upon which the proposals are based.

Because the proposed changes would have an enormous impact on the design and construction community, further investigation is necessary.

3-8 – 12

Revise as follows:

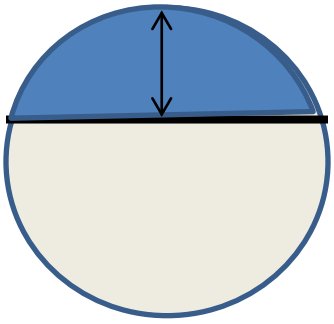
304.3.1 Circular Space. The turning space shall be a circular space with a 60-inch (1525 mm) minimum diameter. The turning space shall be permitted to include knee and toe clearance complying with Section 306. Where the turning space includes knee and toe clearances under an obstruction, the overlap shall comply with all of the following:

1. The depth of the overlap shall not be more than 10 inches (255 mm), and

2. The depth shall not exceed the depth of the knee and toe clearances provided, and

3. The overlap shall be permitted only within the turning circle area shown shaded in Figure 304.3.1.

Figure 304.3.1



3-8-12 PC1

Ron Burton, PTW Advisors LLC, representing Building Owners and Managers Association, International; David S. Collins, The Preview Group, representing American Institute of Architects (AIA); Ron Nickson, representing the National Multi-housing Council; Steve Orlowski, representing the National Association of Home Builders; Kim Paarlberg, representing International Code Council

See comment under 3-6-12 PC2

3-8-12 PC2

Harold Kiewel, representing self

Further revise as follows:

304.3.1 Circular Space. The turning space shall be a circular space with a 60-inch (1525 mm) minimum diameter. The turning space shall be permitted to include ~~knee and~~ toe clearance complying with Section 306. Where the turning space includes ~~knee and~~ toe clearances under an obstruction, the overlap shall comply with all of the following:

1. The depth of the overlap shall ~~not be more than 10 inches (255 mm)~~ be 4 inches (100 mm), maximum, and
2. ~~The depth shall not exceed the depth of the knee and toe clearances provided, and~~ The turning space shall encounter a maximum of two such obstructions, and
3. ~~The overlap shall be permitted only within the turning circle area shown shaded in Figure 304.3.1.~~ The combined cord-lengths of the obstructions shall be less than 30-percent of the circumference of the turning-space as shown in Figure 304.3.1.

Reason: See 1-1-12

3-8-12 PC3

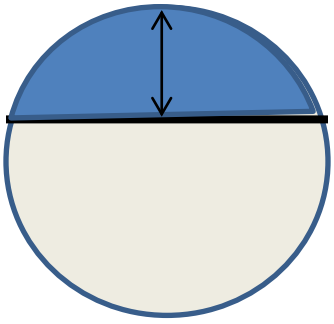
Kimberly Paarlberg, representing ICC

Further revise as follows:

304.3.1 Circular Space. The turning space shall be a circular space with a ~~60~~-67 inch (~~1525~~ 1700 mm) minimum diameter. The turning space shall be permitted to include knee and toe clearance complying with Section 306. Where the turning space includes knee and toe clearances under an obstruction, the overlap shall comply with all of the following:

~~1. The depth of the overlap shall not be more than 10 inches (255 mm), and~~
~~2~~ 1.. The depth shall not exceed the depth of the knee and toe clearances provided, and
~~3~~ 2. The overlap shall be permitted only within the turning circle area shown shaded in Figure 304.3.1.

Figure 304.3.1



Reason: The intent of the original proposal was to eliminate the 'donut' effect currently permitted with the turning circle. However, in order to be consistent with the T-turn in Section 304.3.2, the depth on that one side should be permitted to be the same depth as the knee and toe clearance provided.

The discussions were more about what might be considered best design practices, and not minimum code requirements. Since the provisions allow for someone to use either turning space, there would be no way to force someone to use a circular space. There is nothing in the current text that says use circular where you want someone to turn 360 degrees and a T-turn to turn 180 degrees.

3-8-12 PC4

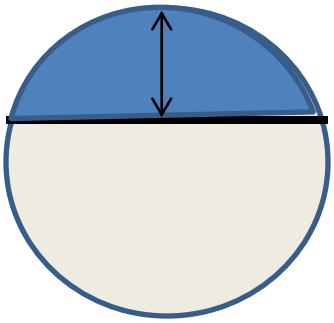
Robin Roberts, Chair, Technical Standards Committee, representing Accessibility Professionals Association

Further revise as follows:

304.3.1 Circular Space. The turning space shall be a circular space with a 60-inch (1525 mm) minimum diameter. The turning space shall be permitted to include knee and toe clearance complying with Section 306. Where the turning space includes knee and toe clearances under an obstruction, the overlap shall comply with all of the following:

1. The depth of the overlap shall not be more than 10 inches (255 mm), and
~~2. The depth shall not exceed the depth of the knee and toe clearances provided, and~~
~~3~~ 2. The overlap shall be permitted only within the turning circle area shown shaded in Figure 304.3.1.

Figure 304.3.1



3-8-12 PC5

Jean Tessmer, representing self

Further revise as follows:

304.3.1 Circular Space. The turning space shall be a circular space with a 60-inch (1525 mm) minimum diameter. The turning space shall be permitted to include knee and toe clearance complying with Section 306. Where the turning space includes knee and toe clearances under an obstruction, the overlap shall comply with all of the following:

1. The depth of the overlap shall not be more than 10 inches (255 mm)~~, and~~
~~2. The depth shall not exceed the depth of the knee and toe clearances provided, and~~
~~3. The overlap shall be permitted only within the turning circle area shown shaded in Figure 304.3.1.~~

~~**Figure 304.3.1**~~

Reason: 1. States overlap not more than 10". 2. Conflicts with #1 since knee clearance would b 18 or 19-inch depth which exceeds the 10-inch limit sates in #1 and #3 increases the confusion by referring to the nearly 50% shaded area in the Figure 304.3.1. Delete #2 and #3 and the figure and leave #1 as that is clear on what a designer should do.

3-8-12 PC6

Larry Eberly, representing Pennsylvania Builders Association

Disapprove this change. Return the text to that found in existing standard.

Reason: Due to the multitude of conditions where toe and knee clearances occur, variations in manufacturers' products and specifications particularly plumbing fixtures, piping and installation, the implementation of this requirement is complicated, confusing and difficult to execute and coordinate.

Pennsylvania Builders Association opposes any change to the ANSI 117.1 building blocks for numerous reasons. The requirements within Chapter 3: Building Blocks are the standard and precedent for the development of decades of accessibility required clearances, maneuverability and reach ranges both in ANSI A117.1 and federal accessibility laws and their standards (ADA/FHA/ ABA/ UFAS, etc).

Any changes will conflict with and be more stringent than these accepted laws and standards and contradictory to the efforts of the ADA/A117 Harmonization Task Group (HTG) to provide consistent language with the ADA. Residual unforeseen

consequences and conflicts with these laws and within the ANSI 117.1 standard itself due to the vast references to this chapter will require extensive future coordination, revisions and clarifications and create a financial burden for residential communities.
These changes are predicated on the anthropometric study of mobility device users by The Center for IDeA at the University at Buffalo, SUNY which predominantly addresses the potential need to accommodate existing electric mobility devices. The Committee's and Wheeled Mobility Task Group's (WMTG) supporting documentation and comments contained in the Background Report raises serious questions to the study's testing methods, criteria and results and clearly acknowledges the unforeseen residual impact and consequences.
Instead of changing the Building Blocks, a more prudent approach would be to require mobility device manufacturers to comply with the decades of accepted standards, particularly taking in consideration future technology and advances in design.

Stringent changes to the requirements in the ANSI 117.1 standards make private residential communities more handicap accessible than public, institutional and commercial buildings and sites including USPS postal centers, hospitals, schools, retail, office, recreational and cultural establishments. A substantial disparity and financial burden is placed on residential communities, homeowners and builders by requiring residential buildings to comply with stricter standards. In addition, any change to these basic building blocks may also set a precedent for a re-evaluation of all other clearances and requirements not currently included in these proposed changes, particularly dwelling unit bathroom and kitchens.

Pennsylvania adopts the accessibility provisions of the newest triennial revisions to the ICC Family of Codes that have been adopted in PA, which includes the IBC, IRC, IMC, IPC and IEBC. without modification. This includes the references to ICC/ANSI A117.1.
Mandatory adoption in Pennsylvania, without modification, has unforeseen consequences to the building industry, both commercial and residential communities.

3-8-12 PC7

David Hall, representing self

Disapprove this change. Return the text to that found in existing standard.

Reason: This is very confusing and will be hard for people in the building community to understand. If you want to keep this then I would suggest much better figures to explain exactly how this is to be achieved.

I have particular issue with #3 above as there are no dimensions listed in the text or on the figure proposed. This change will not make understanding the circular space better . . . just more confusing.

As a building plan examiner, I cannot tell you how many code officials call my office with questions about accessibility issues because the code is vague or too hard to understand. I cannot tell you how many builders and building owners call my office complaining about these types of issues. These people do not deal with accessibility issues in a regular basis like you do. Building owners are extremely adverse to taking up valuable square footage in a building for issues they don't see as being necessary and/or lucrative to their bottom line. Especially when a disabled person rarely, if ever enters their building/property.

3-8-12 PC8

Hope Reed, representing New Mexico Governor's Commission on Disability (NMGCD)

Disapprove this change. Return the text to that found in existing standard.

Reason: Do not adopt 67" turning circle and other increased clear floor areas. ANSI Section 304.3 should remain consistent with 2010 ADA Standards.

The **2010 ADA Standards for Accessible Design** became effective just 21 months ago. The 2010 ADA requires a 60 inch turning circle. Why would anyone choose to use this stricter requirement in ANSI-2014? Many jurisdictions will not adopt the ANSI-2014 and will just use the 2010 ADA Standards.

At this time people already have a hard time getting the turning circle and door clearances correct, but at least all the dimensions are logical and similar so we can easily understand what is required and we don't have to argue about a few inches. Changing the current basic clearances will throw out all the progress we have earned to this point.

Adopting larger turning and maneuvering clearances in ANSI-2014 negates all the careful progress the Committee has made toward harmonization. There are too many variations in the proposed floor clearances. No one will remember these tiny variations in the field, and it is difficult to figure out and explain with contractors under a deadline.

The larger turning circle and clearances should go in the **Appendix** with good diagrams and rationale supporting the increased areas. Designers need to understand the reason for larger areas and be encouraged to choose them for airports, convention centers, stadiums, theaters, shopping malls, and similar.

Placing these larger clearances in the **Appendix** will prepare us for the time when the ADA adopts them. Then implementation will be easy and understandable.

3-8-12 PC9

Minh N. Vu, representing American Hotel & Lodging Association

Disapprove this change. Return the text to that found in existing standard.

Reason: See comment 3-6-12.

3-9 – 12

Revise as follows:

~~**304.3.2 T-Shaped Space.** The turning space shall be a T-shaped space within a 60-inch (1525 mm) minimum square with arms and base 36 inches (915 mm) minimum in width. Each arm of the T shall be clear of obstructions 12 inches (305 mm) minimum in each direction, and the base shall be clear of obstructions 24 inches (610 mm) minimum. The turning space shall be permitted to include knee and toe clearance complying with Section 306 only at the end of either the base or one arm.~~

304.3.2 T–Shaped Space. The turning space shall be a T–shaped space complying with one of the following:

1. A T-shaped space, clear of obstruction, that fits within an area 68 inches (1730 mm) wide and 60 inches (1525 mm) deep, with two arms and one base that are all 36 inches (915 mm) minimum in width. Each arm shall extend 16 inches (405 mm) minimum from each side of the base located opposite the other, and the base shall extend 24 inches (610 mm) minimum from the arms. At the intersection of each arm and the base, the interior corners shall be chamfered for 8 inches (205 mm) minimum along both the arm and along the base.

2. A T-shaped space, clear of obstruction, that fits within an area 64 inches (1625 mm) wide and 60 inches (1525 mm) deep, with two arms 38 inches (965 mm) minimum in width and a base 42 inches (1065 mm) minimum in width. Each arm shall extend 11 inches (280 mm) minimum from each side of the base, located opposite the other, and the base shall extend 22 inches (560 mm) minimum from each arm.

3. A T-shaped space, clear of obstruction, that fits within an area 64 inches (1625 mm) wide and 60 inches (1525 mm) deep, with two arms and one base 40 inches (1015 mm) minimum in width. Each arm shall be 16 inches (405 mm) minimum in each direction from the base and the base shall extend 24 inches (610 mm) minimum from each arm.

3-9-12 PC1

Ron Burton, PTW Advisors LLC, representing Building Owners and Managers Association, International; David S. Collins, The Preview Group, representing American Institute of Architects (AIA); Ron Nickson, representing the National Multi-housing Council; Steve Orlowski, representing the National Association of Home Builders; Kim Paarlberg, representing International Code Council

See comment under 3-6-12 PC2

3-9-12 PC2

Karen Gridley, representing Target Corporation

Further revise as follow:

304.3.2 T–Shaped Space. The turning space shall be a T–shaped space complying with one of the following:

1. A T-shaped space, clear of obstruction, that fits within an area 68 inches (1730 mm) wide and 60 inches (1525 mm) deep, with two arms and one base that are all 36 inches (915 mm) minimum in width. Each arm shall extend 16 inches (405 mm) minimum from each side of the base located opposite the other, and the base shall extend 24 inches (610 mm) minimum from the arms. At the intersection of each arm and the base, the interior corners shall be chamfered for 8 inches (205 mm) minimum along both the arm and along the base.

2. A T-shaped space, clear of obstruction, that fits within an area 64 inches (1625 mm) wide and 60 inches (1525 mm) deep, with two arms 38 inches (965 mm) minimum in width and a base 42 inches (1065 mm) minimum in width. Each arm shall extend 11 inches (280 mm) minimum from each side of the base, located opposite the other, and the base shall extend 22 inches (560 mm) minimum from each arm.

3. A T-shaped space, clear of obstruction, that fits within an area 64 inches (1625 mm) wide and 60 inches (1525 mm) deep, with two arms and one base 40 inches (1015 mm) minimum in width. Each arm shall be ~~16~~ 12 inches (405 mm) minimum in each direction from the base and the base shall extend ~~24~~ 20 inches (610 mm) minimum from each arm.

Reason: This comment is editorial in nature.

In Section 304.3.2(3) the dimensions listed for arm and base lengths of 16 inches and 24 inches do not add up with their partner dimensions to equal the overall width and depth dimensions.

If the intent is to have a 64 inch overall width and a 60 inch overall depth, the 16 inch dimension should be changed to 12 inches to achieve an overall 64 inch width (12" arm + 40" base + 12" arm), and the 24 inch dimension should be changed to 20 inches to achieve the 60 inch depth (40" arm + 20" base extension).

3-9-12 PC3

Kimberly Paarlberg, representing ICC

Further revise as follow:

304.3.2 T–Shaped Space. The turning space shall be a T–shaped space complying with one of the following:

1. A T-shaped space, clear of obstruction, that fits within an area 68 inches (1730 mm) wide and 60 inches (1525 mm) deep, with two arms and one base that are all 36 inches (915 mm) minimum in width. Each arm shall extend 16 inches (405 mm) minimum from each side of the base located opposite the other, and the base shall extend 24 inches (610 mm) minimum from the arms. At the intersection of each arm and the base, the interior corners shall be chamfered for 8 inches (205 mm) minimum along both the arm and along the base.

2. A T-shaped space, clear of obstruction, that fits within an area 64 inches (1625 mm) wide and 60 inches (1525 mm) deep, with two arms 38 inches (965 mm) minimum in width and a base 42 inches (1065 mm) minimum in width. Each arm shall extend 11 inches (280 mm) minimum from each side of the base, located opposite the other, and the base shall extend 22 inches (560 mm) minimum from each arm.

3. A T-shaped space, clear of obstruction, that fits within an area 64 inches (1625 mm) wide and 60 inches (1525 mm) deep, with two arms and one base 40 inches (1015 mm) minimum in width. Each arm shall be 16 inches (405 mm) minimum in each direction from the base and the base shall extend 24 inches (610 mm) minimum from each arm.

T-TURN DIMENSIONS

Rectangular Space	Widths	Chamfer	Length Clear of Obstructions

	Width	Depth	Arms	Base		Arms	Base
1	68	60	36	36	8	16	24
2	64	60	38	42		11	22
3	64	60	40	40		12	20

305.7.2 Forward Approach. Where the clear floor space is positioned for a forward approach, the alcove shall be 36 inches (915 mm) minimum in width where the depth exceeds 20 inches (510 mm). Where used as a turning space, the alcove shall also comply with Section 304.3.2.

Reason: The change to T-turn is not coordinated with the alcove provisions. This will be constantly missed if we do not put in a reference. While turns are not always required at alcoves, I could not think of a situation where I would not want to be able to turn around to go back the way I came (i.e., drinking fountains, T-turns in bathrooms and kitchens under counters).

3-9-12 PC4

Chad Beebe, – representing American Society for Healthcare Engineering (ASHE)

Disapprove this change. Return the text to that found in existing standard.

Reason: In review of the 2014 Final Draft of the ICC A117.1 document, it has come to our attention that several of the proposed changes will have a significantly negative impact to the healthcare industry design/built environment of buildings designed under the 2015 IBC. Further, it is our understanding that the overwhelming majority of these changes have been derived from a single uncorroborated report which has neither been properly vetted nor adopted by any other credible agency or (similar) jurisdictional body.

As we do not feel these dramatic and substantial changes have been given proper and appropriate consideration by all interested stakeholders in this process, and since we question the authenticity of the underlying premise used to make such changes, we respectfully request they either be removed entirely from consideration in this draft, or that the entire draft adoption process be held in abeyance for a minimum of 12-months so that further collaboration can be conducted with all interested parties. If the Committee opts to delay this process for 12-months, it will be in keeping with the mission of the ICC, and best assure that all parties can be provided with the opportunity to reasonably participate in this process.

3-19-12 - This increase of the T-shaped turning space having an overall long dimension of 60 inches wide to 68 inches wise an increase of 1.25 square feet for every required T-shaped turning space.

These new requirements would add thousands of required square feet to a new hospital and significantly impact any renovations to an existing hospital by requiring increased patient room sizes to meet the new requirements and thus, due to the fixed square footage within the building foot print, will reduce the number of allowable beds the hospital can maintain. With hospital construction cost averaging around $300.00 per square foot these additional increases in square footage will significantly impact the cost of construction. Thank you for your consideration of this request, and in keeping alive the goals and mandates of the entire ICC organization and membership.

3-9-12 PC5

Larry Eberly, representing Pennsylvania Builders Association

Disapprove this change. Return the text to that found in existing standard.

Reason: Three different alternative sizes, shapes and configurations of a T-shaped turnaround is complicated, confusing and difficult to document, implement and verify particularly when the shape is complicated with chamfered interior corners. The current accepted standard is simplistic in shape and configuration and consistent with the overall dimension (60") of its alternate circular space turning space counterpart. In addition the current requirement permitting the inclusion of knee and toe clearances at the end of either the base or one arm has been deleted and to be consistent should be included.

Pennsylvania Builders Association opposes any change to the ANSI 117.1 building blocks for numerous reasons. The requirements within Chapter 3: Building Blocks are the standard and precedent for the development of decades of accessibility required clearances, maneuverability and reach ranges both in ANSI A117.1 and federal accessibility laws and their standards (ADA/FHA/ ABA/ UFAS, etc).

Any changes will conflict with and be more stringent than these accepted laws and standards and contradictory to the efforts of the ADA/A117 Harmonization Task Group (HTG) to provide consistent language with the ADA. Residual unforeseen consequences and conflicts with these laws and within the ANSI 117.1 standard itself due to the vast references to this chapter will require extensive future coordination, revisions and clarifications and create a financial burden for residential communities.

These changes are predicated on the anthropometric study of mobility device users by The Center for IDeA at the University at Buffalo, SUNY which predominantly addresses the potential need to accommodate existing electric mobility devices. The Committee's and Wheeled Mobility Task Group's (WMTG) supporting documentation and comments contained in the Background Report raises serious questions to the study's testing methods, criteria and results and clearly acknowledges the unforeseen residual impact and consequences.

Instead of changing the Building Blocks, a more prudent approach would be to require mobility device manufacturers to comply with the decades of accepted standards, particularly taking in consideration future technology and advances in design.

Stringent changes to the requirements in the ANSI 117.1 standards make private residential communities more handicap accessible than public, institutional and commercial buildings and sites including USPS postal centers, hospitals, schools, retail, office, recreational and cultural establishments. A substantial disparity and financial burden is placed on residential communities, homeowners and builders by requiring residential buildings to comply with stricter standards. In addition, any change to these basic building blocks may also set a precedent for a re-evaluation of all other clearances and requirements not currently included in these proposed changes, particularly dwelling unit bathroom and kitchens.

Pennsylvania adopts the accessibility provisions of the newest triennial revisions to the ICC Family of Codes that have been adopted in PA, which includes the IBC, IRC, IMC, IPC and IEBC. without modification. This includes the references to ICC/ANSI A117.1. Mandatory adoption in Pennsylvania, without modification, has unforeseen consequences to the building industry, both commercial and residential communities.

3-9-12 PC6

Tony Ewalt, representing Sletten Construction of Nevada, Inc.; Michael Gentille, representing Philip Chun North America, Inc.; Michael McGettigan, representing Terracon Consultant; Robert W. Potter, Construction Company, representing Affordable Concepts; Eric J. Rowland, representing Rowland Design;

Disapprove this change. Return the text to that found in existing standard.

Reason: In review of the 2014 Final Draft of the ICC A117.1 document, it has come to my attention that several of the proposed changes (ratified by this Committee) will have a significantly negative impact to the design/built environment of buildings designed under the 2015 IBC. Further, it is my understanding that the overwhelming majority of these changes have been derived from a single uncorroborated report which has neither been properly vetted nor adopted by any other credible agency or (similar) jurisdictional body.

As I do not feel these dramatic and substantial changes have been given proper and appropriate consideration by all interested stakeholders in this process, and I question the authenticity of the underlying premise used to make such changes, **I** respectfully request they either be removed entirely from consideration in this draft, or that the entire draft adoption process be held in abeyance for a minimum of 12-months.

If the Committee opts to delay this process for 12-months, it will be in keeping with the mission of the ICC, and best assure that all parties can be provided with the opportunity to reasonably participate in this process.

3-9-12 PC7

Douglas Kantor, Steptoe & Johnson, LLP, representing National Association of Convenience Stores

Disapprove this change. Return the text to that found in existing standard.

Reason: NACS is not in favor of this proposed change. We believe that the impact of this change could be significantly negative to the convenience and fuel retailing industry.

This proposed change would increase the floor area required for a turning space by up to 13% or 3.3 SF. We anticipate that this change would primarily impact the size of the toilet rooms creating the necessity of larger toilet rooms. This increase in size of the toilet rooms would therefore lead to a loss in selling space or an increase in store size which will have significant impact to our members. It is estimated that this change would have a negative impact on sales of $310 per month, based upon 2 toilet rooms per store, which is a significant change considering the average monthly sales of our. While this has less impact on the store size than that provided in proposal3-6-12 it is not known or certain that this T-shaped space could successfully be utilized in our members facilities in lieu of the turning circle.

Based upon this negative impact to sales NACS is not in favor of this proposal without evidence that this proposal is absolutely necessary for the accessibility of persons with disabilities. While we recognize that the research provided indicates that wheeled mobility devices are becoming larger we do not see any research or reason provided for the increase in size in wheeled mobility devices. Should we, as an industry, be required to pay this cost or increased size out of the choice for bigger devices or should the necessity of larger devices be provided prior to requiring larger spaces.

3-9-12 PC8

Jeffrey T. O'Neill, representing self

Disapprove this change. Return the text to that found in existing standard.

Reason: See comment at 3-6-12.

3-9-12 PC9

Fritz Rasmussen, representing Kwik Trip Inc.

Disapprove this change. Return the text to that found in existing standard.

Reason: **Bad-** 304.3.2 T-Shaped Space. This eliminates the knee, toe clearance in the T- turn space. It also creates (3) different T-turn options which will be confusing to everyone.

3-9-12 PC10

Robin Roberts, Chair, Technical Standards Committee, representing Accessibility Professionals Association

Disapprove this change. Return the text to that found in existing standard.

Reason: Many of the comments provided in the background reports expressed reservations regarding the study upon which the proposals are based.

Because the proposed changes would have an enormous impact on the design and construction community, further investigation is necessary.

3-9-12 PC11

Minh N. Vu, representing American Hotel & Lodging Association.

Disapprove this change. Return the text to that found in existing standard.

Reason: See comment 3-6.

3-13 – 12

Revise as follows:

305.3 Size. The clear floor space shall be ~~48 inches (1220 mm)~~ 52 inches (1320 mm) minimum in length and 30 inches (760 mm) minimum in width.

305.7.2 Forward Approach. Where the clear floor space is positioned for a forward approach, the alcove shall be 36 inches (915 mm) minimum in width where the depth exceeds ~~24~~ 20 inches (~~610~~ 508 mm).

3-13-12 PC1

Brian Black, BDBlack & Associates, representing self

Revise as follows:

305.3 Size. The clear floor space shall be 52 inches (1320 mm) minimum in length and 30 inches (760 mm) minimum in width.

305.7.2 Forward Approach. Where the clear floor space is positioned for a forward approach, the alcove shall be 36 inches (915 mm) minimum in width where the depth exceeds 20 inches (508 mm).

> **Exception:** In existing buildings and facilities a clear floor space 48 inches (1220 mm) minimum in length shall be shall be permitted.

Reason: The 2012 *International Existing Building Code* (IEBC) states:

> **705.2 Alterations affecting an area containing a primary function.** Where an *alteration* affects the accessibility to a, or contains an area of, *primary function*, the route to the *primary function* area shall be accessible. The accessible route to the *primary function* area shall include toilet facilities or drinking fountains serving the area of *primary function*.
>
> **Exceptions:**
>
> 1. The costs of providing the accessible route are not required to exceed 20 percent of the costs of the alterations affecting the area of *primary function*.
> 2. This provision does not apply to *alterations* limited solely to windows, hardware, operating controls, electrical outlets and signs.
> 3. This provision does not apply to *alterations* limited solely to mechanical systems, electrical systems, installation or *alteration* of fire protection systems and abatement of hazardous materials.
> 4. This provision does not apply to *alterations* undertaken for the primary purpose of increasing the accessibility of a *facility*.
> 5. This provision does not apply to altered areas limited to Type B dwelling and sleeping units.

Consider a building constructed in 2013 under the 2012 *International Building Code* that complies with all of the accessibility requirements of that code and its referenced ICC A117.1-2009 standard. If a primary function area of that building is altered under a future edition of the IEBC that references ICC A117.1-2014, and if that future edition of the IEBC retains language similar to that cited above, the building owner may be required to make significant modifications to the primary function area and toilet facilities serving that area to comply with the increased turning and clear floor space requirements of the 2014 standard. A minimal increase in accessibility may result even where costs and structural changes are significant. Adding exceptions for existing buildings and facilities that permit the turning and clear floor spaces that are considered accessible under the 2009 edition of the standard would resolve this problem.

I appreciate there has been a continuing "technical *vs*. scoping" tension between the A117.1 accessibility standard and the model building codes, and that some may argue that these exceptions belong in the model codes, not the accessibility standard. I believe the technical expertise needed to determine where exceptions for existing buildings are appropriate is in the A117 Accredited Standards Committee and not the committees or voting memberships of the model code groups. This committee should decide whether exceptions are warranted and, if so, where they should be permitted.

The 2009 edition of ICC A117.1 has at least 23 exceptions that can be applied in existing buildings and facilities, making allowances for side reaches, door thresholds, ramp slopes, LU/LA sizes, shower thresholds, play areas and boat slips. There are 11 exceptions for existing passenger elevators alone. All of these exceptions belong in the standard and not a building code to ensure that the A117 Accredited Standards Committee retains control of what are essentially technical access considerations. Adding additional exceptions for the larger floor spaces of the 2014 standard would merely continue this policy.

3-13-12 PC2

Ron Burton, PTW Advisors LLC, representing Building Owners and Managers Association, International; David S. Collins, The Preview Group, representing American Institute of Architects (AIA); Ron Nickson, representing the National Multi-housing Council; Steve Orlowski, representing the National Association of Home Builders; Kim Paarlberg, representing International Code Council

See comment under 3-6-12 PC2

3-13-12 PC3

Karen Gridley, representing Target Corporation

Revise as follows:

305.3 Size. The clear floor space shall ~~52 inches (1320 mm)~~ 48 inches (1220 mm) minimum in length and 30 inches (760 mm) minimum in width.

305.7.2 Forward Approach. Where the clear floor space is positioned for a forward approach, the alcove shall be 36 inches (915 mm) minimum in width where the depth exceeds 20 inches (508 mm).

Reason: The size of the clear floor space should remain at the current dimension of 48 inches in length, and not be increased to 52 inches. Several reasons are noted here to demonstrate that the increase to 52 inches will ultimately result in a reduction of access from a broader perspective.

During the July 2013 Committee Action Meeting we heard comments by committee members wondering if there is data available regarding how the size of the current turning space works in "real world" applications as compared to findings in the study completed by Dr. Steinfeld.

In response, Target can offer some data that will help add real world context to the discussion.
For reference, Dr. Steinfeld's study, which lead the committee to propose a new 52" long clear floor space dimension, included 500 participants from a localized geographic area, as we understand it.

Target's data is based on feedback from people across the nation who visit our stores, totaling nearly 36 million transactions *per week*, on average. Keeping in mind that often the person making the transaction has another person with them so there are well into the multi-millions of guests at Target stores every week. Of these guests, many share comments of all sorts with Target (not just access related) through various channels. We find that of the guests who contacted us in 2012, the percentage of comments related to accessibility of the building was limited to an extremely small fraction of less than 1%. (Less than .0003% of 1%.). Of that fraction of 1%, an even smaller fraction of those comments were related to concerns about clear floor space for wheeled mobility devices. This tells us that the current sizes and dimensions in the existing Standard work, as-is, for the greater majority of guests using wheeled mobility devices. The data presents no compelling evidence or reason to change the existing dimension.

Additional Information:
During the July 2013 Committee Action Meeting, members of the committee commented that the committee's only job was to look at the A117.1 Standard and implement changes to increase access through that document. In response, we urge the committee to consider that 'more and bigger is not always better, sometimes it's just more and bigger'.

Supporting this would be the observation that the committee has not done its due diligence in evoking or investigating the Wheeled Mobility Device Manufacturing Industry to see what can be accomplished to improve maneuvering through existing engineering practices in 'Like' industry trends and innovation in designs on their end, as that industry as a whole is changing too. Like the automotive industry that went from large cars, trucks and vans to smaller frame vehicles to achieve sustainable efficiencies throughout their redesign all while maintaining safety and functionality.

From an architectural perspective, designers and building owners do not have the luxury of looking at a building in isolation through only a single Standard or Regulation when we design buildings. We must consider many regulations and standards, each having an impact and interplay with other requirements that ultimately drive the size, shape and design of the spaces we provide for people. Considering this interplay, Target respectfully submits that increasing the size of the clear floor space, and other building block sizes, will actually result in decreased accessibility when applied in conjunction with forces in place from other codes and standards.

For example: Green codes and standards are increasingly challenging us to "reduce our carbon footprint", and be responsible stewards of the environment, which includes making buildings smaller in order to achieve compliance with those standards and newly developing regulations. While at the same time, the proposed increases in size of accessibility building blocks within the A117.1 standard would have us increasing our building size.

It is true that designers can adjust, tweak, push and pull designs of the physical buildings to meet these conflicting requirements. In the past we've had the luxury of being able to make buildings larger. However that luxury is increasingly limited in today's environment. The cost comes in what will subsequently be able to fit within in these buildings that are experiencing a compound squeeze (squeezed smaller in footprint on the outside, but interior spaces pushed larger from within). From a retail perspective, this will reduce capacity for merchandise offerings. What was once able to be provided on store shelves may no longer be available due to compromised available space for shelving to house merchandise, having a negative impact on guest's shopping trips.

From a product perspective, of the guest comments received in 2012, approximately 12% were related to product, as compared to the less-than 1% of comments related to building accessibility. Product availability is already of greater concern to guests than building access. Thus, increasing the building blocks of accessibility would drive product concern even higher, since the very things that persons with disabilities might travel to a store to purchase could no longer be available. Considering the effort it takes to travel to shopping destinations for many persons with disabilities, it is a disservice to them for retailers to not be able to offer the items that they currently go there for, forcing them to extend strenuous shopping trips to additional stores in search of what they are looking for, and for some, making the shopping trip as a whole inaccessible all together.

We encourage the committee to reconsider the proposals that would increase the size of the 52" long clear floor space dimension, and other building block sizes, and instead maintain the current sizes. At least until such time as more investigation of the Wheeled Mobility Device Manufacturing Industry can take place to identify what can be done to improve design of those devices via engineering and technology advancements, towards improved access.

3-13-12 PC4

Kimberly Paarlberg, representing ICC

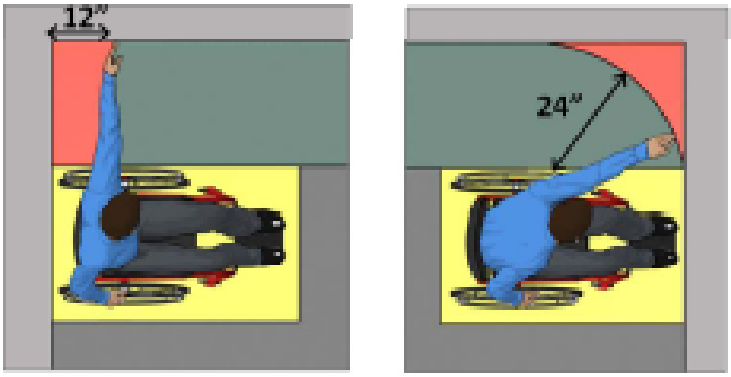
Revise as follows:

305.3 Size. The clear floor space shall be 52 inches (1320 mm) minimum in length and 30 inches (760 mm) minimum in width.

305.7.2 Forward Approach. Where the clear floor space is positioned for a forward approach, the alcove shall be 36 inches (915 mm) minimum in width where the depth exceeds 20 inches (508 mm).

> **Exception:** Alcoves in a kitchen or bathroom, formed by cabinets or appliances and providing for access to a sink, lavatory or accessible work surface, shall be 36 inches (915 mm) minimum in width where the depth exceeds 24 inches (610 mm).

Reason: The change in the alcove provisions will force all openings under sinks, lavatories and work surfaces to be at least 36" wide. There are already requirements for specific requirements for kitchens and bathrooms that should not be overridden. In addition, this could force sinks farther from the wall than required by the International Plumbing Code, thus creating another conflict.



Elements in corners can be hard to reach from side

3-13-12 PC5

Kim Paarlberg, representing ICC

Further revise as follows:

606.2 Clear Floor Space. A clear floor space complying with Section 305.3, positioned for forward approach, shall be provided. Knee and toe clearance complying with Section 306 shall be provided. The dip of the overflow shall not be considered in determining knee and toe clearances.

EXCEPTIONS:

1. A parallel approach complying with Section 305 ~~and centered on the sink,~~ shall be permitted to a kitchen sink in space where a cook top or conventional range is not provided.
2. (unchanged)
3. A knee clearance of 24 inches (610 mm) minimum above the floor shall be permitted at lavatories and sinks used primarily by children ages 6 through 12 where the higher of the rim or counter surface is 31 inches (785 mm) maximum above the floor.
4. A parallel approach complying with Section 305 ~~and centered on the sink,~~ shall be permitted at lavatories an sinks used primarily by children ages 5 and younger.
5. (unchanged)
6. A parallel approach complying with Section 305 ~~and centered on the sink,~~ shall be permitted at wet bars.

Reason: Side reach allows for reach at the shoulder and forward. If the side approach is permitted, the sink should be at least 12" from the wall for optimum reach, not centered on the space. The International Plumbing Code required sinks to have a minimum center line 15" from the wall. The current requirement for centering, along with the new clear floor space approved in 3-13 forces the center line of the sink to be 27 inches from the wall. This does not improve access. Side approach is permitted in sinks in kitchenettes, wet bars and sinks for children under the age of 5**.**

3-13-12 PC6

Larry Perry, representing self

Revise as follows:

305.3 Size. The clear floor space shall be 52 inches (1320 mm) minimum in length and 30 inches (760 mm) minimum in width.

1102.3.2 Turning Space. All rooms served by an accessible route shall provide a turning space complying with Section 304.

EXCEPTIONS:

1. A turning space shall not be required in toilet rooms and bathrooms that are not required to comply with Section 1102.11.2.
2. A turning space is not required within closets or pantries that are ~~48 inches (1220 mm)~~ 52 inches (1320 mm) maximum in depth.

1103.3.2 Turning Space. All rooms served by an accessible route shall provide a turning space complying with Section 304.

EXCEPTIONS:

1. A turning space is not required in toilet rooms and bathrooms that are not required to comply with Section 1103.11.2.
2. A turning space is not required within closets or pantries that are ~~48 inches (1220 mm)~~ 52 inches (1320 mm) maximum in depth.

Reason: As part of the change to increase the wheelchair clear floor space length from 48" to 52", two sections in the dwelling unit chapter were overlooked.

The exceptions for closets in Accessible Units and Type A units not requiring turning space (which by separate action is increased from 60" to 67") were based on the fact that a closet not deep enough for someone to fully enter and close the door would not require a turning space. If the length of the wheelchair space is increasing from 48" to 52", the depth of the closet before a turning space is required should also be increased, to maintain the original concept for the exceptions.

3-13-12 PC7

Jean Tessmer, representing self

Revise as follows:

305.3 Size. The clear floor space shall be 52 inches (1320 mm) minimum in length and 30 inches (760 mm) minimum in width.

305.7.2 Forward Approach. Where the clear floor space is positioned for a forward approach, the alcove shall be ~~36~~ 60 inches (915 mm) minimum in width where the depth exceeds ~~20~~ 24 inches (~~508~~ 610 mm).

Reason: If the alcove is more than 20 inches deep, the 36 inch minimum does not allow any turning space for a wheel chair and more than 20 inches could be a 200 inch deep alcove dead end which would require more skill to back out of deeper alcove spaces only 36 inches wide.

3-13-12 PC8

Chad Beebe, – representing American Society for Healthcare Engineering (ASHE)

Disapprove this change. Return the text to that found in existing standard.

Reason: In review of the 2014 Final Draft of the ICC A117.1 document, it has come to our attention that several of the proposed changes will have a significantly negative impact to the healthcare industry design/built environment of buildings designed under the 2015 IBC. Further, it is our understanding that the overwhelming majority of these changes have been derived from a single uncorroborated report which has neither been properly vetted nor adopted by any other credible agency or (similar) jurisdictional body.

As we do not feel these dramatic and substantial changes have been given proper and appropriate consideration by all interested stakeholders in this process, and since we question the authenticity of the underlying premise used to make such changes, we respectfully request they either be removed entirely from consideration in this draft, or that the entire draft adoption process be held in abeyance for a minimum of 12-months so that further collaboration can be conducted with all interested parties. If the Committee opts to delay this process for 12-months, it will be in keeping with the mission of the ICC, and best assure that all parties can be provided with the opportunity to reasonably participate in this process.

3-13-12 - The increasing of the standard size for clear floor spaces being changed from (30" x 48") to (30" x 52"), an increase of 1.25 square feet for every required clear floor space area which occurs in many places throughout all types of rooms/spaces.

These new requirements would add thousands of required square feet to a new hospital and significantly impact any renovations to an existing hospital by requiring increased patient room sizes to meet the new requirements and thus, due to the fixed square footage within the building foot print, will reduce the number of allowable beds the hospital can maintain. With hospital construction cost averaging around $300.00 per square foot these additional increases in square footage will significantly impact the cost of construction. Thank you for your consideration of this request, and in keeping alive the goals and mandates of the entire ICC organization and membership.

3-13-12 PC9

Larry Eberly, representing Pennsylvania Builders Association

Disapprove this change. Return the text to that found in existing standard.

Reason: Pennsylvania Builders Association opposes any change to the ANSI 117.1 building blocks for numerous reasons.

The requirements within Chapter 3: Building Blocks are the standard and precedent for the development of decades of accessibility required clearances, maneuverability and reach ranges both in ANSI A117.1 and federal accessibility laws and their standards (ADA/ FHA/ ABA/ UFAS, etc).

Any changes will conflict with and be more stringent than these accepted laws and standards and contradictory to the efforts of the ADA/A117 Harmonization Task Group (HTG) to provide consistent language with the ADA. Residual unforeseen consequences and conflicts with these laws and within the ANSI 117.1 standard itself due to the vast references to this chapter will require extensive future coordination, revisions and clarifications and create a financial burden for residential communities.

These changes are predicated on the anthropometric study of mobility device users by The Center for IDeA at the University at Buffalo, SUNY which predominantly addresses the potential need to accommodate existing electric mobility devices. The Committee's and Wheeled Mobility Task Group's (WMTG) supporting documentation and comments contained in the Backround Report raises serious questions to the study's testing methods, criteria and results and clearly acknowledges the unforeseen residual impact and consequences.

Instead of changing the Building Blocks, a more prudent approach would be to require mobility device manufacturers to comply with the decades of accepted standards, particularly taking in consideration future technology and advances in design.

Stringent changes to the requirements in the ANSI 117.1 standards make private residential communities more handicap accessible than public, institutional and commercial buildings and sites including USPS postal centers, hospitals, schools, retail, office, recreational and cultural establishments. A substantial disparity and financial burden is placed on residential communities, homeowners and builders by requiring residential buildings to comply with stricter standards. In addition, any change to these basic building blocks may also set a precedent for a re-evaluation of all other clearances and requirements not currently included in these proposed changes, particularly dwelling unit bathroom and kitchens.

Pennsylvania adopts the accessibility provisions of the newest triennial revisions to the ICC Family of Codes that have been adopted in PA, which includes the IBC, IRC, IMC, IPC and IEBC. without modification. This includes the references to ICC/ANSI A117.1. Mandatory adoption in Pennsylvania, without modification, has unforeseen consequences to the building industry, both commercial and residential communities.

3-13-12 PC10

Tony Ewalt, representing Sletten Construction of Nevada, Inc.; Michael Gentille, representing Philip Chun North America, Inc.; Michael McGettigan, representing Terracon Consultant; Robert W. Potter, Construction Company, representing Affordable Concepts; Eric J. Rowland, representing Rowland Design;

Disapprove this change. Return the text to that found in existing standard.

Reason: **:** In review of the 2014 Final Draft of the ICC A117.1 document, it has come to my attention that several of the proposed changes (ratified by this Committee) will have a significantly negative impact to the design/built environment of buildings designed under the 2015 IBC. Further, it is my understanding that the overwhelming majority of these changes have been derived from a single uncorroborated report which has neither been properly vetted nor adopted by any other

credible agency or (similar) jurisdictional body.

As I do not feel these dramatic and substantial changes have been given proper and appropriate consideration by all interested stakeholders in this process, and I question the authenticity of the underlying premise used to make such changes, I respectfully request they either be removed entirely from consideration in this draft, or that the entire draft adoption process be held in abeyance for a minimum of 12-months.

If the Committee opts to delay this process for 12-months, it will be in keeping with the mission of the ICC, and best assure that all parties can be provided with the opportunity to reasonably participate in this process.

3-13-12 PC11

Douglas Kantor, Steptoe & Johnson, LLP, representing National Association of Convenience Stores

Disapprove this change. Return the text to that found in existing standard.

Reason: NACS is not in favor of this proposed change. We believe that the impact of this change could be significantly negative to the convenience and fuel retailing industry.

This proposed change would increase the clear floor space required at accessible elements up to 13% or 0.8 SF. This impact, while individually small, could have multiple impact points within our small facilities. There are potentially 30 to 40 or more impact points for this change within the facilities of our members. The sales space within our members' facilities could be reduced by up to 32 SF or more which is a significant negative impact on sales estimated at up to $1,500 per month.

Based upon this negative impact to sales NACS is not in favor of this proposal without evidence that this proposal is absolutely necessary for the accessibility of persons with disabilities. While we recognize that the research provided indicates that wheeled mobility devices are becoming larger we do not see any research or reason provided for the increase in size in wheeled mobility devices. Should we, as an industry, be required to pay this cost or increased size out of the choice for bigger devices or should the necessity of larger devices be provided prior to requiring larger spaces.

3-13-12 PC12

Jeffrey T. O'Neill, representing self

Disapprove this change. Return the text to that found in existing standard.

Reason: See reason statement for 3-6-12.

3-13-12 PC13

Minh N. Vu, representing American Hotel & Lodging Association

Disapprove this change. Return the text to that found in existing standard.

Reason: See comment 3-6-12.

3-13B – 12

Revise as follows:

409.4.1 Inside Dimensions. Elevator cars shall provide a clear floor area 36 inches (915 mm) minimum in width and ~~48~~ 52 inches (~~1220~~ 1322 mm) minimum in depth.

3-13B-12 PC1

Ron Burton, PTW Advisors LLC, representing Building Owners and Managers Association, International; David S. Collins, The Preview Group, representing American Institute of Architects (AIA); Ron Nickson, representing the National Multi-housing Council; Steve Orlowski, representing the National Association of Home Builders; Kim Paarlberg, representing International Code Council

See comment under 3-6-12 PC2

3-13B-12 PC2

Larry Eberly, representing Pennsylvania Builders Association

Disapprove this change. Return the text to that found in existing standard.

Reason: Private Residential Elevators are typically installed in Single Family Homes; many are retrofits or within remodels with limited space available. Facilitating circulation and wheelchair access to multiple floor levels for an individual homeowner should be encouraged and not complicated. Increased size requirements may also make such a necessity infeasible and/or pose a financial burden due to limitation of available area or the increased cost for a larger elevator or customization.

This proposed change relates to the anthropometric study of mobility device users by The Center for IDeA at the University at Buffalo, SUNY which questions decades of universally accepted accessibility clearances and maneuverability contained within Chapter 3: Building Blocks. This revision is based on this single study and should be researched further before such changes occur in the standard.

Pennsylvania Builders Association opposes any change to the ANSI 117.1 building blocks for numerous reasons. The requirements within Chapter 3: Building Blocks are the standard and precedent for the development of decades of accessibility required clearances, maneuverability and reach ranges both in ANSI A117.1 and federal accessibility laws and their standards (ADA/ FHA/ ABA/ UFAS, etc).

Any changes will conflict with and be more stringent than these accepted laws and standards and contradictory to the efforts of the ADA/A117 Harmonization Task Group (HTG) to provide consistent language with the ADA. Residual unforeseen consequences and conflicts with these laws and within the ANSI 117.1 standard itself due to the vast references to this chapter will require extensive future coordination, revisions and clarifications and create a financial burden for residential communities.

These changes are predicated on the anthropometric study of mobility device users by The Center for IDeA at the University at Buffalo, SUNY which predominantly addresses the potential need to accommodate existing electric mobility devices. The Committee's and Wheeled Mobility Task Group's (WMTG) supporting documentation and comments contained in the Backround Report raises serious questions to the study's testing methods, criteria and results and clearly acknowledges the unforeseen residual impact and consequences.

Instead of changing the Building Blocks, a more prudent approach would be to require mobility device manufacturers to comply with the decades of accepted standards, particularly taking in consideration future technology and advances in design. Stringent changes to the requirements in the ANSI 117.1 standards make private residential communities more handicap accessible than public, institutional and commercial buildings and sites including USPS postal centers, hospitals, schools, retail, office, recreational and cultural establishments. A substantial disparity and financial burden is placed on residential communities, homeowners and builders by requiring residential buildings to comply with stricter standards. In addition, any change to these basic building blocks may also set a precedent for a re-evaluation of all other clearances and requirements not currently included in these proposed changes, particularly dwelling unit bathroom and kitchens.

Pennsylvania adopts the accessibility provisions of the newest triennial revisions to the ICC Family of Codes that have been adopted in PA, which includes the IBC, IRC, IMC, IPC and IEBC. without modification. This includes the references to ICC/ANSI A117.1. Mandatory adoption in Pennsylvania, without modification, has unforeseen consequences to the building industry, both commercial and residential communities.

3-13B-12 PC3

Robin Roberts, Chair, Technical Standards Committee, representing Accessibility Professionals Association

Disapprove this change. Return the text to that found in existing standard.

Reason: Many of the comments provided in the background reports expressed reservations regarding the study upon which the proposals are based.

Because the proposed changes would have an enormous impact on the design and construction community, further investigation is necessary.

3-13C – 12

Revise as follows:

410.5.1 Lifts with Single Doors or Doors on Opposite Ends. Platform lifts with a single door or doors on opposite ends shall provide a clear floor width of 36 inches (915 mm) minimum and a clear floor depth of ~~48~~ 52 inches (~~1220~~ 1322 minimum).

> **Exception**: Incline platform lifts with passenger restraining arms, shall be permitted to provide a clear floor width of 36 inches (915 mm) minimum and a clear floor depth of 48 inches (1220) mm.

3-13C-12 PC1

Ron Burton, PTW Advisors LLC, representing Building Owners and Managers Association, International; David S. Collins, The Preview Group, representing American Institute of Architects (AIA); Ron Nickson, representing the National Multi-housing Council; Steve Orlowski, representing the National Association of Home Builders; Kim Paarlberg, representing International Code Council

See comment under 3-6-12 PC2

3-13C-12 PC2

Harold Kiewel, representing self

Further revise as follows:

410.5.1 Lifts with Single Doors or Doors on Opposite Ends. Platform lifts with a single door or doors on opposite ends shall provide a clear floor width of 36 inches (915 mm) minimum and a clear floor depth of 52 inches (1322 minimum).

> **Exception**: Incline-traveling platform lifts with passenger restraining arms, shall be permitted to provide a clear floor width of 36 inches (915 mm) minimum and a clear floor depth of 48 inches (1220) mm.

Reason: For clarity, change the opening phrase of the Exception to read, "*Incline-traveling, platform lift . . .*

3-13C-12 PC3

Larry Eberly, representing Pennsylvania Builders Association

Disapprove this change. Return the text to that found in existing standard.

Reason: Platform lifts provide handicap accessibility in Single Family Homes particularly in garages with limited space as a retrofit or remodel to access the home, providing access where existing conditions or site constraints make the use of a ramp infeasible. Facilitating circulation and wheelchair access to a home for an individual homeowner should be encouraged and not complicated. Increased size requirements may also make such a necessity infeasible and/or pose a financial burden due to limitation of available area or the increased cost for larger lifts.

This proposed change relates to the anthropometric study of mobility device users by The Center for IDeA at the University at Buffalo, SUNY which questions decades of universally accepted accessibility clearances and maneuverability contained within Chapter 3: Building Blocks. This revision is based on this single study and should be researched further before such changes occur in the standard.

Pennsylvania Builders Association opposes any change to the ANSI 117.1 building blocks for numerous reasons.

The requirements within Chapter 3: Building Blocks are the standard and precedent for the development of decades of accessibility required clearances, maneuverability and reach ranges both in ANSI A117.1 and federal accessibility laws and their standards (ADA/ FHA/ ABA/ UFAS, etc).

Any changes will conflict with and be more stringent than these accepted laws and standards and contradictory to the efforts of the ADA/A117 Harmonization Task Group (HTG) to provide consistent language with the ADA. Residual unforeseen consequences and conflicts with these laws and within the ANSI 117.1 standard itself due to the vast references to this chapter will require extensive future coordination, revisions and clarifications and create a financial burden for residential communities.

These changes are predicated on the anthropometric study of mobility device users by The Center for IDeA at the University at Buffalo, SUNY which predominantly addresses the potential need to accommodate existing electric mobility devices. The Committee's and Wheeled Mobility Task Group's (WMTG) supporting documentation and comments contained in the Backround Report raises serious questions to the study's testing methods, criteria and results and clearly acknowledges the unforeseen residual impact and consequences.

Instead of changing the Building Blocks, a more prudent approach would be to require mobility device manufacturers to comply with the decades of accepted standards, particularly taking in consideration future technology and advances in design.

Stringent changes to the requirements in the ANSI 117.1 standards make private residential communities more handicap accessible than public, institutional and commercial buildings and sites including USPS postal centers, hospitals, schools, retail, office, recreational and cultural establishments. A substantial disparity and financial burden is placed on residential communities, homeowners and builders by requiring residential buildings to comply with stricter standards. In addition, any change to these basic building blocks may also set a precedent for a re-evaluation of all other clearances and requirements not currently included in these proposed changes, particularly dwelling unit bathroom and kitchens.

Pennsylvania adopts the accessibility provisions of the newest triennial revisions to the ICC Family of Codes that have been adopted in PA, which includes the IBC, IRC, IMC, IPC and IEBC. without modification. This includes the references to ICC/ANSI A117.1. Mandatory adoption in Pennsylvania, without modification, has unforeseen consequences to the building industry, both commercial and residential communities.

3-13C-12 PC4

Robin Roberts, Chair, Technical Standards Committee, representing Accessibility Professionals Association

Disapprove this change. Return the text to that found in existing standard.

Reason: Many of the comments provided in the background reports expressed reservations regarding the study upon which the proposals are based.

Because the proposed changes would have an enormous impact on the design and construction community, further investigation is necessary.

3-13C-12 PC5

Minh N. Vu representing American Hotel & Lodging Association

Disapprove this change. Return the text to that found in existing standard.

Reason: See Comment 3-6.

3-13D – 12

Revise as follows:

802.5.1 Overlap. A wheelchair space location shall not overlap the required width of an aisle.

Exception: The depth of the wheelchair space shall be permitted to overlap the required aisle width a maximum of 4 inches (100 mm).

3-13D-12 PC1

Ron Burton, PTW Advisors LLC, representing Building Owners and Managers Association, International; David S. Collins, The Preview Group, representing American Institute of Architects (AIA); Ron Nickson, representing the National Multi-housing Council; Steve Orlowski, representing the National Association of Home Builders; Kim Paarlberg, representing International Code Council

See comment under 3-6-12 PC2

3-13D-12 PC2

Harold Kiewel, representing self

Further revise as follows:

802.5.1 Overlap. A wheelchair viewing-space ~~location~~ shall not ~~overlap~~ reduce the required exit-width of the ~~an~~ aisle that serves it, by more than 4-inches (100 mm).

> **Exception:** The depth of the wheelchair space shall be permitted to overlap the required aisle width a maximum of 4 inches (100 mm).

Reason: Revise Article 802.5.1 to read, "*Overlap. A wheelchair viewing-space location shall not reduce overlap the required exit-width of the aisle that serves it, by more than 4-inches (100mm).*'

3-13D-12 PC3

Robin Roberts, Chair, Technical Standards Committee, representing Accessibility Professionals Association

Disapprove this change. Return the text to that found in existing standard.

Reason: Allowing any overlap of wheelchair space into required aisle width would create a hazard for egress.

3-13E – 12

Revise as follows:

802.7.2 Companion Seat Alignment. In row seating, the companion seat shall be located to provide shoulder alignment with the wheelchair space occupant. The shoulder of the wheelchair space occupant is considered to be 36 inches (915 mm) from the front or ~~12~~ 16 inches ~~(305~~ 405 mm) from the rear of the wheelchair space. The floor surface for the companion seat shall be at the same elevation as the wheelchair space floor surface.

3-13E-12 PC1

Gene Boecker, Code Consultants, Inc, representing National Association of Theatre Owners

Further revise as follows:

802.7.2 Companion Seat Alignment. In row seating, the companion seat shall be located to provide shoulder alignment with the wheelchair space occupant. The shoulder of the wheelchair space occupant is considered to be 36 inches (915 mm) from the front or 16 inches (405 mm) from the rear of the wheelchair space. The floor surface for the companion seat shall be at the same elevation as the wheelchair space floor surface.

> **EXCEPTION**: In existing facilities, the companion seat shall be permitted to be positioned 12 inches (305 mm) from the rear of the wheelchair space.

Reason: Many of the existing theaters are designed for the existing 12 inch alignment. For example, where the wheelchair space is provided at the rear of the cross aisle, the wheelchair space will now project 4 inches further. While this is addressed by the proposal in 3-13D it does not address the adjoining companion seats. With the proposal, when seats are upgraded, they would need to be moved forward by 4 inches to provide shoulder alignment according to the new requirements. In many auditoriums, the cross aisle width is already the minimum allowed. While the seat typically retracts, the arms of the seat do not and may end up projecting into the aisle. The result would be that the seats in that part of the theater may need to be changed to be something smaller than the rest of the auditorium since moving the entire seating in front of the aisle is cost prohibitive. Providing different chairs for the cross aisle seats would result in an unequal experience for the companion; not in keeping with the spirit of the standard.

3-13E-12 PC2

Ron Burton, PTW Advisors LLC, representing Building Owners and Managers Association, International; David S. Collins, The Preview Group, representing American Institute of Architects (AIA); Ron Nickson, representing the National Multi-housing Council; Steve Orlowski, representing the National Association of Home Builders; Kim Paarlberg, representing International Code Council

See comment under 3-6-12 PC2

3-13E-12 PC3

Kimberly Paarlberg, representing ICC

Further revise as follows:

802.7.2 Companion Seat Alignment. In row seating, the companion seat shall be located to provide shoulder alignment with the wheelchair space occupant. The shoulder of the wheelchair space occupant is considered to be 36 inches (915 mm) from the front or 16 inches (405 mm) from the rear of the wheelchair space. The floor surface for the companion seat shall be at the same elevation as the wheelchair space floor surface.

EXCEPTIONS:

1. Companion seat alignment is not required in tiered seating that includes dining surfaces or work surfaces.
2. For wheelchair spaces with front access, the shoulder alignment shall be permitted to be measures 12 inches (305 mm) from the rear of the space.
3. For wheelchair spaces with side access, the should alignment shall be permitted to be measured 12 inches (305 mm) from the rear of the space.

Reason: While the committee made concessions for the overlap (802.5.1) and the shoulder alignments (802.7.2) in consideration of line of site and to maintain current studies on assembly seating, this solution only totally works for rear approach seats off the cross aisle. It definitely does not work for when a space is located at the rear of a cross aisle since it will force the companion seat an additional 4" forward.

Neither concession leaves the side access seat the same since the wheelchair space now needs additional room.

3-13E-12 PC4

Robin Roberts, Chair, Technical Standards Committee, representing Accessibility Professionals Association

Disapprove this change. Return the text to that found in existing standard.

Reason: Many of the comments provided in the background reports expressed reservations regarding the study upon which the proposals are based.

Because the proposed changes would have an enormous impact on the design and construction community, further investigation is necessary.

3-13F – 12

Revise as follows:

805.2.2 Dimensions. Bus stop boarding and alighting areas shall have a ~~96~~ 100-inch (~~2440~~ 2540 mm) minimum clear length, measured perpendicular to the curb or vehicle roadway edge, and a 60-inch (1525 mm) minimum clear width, measured parallel to the vehicle roadway.

3-13F-12 PC1

Ron Burton, PTW Advisors LLC, representing Building Owners and Managers Association, International; David S. Collins, The Preview Group, representing American Institute of Architects (AIA); Ron Nickson, representing the National Multi-housing Council; Steve Orlowski, representing the National Association of Home Builders; Kim Paarlberg, representing International Code Council

See comment under 3-6-12 PC2

3-13F-12 PC2

Robin Roberts, Chair, Technical Standards Committee, representing Accessibility Professionals Association

Disapprove this change. Return the text to that found in existing standard.

Reason: Many of the comments provided in the background reports expressed reservations regarding the study upon which the proposals are based.

Because the proposed changes would have an enormous impact on the design and construction community, further investigation is necessary.

3-13H – 12

Revise as follows:

1107.3.2 Golf Club Reach Range Area. All areas within holes where golf balls rest shall be within 36 inches (915 mm) maximum of a clear floor space 36 inches (915 mm) minimum in width and ~~48~~ 52 inches (1220 mm) minimum in length complying with Section 305 having a running slope not steeper than 1:20. The clear floor space shall be served by an accessible route.

3-13H-12 PC1

Ron Burton, PTW Advisors LLC, representing Building Owners and Managers Association, International; David S. Collins, The Preview Group, representing American Institute of Architects (AIA); Ron Nickson, representing the National Multi-housing Council; Steve Orlowski, representing the National Association of Home Builders; Kim Paarlberg, representing International Code Council

See comment under 3-6-12 PC2

3-13H-12 PC2

Robin Roberts, Chair, Technical Standards Committee, representing Accessibility Professionals Association

Disapprove this change. Return the text to that found in existing standard.

Reason: Many of the comments provided in the background reports expressed reservations regarding the study upon which the proposals are based.

Because the proposed changes would have an enormous impact on the design and construction community, further investigation is necessary.

3-13K – 12

Revise as follows:

1109.2.3 Clear Deck Space. On the side of the seat opposite the water, a clear deck space shall be provided parallel with the seat. The space shall be 36 inches (915 mm) minimum in width and shall extend forward ~~48~~ 52 inches (~~1220~~ 1320 mm) minimum from a line located 12 inches (305 mm) behind the rear edge of the seat. The clear deck space shall have a slope not steeper than 1:48.

3-13K-12 PC1

Ron Burton, PTW Advisors LLC, representing Building Owners and Managers Association, International; David S. Collins, The Preview Group, representing American Institute of Architects (AIA); Ron Nickson, representing the National Multi-housing Council; Steve Orlowski, representing the National Association of Home Builders; Kim Paarlberg, representing International Code Council

See comment under 3-6-12 PC2

3-13K-12 PC2

Robin Roberts, Chair, Technical Standards Committee, representing Accessibility Professionals Association

Disapprove this change. Return the text to that found in existing standard.

Reason: Many of the comments provided in the background reports expressed reservations regarding the study upon which the proposals are based. Because the proposed changes would have an enormous impact on the design and construction community, further investigation seems necessary.

3-13L – 12

Add new text as follows:

1004.3.3 Clear Floor Space. For the purposes of Type B units, the clear floor space shall be 48 inches (1220mm) minimum in length and 30 inches (760 mm) minimum in width.

Revise as follows:

1004.9 Operable Parts. Lighting controls, electrical switches and receptacle outlets, environmental controls, electrical panelboards, and user controls for security or intercom systems shall comply with Sections ~~309.2 and~~ 309.3 and 1004.3.3.

EXCEPTIONS:
(No change to the exceptions)

1004.10.1 Clear Floor Space. A clear floor space complying with Section ~~305.3~~ 1004.3.3 shall be provided. A parallel approach shall be provided for a top loading machine. A forward or parallel approach shall be provided for a front loading machine.

1004.11.2 Clear Floor Space. Clear floor spaces required by Section 1004.11.3.1 (Option A) or 1004.11.3.2 (Option B) shall comply with Sections 1004.11.2 and ~~305.3~~ 1004.3.3.

1004.11.2.1 Doors. Doors shall not swing into the clear floor space or clearance for any fixture.

EXCEPTION: Where a clear floor space complying with Section ~~305.3~~ 1004.3.3, excluding knee and toe clearances under elements, is provided within the room beyond the arc of the door swing.

1004.11.3.1.1 Lavatory. A clear floor space complying with Section ~~305.3~~ 1004.3.3, positioned for a parallel approach, shall be provided at a lavatory. The clear floor space shall be centered on the lavatory.

EXCEPTION:
A lavatory complying with Section 606 and 1004.3.3 shall be permitted. Cabinetry shall be permitted under the lavatory provided the following criteria are met:

(a) The cabinetry can be removed without removal or replacement of the lavatory; and

(b) The floor finish extends under the cabinetry; and

(c) The walls behind and surrounding the cabinetry are finished.

1004.12.2 Clear Floor Space. Clear floor space at appliances shall comply with Sections 1004.12.2 and ~~305.3~~ 1004.3.3.

3-13L-12 PC1

Harold Kiewel, representing self

Further revise as follows:

1004.11.2.1 Doors. Doors shall not swing into the clear floor space or clearance for any fixture.

EXCEPTION: A door may swing into the room or space provided that:

1. That there is a clear floor space complying with Section 1004.3.3, beyond the arc of the door swing, and
2. The clear floor space does not include knee- and toe-clearances provided under accessible fixtures or elements.

Where a clear floor space complying with Section 1004.3.3, excluding knee and toe clearances under elements, is provided within the room beyond the arc of the door swing.

1004.11.3.1.1 Lavatory. A clear floor space complying with Section 1004.3.3, positioned for a parallel approach, shall be provided at a lavatory. The clear floor space shall be centered on the lavatory.

EXCEPTION:
A lavatory complying with Section 606 and 1004.3.3 shall be permitted. Cabinetry shall be permitted under the lavatory provided the following criteria are met:

(a) The cabinetry can be removed without removal or replacement of the lavatory; and
(b) The floor finish extends under the cabinetry; and
(c) ~~The walls behind and surrounding the cabinetry are finished~~ The wall- and cabinet-surfaces exposed by such removal are finished to match similar adjoining surfaces.

(portions of proposal not shown remain unchanged)

Reason: The exception provided under Article 1004.11.2.1, Doors, does not read as a sentence and is therefore unclear. Revise item c under the exception for Article 1004.11.3.1.1, Lavatory, to read as follows.

3-13L-12 PC2

Ron Nickson, – representing National Multi Housing Council

Further revise as follows:

1004.3.3 Clear Floor Space. For the purposes of Type B units, the clear floor space shall be 48 inches (1220mm) minimum in length and 30 inches (760 mm) minimum in width.

Revise as follows:

1004.9 Operable Parts. Lighting controls, electrical switches and receptacle outlets, environmental controls, electrical panelboards, and user controls for security or intercom systems shall comply with Sections ~~309.3~~ 1104.1.1 and 1004.3.3.

EXCEPTIONS:

1. Unobstructed forward reach for operable parts shall be permitted to comply with Section 1004.1.3

~~1.~~ 2. Receptacle outlets serving a dedicated use.

~~2.~~ 3. In a kitchen, where two or more receptacle outlets are provided above a length of counter top that is uninterrupted by a sink or appliance, only one receptacle outlet shall ~~not~~ be required to comply with Sections ~~309.2~~ 1104.1.1 and 309.3.

4. In a kitchen, where a clear floor space for a parallel approach cannot be located at a counter top in a corner between appliances, receptacle outlets over the counter top shall not be required to comply with Sections 1104.1.1 and 309.3 provided that the counter top is 7 square feet (0.65 m^2) maximum.

~~3.~~ 5. Floor receptacle outlets.

~~4.~~ 6 HVAC diffusers.

~~5.~~ 7. Controls mounted on ceiling fans.

~~6.~~ 8. Controls or switches mounted on appliances.

~~7.~~ 9. Plumbing fixture controls.

~~8.~~ 10. Reset buttons and shut-offs serving appliances, piping and plumbing fixtures.

~~9.~~ 11. Where redundant controls other than light switches are provided for a single element, one control in each space shall not be required to be accessible.

~~10.~~ 12. . Within kitchens and bathrooms, lighting controls, electrical switches and receptacle outlets are permitted to be located over cabinets with counter tops 36 inches (915 mm) maximum in height and 25-1/2 inches (650 mm) maximum in depth.

1004.10.1 Clear Floor Space. A clear floor space complying with Section 1004.3.3 shall be provided. A parallel approach shall be provided for a top loading machine. A forward or parallel approach shall be provided for a front loading machine.

1004.11.2 Clear Floor Space. Clear floor spaces required by Section 1004.11.3.1 (Option A) or 1004.11.3.2 (Option B) shall comply with Sections 1004.11.2 and 1004.3.3.

1004.11.2.1 Doors. Doors shall not swing into the clear floor space or clearance for any fixture.

EXCEPTION: Where a clear floor space complying with Section 1004.3.3, excluding knee and toe clearances under elements, is provided within the room beyond the arc of the door swing.

1004.11.3.1.1 Lavatory. A clear floor space complying with Section 1004.3.3, positioned for a parallel approach, shall be provided at a lavatory. The clear floor space shall be centered on the lavatory.

EXCEPTION:

A lavatory complying with Section 606 and 1004.3.3 shall be permitted. Cabinetry shall be

permitted under the lavatory provided the following criteria are met:

(a) The cabinetry can be removed without removal or replacement of the lavatory; and

(b) The floor finish extends under the cabinetry; and

(c) The walls behind and surrounding the cabinetry are finished.

1004.12.2 Clear Floor Space. Clear floor space at appliances shall comply with Sections 1004.12.2 and ~~305.3~~ 1004.3.3.

Reason: The proposed modification address only the Type B dwellings unit. The proposal includes all of the changes approved for the Type B Dwelling Unit acted on during the committee process to develop the next version of the ANSI standard. The changes in the comment are intended to allow the Type B dwelling unit to remain technically as it was in the 2009 version of the standard by not incorporating the changes in the buildings blocks for clear floor space, turning circle and U-turn, etc. that were approved during the committee deliberations.

3-13L-12 PC3

Kimberly Paarlberg, – representing ICC

Further revise as follows:

1103.1 General. Type A units shall comply with Section 1103. Where Type A criteria references other sections in this standard for elements within a Type A dwelling or sleeping unit and requirements for new and existing buildings are provided, new Type A dwelling and sleeping units shall be permitted to use the criteria for existing buildings.

Reason: The references to the building blocks in Type A units are extensive. The Type A unit as is currently stands would be consistent with the 2010 ADA Standard. The Type A is viewed as a compromise between the Accessible and Type B units. FHA has criteria to allow for individuals to modify dwelling units based on their individual needs. Perhaps that justifies looking at this issue again.

3-13L-12 PC4

Larry Perry, – representing self

Further revise as follows:

1004.9 Operable Parts. Lighting controls, electrical switches and receptacle outlets, environmental controls, electrical panelboards, and user controls for security or intercom systems shall comply with Sections 309.3 and 1004.3.3, except that unobstructed low-reach shall be 15-incyes (380 mm) minimum.

EXCEPTIONS:
(No change to the exceptions)

(portions or proposal not shown remain unchanged)

Reason: This section needs to be revised to correct a problem created by a change to chapter 3. Section 308 now has different unobstructed low reach for forward and side approach. Section 308 also refers to Section 305 in numerous locations, making it unclear if the larger clear floor space is somehow applicable.

Recommend establishing a consistent low unobstructed reach range regardless of the clear floor space provided. As currently proposed, outlet height in an apartment would vary, and assumed clear floor spaces will be impacted by furniture once the unit is occupied.

As proposed by this comment, a 15” low reach range would be permitted throughout Type B units.

3-13L-12 PC5

Chad Beebe, – representing American Society for Healthcare Engineering (ASHE)

Disapprove this change. Return the text to that found in existing standard.

Reason: In review of the 2014 Final Draft of the ICC A117.1 document, it has come to our attention that several of the proposed changes will have a significantly negative impact to the healthcare industry design/built environment of buildings designed under the 2015 IBC. Further, it is our understanding that the overwhelming majority of these changes have been derived from a single uncorroborated report which has neither been properly vetted nor adopted by any other credible agency or (similar) jurisdictional body.

As we do not feel these dramatic and substantial changes have been given proper and appropriate consideration by all interested stakeholders in this process, and since we question the authenticity of the underlying premise used to make such changes, we respectfully request they either be removed entirely from consideration in this draft, or that the entire draft adoption process be held in abeyance for a minimum of 12-months so that further collaboration can be conducted with all interested parties. If the Committee opts to delay this process for 12-months, it will be in keeping with the mission of the ICC, and best assure that all parties can be provided with the opportunity to reasonably participate in this process.

3-13L-12 - The addition of a clear floor space requirement in front of EVERY SINGLE: light switch, electrical outlet, thermostat, e-panel, and other user controls for all Type B units which will impact every patient sleeping unit within a hospital.
These new requirements would add thousands of required square feet to a new hospital and significantly impact any renovations to an existing hospital by requiring increased patient room sizes to meet the new requirements and thus, due to the fixed square footage within the building foot print, will reduce the number of allowable beds the hospital can maintain. With hospital construction cost averaging around $300.00 per square foot these additional increases in square footage will significantly impact the cost of construction. Thank you for your consideration of this request, and in keeping alive the goals and mandates of the entire ICC organization and membership.

3-13L-12 PC6

Tony Ewalt, representing Sletten Construction of Nevada, Inc.; Michael Gentille, representing Philip Chun North America, Inc.; Michael McGettigan, representing Terracon Consultant; Robert W. Potter, Construction Company, representing Affordable Concepts; Eric J. Rowland, representing Rowland Design;

Disapprove this change. Return the text to that found in existing standard.

Reason: In review of the 2014 Final Draft of the ICC A117.1 document, it has come to my attention that several of the proposed changes (ratified by this Committee) will have a significantly negative impact to the design/built environment of buildings designed under the 2015 IBC. Further, it is my understanding that the overwhelming majority of these changes have been derived from a single uncorroborated report which has neither been properly vetted nor adopted by any other credible agency or (similar) jurisdictional body.

As I do not feel these dramatic and substantial changes have been given proper and appropriate consideration by all interested stakeholders in this process, and I question the authenticity of the underlying premise used to make such changes, **I** respectfully request they either be removed entirely from consideration in this draft, or that the entire draft adoption process be held in abeyance for a minimum of 12-months.
If the Committee opts to delay this process for 12-months, it will be in keeping with the mission of the ICC, and best assure that all parties can be provided with the opportunity to reasonably participate in this process.

3-13L-12 PC7

Jeffrey T. O'Neill, – representing self

Disapprove this change. Return the text to that found in existing standard.

Reason: See comment at 3-6-12.

3-13L-12 PC8

Minh N. Vu, – representing American Hotel & Lodging Association

Disapprove this change. Return the text to that found in existing standard.

Reason: See comment 3-6-12.

3-20 – 12

Revise as follows:

308.2.1 Unobstructed. Where a forward reach is unobstructed, the high forward reach shall be 48 inches (1220 mm) maximum and the low forward reach shall be ~~15~~ 23 inches (~~380~~ 585 mm) minimum above the floor.

3-20-12 PC1

Fritz Rasmussen, – representing Kwik Trip Inc.

Comment: -Bad- 308.2.1 Unobstructed (Forward Reach). This raises the lowest forward reach point from 15" AFF to 23" AFF. *This would raise all electrical outlets that are in public spaces. Baby seats would have to be raised up to meet this requirement*

3-20-12 PC2

Ron Burton, PTW Advisors LLC, representing Building Owners and Managers Association, International; David S. Collins, The Preview Group, representing American Institute of Architects (AIA); Ron Nickson, representing the National Multi-housing Council; Steve Orlowski, representing the National Association of Home Builders; Kim Paarlberg, representing International Code Council

See comment under 3-6-12 PC2

3-20-12 PC3

Larry Eberly, – representing Pennsylvania Builders Association

Disapprove this change. Return the text to that found in existing standard.

Reason: This decrease in reach range necessitates changes in typical construction and installation of electrical outlets and HVAC systems and does not address the implications for Kitchen and bathroom vanity drawers and base cabinets, low shelving, dishwasher racks, refrigerators, range ovens and other appliances, plumbing fixture controls and window hardware typically below 23" above the floor.

Pennsylvania Builders Association opposes any change to the ANSI 117.1 building blocks for numerous reasons.

The requirements within Chapter 3: Building Blocks are the standard and precedent for the development of decades of accessibility required clearances, maneuverability and reach ranges both in ANSI A117.1 and federal accessibility laws and their standards (ADA/FHA/ ABA/ UFAS, etc).

Any changes will conflict with and be more stringent than these accepted laws and standards and contradictory to the efforts of the ADA/A117 Harmonization Task Group (HTG) to provide consistent language with the ADA. Residual unforeseen consequences and conflicts with these laws and within the ANSI 117.1 standard itself due to the vast references to this chapter will require extensive future coordination, revisions and clarifications and create a financial burden for residential communities.

These changes are predicated on the anthropometric study of mobility device users by The Center for IDeA at the University at Buffalo, SUNY which predominantly addresses the potential need to accommodate existing electric mobility devices. The Committee's and Wheeled Mobility Task Group's (WMTG) supporting documentation and comments contained in the Backround Report raises serious questions to the study's testing methods, criteria and results and clearly acknowledges the unforeseen residual impact and consequences.

Instead of changing the Building Blocks, a more prudent approach would be to require mobility device manufacturers to comply with the decades of accepted standards, particularly taking in consideration future technology and advances in design.

Stringent changes to the requirements in the ANSI 117.1 standards make private residential communities more handicap accessible than public, institutional and commercial buildings and sites including USPS postal centers, hospitals, schools, retail, office, recreational and cultural establishments. A substantial disparity and financial burden is placed on residential communities, homeowners and builders by requiring residential buildings to comply with stricter standards. In addition, any change to these basic building blocks may also set a precedent for a re-evaluation of all other clearances and requirements not currently included in these proposed changes, particularly dwelling unit bathroom and kitchens.

Pennsylvania adopts the accessibility provisions of the newest triennial revisions to the ICC Family of Codes that have been adopted in PA, which includes the IBC, IRC, IMC, IPC and IEBC. without modification. This includes the references to ICC/ANSI A117.1. Mandatory adoption in Pennsylvania, without modification, has unforeseen consequences to the building industry, both commercial and residential communities.

3-20-12 PC4

Kimberly Paarlberg, – representing International Code Council

Disapprove this change. Return the text to that found in existing standard.

Reason: The study on reach is not complete. No reach over an obstruction was studied. Reach requirements should not be revised piecemeal.

This will have the most effect on the location of electrical outlets. At 23" above the floor, this will put the outlet above furniture. This is considered a visual eyesore; therefore, outlets that are not required will typically be removed. Is this not decreasing options for everyone?

By reference to 309, and therefore 308, this reach range could adversely effect control panels within elevator cars and on platform lifts. The low reach is needed to fit in emergency phones.

What exactly are we trying to affect?

An alternative –

308.2.1 Unobstructed. Where a forward reach is unobstructed, the high forward reach shall be 48 inches (1220 mm) maximum and the low forward reach shall be 23 inches (585 mm) minimum above the floor

Exception: The following elements shall be permitted to have a low forward reach of 15 inches (380 mm) minim above the floor:

1. Electrical outlets
2. Emergency equipment in elevator cars

3-20-12 PC5

Robin Roberts, Chair, Technical Standards Committee, representing Accessibility Professionals Association

Disapprove this change. Return the text to that found in existing standard.

Reason: Many of the comments provided in the background reports expressed reservations regarding the study upon which the proposals are based. Because the proposed changes would have an enormous impact on the design and construction community, further investigation seems necessary.

3-20-12 PC6

Minh N. Vu, – representing American Hotel & Lodging Association

Disapprove this change. Return the text to that found in existing standard.

Reason: The ANSI Committee has proposed to change the accessible forward reach range from 15 and 48 inches to 23 and 48 inches above the finished floor ("AFF"). The American Hotel & Lodging Association (AHLA) opposes this change because it is based on the findings of a single study that provides no insight into the reaching capabilities of Wheeled Mobility Device users in the United States and would have far-reaching negative implications for lodging facilities that the ANSI Committee has not considered.

I. The proposed change is based on a single study that provides no empirical data about the reaching ability of WhMD users in the United States.

The proposed change is based on findings from a study conducted by the Center for Inclusive Design and Environmental Access (IdeA) Anthropometry of Wheeled Mobility Project, Final Report (December 31,2010) (hereinafter, the "study') in which none of the study participants could execute a forward reach below 16"-17" AFF. The Study found that 51% of study participants using manual wheelchairs and 36% of study participants in power wheelchairs would be able to execute a forward reach at 23-24 inches AFF. Thus, the ANSI Committee has proposed to raise the minimum height for a forward reach to 23" AFF.

The Study cannot be the basis for setting a nationwide standard because the Study participant pool was not a representative sample of WhMD users in the United States (Study at 13.) In particular:

- The 495 study participants were not randomly selected WhMD users. Instead, they were recruited from Buffalo, NY; Pittsburg, PA and Ithaca NY (Study at 3).
- The Study 'intentionally oversampled powered wheelchair users" who, according to the Study's finding, had the greatest difficulty with executing a forward reach (Study at 13.)
- The Study made no attempt to choose participants whose medical conditions proportionately reflect the medical conditions of WhMD users in the United States (Study at 36). The Study's authors stated that there was 'a higher prevalence of spinal cord injuries' in the Study sample in addition to a larger percentage of participants with 'nervous sstem disorders' relative to the percentage of people with such conditions in the U.S. population. Indeed, 32% of the study participants have 'nervous system disorders,' whereas only 8% of the general population of WhMD users have such conditions (Study at 36). The disproportionately higher percentage of Study participants with spinal cord and central nervous system injuries likely increased the number of people who would have difficulty executing a forward-reach.

In is a basic principle of statistics that a study sample must accurately reflect the overall population in order for the findings to be extended to that population. The Study made no attempt to capture a random sample of WhMD users in the United States in order to study their reach range limitations. Accordingly, the Study provides no information concerning the reach-range of WhMD users in the United States and cannot serve as the basis for a radical change to national accessibility standards.

II. The proposed change would negatively impact lodging facilities in new and renovated facilities.

In addition to having no legitimate justification, the proposed forward reach range change would have very negative impacts on lodging facilities. Outlets, in room safes, closet shelves, kitchen cabinets, storage drawers, controls at individual PTAC units, toilet paper dispensers and bathtub controls would all have to be raised. In new construction, the space in which these items could be placed would be extremely limited. In an accessible guest room with kitchen cabinets, for example, fifty percent of the storage must be within an accessible reach range under the 2010 ADA Standards. If the minimum low reach is raised to 23 inches AFF, none of the lower cabinets would qualify as accessible storage. The upper cabinets, which must be mounted above the counter, would also not qualify because they would be above 48 inches AFF. The result: kitchen cabinets would have to be mounted in a single row at chest height.

The proposed changes would pose even greater challenges in existing lodging facilities that are renovated. All of the elements described above in accessible guest rooms would have to be relocated and there would be no space for some of the elements (e.g. kitchen cabinets) to be placed within the proposed, extremely limited reach range.

III. The proposed change will make the ANSI A117.1 Standard inconsistent with the new 2010 ADA Standards and undermine harmonization and compliance objectives.

As the ANSI Committee is well aware, for the first twenty years of the Americans with Disabilities Act of 1990, the ANSI A117.1 Standard was not the same as the ADA Standards for Accessible Design adopted by the United States Department of Justice. The lack of harmonization caused a great deal of confusion among owners of public accommodations and commercial facilities who had to comply with building code and ADA requirements which differed. In September 2010, the DOJ issued the 2010 Standards which was the culmination of an effort by the ANSI Committee and the Access Board to harmonize the ANSI A117.1 Standard with the 2010 ADA Standards. The 2010 ADA Standards have only been in effect for fewer than two years.

If adopted, the proposed change to the forward-reach range would undo this harmonization effort by introducing an entirely different standard into future editions of the International Building Code which will then be adopted by state governments as their building codes. Owners seeking to comply with both sets of requirements will yet again be thrown into a state of confusion even though, as discussed above, there is no legitimate reason for the change. In AHLA's experience, compliance regimes that are confusing or difficult to understand/implement usually result in less accessibility and operate to the detriment of individuals with disabilities. AHLA, thus, urges the ANSI Committee to reject any rule changes that would conflict with the 2010 ADA Standards, including the proposed minimum forward-reach range.

IV. At a Minimum, the proposed changes should not apply to existing buildings.

As can be seen throughout the preceding discussion, the proposed changes -- once they re adopted by jurisdictions asw part of their building codes -- will be particularly problematic for existing facilities that will have to comply with them in future renovations. In most instances, lodging facility owners will face three unacceptable alternatives: (1) Comply with the new requirements by relocating outlets, PTAC;s, safes, toilet paper dispensers, bathtub controls and storage units; (2) Attempt to seek a variance from local building officials assuming such a process is available; or (3) Not renovate or improve facilities. All options are highly undesirable. The first tw2o options will add substantial cost and uncertainty to renovation projects. The third option would actually undermine accessibility because renovations typically result in improved access. Accordingly, if the ANSI Committee is unwilling to postpone the adoption of the proposal for further study, it should, at a minimum, limit its application to facilities constructed after a jurisdiction adopts the changes.

3-21 – 12

Revise as follows:

308.2.2 Obstructed High Reach. Where a high forward reach is over an obstruction, the clear floor space complying with Section 305 and knee and toe clearance complying with Section 306 shall extend beneath the element for a distance not less than the ~~required~~ reach depth over the obstruction. The high forward reach shall be 48 inches (1220 mm) maximum above the floor where the reach depth over the obstruction is 20 inches (510 mm) maximum. Where the reach depth over the obstruction is more than ~~exceeds~~ 20 inches (510 mm) and 25 inches (635 mm) or less, the high forward reach shall be 44 inches (1120 mm) maximum above the floor, ~~and the reach depth shall be 25 inches (635 mm) maximum~~.

3-21-12 PC1

Harold Kiewel, representing self

Revise as follows:

308.2.2 Obstructed High Reach. Where a high forward reach is over an obstruction, the clear floor space complying with Section 305 and knee and toe clearance complying with Section 306 shall extend beneath the element for a distance not less than the reach depth over the obstruction. The high forward reach shall be 48 inches (1220 mm) maximum above the floor where the reach depth over the obstruction

is 20 inches (510 mm) maximum. Where the reach depth over ~~the~~ an obstruction is more than 20 inches (510 mm) ~~and 25 inches (635 mm) or less~~, the high ~~forward reach shall be 44 inches (1120 mm) maximum above the floor.~~ reach-limit shall be reduced by 1-inch for each inch of depth, or fraction thereof, over 20 inches; except that there is no reachable area on a surface beyond an obstruction 25-inches or more in depth.

Reason: Revise the last sentence of Article 308.2.2

3-21-12 PC2

Curt Wiehle, Minnesota Construction Codes and Licensing, representing self

Revise as follows:

308.2.2 Obstructed High Reach. Where a high forward reach is over an obstruction, the clear floor space complying with Section 305 and knee and toe clearance complying with Section 306 shall extend beneath the element for a distance not less than the reach depth over the obstruction. The high forward reach shall be 48 inches (1220 mm) maximum above the floor where the reach depth over the obstruction is 20 inches (510 mm) maximum. ~~Where the reach depth over the obstruction is more than 20 inches (510 mm) and 25 inches (635 mm) or less, the high forward reach shall be 44 inches (1120 mm) maximum above the floor.~~ The high forward reach shall be 44 inches (1120 mm) maximum above the floor where the reach depth over the obstruction is greater than 20 inches (510 mm) and not more than 25 inches (635 mm).

Reason: Editorial change to use consistent language within the provision.

3-23 – 12

Revise as follows:

308.3.1 Unobstructed. Where a clear floor space complying with Section 305 allows a parallel approach to an element and the edge of the clear floor space is 10 inches (255 mm) maximum from the element, the high side reach shall be 48 inches (1220 mm) maximum and the low side reach shall be 15 inches (380 mm) minimum above the floor.

EXCEPTION<u>S</u>:

1. Existing elements that are not altered shall be permitted at 54 inches (1370 mm) maximum above the floor.
2. Operable parts on fuel dispensers installed on an existing curbs shall be permitted at 54 inches (1370 mm) maximum above the floor.

3-23-12 PC1

Harold Kiewel, representing self

Revise as follows:

308.3.1 Unobstructed. Where a clear floor space complying with Section 305 ~~allows~~ provides a parallel approach to an element and the edge of the clear floor space is 10 inches (255 mm) maximum from the element, the high side reach shall be 48 inches (1220 mm) maximum and the low side reach shall be 15 inches (380 mm) minimum above the floor.

EXCEPTIONS:

1. Existing elements that are not altered shall be permitted at 54 inches (1370 mm) maximum above the floor.
2. Operable parts on fuel dispensers installed on an existing curbs shall be permitted at 54 inches (1370 mm) maximum above the floor.

Reason: No specific reason provided. See Mr. Kiewel's comments found at 1-1-12.

3-24 – 12

Revise as follows:

308.3.1 Unobstructed. Where a clear floor space complying with Section 305 allows a parallel approach to an element and the edge of the clear floor space is 10 inches (255 mm) maximum from the element, the high side reach shall be 48 inches (1220 mm) maximum and the low side reach shall be 15 inches (380 mm) minimum above the floor.

EXCEPTION<u>S</u>:

1. Existing elements that are not altered shall be permitted at 54 inches (1370 mm) maximum above the floor.
2. Mailboxes serving Type B dwelling units and complying with Section 1001.2 shall be permitted a high reach range at 54 inches (1370 mm) maximum above the floor.

3-24-12 PC1

Marsha K. Mazz, representing U.S. Access Board (ATBCB)

Revise as follows:

308.3.1 Unobstructed. Where a clear floor space complying with Section 305 allows a parallel approach to an element and the edge of the clear floor space is 10 inches (255 mm) maximum from the element, the high side reach shall be 48 inches (1220 mm) maximum and the low side reach shall be 15 inches (380 mm) minimum above the floor.

EXCEPTIONS:

1. Existing elements that are not altered shall be permitted at 54 inches (1370 mm) maximum above the floor.
2. Mailboxes serving Type B dwelling units and complying with Section 1001.2 shall be permitted ~~a~~ <u>an unobstructed</u> high <u>side</u> reach ~~range at~~ 54 inches (1370 mm) maximum above the floor.

Reason: Often shelves or large parcel lockers are located beneath a bank of mailboxes. The modification clarifies that only the "unobstructed" high reach can be 54 inches high. It further clarifies that, in the rare instance where the reach is a forward reach, that the maximum high forward reach is unmodified by the exception.

3-24-12 PC2

Kimberly Paarlberg, representing ICC

Revise as follows:

308.3.1 Unobstructed. Where a clear floor space complying with Section 305 allows a parallel approach to an element and the edge of the clear floor space is 10 inches (255 mm) maximum from the element, the high side reach shall be 48 inches (1220 mm) maximum and the low side reach shall be 15 inches (380 mm) minimum above the floor.

EXCEPTIONS:

1. Existing elements that are not altered shall be permitted at 54 inches (1370 mm) maximum above the floor.
2. ~~Mailboxes serving Type B dwelling units and complying with Section 1001.2 shall be permitted a high reach range at 54 inches (1370 mm) maximum above the floor.~~

Reason: The purpose of this proposal is a clarification of what is required for accessible mailboxes. Please keep in mind that mailbox locations are also regulated by the U.S. Post Office.

Mailboxes are only addressed for dwelling and sleeping units. This is a new Section 1101.2. The current requirements to not clarify what makes a mailbox accessible. Therefore, technical requirements similar to storage facilities are provided in a new Section 9063. The exception (already approved by the committee as an exception to Section 308.3.1 for unobstructed high side reach) was relocated to these provisions so that the requirements/allowances can be together. The exception is still needed for facilities such as high rise apartment buildings and dorm facilities. The exception is also clarified/limited to only apply to accessible mail receptacles assigned to Type B units in centralized facilities. Mail receptacles for Type B units in centralized facilities that are not accessible mail receptacles can be at any height approved by the U.S. Post Office. Accessible mail receptacles for Accessible and Type A units cannot use this exception.

There is also an attempt to editorially clean up the language for accessible mail compartments. Mail receptacles are either centralized or individual, so an additional charging paragraph (1101.2.1) is not needed. If mail receptacles are centralized in groups throughout a facility, than 'at each location' is not needed – the language will apply to all centralized facilities. The text and title is revised to 'elevator service' for consistency with the language in the exceptions for Type B units in IBC Section 1107.7. The terms 'mail receptacles', 'mail compartments' and 'mailboxes' appear to be used interchangeably. We need to be consistent. The proposal is written with mail receptacles as room the boxes are located in and mail compartments as the individual boxes.

Below is what I had revised looking at just the original text – this is for committee information only so it is clear what I was looking at. Once I had it cleaned up, it became clear that it would work better within the individual unit requirements, the same way we address other facilities that serve Accessible, Type A or Type B units.

1101 General

1101.1 Scoping. Dwelling units and sleeping units required to be Accessible units, Type A units, Type B units, Type C (Visitable) units or units with accessible communication features by the scoping provisions adopted by the administrative authority shall comply with the applicable provisions of Chapter 11.

1101.2 Mail ~~Receptacles~~ Compartments. Where mail compartments are provided for Accessible, Type A or Type B dwelling and sleeping units, accessible mail ~~receptacles~~ compartments shall be ~~accessible~~ provided in accordance with Section~~s~~1101.2.1 or 1101.2.2. All accessible mail compartments shall comply with Section 1101.2.3. (10-2-12)

~~1101.2.1 Dwelling Units and Sleeping units.~~ ~~Where mail receptacles are provided for Accessible, Type A or Type B dwelling and sleeping units, accessible mail receptacles shall be provided in accordance with Section 1101.2.1.1 or 1101.2.1.2.~~ (10-2-12)

1101.2.1.~~1~~ Centralized Mail Receptacles. Where each individual mail compartment of a centralized mail receptacle is assigned to a ~~specific~~ dwelling unit or sleeping unit, ~~the~~ accessible individual mail compartments shall ~~comply~~ be provided in accordance with Section 1101.2.1.1.~~1~~ or 1101.2.1.~~1.~~2. (10-2-12)

1101.2.1.1.~~1~~ Buildings Without ~~an~~ Elevator Service. In a structure without ~~an~~ elevator service, ~~all~~ individual mail compartments assigned to Accessible units, Type A units and Type B units ~~in each location~~ shall be accessible. (10-2-12)

1101.2.1.1.~~2~~ Buildings With ~~an~~ Elevator Service. In a structure with ~~an~~ elevator service, fifty percent of ~~all~~ individual mail compartments ~~in each~~ shall be accessible. Individual mail compartments assigned to Accessible and Type A units shall be included in the accessible mail compartments ~~mailboxes~~. In addition to the individual mail compartments assigned to dwelling or sleeping units, an additional number of individual mail compartments that is equal to ten percent of the total number of dwelling units and sleeping units, but not less than one, ~~at each location~~ shall be accessible. (10-2-12)

1101.2.~~1~~.2 Individual house-mounted and curbside mail ~~receptacle~~ compartment. Where an individual house-mounted or curbside mail ~~receptacle~~ compartment serves a dwelling unit or sleeping unit that is required to be an Accessible unit, Type A unit or Type B unit, the mail ~~receptacle~~ compartment shall be accessible. (10-2-12)

3-24-12 PC3

Larry Perry, representing self

Disapprove this change. Return the text to that found in existing standard.

Reason: While I support the idea of allowing resident mailboxes at up to 54" above the floor to be considered acceptable where serving Type B units, an exception in the building block provisions is not an appropriate approach.
As noted in several ballot comments, if this exception is included, it should be tied to where an unobstructed side reach is provided.
As written, with the reference to the newly proposed section 1001.2, it is unclear if this 'exception' is applying only to those mailboxes required to be accessible, or to all of the mailboxes provided.

3-24-12 PC4

Larry Eberly, representing Pennsylvania Builders Association

Disapprove this change. Return the text to that found in existing standard.

Reason: The size of a standard Handicap Accessible parking space which is widely accepted, planned in residential communities and consistent with other laws and standards is based on an aisle width of 60" adjacent to a parking space 96" with a typical total width of 13' wide; this change would increase total width to 13'-7" wide. This may conflict with existing approved site plans, increase impervious coverage and be difficult to implement.
This proposed change relates to the anthropometric study of mobility device users by The Center for IDeA at the University at Buffalo, SUNY which questions decades of universally accepted accessibility clearances and maneuverability contained within Chapter 3: Building Blocks. This revision is based on this single study and should be researched further before such changes occur in the standard.

Pennsylvania Builders Association opposes any change to the ANSI 117.1 building blocks for numerous reasons.
The requirements within Chapter 3: Building Blocks are the standard and precedent for the development of decades of accessibility required clearances, maneuverability and reach ranges both in ANSI A117.1 and federal accessibility laws and their standards (ADA/FHA/ ABA/ UFAS, etc).

Any changes will conflict with and be more stringent than these accepted laws and standards and contradictory to the efforts of the ADA/A117 Harmonization Task Group (HTG) to provide consistent language with the ADA. Residual unforeseen consequences and conflicts with these laws and within the ANSI 117.1 standard itself due to the vast references to this chapter will require extensive future coordination, revisions and clarifications and create a financial burden for residential communities.

These changes are predicated on the anthropometric study of mobility device users by The Center for IDeA at the University at Buffalo, SUNY which predominantly addresses the potential need to accommodate existing electric mobility devices. The Committee's and Wheeled Mobility Task Group's (WMTG) supporting documentation and comments contained in the Background Report raises serious questions to the study's testing methods, criteria and results and clearly acknowledges the unforeseen residual impact and consequences.

Instead of changing the Building Blocks, a more prudent approach would be to require mobility device manufacturers to comply with the decades of accepted standards, particularly taking in consideration future technology and advances in design. Stringent changes to the requirements in the ANSI 117.1 standards make private residential communities more handicap accessible than public, institutional and commercial buildings and sites including USPS postal centers, hospitals, schools, retail, office, recreational and cultural establishments. A substantial disparity and financial burden is placed on residential communities, homeowners and builders by requiring residential buildings to comply with stricter standards. In addition, any change to these basic building blocks may also set a precedent for a re-evaluation of all other clearances and requirements not currently included in these proposed changes, particularly dwelling unit bathroom and kitchens.

Pennsylvania adopts the accessibility provisions of the newest triennial revisions to the ICC Family of Codes that have been adopted in PA, which includes the IBC, IRC, IMC, IPC and IEBC. without modification. This includes the references to ICC/ANSI A117.1. Mandatory adoption in Pennsylvania, without modification, has unforeseen consequences to the building industry, both commercial and residential communities.

Chapter 4

4-5 – 12

Revise as follows:

403.5 Clear width. The clear width of an accessible route shall comply with Section 403.5.1. 403.5.2 or 403.5.3 as applicable.

403.5.1 General. The clear width of an accessible route shall be 36 inches (915 mm) minimum.

EXCEPTION: The clear width shall be permitted to be reduced to 32 inches (815 mm) minimum for a length of 24 inches (610 mm) maximum provided the reduced width segments are separated by segments that are 48 inches (1220 mm) minimum in length and 36 inches (915 mm) minimum in width.

403.5.2 ~~403.5.1~~ Clear Width at 180 Degree Turn. Where an accessible route makes a 180 degree turn around an object that is less than 48 inches (1220 mm) in width, clear widths shall be 42 inches (1065 mm) minimum approaching the turn, 48 inches (1220 mm) minimum during the turn, and 42 inches (1065 mm) minimum leaving the turn.

EXCEPTION: Section 403.5.2 ~~403.5.1~~ shall not apply where the clear width during the turn is 60 inches (1525 mm) minimum.

403.5.3 ~~403.5.2~~ Passing Space. An accessible route with a clear width less than 60 inches (1525 mm) shall provide passing spaces at intervals of 200 feet (61 m) maximum. Passing spaces shall be either a 60-inch (1525 mm) minimum by 60-inch (1525 mm) minimum space, or an intersection of two walking surfaces that provide a T-shaped turning space complying with Section 304.3.2, provided the base and arms of the T-shaped space extend 48 inches (1220 mm) minimum beyond the intersection.

4-5-12 PC1

Ron Burton, PTW Advisors LLC, representing Building Owners and Managers Association, International; David S. Collins, The Preview Group, representing American Institute of Architects (AIA); Ron Nickson, representing the National Multi-housing Council; Steve Orlowski, representing the National Association of Home Builders; Kim Paarlberg, representing International Code Council

See comment under 3-6-12 PC2

4-5-12 PC2

Harold Kiewel, representing self

Further revise as follows:

403.5.1 General. The clear width of an accessible route shall be 36 inches (915 mm) minimum.

EXCEPTIONS:

1. The clear width shall be permitted to be reduced to 32 inches (815 mm) minimum for a length of 24 inches (610 mm) maximum provided the reduced width segments are separated by segments that are 48 inches (1220 mm) minimum in length and 36 inches (915 mm) minimum in width.

2. Where the occupant load of an accessible route exceeds 50 persons, the accessible route shall be at least 72-inches wide or as required by the administrative authority for exiting, whichever is greater.

Reason: 72-inches is two, reduced-width passages plus three, 4-inch shoulders (4 + 32 +4 + 32 + 4). It's probable that the median (middle shoulder) should be 8-inches wide, but I am reluctant to ask for those 4-inches.

4-5-12 PC3

Jean Tessmer, representing herself

Further revise Section 403.5 as follow:

403.5 Clear width. Is a space that accommodates a wheelchair moving in one direction continuously. The clear width of an accessible route shall comply with Section 403.5.1. 403.5.2 or 403.5.3 as applicable.

Reason: Adding the defined function of an accessible route with direction makes understanding the usability clearer. It is not static it is continuous and defines the width of that route.

4-5-12 PC4

Jean Tessmer, representing herself

Further revise as follow:

403.5.1 General. The clear width of an accessible route shall be 36 inches (915 mm) minimum.

EXCEPTION: The clear width shall be permitted to be reduced to 34 ~~32~~ inches (~~815~~ mm) minimum for a length of 18 ~~24~~ inches (~~610~~ mm) maximum provided the reduced width segments are separated by segments that are 60 inches (1220 mm) minimum in length and 36 inches (915 mm) minimum in width.

Reason: 32 inches width for a run of 24 inches is a knuckle buster, only being able to use your finger tips on the rim to maneuver the chair. Then having to negotiate that narrow 32 inches every 48 inches is not enough space to allow a full push on the rim which may cause more hand damage and greater difficulty maneuvering. Other ambulatory individuals would not be as challenge by such intruding obstacles.

4-5-12 PC5

Douglas Kantor, Steptoe & Johnson, LLP, representing National Association of Convenience Stores

Disapprove the change. Return the text to that found in existing standard.

Reason: NACS is not in favor of this proposed change. We believe the impact of this change could be significantly negative to the convenience and fuel retailing industry.

This proposed change could have a devastating impact on the small facilities of our members. This has the likely potential to impact every sales aisle in a store and therefore significantly reduce the number of sales aisles or increase the overall size of a store. Increasing the overall size of the stores has a dominoing impact on development of new facilities by requiring larger sites, additional parking, zoning concerns, and possibly making certain locations undevelopable based upon a negative impact to proforma.

This proposed change could increase the width of sales aisles by up to 7 inches which represents a 19% increase in aisle width. In a typical store this could cause the loss of an entire row of shelves. This has the potential negative impact through the loss of an average of 60 SF of sales space and $2,800 in lost sales per month. It is estimated that this change could also cause an increase in size of a typical retail space by up to 10% with no resulting increase in sales.

Based upon this negative impact to sales NACS is not in favor of this proposal without evidence that this proposal is absolutely necessary for the accessibility of persons with disabilities. While we recognize that the research provided indicates that wheeled mobility devices are becoming larger we do not see any research or reason provided for the increase in size in wheeled mobility devices. Should we, as an industry, be required to pay this cost or increased size out of the choice for bigger devices or should the necessity of larger devices be provided prior to requiring larger spaces. NACS is also not aware of any complaints based upon the aisle space widths or turning space around aisle ends provided with existing facilities that currently comply with the current standards. See additional information at 3-6-12.

4-6 – 12

Revise as follows:

403.5 Clear Width. The clear width of an accessible route shall be 36 inches (915 mm) minimum.

> **EXCEPTION:** The clear width shall be permitted to be reduced to 32 inches (815 mm) minimum for a length of 24 inches (610 mm) maximum provided the reduced width segments are separated by segments that are ~~48~~ 52 inches (~~1220~~ 1320 mm) minimum in length and 36 inches (915 mm) minimum in width.

403.5.2 Passing Space. An accessible route with a clear width less than 60 inches (1525 mm) shall provide passing spaces at intervals of 200 feet (61 m) maximum. Passing spaces shall be either a 60-inch (1525 mm) minimum by 60-inch (1525 mm) minimum space, or an intersection of two walking surfaces that provide a T-shaped turning space complying with Section 304.3.2, provided the base and arms of the T-shaped space extend ~~48~~ 52 inches (~~1220~~ 1320 mm) minimum beyond the intersection.

4-6-12 PC1

Ron Burton, PTW Advisors LLC, representing Building Owners and Managers Association, International; David S. Collins, The Preview Group, representing American Institute of Architects (AIA); Ron Nickson, representing the National Multi-housing Council; Steve Orlowski, representing the National Association of Home Builders; Kim Paarlberg, representing International Code Council

See comment under 3-6-12 PC2

4-6-12 PC2

Karen Gridley, representing Target Corporation

Further revise as follows:

403.5 Clear Width. The clear width of an accessible route shall be 36 inches (915 mm) minimum.

> **EXCEPTION:** The clear width shall be permitted to be reduced to 32 inches (815 mm) minimum for a length of 24 inches (610 mm) maximum provided the reduced width segments are separated by segments that are 48 ~~52~~ inches (1220 ~~1320~~ mm) minimum in length and 36 inches (915 mm) minimum in width.
>
> *Balance of 4-6-12 remains unchanged.*

Reason: This proposed change is provided based on our previous proposal for the building block size of the clear floor space to remain at the current dimension of 48 inches in length, and not be increased to 52 inches. Several reasons are noted here to demonstrate that the increase to 52 inches will ultimately result in a reduction of access from a broader perspective.

During the July 2013 Committee Action Meeting we heard comments by committee members wondering if there is data available regarding how the size of the current turning space works in “real world” applications as compared to findings in the study completed by Dr. Steinfeld.

In response, Target can offer some data that will help add real world context to the discussion.
For reference, Dr. Steinfeld’s study, which lead the committee to propose a new 52” long clear floor space dimension, included 500 participants from a localized geographic area, as we understand it.

Target’s data is based on feedback from people across the nation who visit our stores, totaling nearly 36 million transactions *per week*, on average. Keeping in mind that often the person making the transaction has another person with them so there are well into the multi-millions of guests at Target stores every week. Of these guests, many share comments of all sorts with Target (not just access related) through various channels. We find that of the guests who contacted us in 2012, the percentage of comments related to accessibility of the building was limited to an extremely small fraction of less than 1%. (Less than .0003% of 1%.). Of that fraction of 1%, an even smaller fraction of those comments were related to concerns about clear floor space for wheeled mobility devices. This tells us that the current sizes and dimensions in the existing Standard work, as-is, for the greater

majority of guests using wheeled mobility devices. The data presents no compelling evidence or reason to change the existing dimension.

Additional Information:

During the July 2013 Committee Action Meeting, members of the committee commented that the committee's only job was to look at the A117.1 Standard and implement changes to increase access through that document. In response, we urge the committee to consider that 'more and bigger is not always better, sometimes it's just more and bigger'.

Supporting this would be the observation that the committee has not done its due diligence in evoking or investigating the Wheeled Mobility Device Manufacturing Industry to see what can be accomplished to improve maneuvering through existing engineering practices in 'Like' industry trends and innovation in designs on their end, as that industry as a whole is changing too. Like the automotive industry that went from large cars, trucks and vans to smaller frame vehicles to achieve sustainable efficiencies throughout their redesign all while maintaining safety and functionality.

From an architectural perspective, designers and building owners do not have the luxury of looking at a building in isolation through only a single Standard or Regulation when we design buildings. We must consider many regulations and standards, each having an impact and interplay with other requirements that ultimately drive the size, shape and design of the spaces we provide for people. Considering this interplay, Target respectfully submits that increasing the size of the clear floor space, and other building block sizes, will actually result in decreased accessibility when applied in conjunction with forces in place from other codes and standards.

For example: Green codes and standards are increasingly challenging us to "reduce our carbon footprint", and be responsible stewards of the environment, which includes making buildings smaller in order to achieve compliance with those standards and newly developing regulations. While at the same time, the proposed increases in size of accessibility building blocks within the A117.1 standard would have us increasing our building size.

It is true that designers can adjust, tweak, push and pull designs of the physical buildings to meet these conflicting requirements. In the past we've had the luxury of being able to make buildings larger. However that luxury is increasingly limited in today's environment. The cost comes in what will subsequently be able to fit within in these buildings that are experiencing a compound squeeze (squeezed smaller in footprint on the outside, but interior spaces pushed larger from within). From a retail perspective, this will reduce capacity for merchandise offerings. What was once able to be provided on store shelves may no longer be available due to compromised available space for shelving to house merchandise, having a negative impact on guest's shopping trips.

From a product perspective, of the guest comments received in 2012, approximately 12% were related to product, as compared to the less-than 1% of comments related to building accessibility. Product availability is already of greater concern to guests than building access. Thus, increasing the building blocks of accessibility would drive product concern even higher, since the very things that persons with disabilities might travel to a store to purchase could no longer be available. Considering the effort it takes to travel to shopping destinations for many persons with disabilities, it is a disservice to them for retailers to not be able to offer the items that they currently go there for, forcing them to extend strenuous shopping trips to additional stores in search of what they are looking for, and for some, making the shopping trip as a whole inaccessible all together.

We encourage the committee to reconsider the proposals that would increase the size of the 52" long clear floor space dimension, and other building block sizes, and instead maintain the current sizes. At least until such time as more investigation of the Wheeled Mobility Device Manufacturing Industry can take place to identify what can be done to improve design of those devices via engineering and technology advancements, towards improved access.

4-6-12 PC3

Harold Kiewel, representing self

Further revise as follows:

403.5.2 Passing Space. Where an accessible route ~~with a clear width~~ is less than ~~60~~ 72 inches (~~1525~~ mm) ~~shall~~ wide, provide passing spaces at intervals of 200 feet (61 m) maximum. Passing spaces shall be ~~either a 60~~ 72-inch (~~1525~~ mm) wide minimum by ~~60~~ 68-inches (~~1525~~ mm) long minimum ~~space, or an intersection of two walking surfaces that provide a T-shaped turning space complying with Section 304.3.2, provided the base and arms of the T-shaped space extend 52 inches (1320 mm) minimum beyond the intersection~~.

Reason: A T-turn is a very awkward maneuver, and promoting its use in this situation is also anti-social. For one person to turn out into the 'T', that person must become submissive and turn his/her back to the other. The individuals should be able to pass as equals, facing each other. See additional reason statement at 1-1-12.

4-6-12 PC4

Kim Paarlberg, representing International Code Council

Further Revise Section 403.5.2 as follows:

403.5.2 Passing Space. An accessible route with a clear width less than 60 inches (1525 mm) shall provide passing spaces at intervals of 200 feet (61 m) maximum. Passing spaces shall be either a ~~60~~ 67-inch (~~1525~~ 1700 mm) minimum by ~~60~~ 67-inch (~~1525~~ 1700 mm) minimum space, or an intersection of two walking surfaces that provide a T-shaped turning space complying with Section 304.3.2, provided the base and arms of the T-shaped space extend 52 inches (1320 mm) minimum beyond the intersection.

Reason: This is just one example of the T-turn, circular turn, 180-degree turn, 90-degree turn and passing space not being coordinated. Please keep in mind that the building code requires a 36" minimum clear width corridor or aisle width for situations with 50 or less occupants (basically residential, small business and mercantile) and 44" minimum clear width for greater than 50 occupants. The requirements for turns could significantly impact layouts. With the current text, I am afraid that there will be situation where someone sets very specific accessible routes to keep 36" wide corridors and aisles. The option to do chamfers is very costly.

While I am in favor of improving access, the suggestions need to fit within typical building elements. Is the passing space to turn around (as implied by the T-turn) or an alcove to pull over in (as implied by the 60" space).

4-6-12 PC5

Robin Roberts, Chair, Technical Standards Committee, representing Accessibility Professionals Association

Disapprove this change. Return the text to that found in existing standard.

Reason: Many of the comments provided in the background reports expressed reservations regarding the study upon which the proposals are based. Because the proposed changes would have an enormous impact on the design and construction community, further investigation seems necessary.

4-7 – 12

Revise as follows:

403.5 Clear Width. The clear width of an interior accessible route shall be 36 inches (915 mm) minimum. The clear width of an exterior accessible route shall be 48 inches (1220 mm) minimum.

Exceptions:

1. The clear width shall be permitted to be reduced to 32 inches (815 mm) minimum for a length of 24 inches (610 mm) maximum provided the reduced width segments are separated by segments that are 48 inches (1220 mm) minimum in length and 36 inches (915 mm) minimum in width.

2. The clear width of an exterior ramp comply with Section 405.5.

4-7-12 PC1

Gene Boecker, Code Consultants, Inc. representing National Association of Theatre Owners

Further revise as follows:

403.5 Clear Width. The clear width of an interior accessible route shall be 36 inches (915 mm) minimum. The clear width of an exterior accessible route shall be 48 inches (1220 mm) minimum.

Exceptions:

1. The clear width of the interior accessible route shall be permitted to be reduced to 32 inches (815 mm) minimum for a length of 24 inches (610 mm) maximum provided the reduced width segments are separated by segments that are 48 inches (1220 mm) minimum in length and 36 inches (915 mm) minimum in width.

2. The clear width of an exterior ramp comply with Section 405.5.

Reason: During the discussions on this item, it was mentioned that the intent was to include a requirement similar to what was noted in the Proposed Rights of Way Guidelines (PROWAG). The guidelines also do not allow reduction of the 48-inch width. If the intent is to mimic the PROWAG, then the exception needs to be specific to allow the reduction in width to only interior accessible routes.

4-7-12 PC2

Ron Burton, PTW Advisors LLC, representing Building Owners and Managers Association, International; David S. Collins, The Preview Group, representing American Institute of Architects (AIA); Ron Nickson, representing the National Multi-housing Council; Steve Orlowski, representing the National Association of Home Builders; Kim Paarlberg, representing International Code Council

See comment under 3-6-12 PC2

4-7-12 PC3

Harold Kiewel, representing self

Further revise as follows:

403.5 Clear Width. The minimum clear width of an interior accessible route shall be ~~36 inches (915 mm) minimum~~ 40-inches (1-meter) wide. The minimum clear width of an exterior accessible route shall be 48 inches (1220 mm) minimum.

Exceptions:

1. The clear width shall be permitted to be reduced to 32 inches (815 mm) minimum for a length of 24 inches (610 mm) maximum provided the reduced width segments are separated by segments that are 48 inches (1220 mm) minimum in length and 36 inches (915 mm) minimum in width.

2. The clear width of an exterior ramp comply with Section 405.5.

Reason: A 40-inch dimension allows a small shoulder on each side of the route (margin of error) for adults using crutches and is modular in both Imperial and metric systems of measure. See additional information at 1-1-12

4-7-12 PC4

Marsha K. Mazz, representing U.S. Access Board (ATBCB)

Further revise as follows:

403.5 Clear Width. The clear width of an interior accessible route shall be 36 inches (915 mm) minimum. The clear width of an exterior accessible route shall be 48 inches (1220 mm) minimum.

Exceptions:

1. The clear width shall be permitted to be reduced to 32 inches (815 mm) minimum for a length of 24 inches (610 mm) maximum provided the reduced width segments are separated by segments that are 48 inches (1220 mm) minimum in length and 36 inches (915 mm) minimum in width.

2. The clear width of an exterior ramp shall be permitted to comply with Section 405.5.

Reason: Because this is an exception, it cannot convey a mandatory requirement and is rewritten to only permit, not require, compliance with the widths specified in 405.5.

4-7-12 PC5

Jean Tessmer, representing herself

Further revise as follow:

403.5.1 General. The clear width of an accessible route shall be 36 inches (915 mm) minimum.

EXCEPTION: The clear width shall be permitted to be reduced to 34 ~~32~~ inches (~~815~~ mm) minimum for a length of 18 ~~24~~ inches (~~610~~ mm) maximum provided the reduced width segments are separated by segments that are 60 inches (1220 mm) minimum in length and 36 inches (915 mm) minimum in width.

Reason: 32 inches width for a run of 24 inches is a knuckle buster, only being able to use your finger tips on the rim to maneuver the chair. Then having to negotiate that narrow 32 inches every 48 inches is not enough space to allow a full push on the rim which may cause more hand damage and greater difficulty maneuvering. Other ambulatory individuals would not be as challenge by such intruding obstacles.

4-7-12 PC6

Jean Tessmer, representing herself

Further revise Section 403.5 as follow:

403.5 Clear width. Is a space that accommodates a wheelchair moving in one direction continuously. The clear width of an accessible route shall comply with Section 403.5.1. 403.5.2 or 403.5.3 as applicable.

Reason: Adding the defined function of an accessible route with direction makes understanding the usability clearer. It is not static it is continuous and defines the width of that route.

4-7-12 PC7

Chad Beebe, – representing American Society for Healthcare Engineering (ASHE)

Disapprove this change. Return the text to that found in existing standard.

Reason: In review of the 2014 Final Draft of the ICC A117.1 document, it has come to our attention that several of the proposed changes will have a significantly negative impact to the healthcare industry design/built environment of buildings designed under the 2015 IBC. Further, it is our understanding that the overwhelming majority of these changes have been derived from a single uncorroborated report which has neither been properly vetted nor adopted by any other credible agency or (similar) jurisdictional body.

As we do not feel these dramatic and substantial changes have been given proper and appropriate consideration by all interested stakeholders in this process, and since we question the authenticity of the underlying premise used to make such changes, we respectfully request they either be removed entirely from consideration in this draft, or that the entire draft adoption process be held in abeyance for a minimum of 12-months so that further collaboration can be conducted with all interested parties. If the Committee opts to delay this process for 12-months, it will be in keeping with the mission of the ICC, and best assure that all parties can be provided with the opportunity to reasonably participate in this process.

4-7-12 - The addition of a provision to require outdoor accessible routes to be increased from 36-inches wide to 48- inches wide.

These new requirements would add thousands of required square feet to a new hospital and significantly impact any renovations to an existing hospital by requiring increased patient room sizes to meet the new requirements and thus, due to the fixed square footage within the building foot print, will reduce the number of allowable beds the hospital can maintain. With hospital construction cost averaging around $300.00 per square foot these additional increases in square footage will significantly impact the cost of construction. Thank you for your consideration of this request, and in keeping alive the goals and mandates of the entire ICC organization and membership.

4-7-12 PC8

Larry Eberly, representing Pennsylvania Builders Association

Disapprove this change. Return the text to that found in existing standard.

Reason: Adding a specific requirement for a 48" minimum exterior width is excessive and will have financial implications particularly for residential uses. Section 403.5 currently requires a 36" min. clear width for all walking surfaces part of either an interior or exterior accessible route. The minimum clear width of Section 403.5 is required for Type A, Type B and Accessible Dwelling units, and is also required by reference for circulation paths for Type C (Visitable) Units including access to one entrance from a public street or sidewalk, dwelling unit driveway, or a garage which possibly may be located at the rear of the home. Exterior sidewalks to residences particularly single family and townhomes are typically 36" in width. Increasing the width of exterior sidewalks by 33 percent to individual homes is neither necessary nor warranted and will have financial and design impacts to implement.

The Pennsylvania Builders Association opposes any change to the requirements for accessible routes and walking surfaces. All residential homes currently require a 36" minimum clear width for all circulation that is part of any interior or exterior accessible route. Type A, Type B and Accessible Dwelling units require an accessible route to and within the dwelling unit around furniture, doorways, kitchen cabinets, fixtures and all obstructions. Type C (Visitable) Units also require this clear width for both interior and exterior circulation paths including sidewalks to access one entrance from a public street, driveway, or a garage which potentially may be located at the rear of the home.

Any change, new or specific requirements for additional width or additional maneuverability at turns is excessive and will have major impact on design and spatial requirements in addition to financial implications particularly for residential uses for the site, building and units. Due to the multitude of scenarios for circulation and turns, the implementation of any change to the requirements for an accessible route will also be extremely difficult to coordinate and execute particularly for residential uses with limited available space.

Pennsylvania adopts the accessibility provisions of the newest triennial revisions to the ICC Family of Codes that have been adopted in PA, which includes the IBC, IRC, IMC, IPC and IEBC., without modification. This includes the references to ICC/ANSI A117.1. Mandatory adoption in Pennsylvania, without modification, has unforeseen consequences to the building industry, both commercial and residential communities.

4-7-12 PC9

Tony Ewalt, representing Sletten Construction of Nevada, Inc.; Michael Gentille, representing Philip Chun North America, Inc.; Michael McGettigan, representing Terracon Consultant; Robert W. Potter, Construction Company, representing Affordable Concepts; Eric J. Rowland, representing Rowland Design;

Disapprove this change. Return the text to that found in existing standard.

Reason: In review of the 2014 Final Draft of the ICC A117.1 document, it has come to my attention that several of the proposed changes (ratified by this Committee) will have a significantly negative impact to the design/built environment of buildings designed under the 2015 IBC. Further, it is my understanding that the overwhelming majority of these changes have been derived from a single uncorroborated report which has neither been properly vetted nor adopted by any other credible agency or (similar) jurisdictional body.

As I do not feel these dramatic and substantial changes have been given proper and appropriate consideration by all interested stakeholders in this process, and I question the authenticity of the underlying premise used to make such changes, I respectfully request they either be removed entirely from consideration in this draft, or that the entire draft adoption process be held in abeyance for a minimum of 12-months.

If the Committee opts to delay this process for 12-months, it will be in keeping with the mission of the ICC, and best assure that all parties can be provided with the opportunity to reasonably participate in this process.

4-7-12 PC10

Robin Roberts, Chair, Technical Standards Committee, representing Accessibility Professionals Association

Disapprove this change. Return the text to that found in existing standard.

Reason: Many of the comments provided in the background reports expressed reservations regarding the study upon which the proposals are based. Because the proposed changes would have an enormous impact on the design and construction community, further investigation seems necessary.

4-7-12 PC11

Minh N. Vu; representing American Hotel and Lodging Association.

Disapprove this change. Return the text to that found in existing standard.

Reason: The American Hotel and Lodging Association(1) (hereinafter, "AH&LA") opposes the proposal to increase the minimum width of an exterior accessible route from 36" to 48". (Section 403.5). The width for interior accessible

routes continues to be 36" and the ANSI Committee has provided no justification for why an exterior route should be wider. This proposal would substantially increase construction and renovation costs for lodging facilities for no apparent reason. In existing facilities, the proposed requirement would require extensive re- landscaping of grounds and in some cases could not be implemented due to space restrictions. Hotels that are not able to comply with the proposed changes in renovations due to technical infeasibility will face frivolous lawsuits by plaintiffs who typically file first and ask questions later.

To the extent that this proposal is based on the Access Board's proposal that public right of way sidewalks be 48" wide, AH&LA urges the ANSI Committee to wait until the Access Board completes its public rulemaking process. The Access Board may decide in its process that the width of exterior accessible routes should not be any different than interior accessible routes. Enacting this proposed change now could result in inconsistency between ANSI A117.1 and the Access Board's public right of way rule.

The proposed change should also be rejected because it would make the ANSI A117.1 conflict with the 2010 ADA Standards. As the ANSI Committee is well aware, for the first twenty (20) years of the Americans with Disabilities Act of 1990 (hereinafter, the "ADA"), the ANSI A117.1 Standard was not the same as the ADA Standards for Accessible Design adopted by the United States Department of Justice (hereinafter, the "DOJ"). The lack of harmonization caused a great deal of confusion among owners of public accommodations and commercial facilities who had to comply with building code and ADA requirements which differed. In September 2010, the DOJ issued the 2010 Standards which was the culmination of an effort by the ANSI Committee and the Access Board to harmonize the ANSI A117.1 Standard with the 2010 ADA Standards. The 2010 ADA Standards have only been in effect for fewer than two years.

If adopted, the proposed change to the minimum exterior sidewalk width would undo this harmonization effort by introducing an entirely different standard into future editions of the International Building Code (IBC) which will then be adopted by state governments as their building codes. Owners seeking to comply with both sets of requirements will yet again be thrown into a state of confusion even though, as discussed above, there is no need for the changes in the first place. In AH&LA's experience, compliance regimes that are confusing or difficult to understand/implement usually result in less accessibility and operate to the detriment of individuals with disabilities. AH&LA, thus, urges the ANSI Committee to reject any rule changes that would conflict with the 2010 ADA Standards, including the proposed minimum exterior accessible route width.

If the ANSI Committee is unwilling to postpone the adoption of these proposals for further study, it should, at a minimum, limit their application to facilities constructed after a jurisdiction adopts the changes. As can be seen throughout the preceding discussion, the proposed changes -- once they are adopted by jurisdictions as part of their building codes-- will be particularly problematic for existing facilities that will have to comply with them in future renovations. In most instances, lodging facility owners will face three alternatives: (1) comply with the new requirements by making extensive changes to their exterior routes upon renovation, (2) attempt to obtain a variance from local building officials assuming such a process is available; or (3) not renovate. All options are highly undesirable. The first two options involve substantial cost and uncertainty while the third option would actually undermine accessibility by causing owners to defer or not undertake renovations that may improve access.

1 The American Hotel & Lodging Association is a membership organization that represents the interests of every segment of the lodging industry, including REITs, brand, franchisee, management companies, independent property owners, and state associations.

4-8 – 12

Revise as follows:

403.5.1 Clear Width at 180 Degree Turn. Where an accessible route makes a 180 degree turn around an object that is ~~less~~ equal to or greater than ~~48 inches (1220 mm) in width, clear widths shall be 42 inches (1065 mm) minimum approaching the turn, 48 inches (1220 mm) minimum during the turn and 42 (1065 mm) inches minimum leaving the turn~~ 52 inches (1320 mm) in width minimum, clear widths shall be as permitted for turn complying with 405.5.1. Where an accessible route makes a 180 degree turn around an object that is less than 52 inches (1320 mm) inches, the clear widths approaching the turn, during the turn and leaving the turn, shall be one of the following sets of dimensions:

1. Approaching 36 inches (915 mm) minimum, during 60 inches (1525 mm) minimum, and leaving 36 inches (915 mm) minimum.

2. Approaching 42 inches (1065 mm) minimum, during 48 inches (1220 mm) minimum, and leaving 42 inches (1065 mm) minimum.

3. Approaching 43 inches (1090 mm) minimum, during 43 inches (1090 mm) minimum, and leaving 43 inches (1090 mm) minimum.

~~**EXCEPTION:** Section 403.5.1 shall not apply where the clear width during the turn is 60 inches (1525 mm) minimum.~~

4-8-12 PC1

Ron Burton, PTW Advisors LLC, representing Building Owners and Managers Association, International; David S. Collins, The Preview Group, representing American Institute of Architects (AIA); Ron Nickson, representing the National Multi-housing Council; Steve Orlowski, representing the National Association of Home Builders; Kim Paarlberg, representing International Code Council

See comment under 3-6-12 PC2

4-8-12 PC2

Karen Gridley, representing Target Corporation

Further revise as follows:

403.5.1 Clear Width at 180 Degree Turn. ~~Where an accessible route makes a 180 degree turn around an object that is equal to or greater than 52 inches (1320 mm) in width minimum, clear widths shall be as permitted for turn complying with 405.5.1.~~

Where an accessible route makes a 180 degree turn around an object that is less than 48 ~~52~~ inches (1320 mm) inches, the clear widths approaching the turn, during the turn and leaving the turn, shall be one of the following sets of dimensions:

1. Approaching 36 inches (915 mm) minimum, during 60 inches (1525 mm) minimum, and leaving 36 inches (915 mm) minimum.

2. Approaching 42 inches (1065 mm) minimum, during 48 inches (1220 mm) minimum, and leaving 42 inches (1065 mm) minimum.

3. Approaching 43 inches (1090 mm) minimum, during 43 inches (1090 mm) minimum, and leaving 43 inches (1090 mm) minimum.

Where an accessible route makes a 180 degree turn around an object that is equal to or greater than 48 inches (1220 mm) in width, clear widths approaching the turn, during the turn and leaving the turn, shall be permitted to be 36 inches on interior routes and 48 inches on exterior routes in compliance with [the new] Section 403.5.1.

Reason: The changes we are proposing to this item has 3 parts:

1. The first is editorial in nature, but impacts the direction of the rest of this comment. Highlighted in yellow above, we believe there is a typing error in the referenced Section 405.5.1. We believe the intended reference was meant to be 40**3**.5.1, since we could not find a section 405.5.1. The balance of our proposed changes to this item are based on the assumption that the intended referenced section is to be 403.5.1.

2. This proposed change is provided based on our previous proposal for the building block size of the clear floor space to remain at the current dimension of 48 inches in length, and not be increased to 52 inches.

3. This proposed change also arranges the language into two parts for clarity. The first part provides criteria for clear widths of the route where the object being turned around is 48 inches or less. The second part provides criteria for clear widths of the route where the object being turned around is 48 inches or greater. This separation of parts helps provide clarity on the varying options for 180 degree turns.

Several reasons are noted here to demonstrate that the increase to 52 inches will ultimately result in a reduction of access from a broader perspective.

During the July 2013 Committee Action Meeting we heard comments by committee members wondering if there is data available regarding how the size of the current turning space works in “real world” applications as compared to findings in the study completed by Dr. Steinfeld.

In response, Target can offer some data that will help add real world context to the discussion.
For reference, Dr. Steinfeld’s study, which lead the committee to propose a new 52” clear floor space, included 500 participants from a localized geographic area, as we understand it.

Target’s data is based on feedback from people across the nation who visit our stores, totaling nearly 36 million transactions *per week*, on average. Keeping in mind that often the person making the transaction has another person with them so there are well into the multi-millions of guests at Target stores every week. Of these guests, many share comments of all sorts with Target (not just access related) through various channels. We find that of the guests who contacted us in 2012, the percentage of comments related to accessibility of the building was limited to an extremely small fraction of less than 1%. (Less than .0003% of 1%.). Of that fraction of 1%, an even smaller fraction of those comments were related to concerns about clear floor space for wheeled mobility devices. This tells us that the current sizes and dimensions in the existing Standard work, as-is, for the greater majority of guests using wheeled mobility devices. The data presents no compelling evidence or reason to change the existing dimension.

Additional Information:

During the July 2013 Committee Action Meeting, members of the committee commented that the committee’s only job was to look at the A117.1 Standard and implement changes to increase access through that document. In response, we urge the committee to consider that ‘more and bigger is not always better, sometimes it’s just more and bigger’.

Supporting this would be the observation that the committee has not done its due diligence in evoking or investigating the Wheeled Mobility Device Manufacturing Industry to see what can be accomplished to improve maneuvering through existing engineering practices in ‘Like’ industry trends and innovation in designs on their end, as that industry as a whole is changing too. Like the automotive industry that went from large cars, trucks and vans to smaller frame vehicles to achieve sustainable efficiencies throughout their redesign all while maintaining safety and functionality.

From an architectural perspective, designers and building owners do not have the luxury of looking at a building in isolation through only a single Standard or Regulation when we design buildings. We must consider many regulations and standards, each having an impact and interplay with other requirements that ultimately drive the size, shape and design of the spaces we provide for people. Considering this interplay, Target respectfully submits that increasing the size of the clear floor space, and other building block sizes, will actually result in decreased accessibility when applied in conjunction with forces in place from other codes and standards.

For example: Green codes and standards are increasingly challenging us to “reduce our carbon footprint”, and be responsible stewards of the environment, which includes making buildings smaller in order to achieve compliance with those standards and newly developing regulations. While at the same time, the proposed increases in size of accessibility building blocks within the A117.1 standard would have us increasing our building size.

It is true that designers can adjust, tweak, push and pull designs of the physical buildings to meet these conflicting requirements. In the past we’ve had the luxury of being able to make buildings larger. However that luxury is increasingly limited in today’s environment. The cost comes in what will subsequently be able to fit within in these buildings that are experiencing a compound squeeze (squeezed smaller in footprint on the outside, but interior spaces pushed larger from within). From a retail perspective, this will reduce capacity for merchandise offerings. What was once able to be provided on store shelves may no longer be available due to compromised available space for shelving to house merchandise, having a negative impact on guest’s shopping trips.

From a product perspective, of the guest comments received in 2012, approximately 12% were related to product, as compared to the less-than 1% of comments related to building accessibility. Product availability is already of greater concern to guests than building access. Thus, increasing the building blocks of accessibility would drive product concern even higher, since the very things that persons with disabilities might travel to a store to purchase could no longer be available. Considering the effort it takes to travel to shopping destinations for many persons with disabilities, it is a disservice to them for retailers to not be able to offer the items that they currently go there for, forcing them to extend strenuous shopping trips to additional stores in search of what they are looking for, and for some, making the shopping trip as a whole inaccessible all together.

We encourage the committee to reconsider the proposals that would increase the size of the 52” long clear floor space dimension, and other building block sizes, and instead maintain the current sizes. At least until such time as more investigation of the Wheeled Mobility Device Manufacturing Industry can take place to identify what can be done to improve design of those devices via engineering and technology advancements, towards improved access.

4-8-12 PC3

Kim Paarlberg, representing International Code Council

Further revise as follows:

403.5.1 Clear Width at 180 Degree Turn. Where an accessible route makes a 180 degree turn around an object that is equal to or greater than 52 inches (1320 mm) in width minimum, clear widths shall be as permitted for turn complying with 405.5.1. Where an accessible route makes a 180 degree turn around an object that is less than 52 inches (1320 mm) inches, the clear widths approaching the turn, during the turn and leaving the turn, shall be one of the following sets of dimensions:

1. Approaching width is 36 inches (915 mm) minimum, during width is ~~60~~ 67 inches (~~1525~~ 1700 mm) minimum, and leaving width is 36 inches (915 mm) minimum.

2. Approaching width is 42 (1065 mm) inches minimum, during width is 48 inches (1220 mm) minimum, and leaving width is 42 (1065 mm) inches minimum.

3. Approaching width is 43 inches (1090 mm) minimum, during width is 43 inches (1090 mm) minimum, and leaving width is 43 inches (1090 mm) minimum.

4-8-12 PC4

Larry Eberly, representing Pennsylvania Builders Association

Disapprove this change. Return the text to that found in existing standard.

Reason: Due to the multitude of distinctive and specific conditions and scenarios, the implementation of this requirement is complicated, confusing and difficult to execute and coordinate due to the numerous and extensive requirements for each conditions described.

The Pennsylvania Builders Association opposes any change to the requirements for accessible routes and walking surfaces. All residential homes currently require a 36" minimum clear width for all circulation that is part of any interior or exterior accessible route. Type A, Type B and Accessible Dwelling units require an accessible route to and within the dwelling unit around furniture, doorways, kitchen cabinets, fixtures and all obstructions. Type C (Vistable) Units also require this clear width for both interior and exterior circulation paths including sidewalks to access one entrance from a public street, driveway, or a garage which potentially may be located at the rear of the home.

Any change, new or specific requirements for additional width or additional maneuverability at turns is excessive and will have major impact on design and spatial requirements in addition to financial implications particularly for residential uses for the site, building and units. Due to the multitude of scenarios for circulation and turns, the implementation of any change to the requirements for an accessible route will also be extremely difficult to coordinate and execute particularly for residential uses with limited available space.

Pennsylvania adopts the accessibility provisions of the newest triennial revisions to the ICC Family of Codes that have been adopted in PA, which includes the IBC, IRC, IMC, IPC and IEBC without modification. This includes the references to ICC/ANSI A117.1. Mandatory adoption in Pennsylvania, without modification, has unforeseen consequences to the building industry, both commercial and residential communities.

4-8-12 PC5

Robin Roberts, Chair, Technical Standards Committee, representing Accessibility Professionals Association

Disapprove this change. Return the text to that found in existing standard.

Reason: Many of the comments provided in the background reports expressed reservations regarding the study upon which the proposals are based. Because the proposed changes would have an enormous impact on the design and construction community, further investigation seems necessary.

4-8-12 PC6

Minh N. Vu; representing American Hotel and Lodging Association.

Disapprove this change. Return the text to that found in existing standard.

Reason: See reason statement from Minh Vu found under proposal 3-6-12.

4-9 – 12

Add text as follows:

403.5.2 Clear Width at 90 Degree Turn. Where an accessible route makes a 90 degree turn the clear widths approaching the turn and leaving the turn shall be one of the following sets of dimensions:

1. Both legs of the turn shall be 40 inches (1016 mm) minimum.

2. Where the interior corners of the turn are chamfered for 8 inches (205 mm) minimum along both walls, both legs of the turn shall be 36 inches (915 mm) minimum.

4-9-12 PC1

Ron Burton, PTW Advisors LLC, representing Building Owners and Managers Association, International; David S. Collins, The Preview Group, representing American Institute of Architects (AIA); Ron Nickson, representing the National Multi-housing Council; Steve Orlowski, representing the National Association of Home Builders; Kim Paarlberg, representing International Code Council

See comment under 3-6-12 PC2

4-9-12 PC2

Karen Gridley, representing Target Corporation

Further revise as follows:

403.5.2 Clear Width at 90 Degree Turn. Where an accessible route makes a 90 degree turn the clear widths approaching the turn and leaving the turn shall ~~be one of the following sets of dimensions:~~ permitted to be 36 inches (915 mm) on interior routes and 48 inches (1220 mm) on exterior routes in compliance with Section 403.5.1.

~~1. Both legs of the turn shall be 40 inches (1016 mm) minimum.~~

~~2. Where the interior corners of the turn are chamfered for 8 inches (205 mm) minimum along both walls, both legs of the turn shall be 36 inches (915 mm) minimum.~~

Reason: In a previous newly proposed section (proposal number 4-8 – 12) for 180 degree turns around an object, there is an allowance in the language of the main body of the section to maintain clear width of each portion of the turn in compliance with Section 403.5.1 at 36 inches indoors, and 48 inches outdoors, if the object is equal to or greater than a given distance. (see editorial note in comment number 4-8 – 12 referencing 403.5.1). The proposal for 90 degree turns is absent of that allowance for the same compliance with Section 403.5.1. If providing the allowance at 180 degree turns it only makes sense to also provide the allowance at 90 degree turns given that making a 90 degree turn is generally understood to be easier than making a 180 degree turn around an object. If the allowance to comply with [the new] Section 403.5.1 for general accessible route width is maintained as an option for 180 degree turns, it should also be permitted for 90 degree turns.

4-9-12 PC3

Harold Kiewel, representing self

Further revise as follows:

403.5.2 Clear Width at 90 Degree Turn. Where an accessible route makes a 90 degree turn the clear widths approaching the turn and leaving the turn shall be ~~one of the following sets of dimensions:~~ 40-inches wide, except that, where the inside corner, along both walls, is champhered for 8 inches (205 mm), then the minimum width of both legs of the turn may be reduced to 36 inches (915 mm) minimum.

~~1. Both legs of the turn shall be 40 inches (1016 mm) minimum.~~

~~2. Where the interior corners of the turn are chamfered for 8 inches (205 mm) minimum along both walls, both legs of the turn shall be 36 inches (915 mm) minimum.~~

Reason. The comment simply reformats the proposal into a simple paragraph. For further information see 1-1-12.

4-9-12 PC4

Kim Paarlberg, representing International Code Council

Further revise as follows:

403.5.2 Clear Width at 90 Degree Turn. Where an accessible route makes a 90 degree turn the clear widths approaching the turn and leaving the turn shall be one of the following sets of dimensions:

1. Both legs of the turn shall be 40 inches (1016 mm) minimum.

2. ~~Where the interior corners of the turn are chamfered for 8 inches (205 mm) minimum along~~ Both walls, both legs of the turn shall be 36 inches (915 mm) minimum. The width of each leg of the turn shall be maintained for 52 inches (1320 mm) minimum from the inner corner.

Reason: This is just one example of the T-turn, circular turn, 180-degree turn, 90-degree turn and passing space not being coordinated. Please keep in mind that the building code requires a 36" minimum clear width corridor or aisle width for situations with 50 or less occupants (basically residential, small business and mercantile) and 44" minimum clear width for greater than 50 occupants. The requirements for turns could significantly impact layouts. With the current text, I am afraid that there will be situation where someone sets very specific accessible routes to keep 36" wide corridors and aisles. The option to do chamfers is very costly.

While I am in favor of improving access, the suggestions need to fit within typical building elements.

4-9-12 PC5

Larry Eberly, representing Pennsylvania Builders Association

Disapprove this change. Return the text to that found in existing standard.

Reason: Section 403.5 requires a 36 inch minimum clear width for all walking surfaces that are a part of an interior or exterior accessible route. The minimum clear width of Section 403.5 is required for Type A, Type B and Accessible Dwelling units, including within and throughout the dwelling unit. This section is also required by reference for circulation paths with Type C (Visitable) Units. Adding this new requirement for additional width and maneuverability and/or specific requirements for a 90 degrees turn is excessive and will have major impact on design, spatial requirements and potential financial implications particularly for residential uses for the site, building and units. Mandating additional width at turns not only complicates documentation but also creates unforeseen conflicts with other sections and requirements of the Standard,

The Pennsylvania Builders Association opposes any change to the requirements for accessible routes and walking surfaces. All residential homes currently require a 36" minimum clear width for all circulation that is part of any interior or exterior accessible route. Type A, Type B and Accessible Dwelling units require an accessible route to and within the dwelling unit around furniture, doorways, kitchen cabinets, fixtures and all obstructions. Type C (Vistable) Units also require this clear width for both interior and exterior circulation paths including sidewalks to access one entrance from a public street, driveway, or a garage which potentially may be located at the rear of the home.

Any change, new or specific requirements for additional width or additional maneuverability at turns is excessive and will have major impact on design and spatial requirements in addition to financial implications particularly for residential uses for the site, building and units. Due to the multitude of scenarios for circulation and turns, the implementation of any change to the requirements for an accessible route will also be extremely difficult to coordinate and execute particularly for residential uses with limited available space.

Pennsylvania adopts the accessibility provisions of the newest triennial revisions to the ICC Family of Codes that have been adopted in PA, which includes the IBC, IRC, IMC, IPC and IEBC without modification. This includes the references to ICC/ANSI A117.1. Mandatory adoption in Pennsylvania, without modification, has unforeseen consequences to the building industry, both commercial and residential communities.

4-9-12 PC6

Douglas Kantor, representing National Association of Convenience Stores.

Disapprove this change. Return the text to that found in existing standard.

Reason: NACS is not in favor of this proposed change. We believe that the impact of this change could be significantly negative to the convenience and fuel retailing industry

This proposed change could have a distressing impact on the typically small facilities of our members. This has the

expected potential to impact every sales aisle in a store and therefore appreciably reduce the number of sales aisles or increase the overall size of a store if the turns at the ends of sales aisles are considered 2 90 degree turns in lieu of a 180 degree turn. Increasing the overall size of the stores also has a dominoing impact on development of new stores by requiring bigger sites, more parking, potential zoning concerns, and probably making certain locations undevelopable based upon a negative impact to proforma.

This proposed change could increase the width of sales aisles by up to 8 inches which represents a 22% increase in aisle width. In a typical store this could cause the loss of an entire row of shelves. This has the potential negative impact through the loss of an average of 60 SF of sales space and $2,800 in lost sales per month. It is estimated that this change could also cause an increase in size of a typical retail space by up to 10% with no resulting increase in sales.

Based upon this negative impact to sales NACS is not in favor of this proposal without evidence that this proposal is absolutely necessary for the accessibility of persons with disabilities. While we recognize that the research provided indicates that wheeled mobility devices are becoming larger we do not see any research or reason provided for the increase in size in wheeled mobility devices. Should we, as an industry, be required to pay this cost or increased size out of the choice for bigger devices or should the necessity of larger devices be provided prior to requiring larger spaces. NACS is also not aware of any complaints based upon the aisle space widths or turning space around aisle ends provided with existing facilities that currently comply with the current standards. See further information at 3-6-12.

4-9-12 PC7

Robin Roberts, Chair, Technical Standards Committee, representing Accessibility Professionals Association

Disapprove this change. Return the text to that found in existing standard.

Reason: Many of the comments provided in the background reports expressed reservations regarding the study upon which the proposals are based. Because the proposed changes would have an enormous impact on the design and construction community, further investigation seems necessary.

4-9-12 PC8

Minh N. Vu; representing American Hotel and Lodging Association.

Disapprove this change. Return the text to that found in existing standard.

Reason: See reason statement from Minh Vu found under proposal 3-6-12.

4-10 – 12

Add text as follows:

403.5.3 Clear Width at 90 Degree Turn. Where an accessible route makes a 90 degree turn, the clear width shall be 40 inches (1015 mm) minimum. The width of each leg of the turn shall be maintained for 28 inches (710 mm) minimum from the inner corner.

EXCEPTIONS:

1. Where one leg of the turn is 42 inches (1065 mm) minimum in width, the other shall be permitted to be 38 inches (965 mm) minimum in width.

2. Where one leg of the turn is 44 inches (1115 mm) minimum in width, the other shall be permitted to be 36 inches (915 mm) minimum in width.

4-10-12 PC1

Harold Kiewel, representing self

Comment: If the Accessible route is changed to 40-inch width as proposed above at, item 4-7 - 12, then all this qualifying language becomes superfluous. The 28-inch depth from interior vertex of the corner would be already be a given, and the 38-inch and 36-inch wide approaches to the turn would not be permitted. See further information at 1-1-12.

4-10-12 PC2

Ron Burton, PTW Advisors LLC, representing Building Owners and Managers Association, International; David S. Collins, The Preview Group, representing American Institute of Architects (AIA); Ron Nickson, representing the National Multi-housing Council; Steve Orlowski, representing the National Association of Home Builders; Kim Paarlberg, representing International Code Council

See comment under 3-6-12 PC2

4-10-12 PC3

Karen Gridley, representing Target Corporation

Further revise as follows:

403.5.3 Clear Width at 90 Degree Turn. Where an accessible route makes a 90 degree turn, the clear widths approaching the turn and leaving the turn shall be ~~width shall be 40 inches (1015 mm) minimum. The width of each leg of the turn shall be maintained for 28 inches (710 mm) minimum from the inner corner.~~ permitted to be 36 inches on interior routes and 48 inches on exterior routes in compliance with [the new] Section 403.5.1.

~~**EXCEPTIONS:**~~

~~1. Where one leg of the turn is 42 inches (1065 mm) minimum in width, the other shall be permitted to be 38 inches (965 mm) minimum in width.~~

~~2. Where one leg of the turn is 44 inches (1115 mm) minimum in width, the other shall be permitted to be 36 inches (915 mm) minimum in width.~~

Reason: In a previous newly proposed section (proposal number 4-8 – 12) for 180 degree turns around an object, there is an allowance in the language of the main body of the section to maintain clear width of each portion of the turn in compliance with Section 403.5.1 at 36 inches indoors, and 48 inches outdoors, if the object is equal to or greater than a given distance. (see editorial note in comment number 4-8 – 12 referencing 403.5.1). The proposal for 90 degree turns is absent of that allowance for the same compliance with Section 403.5.1. If providing the allowance at 180 degree turns it only makes sense to also provide the allowance at 90 degree turns given that making a 90 degree turn is generally understood to be easier than making a 180 degree turn around an object. If the allowance to comply with [the new] Section 403.5.1 for general accessible route width is maintained as an option for 180 degree turns, it should also be permitted for 90 degree turns.

4-10-12 PC4

Larry Eberly, representing Pennsylvania Builders Association

Disapprove this change. Return the text to that found in existing standard.

Reason: Section 403.5 requires a 36" min. clear width for all walking surfaces that are a part of an interior or exterior accessible route. The minimum clear width of Section 403.5 is required for Type A, Type B and Accessible Dwelling units, including within and throughout the dwelling unit. This section is also required by reference for circulation paths within Type C (Visitable) Units. Adding this new requirement for additional width and maneuverability and/ or specific requirements for a 90 degree turn is excessive and will have major impact on design, spatial requirements and potential financial implications particularly for residential uses for the site, building and units. Mandating additional width at turns not only complicates documentation but also creates unforeseen conflicts with other sections and requirements of the Standard.

The Pennsylvania Builders Association opposes any change to the requirements for accessible routes and walking surfaces. All residential homes currently require a 36" minimum clear width for all circulation that is part of any interior or exterior accessible route. Type A, Type B and Accessible Dwelling units require an accessible route to and within the dwelling unit around furniture, doorways, kitchen cabinets, fixtures and all obstructions. Type C (Visitable) Units also require this clear width for both interior and exterior circulation paths including sidewalks to access one entrance from a public street, driveway, or a garage which potentially may be located at the rear of the home.

Any change, new or specific requirements for additional width or additional maneuverability at turns is excessive and will have major impact on design and spatial requirements in addition to financial implications particularly for residential uses for the site, building and units. Due to the multitude of scenarios for circulation and turns, the implementation of any change to the requirements

for an accessible route will also be extremely difficult to coordinate and execute particularly for residential uses with limited available space.

Pennsylvania adopts the accessibility provisions of the newest triennial revisions to the ICC Family of Codes that have been adopted in PA, which includes the IBC, IRC, IMC, IPC and IEBC, without modification. This includes the references to ICC/ANSI A117.1. Mandatory adoption in Pennsylvania, without modification, has unforeseen consequences to the building industry, both commercial and residential communities.

4-10-12 PC5

Douglas Kantor, representing National Association of Convenience Stores.

Disapprove this change. Return the text to that found in existing standard.

Reason: NACS is not in favor of this proposed change. We believe that the impact of this change could be significantly negative to the convenience and fuel retailing industry

The proposed change could have a distressing impact on the typically small facilities of our members. This has the expected potential to impact every sales aisle in a store and therefore appreciably reduce the number of sales aisles or increase the overall size of a store if the turns at the ends of sales aisles are considered two 90 degree turns in lieu of a 189 degree turn. Increasing the overall size of the stores also has a dominoing impact on development of new stores by requiring bigger sites, more parking, potential zoning issues and probably making certain locations undevelopable based upon a negative impact to proforma.

This proposed change could increase the width of sales aisles by up to 8 inches which represents a 22% increase in aisle width. In a typical store this could cause the loss of an entire row of shelves. This has the potential negative impact through the loss of an average of 60 SF of sales space and $2,800 in lost sales per month. It is estimated that this change could also cause in increase in size of a typical retail space by up to 10% with no resulting increase in sales.

Based upon this negative impact to sales NAGS is not in favor of this proposal without evidence that this proposal is absolutely necessary for the accessibility of persons with disabilities. While we recognize that the research provided indicates that wheeled mobility devices are becoming larger we do not see any research or reason provided for the increase in size in wheeled mobility devices. Should we, as an industry, be required to pay this cost or increased size out of the choice for bigger devices or should the necessity of larger devices be provided prior to requiring larger spaces. NAGS is also not aware of any complaints based upon the aisle space widths or turning space around aisle ends provided with existing facilities that currently comply with the current standards. For further information see 3-6-12.

4-10-12 PC6

Robin Roberts, Chair, Technical Standards Committee, representing Accessibility Professionals Association

Disapprove this change. Return the text to that found in existing standard.

Reason: Many of the comments provided in the background reports expressed reservations regarding the study upon which the proposals are based. Because the proposed changes would have an enormous impact on the design and construction community, further investigation seems necessary.

4-10-12 PC7

Minh N. Vu; representing American Hotel and Lodging Association.

Disapprove this change. Return the text to that found in existing standard.

Reason: See reason statement from Minh Vu found under proposal 3-6-12.

4-11 – 12

Revise as follows:

402.2 Components. Accessible routes shall consist of one or more of the following components: Walking surfaces with a slope not steeper than 1:20, doors and doorways, gates, ramps, curb ramps excluding the flared sides, elevators and platform lifts. All components of an accessible route shall comply with the applicable portion of this standard.

404 Doors, ~~and~~ Doorways and Gates

404.1 General. **Doors, ~~and~~ doorways and gates that are part of an accessible route shall comply with Section 404.**

> **EXCEPTION:** Doors, doorways, and gates designed to be operated only by security personnel shall not be required to comply with 404.2.3, 404.2.6, 404.2.7, 404.2.8, 404.3.2 and 404.3.4 through 404.3.6.

404.2 Manual Doors, Doorways and Manual Gates. Manual doors and doorways, and manual gates, intended for user passage ~~including ticket gates~~, shall comply with Section 404.2.

> ~~**EXCEPTION:** Doors, doorways, and gates designed to be operated only by security personnel shall not be required to comply with Sections 404.2.6, 404.2.7, and 404.2.8.~~

404.2.3 Maneuvering Clearances. Minimum maneuvering clearances at doors and gates shall comply with Section 404.2.3.and shall include the full clear opening width of the doorway and the required latch side or hinge side clearance~~. Required door maneuvering clearances shall not include knee and toe clearance.~~

404.2.3.2 Swinging Doors and Gates. Swinging doors and gates shall have maneuvering clearances complying with Table 404.2.3.2.

Fig. 404.2.3.2
Maneuvering Clearance at Manual Swinging Doors and Gates

Table 404.2.4.1 Maneuvering Clearances at Manual Swinging Doors and Gates

Table 404.2.3.2—Maneuvering Clearances at Manual Swinging Doors and Gates

TYPE OF USE		MINIMUM MANEUVERING CLEARANCES	
Approach Direction	**Door or Gate Side**	**Perpendicular to Doorway**	**Parallel to Doorway (beyond latch unless noted)**
From front	Pull	60 inches (1525 mm)	18 inches (455 mm)

(*Balance of table is not changes)*

404.2.3.4 Doorways without Doors or Gates. Doorways without doors or gates that are less than 36 inches (915 mm) in width shall have maneuvering clearances complying with Table 404.2.3.3

Fig. 404.2.3.4
Maneuvering Clearance at Doorways without Doors or Gates

Table 404.2.3.4—Maneuvering Clearances for Doorways without Doors or Gates

Approach Direction	MINIMUM MANEUVERING CLEARANCES Perpendicular to Doorway
From front	48 inches (1220 mm)

404.2.3.5 Recessed Doors and Gates. Where any obstruction within 18 inches (455 mm) of the latch side of a doorway projects more than 8 inches (205 mm) beyond the face of the door or gate, measured perpendicular to the face of the door, maneuvering clearances for a forward approach shall be provided.

Fig. 404.2.3.5
Maneuvering Clearance at Recessed Doors and Gates

404.2.5 Two Doors and Gates in Series. Distance between two hinged or pivoted doors or gates in series shall be 48 inches (1220 mm) minimum plus the width of any door or gate swinging into the space. The space between the doors shall provide a turning space complying with Section 304

Fig. 404.2.5
Two Doors or Gates in a Series

404.2.6 Door and Gate Hardware. Handles, pulls, latches, locks, and other operable parts on accessible doors and gates shall have a shape that is easy to grasp with one hand and does not require tight grasping, pinching, or twisting of the wrist to operate. Operable parts of such hardware shall be 34 inches (865 mm) minimum and 48 inches (1220 mm) maximum above the floor. Where sliding doors are in the fully open position, operating hardware shall be exposed and usable from both sides.

~~**EXCEPTION:** Locks used only for security purposes and not used for normal operation shall not be required to comply with Section 404.2.6.~~

404.2.7 Closing Speed. Door and gate closing speed shall comply with Section 404.2.8.

404.2.7.1 Door Closers and Gate Closers. Door closers and gate closers shall be adjusted so that from an open position of 90 degrees, the time required to move the door to an open position of 12 degrees shall be 5 seconds minimum.

404.2.7.2 Spring Hinges. Door and gate spring hinges shall be adjusted so that from an open position of 70 degrees, the door or gate shall move to the closed position in 1.5 seconds minimum.

404.2.8 Door and Gate Opening Force. Fire doors shall have the minimum opening force allowable by the appropriate administrative authority. The force for pushing or pulling open doors or gates other than fire doors shall be as follows:

1. Interior hinged doors and gates: 5.0 pounds (22.2 N) maximum

2. Sliding or folding doors: 5.0 pounds (22.2 N) maximum

These forces do not apply to the force required to retract latch bolts or disengage other devices that hold the door or gate in a closed position.

404.2.9 Door and Gate Surface. Door and gate surfaces within 10 inches (255 mm) of the floor, measured vertically, shall be a smooth surface on the push side extending the full width of the door or gate. Parts creating horizontal or vertical joints in such surface shall be within $^{1}/_{16}$ inch (1.6 mm) of the same plane as the other. Cavities created by added kick plates shall be capped.

EXCEPTIONS:

(Exceptions 1 and 2 are not changed)

3. Doors and gates that do not extend to within 10 inches (255 mm) of the floor shall not be required to comply with Section 404.2.9.

404.2.10 Vision Lites. Doors, gates and sidelites adjacent to doors or gates containing one or more glazing panels that permit viewing through the panels shall have the bottom of at least one panel on either the door or an adjacent sidelite 43 inches (1090 mm) maximum above the floor.

(Exception is not changed)

404.3 Automatic Doors and Power-Assisted Doors and Gates. Automatic doors and automatic gates shall comply with Section 404.3. Full powered automatic doors shall comply with ANSI/BHMA A156.10

listed in Section 105.2.4. Power–assist and low–energy doors shall comply with ANSI/BHMA A156.19 listed in Section 105.2.3.

> ~~**EXCEPTION**: Doors, doorways, and gates designed to be operated only by security personnel shall not be required to comply with Sections 404.3.2, 404.3.4, and 404.3.5.~~

404.3.2 Maneuvering Clearances. Maneuvering clearances at power–assisted doors and gates shall comply with Section 404.2.3.

404.3.4 Two Doors or Gates in Series. Doors or gates in series shall comply with Section Section 404.2.5.

4-11-12 PC1

Ron Burton, PTW Advisors LLC, representing Building Owners and Managers Association, International; David S. Collins, The Preview Group, representing American Institute of Architects (AIA); Ron Nickson, representing the National Multi-housing Council; Steve Orlowski, representing the National Association of Home Builders; Kim Paarlberg, representing International Code Council

See comment under 3-6-12 PC2

4-11-12 PC2

Harold Kiewel, representing self

Further revise as follows:

~~**402.2 Components.** Accessible routes shall consist of one or more of the following components: Walking surfaces with a slope not steeper than 1:20, doors and doorways, gates, ramps, curb ramps excluding the flared sides, elevators and platform lifts. All components of an accessible route shall comply with the applicable portion of this standard.~~

402.2 Accessible Route. An accessible route is a continuous sequence of walks, ramps, curb-ramps, and other pedestrian circulation features that are accessible as required by this Standard and that connect or inter-connect the accessible fixtures, features, and elements of the site, structure, building, or facility it serves.

404 Doors, ~~and~~ Doorways and Gates

404.1 General. **Doors, doorways and gates that are part of an accessible route shall comply with Section 404.**

> **EXCEPTION:** Doors, doorways, and gates ~~designed to be operated only by security personnel~~ restricted to use by security personnel shall not be required to comply with 404.2.3, 404.2.6, 404.2.7, 404.2.8, 404.3.2 and 404.3.4 through 404.3.6.

404.2.3.4 ~~Doorways~~ Pedestrian passage openings without Doors or Gates. ~~Doorways without~~ Openings in walls and fences intended for pedestrian use, that do not have doors or gates and that are less than 36 inches (915 mm) in width shall have maneuvering clearances complying with Table 404.2.3.3

404.2.5 Two Doors and Gates in Series. Distance between two hinged or pivoted ~~doors or gates~~ door- or gate-leaf in series shall be 48 inches (1220 mm) minimum plus the width of any ~~door or gate~~ door- or gate-leaf swinging into the space. The space between the doors shall provide a turning space complying with Section 304.

404.3 Automatic Doors and Power-Assisted Doors and Gates. Automatic doors and automatic gates shall comply with Section 404.3. Full powered automatic doors shall comply with ANSI/BHMA A156.10 listed in Section 105.2.4. Power–assist and low–energy doors shall comply with ANSI/BHMA A156.19 listed in Section 105.2.3.

Reason: If you follow CSI's logic, the point of having Article 105 is simply to define the acronyms and abbreviated forms of references that will be in the text of the Standard. It is their subsequent use in Articles like 404.3, that actually incorporates the reference or specific provisions of it into the Standard.

4-14 – 12

Revise as follows:

TABLE 404.2.3.2—MANEUVERING CLEARANCES AT MANUAL SWINGING DOORS

TYPE OF USE		MANEUVERING CLEARANCES AT MANUAL SWINGING	
Approach Direction	**Door Side**	**Perpendicular to Doorway**	**Parallel to Doorway (beyond latch unless noted)**
From front	Pull	60 inches (1525 mm)	18 inches (455 mm)
From front	Push	~~48~~ 52 inches (1220 mm)	0 inches (0 mm)[3]
From hinge side	Pull	60 inches (1525 mm)	36 inches (915 mm)
From hinge side	Pull	54 inches (1370 mm)	42 inches (1065 mm)
From hinge side	Push	42 inches (1065 mm)[1]	22 inches (560 mm)[~~3 &~~ 4]
From latch side	Pull	48 inches (1220 mm)[1]	24 inches (610 mm)
From latch side	Push	42 inches (1065 mm)[2]	24 inches (610 mm)

[1]Add 6 inches (150 mm) if closer and latch provided.
[2]Add 6 inches (150 mm) if closer provided.
[3]Add 12 inches (305 mm) beyond latch if closer and latch provided.
[4]Beyond hinge side.

4-14-12 PC1

Larry Eberly, representing Pennsylvania Builders Association

Disapprove this change. Return the text to that found in existing standard.

Reason: Pennsylvania Builders Association opposes this requirement which will increase the width of hallways, spaces and rooms depending on the specific design.

This proposed change relates to the anthropometric study of mobility device users by The Center for IDeA at the University at Buffalo, SUNY which questions decades of universally accepted accessibility clearances and maneuverability contained within Chapter 3: Building Blocks. This revision is based on this single study and should be researched further before such changes occur in the standard.

Pennsylvania Builders Association opposes any change to the ANSI 117.1 building blocks for numerous reasons.

The requirements within Chapter 3: Building Blocks are the standard and precedent for the development of decades of accessibility required clearances, maneuverability and reach ranges both in ANSI A117.1 and federal accessibility laws and their standards (ADA /FHA/ ABA/ UFAS, etc).

Any changes will conflict with and be more stringent than these accepted laws and standards and contradictory to the efforts of the ADA/A117 Harmonization Task Group (HTG) to provide consistent language with the ADA. Residual unforeseen consequences and conflicts with these laws and within the ANSI 117.1 standard itself due to the vast references to this chapter will require extensive future coordination, revisions and clarifications and create a financial burden for residential communities.

These changes are predicated on the anthropometric study of mobility device users by The Center for IDeA at the University at Buffalo, SUNY which predominantly addresses the potential need to accommodate existing electric mobility devices. The Committee's and Wheeled Mobility Task Group's (WMTG) supporting documentation and comments contained in the

Backround Report raises serious questions to the study's testing methods, criteria and results and clearly acknowledges the unforeseen residual impact and consequences.

Instead of changing the Building Blocks, a more prudent approach would be to require mobility device manufacturers to comply with the decades of accepted standards, particularly taking in consideration future technology and advances in design.

Stringent changes to the requirements in the ANSI 117.1 standards make private residential communities more handicap accessible than public, institutional and commercial buildings and sites including USPS postal centers, hospitals, schools, retail, office, recreational and cultural establishments. A substantial disparity and financial burden is placed on residential communities, homeowners and builders by requiring residential buildings to comply with stricter standards. In addition, any change to these basic building blocks may also set a precedent for a re-evaluation of all other clearances and requirements not currently included in these proposed changes, particularly dwelling unit bathroom and kitchens.

Pennsylvania adopts the accessibility provisions of the newest triennial revisions to the ICC Family of Codes that have been adopted in PA, which includes the IBC, IRC, IMC, IPC and IEBC. without modification. This includes the references to ICC/ANSI A117.1. Mandatory adoption in Pennsylvania, without modification, has unforeseen consequences to the building industry, both commercial and residential communities.

4-14-12 PC2

Robin Roberts, Chair, Technical Standards Committee, representing Accessibility Professionals Association

Disapprove this change. Return the text to that found in existing standard.

Reason: Many of the comments provided in the background reports expressed reservations regarding the study upon which the proposals are based. Because the proposed changes would have an enormous impact on the design and construction community, further investigation seems necessary.

4-14-12 PC3

Minh N. Vu; representing American Hotel and Lodging Association.

Disapprove this change. Return the text to that found in existing standard.

Reason: See reason statement from Minh Vu found under proposal 3-6-12.

4-15 – 12

Revise as follows:

TABLE 404.2.3.2—MANEUVERING CLEARANCES AT MANUAL SWINGING DOORS

TYPE OF USE		MANEUVERING CLEARANCES AT MANUAL	
Approach Direction	**Door Side**	**Perpendicular to Doorway**	**Parallel to Doorway (beyond latch unless noted)**
From front	Pull	60 inches (1525 mm)	18 inches (455 mm)
From front	Push	~~48~~ 52 inches (~~1220~~ 1320 mm)	0 inches (0 mm)[3]
From hinge side	Pull	60 inches (1525 mm)	36 inches (915 mm)
From hinge side	Pull	54 inches (1370 mm)	42 inches (1065 mm)
From hinge side	Push	42 inches (1065 mm)[1]	22 inches (560 mm)[3 & 4]
From latch side	Pull	48 inches (1220 mm)[1]	24 inches (610 mm)
From latch side	Push	42 inches (1065 mm)[2]	24 inches (610 mm)

[1]Add 6 inches (150 mm) if closer and latch provided.
[2]Add 6 inches (150 mm) if closer provided.
[3]Add 12 inches (305 mm) beyond latch if closer and latch provided.

[4]Beyond hinge side.

TABLE 404.2.3.3 – MANEUVERING CLEARANCES AT SLIDING AND FOLDING DOORS

Approach Direction	MINIMUM MANEUVERING CLEARANCES	
	Perpendicular to Doorway	Parallel to Doorway (beyond stop or latch side unless noted)
From front	~~48~~ 52 inches (~~1220~~ 1320 mm)	0 inches (0 mm)
From nonlatch side	42 inches (1065 mm)	22 inches (560 mm) [1]
From latch side	42 inches (1065 mm)	24 inches (610 mm)

[1.] Beyond pocket or hinge side.

TABLE 404.2.3.4 - *MAN*EUVERING CLEARANCES FOR DOORWAYS WITHOUT DOORS

Approach direction	MINIMUM MANEUVERING CLEARANCES Perpendicular to Doorway
From front	~~48~~ 52 inches (~~1220~~ 1320 mm)
From side	42 inches (1065 mm)

4-15-12 PC1

Ron Burton, PTW Advisors LLC, representing Building Owners and Managers Association, International; David S. Collins, The Preview Group, representing American Institute of Architects (AIA); Ron Nickson, representing the National Multi-housing Council; Steve Orlowski, representing the National Association of Home Builders; Kim Paarlberg, representing International Code Council

See comment under 3-6-12 PC2

4-14-12 PC2

Larry Eberly, representing Pennsylvania Builders Association

Disapprove this change. Return the text to that found in existing standard.

Reason: Pennsylvania Builders Association opposes this requirement which will increase the width of hallways, spaces and rooms depending on the specific design.

This proposed change relates to the anthropometric study of mobility device users by The Center for IDeA at the University at Buffalo, SUNY which questions decades of universally accepted accessibility clearances and maneuverability contained within Chapter 3:Building Blocks. This revision is based on this single study and should be researched further before such changes occur in the standard.

Pennsylvania Builders Association opposes any change to the ANSI 117.1 building blocks for numerous reasons.

The requirements within Chapter 3: Building Blocks are the standard and precedent for the development of decades of accessibility required clearances, maneuverability and reach ranges both in ANSI A117.1 and federal accessibility laws and their standards (ADA/ FHA/ ABA/ UFAS, etc.).

Any changes will conflict with and be more stringent than these accepted laws and standards and contradictory to the efforts of the ADA/A117 Harmonization Task Group (HTG) to provide consistent language with the ADA. Residual unforeseen consequences and conflicts with these laws and within the ANSI 117.1 standard itself due to the vast references to this chapter will require extensive future coordination, revisions and clarifications and create a financial burden for residential communities.

These changes are predicated on the anthropometric study of mobility device users by The Center for IDeA at the University at Buffalo, SUNY which predominantly addresses the potential need to accommodate existing electric mobility devices. The Committee's and Wheeled Mobility Task Group's (WMTG) supporting documentation and comments contained in the Background Report raises serious questions to the study's testing methods, criteria and results and clearly acknowledges the unforeseen residual impact and consequences.

Instead of changing the Building Blocks, a more prudent approach would be to require mobility device manufacturers to comply with the decades of accepted standards, particularly taking in consideration future technology and advances in design.

Stringent changes to the requirements in the ANSI 117.1 standards make private residential communities more handicap accessible than public, institutional and commercial buildings and sites including USPS postal centers, hospitals, schools, retail, office, recreational and cultural establishments. A substantial disparity and financial burden is placed on residential communities, homeowners and builders by requiring residential buildings to comply with stricter standards. In addition, any change to these basic building blocks may also set a precedent for a re-evaluation of all other clearances and requirements not currently included in these proposed changes, particularly dwelling unit bathroom and kitchens.

Pennsylvania adopts the accessibility provisions of the newest triennial revisions to the ICC Family of Codes that have been adopted in PA, which includes the IBC, IRC, IMC, IPC and IEBC. without modification. This includes the references to ICC/ANSI A117.1. Mandatory adoption in Pennsylvania, without modification, has unforeseen consequences to the building industry, both commercial and residential communities.

4-15-12 PC3

Robin Roberts, Chair, Technical Standards Committee, representing Accessibility Professionals Association

Disapprove this change. Return the text to that found in existing standard.

Reason: Many of the comments provided in the background reports expressed reservations regarding the study upon which the proposals are based. Because the proposed changes would have an enormous impact on the design and construction community, further investigation seems necessary.

4-15-12 PC4

Minh N. Vu; representing American Hotel and Lodging Association.

Disapprove this change. Return the text to that found in existing standard.

Reason: See reason statement from Minh Vu found under proposal 3-6-12.

4-23 – 12

Please Note: The version of 4-23-12 included in the public review draft was not the final version of 4-23-12 as approved by the committee. The version approved by the committee is as shown in 4-23-12 PC1

4-23-12 as shown in the public review draft

Revise as follows:

404.2.8 Door-Opening Force. Fire doors shall have the minimum opening force allowable by the appropriate administrative authority. The force for pushing or pulling open doors other than fire doors shall be as follows:

1. Interior hinged door: 5.0 pounds (22.2 N) maximum
2. Sliding or folding door: 5.0 pounds (22.2 N) maximum

These forces ~~do not~~ shall also apply to the force required to retract latch bolts or disengage other devices that hold the door in a closed position.

EXCEPTION: The 5.0 pounds force to retract latch bolts or disengage other devices that hold the door in a closed position shall not apply to panic hardware, delayed egress devices or fire-rated hardware.

4-23-12 PC1

Michael Tierney, representing The Builders Hardware Manufacturers Association

Please note: The following reflects the version of 4-23-12 approved by the Committee.

404.2.6 Door Hardware. Handles, pulls, latches, locks, and other operable parts on accessible doors shall have a shape that is easy to grasp with one hand and does not require tight grasping, pinching, or twisting of the wrist to operate. The operational force to retract latches or disengage devices that hold the door in a closed position shall be as follows:

1. Hardware operation by a forward, pushing or pulling motion: 15 pounds (66.7 N) maximum
2. Hardware operation by a rotational motion: 28 inch-pounds (315 N·cm) maximum

Operable parts of such hardware shall be 34 inches (865 mm) minimum and 48 inches (1220 mm) maximum above the floor. Where sliding doors are in the fully open position, operating hardware shall be exposed and usable from both sides.

EXCEPTION: Locks used only for security purposes and not used for normal operation are permitted in any location.

404.2.8 Door-Opening Force. Fire doors shall have the minimum opening force allowable in scoping provisions adopted by the appropriate administrative authority. For other doors, the ~~The~~ force for pushing or pulling open doors ~~other than fire doors~~ shall be as follows:

1. Interior hinged door: 5.0 pounds (22.2 N) maximum
2. Sliding or folding door: 5.0 pounds (22.2 N) maximum

~~These forces do not apply to the force required to retract latch bolts or disengage other devices that hold the door in a closed position.~~

4-23-12 PC2

Julie Ruth, JRuth Code Consulting, representing American Architectural Manufacturers Association

Further revise as follows:

404.2.8 Door-Opening Force. Fire doors shall have the minimum opening force allowable in scoping provisions adopted by the appropriate administrative authority. For other doors the force for pushing or pulling open doors shall be as follows:

1. Interior hinged door: 5.0 pounds (22.2 N) maximum
2. Interior ~~S~~sliding or folding door: 5.0 pounds (22.2 N) maximum
3. Exterior sliding door: 10.0 pounds (45 N) maximum

Opening forces for exterior sliding doors shall be determined in accordance with AAMA 513.

Add new reference standard as follows:

106.2.12 Standard Laboratory Test Method for Determination of Forces and Motions Required to Activate Operable Parts of CW and AW Class Operable Windows, Sliding Glass Doors and Terrace Doors in Accessible Spaces, AAMA 513 - 12 (AAMA, 1827 Walden Office Square, Suite 550, Schaumburg, IL 60173-4268)

Reason: This comment specifies the standard to be used to measure the opening force of accessible exterior sliding doors and it provides a more achievable maximum opening force of 10 pounds for these doors.

An informal survey of AAMA members whose product met the requirements of the International Building Code for resistance to structural load and water penetration, and the International Energy Conservation Code for air leakage, indicate that at the present time there are no commercial class, manually operated exterior sliding doors that can be opened with no more than 5 pounds force. The survey results did indicate, however, that some residential class horizontal sliding windows of up to 6 feet in height can be opened manually with no more than 10 lbs force. This information indicates that although achieving a manually operated, exterior sliding door that can be opened with no more than 10 pounds force would be a challenge, it may be achievable.

This comment separates the requirement for interior sliding doors from that for exterior sliding doors. Exterior sliding doors are subjected to concerns that do not apply to interior products. These include the code required resistance to wind, water penetration, air leakage and forced entry that is mentioned above. For interior products that are not subject to these concerns a 5 pound opening force may be reasonable.

The comment also adds reference to AAMA 513 for measuring the opening force of these doors. AAMA 513 was developed specifically to clarify the methodology that is to be used to measure the force required to open, close, lock and unlock, latch and unlatch commercial grade (Class CW and AW) operable windows, exterior sliding glass doors and exterior side hinged doors. Section 404.2.8 only addresses the force to open accessible doors. Therefore, the reference to AAMA 513 in this section only pertains to its use to determine opening force.

4-27– 12

Revise as follows:

404.2.9 Door Surface. Door surfaces within 10 inches (255 mm) of the floor, measured vertically, shall be a smooth surface on the push side extending the full width of the door. Door hardware, or any other obstruction or protrusion shall not be mounted in nor extend into the area within 10 inches (255 mm) of the floor. Parts creating horizontal or vertical joints in ~~such~~ the smooth surface shall be within 1/16 inch (1.6 mm) of the same plane as the other. Cavities created by added kick plates shall be capped.

EXCEPTIONS:

1. Sliding doors shall not be required to comply with Section 404.2.9.
2. Tempered glass doors without stiles and having a bottom rail or shoe with the top leading edge tapered at no less than 60 degrees from the horizontal shall not be required to comply with the 10-inch (255 mm) bottom rail height requirement.

Doors that do not extend to within 10 inches (255 mm) of the floor shall not be required to comply with Section 404.2.9.

4-27-12 PC1

Harold Kiewel, representing self

Further revise as follows:

404.2.9 Door Surface. Door surfaces within 10 inches (255 mm) of the floor, measured vertically, shall be a smooth surface on the push side extending the full width of the door. Door hardware, or any other obstruction or protrusion shall not be mounted in nor extend into the area within 10 inches (255 mm) of the floor. Parts creating horizontal or vertical joints in ~~the~~ such smooth ~~surface~~ surfaces shall be flush within 1/16 inch (1.6 mm) of the same plane as the other. Cavities created by added kick plates shall be capped.

EXCEPTIONS:

1. Sliding doors shall not be required to comply with Section 404.2.9.
2. Tempered glass doors without stiles and having a bottom rail or shoe with the top leading edge tapered at no less than 60 degrees from the horizontal shall not be required to comply with the 10-inch (255 mm) bottom rail height requirement.

Doors that do not extend to within 10 inches (255 mm) of the floor shall not be required to comply with Section 404.2.9.

Reason: See the general comments of Mr. Kiewel at 1-1-12.

4-29 – 12

Add text as follows:

404.2.9 Door Surface. Door surfaces within 10 inches (255 mm) of the floor, measured vertically, shall be a smooth surface on the push side extending the full width of the door. Parts creating horizontal or vertical joints in such surface shall be within $^{1}/_{16}$ inch (1.6 mm) of the same plane as the other. Cavities created by added kick plates shall be capped.

EXCEPTIONS:

(Exceptions 1 through 3 are not changed)

4. Existing doors and gates without smooth surfaces within 10 inches (255 mm) of the finish floor or ground shall not be required to provide smooth surfaces complying with 404.2.9 provided that if added kick plates are installed, cavities created by such kick plates are capped,

4-29-12 PC1

Michael Tierney, representing The Builders Hardware Manufacturers Association

Disapprove this change. Return the text to that found in existing standard.

Reason: The new Exception 4 does not adequately convey the intent to allow added plates that create a smooth surface over exit device bottom rods.

4-30– 12

Revise as follows:

404.3 Automatic Doors and Power-Assisted Doors and Gates. Automatic doors and automatic gates shall comply with Section 404.3. Full powered automatic doors shall comply with ANSI/BHMA A156.10 listed in Section 105.2.4. Power–assist and low–energy doors shall comply with ANSI/BHMA A156.19 listed in Section 105.2.3.

EXCEPTION: Doors, doorways, and gates designed to be operated only by security personnel shall not be required to comply with Sections 404.3.2, 404.3.4, and 404.3.5.

404.3.2 Maneuvering Clearances. Maneuvering clearances at power–assisted doors shall comply with Section 404.2.3. Clearances at swinging automatic doors and gates without standby power and serving an *accessible means of egress* shall comply with Section 404.2.3.

EXCEPTION: Where automatic doors and gates remain open in the power-off condition, compliance with Section 404.2.3 shall not be required.

404.3.5 Controls **~~Switches~~**. Manually operated control<u>s</u> ~~switches~~ shall comply with Section 309. The clear floor space adjacent to the control ~~switch~~ shall be located beyond the arc of the door swing.

4-30-12 PC1

Kim Paarlberg, representing International Code Council

Further revise as follows:

404.3 Automatic Doors and Power-Assisted Doors and Gates. Automatic doors and automatic gates shall comply with Section 404.3. Full powered automatic doors shall comply with ANSI/BHMA A156.10 listed in Section 105.2.4. Power–assist and low–energy doors shall comply with ANSI/BHMA A156.19 listed in Section 105.2.3.

> **EXCEPTION**: Doors, doorways, and gates designed to be operated only by security personnel shall not be required to comply with Sections 404.3.2, 404.3.4, and 404.3.5.

404.3.2 Maneuvering Clearances. Maneuvering clearances at power–assisted doors shall comply with Section 404.2.3. ~~Clearances at swinging automatic doors and gates without standby power and serving an *accessible means of egress* shall comply with Section 404.2.3.~~

> ~~**EXCEPTION:** Where automatic doors and gates remain open in the power-off condition, compliance with Section 404.2.3 shall not be required.~~

404.3.5 Controls. Manually operated controls shall comply with Section 309. The clear floor space adjacent to the control shall be located beyond the arc of the door swing.

Reason: Multiple changes for the automatic door provisions were approved. This text and exception is a duplication of the requirements approved in 4-31-12. This deletion will coordinate changes 4-11, 4-30, 4-31 and 4-34.

4-31– 12

Revise as follows:

404.3 Automatic Doors. Automatic doors and automatic gates shall comply with Section 404.3. Full powered automatic doors shall comply with ANSI/BHMA A156.10 listed in Section 105.2.4. Power-assist doors and low-energy automatic doors shall comply with ANSI/BHMA A1 56.19 listed in Section 105.2.3.

> **EXCEPTION:** Doors, doorways, and gates designed to be operated only by security personnel shall not be required to comply with Sections 404.3.2, 404.3.4, and 404.3.5.

404.3.2 Maneuvering Clearances. Maneuvering clearances at power-assisted doors shall comply with Section 404.2.3. Maneuvering clearances shall be provided on the egress side of low-energy automatic doors and full power automatic doors that serve as part of the accessible means of egress.

> **EXCEPTIONS:**
>
> 1. Low-energy automatic doors and full power automatic doors that have standby power or battery back-up shall not be required to comply with this section.
> 2. Low-energy automatic doors and full power automatic doors that remain open in the power-off condition shall not be required to comply with this section.
> 3. Full power automatic sliding doors that include a break-away feature shall not be required to comply with this section.

404.3.4 Two Doors in Series. Doors in series shall comply with Section 404.2.5.

EXCEPTION: Where both doors are power assist doors, low energy automatic doors or full power automatic doors, two doors in a series shall not be required to provide a turning space between the doors.

404.3.5 Controls ~~Switches~~. Manually operated controls ~~switches~~ shall comply with Section 309. The clear floor space adjacent to the control switch shall be located beyond the arc of the door swing.

404.3.6 Break Out Opening. Where full power automatic sliding doors and gates are equipped with a break out feature, the clear break out opening shall be 32 inches (815 mm) minimum when operated in emergency mode.

4-31-12 PC1

Kim Paarlberg, representing International Code Council

Further revise as follows:

404.3 Automatic Doors and Power-Assisted Doors and Gates. Automatic doors and automatic gates shall comply with Section 404.3. Full powered automatic doors and gates shall comply with ANSI/BHMA A156.10 listed in Section 105.2.4. Power–assist doors and gates and low–energy automatic doors and gates shall comply with ANSI/BHMA A156.19 listed in Section.105.2.7.

EXCEPTION: Doors, doorways, and gates designed to be operated only by security personnel shall not be required to comply with Sections 404.3.2, 404.3.4, and 404.3.5.

404.3.2 Maneuvering Clearances. Maneuvering clearances at power–assisted doors and gates shall comply with Section 404.2.3. Maneuvering clearances complying with Section 404.2.3 shall be provided on the egress side of low-energy automatic doors and gates and full power automatic doors and gates that serve as part of the accessible means of egress.

EXCEPTIONS:

1. Low-energy automatic doors and gates and full power automatic doors and gates that have standby power or battery back-up shall not be required to comply with this section.
2. Low-energy automatic doors and gates and full power automatic doors and gates that remain open in the power-off condition shall not be required to comply with this section.
3. Full power automatic sliding doors and gates that include a break-away feature shall not be required to comply with this section.

404.3.4 Two Doors or Gates in Series. Doors or gates in series shall comply with Section 404.2.5.

EXCEPTION: Where both doors or gates in series are power assist doors, low energy automatic doors or full power automatic doors, the two doors and gates in a series shall not be required to provide a turning space between the doors.

404.3.5 Controls. Manually operated controls shall comply with Section 309. The clear floor space adjacent to the control switch shall be located beyond the arc of the door swing.

404.3.6 Break Out Opening. Where full power automatic sliding doors and gates are equipped with a break out feature, the clear break out opening shall be 32 inches (815 mm) minimum when operated in emergency mode.

Reason: Multiple changes for the automatic door provisions were approved. This proposal would coordinate those provisions. This is the combined changes 4-11, 4-30, 4-31 & 4-34 with revisions.

404.3 Automatic Doors and Power-Assisted Doors and Gates. Automatic doors and automatic gates shall comply with Section 404.3. Full powered automatic doors shall comply with ANSI/BHMA A156.10 listed in Section 105.2.4. Power–assist doors and low–energy automatic doors shall comply with ANSI/BHMA A156.19 listed in Section.105.2.7. (4-11-12) (4-30-12) (4-31-12)

404.3.2 Maneuvering Clearances. Maneuvering clearances at power–assisted doors and gates shall comply with Section 404.2.3. ~~Clearances at swinging automatic doors and gates without standby power and serving an *accessible means of egress* shall comply with Section 404.2.3.~~ Maneuvering clearances complying with Section 404.2.3 shall be provided on the egress side of low-energy automatic doors and gates and full power automatic doors and gates that serve as part of the accessible means of egress. **(4-30-12)(4-11-12)(4-31-12)**

EXCEPTIONS:

1. ~~Where automatic doors and gates remain open in the power-off condition, compliance with Section 404.2.3 shall not be required.~~ **(4-30-12)**
2. Low-energy automatic doors and gates and full power automatic doors and gates that have standby power or battery back-up shall not be required to comply with this section.
3. Low-energy automatic doors and gates and full power automatic doors and gates that remain open in the power-off condition shall not be required to comply with this section.
4. Full power automatic sliding doors and gates that include a break-away feature shall not be required to comply with this section. **(4-31-12)**

404.3.4 Two Doors or Gates in Series. Doors or gates in series shall comply with Section 404.2.5. (4-11-12)

EXCEPTIONS:

1. Where both doors or gates in series are power assist doors, low energy automatic doors or full power automatic doors, the two doors and gates in a series shall not be required to provide a turning space between the doors. (4-31-12)

~~2. Full power automatic doors in a series are not required to provide a turning space complying with Section 304.~~ **(4-34-12)**

4-31-12 PC2

Curt Wiehle, Minnesota Construction Codes and Licensing, representing self

Further revise as follows:

404.3.4 Two Doors in Series. Doors in series shall comply with Section 404.2.5.

EXCEPTION: Where both doors are power assist doors, low energy automatic doors or full power automatic doors, two doors in a series shall not be required to provide a turning space complying with Section 304 between the doors.

*Balance of 4-31 remains unchanged***.**

Reason: Change 4-34 also added an exception to this section. The two exceptions are essentially redundant. The exception approved in 4-24 does add a key reference to Section 304 the location of the turning space requirement. In this comment I suggest adding that text to this exception and in my companion comment to 4-34, deleting the duplicative exception Bottom line – both exceptions are not needed.

404.3.4 Two Doors or Gates in Series. Doors or gates in series shall comply with Section 404.2.5.

EXCEPTIONS:

~~1.~~ Where both doors are power assist doors, low energy automatic doors or full power automatic doors, two doors in ~~a~~ series shall not be required to provide a turning space complying with Section 304 between the doors.

~~2. Full power automatic doors in a series are not required to provide a turning space complying with Section 304.~~

4-34– 12

Revise as follows:

404.3.4 Two Doors in Series. Doors in series shall comply with Section 404.2.5.

> **EXCEPTION:** Full power automatic doors in a series are not required to provide a turning space complying with Section 304.

404.3.5 Control Switches. Manually operated control switches shall comply with Section 309. The clear floor space adjacent to the control switch shall be located beyond the arc of ~~the~~ door swings.

404.3.6 Door Hardware. Handles, pulls, latches, locks, and other operable parts shall comply with Section 404.2.6.

4-34-12 PC1

Kim Paarlberg, representing International Code Council

Further revise as follows:

404.3.4 Two Doors in Series. Doors in series shall comply with Section 404.2.5.

> ~~**EXCEPTION:** Full power automatic doors in a series are not required to provide a turning space complying with Section 304.~~

404.3.5 Control Switches. Manually operated control switches shall comply with Section 309. The clear floor space adjacent to the control switch shall be located beyond the arc of ~~the~~ door swings.

404.3.6 Door Hardware. Handles, pulls, latches, locks, and other operable parts shall comply with Section 404.2.6.

Reason: The exception is already covered in 4-31-12. This change will coordinate 4-11, 4-30, 4-31 and 4-34.

4-34-12 PC2

Curt Wiehle, Minnesota Construction Codes and Licensing, representing self

Further revise as follows:

404.3.4 Two Doors in Series. Doors in series shall comply with Section 404.2.5.

> ~~**EXCEPTION:** Full power automatic doors in a series are not required to provide a turning space complying with Section 304.~~

*Balance of 4-34 remains unchanged***.**

Reason: Change 4-31 also added an exception to this section. This exception is essentially redundant with the exception as proposed in 4-31. This exception does add a key reference to Section 304 the location of the turning space requirement. My companion comment to 4-31 would move the text – 'complying with Section 304 into that exception. Bottom line – both exceptions are not needed.

404.3.4 Two Doors or Gates in Series. Doors or gates in series shall comply with Section 404.2.5.

EXCEPTION~~S~~:

~~1.~~ Where both doors are power assist doors, low energy automatic doors or full power automatic doors, two doors in ~~a~~ series shall not be required to provide a turning space complying with Section 304 between the doors.

~~2. Full power automatic doors in a series are not required to provide a turning space complying with Section 304.~~

4-38 – 12

Revise as follows:

405.5 Clear Width. The clear width of a ramp run shall be 36 inches (915 mm) minimum. Handrails and handrail supports that are provided on the ramp run shall not project into the required clear width of the ramp run.

EXCEPTION: Within employee work areas, the required clear width of ramps that are a part of common use circulation paths shall be permitted to be decreased by work area equipment provided that the decrease is essential to the function of the work being performed.

405.8 Handrails. Ramp runs with a rise greater than 6 inches (150 mm) shall have handrails complying with Section 505.

EXCEPTION: Within employee work areas, handrails shall not be required where ramps that are part of common use circulation paths, and which are used for the movement of equipment, are designed to permit the installation of handrails complying with Section 505. Ramps not subject to the exception to Section 405.5 shall be designed to maintain a 36 inch (915 mm) minimum clear width when handrails are installed.

Add following new definitions.

106.5 Defined terms

circulation path. An exterior or interior way of passage provided for pedestrian travel, including but not limited to, walks, hallways, courtyards, elevators, platform lifts, ramps, stairways, and landings.

common use. Interior or exterior circulation paths, rooms, spaces, or elements that are not for public use and are made available for the shared use of two or more people.

employee work area. All or any portion of a space used only by employees and used only for work. Corridors, toilet rooms, kitchenettes and break rooms are not employee work areas.

4-38-12 PC1

Harold Kiewel, representing self

Further revise as follows:

405.5 Clear Width. The clear width of a ramp run shall be 36 inches (915 mm) minimum. Handrails and handrail supports that are provided on the ramp run shall not project into the required clear width of the ramp run.

EXCEPTION: Within employee work areas, the required clear width of ramps that are a part of common use circulation paths shall be permitted to be decreased to 32 inches (815 mm) minimum for a length of 24 inches (610 mm) maximum by work area equipment provided that the decrease is essential to the function of the work being performed.

Reason: If ramp width is not controlled by 403.5, then you must repeat the constraints of the Exception to 403.5, here. If ramp widths are not controlled by 403.5, why not? See also information at 1-1-12.

4-38-12 PC2

David Hall, representing self

Further revise as follows:

common use. Interior or exterior circulation paths, rooms, spaces, or elements that are ~~not for public use and are~~ made available for the shared use of two or more people.

Balance of 4-38 remains unchanged.

Reason: I suggest taking the words "not for public use and are' out of the common use definition. This is going to be very confusing to a lot of people.

Common use would be for anyone at any time. Example #3 above indicates kitchenettes are not employee work areas and they are usually not open to the public, but the public could be invited in on special occasions. There have been occasions in my own office where I have invited a client into the breakroom/kitchenette to get coffee or some other beverage as well as giving them access to the microwave.

Another example is when our Bottled Water Service delivers the bottled water. He is not an employee of my company and he is not 'the public' either. So I guess he could be considered a 'vendor' and now you can add that definition to the code. This just seems to be an issue that will come back to haunt you very soon.

4-40 – 12

Revise as follows:

405.7.4 Change in Direction. Ramps that change direction <u>between runs</u> at ~~ramp~~ landings ~~shall be sized to provide a turning space complying with Section 304.3~~ <u>shall have a clear landing 60 inches (1525 mm) minimum by 60 inches (1525 mm) minimum</u>.

4-40-12 PC1

Harold Kiewel, representing self

Further revise as follows:

405.7.4 Change in Direction. Ramps that change direction between runs at landings shall have a ~~clear~~ <u>level</u> landing 60 inches (1525 mm) minimum by 60 inches (1525 mm) minimum.

Add new definition to Section 104

<u>**level:** Horizontal in all directions; except where a slope is required to shed water, then level may include a slope of 1/4-inch-per-foot (1:50).</u>

Reason: See information at 1-1-12.

4-42– 12

Revise as follows:

~~**406 Curb Ramps**~~

~~**406.1 General.** Curb ramps on accessible routes shall comply with Sections 406, 405.2, 405.3, and 405.10.~~

~~**406.2 Counter Slope.** Counter slopes of adjoining gutters and road surfaces immediately adjacent to the curb ramp shall not be steeper than 1:20. The adjacent surfaces at transitions at curb ramps to walks, gutters and streets shall be at the same level.~~

~~**406.3 Sides of Curb Ramps.** Where provided, curb ramp flares shall comply with Section 406.3.~~

~~**406.3.1 Slope.** Flares shall not be steeper than 1:10.~~

~~**406.4 Width.** Curb ramps shall be 36 inches (915 mm) minimum in width, exclusive of flared sides.~~

~~**406.5 Floor Surface.** Floor surfaces of curb ramps shall comply with Section 302.~~

~~**406.7 Landings.** Landings shall be provided at the tops of curb ramps. The clear length of the landing shall be 36 inches (915 mm) minimum. The clear width of the landing shall be at least as wide as the curb ramp, excluding flared sides, leading to the landing.~~

~~**EXCEPTION:** In alterations, where there is no landing at the top of curb ramps, curb ramp flares shall be provided and shall not be steeper than 1:12.~~

~~**406.10 Diagonal Curb Ramps.** Diagonal or corner- type curb ramps with returned curbs or other well- defined edges shall have the edges parallel to the direction of pedestrian flow. The bottoms of diagonal curb ramps shall have 48 inches (1220 mm) minimum clear space outside active traffic lanes of the roadway. Diagonal curb ramps provided at marked crossings shall provide the 48 inches (1220 mm) minimum clear space within the markings. Diagonal curb ramps with flared sides shall have a segment of curb 24 inches (610 mm) minimum in length on each side of the curb ramp and within the marked crossing.~~

~~**406.11 Islands.** Raised islands in crossings shall be a cut-through level with the street or have curb ramps at both sides. Each curb ramp shall have a level area 48 inches (1220 mm) minimum in length and 36 inches (915 mm) minimum in width at the top of the curb ramp in the part of the island intersected by the crossings. Each 48-inch (1220 mm) by 36-inch (915 mm) area shall be oriented so the 48-inch (1220 mm) length is in the direction of the running slope of the curb ramp it serves. The 48-inch (1220 mm) by 36-inch (915 mm) areas and the accessible route shall be permitted to overlap.~~

406 Curb Ramps and Blended Transitions

406.1 General. Curb ramps and blended transitions on accessible route shall comply with Section 406

406.2 Perpendicular Curb Ramps. Perpendicular curb ramps shall comply with Sections 406.2 and 406.5.

406.2.1 Turning Space. A turning space 48 inches (1220 mm) minimum by 48 inches (1220 mm) minimum shall be provided at the top of the curb ramp and shall be permitted to overlap other turning spaces and clear spaces. Where the turning space is constrained at the back-of-sidewalk, the turning space shall be 48 inches (1220 mm) minimum by 60 inches (1525 mm) minimum. The 60 inches (1525 mm) dimension shall be provided in the direction of the ramp run.

406.2.2 Running Slope. The running slope of the curb ramp shall cut through or shall be built up to the curb at right angles or shall meet the gutter grade break at right angles where the curb is curved. The running slope of the curb ramp shall be 1:20 minimum and 1:12 maximum but shall not require the ramp length to exceed 15 feet (4570 mm). The running slope of the turning space shall be 1:48 maximum.

406.3 Parallel Curb Ramps. Parallel curb ramps shall comply with Sections 406.3 and 406.5.

406.3.1 Turning Space. A turning space 48 inches (1220 mm) minimum by 48 inches (1220 mm) minimum shall be provided at the bottom of the curb ramp and shall be permitted to overlap other turning spaces and clear spaces. Where the turning space is constrained on 2 or more sides, the turning space shall be 48 inches (1220 mm) minimum by 60 inches (1525 mm). The 60 inches (1525 mm) dimension shall be provided in the direction of the pedestrian street crossing.

406.3.2 Running Slope. The running slope of the curb ramp shall be in-line with the direction of sidewalk travel. The running slope of the curb ramp shall be 1:20 minimum and 1:12 maximum but shall not require the ramp length to exceed 15 feet (4570 mm). minimum. The running slope of the turning space shall be maximum.

406.4 Blended Transitions. Blended transitions shall comply with Sections 406.4 and 406.5.

406.4.1 Running Slope. The running slope of blended transitions shall be 1:20 maximum.

406.5 Common Requirements. Curb ramps and blended transitions shall comply with Section 406.5.

406.5.1 Width. The clear width of curb ramp runs (excluding any flared sides), blended transitions, and turning spaces shall be 48 inches (1220 mm) minimum.

406.5.2 Grade Breaks. Grade breaks at the top and bottom of curb ramp runs shall be perpendicular to the direction of the ramp run. Grade breaks shall not be permitted on the surface of ramp runs and turning spaces. Surface slopes that meet at grade breaks shall be flush.

406.5.3 Cross Slope. The cross slope of curb ramps, blended transitions, and turning spaces shall be 1:48 maximum. At pedestrian street crossings without yield or stop control and at midblock pedestrian street crossings, the cross slope shall be permitted to equal the street or highway grade.

406.5.4 Counter Slope. The counter slope of the gutter or street at the foot of curb ramp runs, blended transitions, and turning spaces shall be 1:20 maximum.

406.5.5 Clear Space. Beyond the bottom grade break, a clear space 48 inches (1220 mm) minimum by 48 inches (1220 mm) minimum shall be provided within the width of the pedestrian street crossing and wholly outside the parallel vehicle travel lane.

406.5.6 ~~406.3.2~~ Marking. If curbs adjacent to the ramp flares are painted, the painted surface shall extend along the flared portion of the curb.

406.5.7 ~~406.6~~ Location. Curb ramps and the flared sides of curb ramps shall be located so they do not project into vehicular traffic lanes, parking spaces, or parking access aisles. Curb ramps at marked crossings shall be wholly contained within the markings, excluding any flared sides.

406.5.9 ~~406.8~~ Obstructions. Curb ramps shall be located or protected to prevent their obstruction by parked vehicles.

406.5.10 ~~406.9~~ Handrails. Handrails shall not be required on curb ramps.

Add the following definitions:

blended transition. A raised pedestrian street crossing, depressed corner, or similar connection between the pedestrian access route at the level of the sidewalk and the level of the pedestrian street crossing that has a grade of 1:20 or less.

curb line. A line at the face of the curb that marks the transition between curb and the gutter, street or highway**.**

curb ramp. A short ramp cutting through a curb or built up to it. Curb ramps can be perpendicular or parallel, or a combination of parallel and perpendicular ramps.

grade break. The line where two surface planes with different grades meet.

4-42-12 PC1

Kim Paarlberg, representing International Code Council

Further revise as follows:

406.2.1 Turning Space. A turning space 48 inches (1220 mm) minimum by 48 inches (1220 mm) minimum shall be provided at the top of the curb ramp and shall be permitted to overlap other turning spaces and clear spaces. Where the turning space is constrained at the back-of-sidewalk, the turning space shall be 48 inches (1220 mm) minimum by 60 inches (1525 mm) minimum. The 60 inches (1525 mm) dimension shall be provided in the direction of the curb ramp run.

406.2.2 Running Slope. The running slope of the curb ramp shall cut through or shall be built up to the curb at right angles or shall meet the gutter grade break at right angles where the curb is curved. The running slope of the curb ramp shall be 1:20 minimum and 1:12 maximum. ~~but shall not require~~ The curb ramp run length shall not be required to exceed 15 feet (4570 mm). The running slope of the turning space shall be 1:48 maximum.

406.3.2 Running Slope. The running slope of the curb ramp shall be in-line with the direction of sidewalk travel. The running slope of the curb ramp shall be 1:20 minimum and 1:12 maximum. ~~but shall not require~~ The curb ramp run length shall not be required to exceed 15 feet (4570 mm) minimum. The running slope of the turning space shall be 1:48 maximum.

406.5.2 Grade Breaks. Grade breaks at the top and bottom of curb ramp runs shall be perpendicular to the direction of the curb ramp run. Grade breaks shall not be permitted on the surface of ramp runs and turning spaces. Surface slopes that meet at grade breaks shall be flush.

Balance of 4-42 remains unchanged.

Reason: The editorial committee identified some terminology issues. This is intended as a clarification only.

4-42-12 PC2

Larry Perry, representing self

Further revise as follows:

curb ramp. A short ramp cutting through a curb or built up to it. ~~Curb ramps can be perpendicular or parallel, or a combination of parallel and perpendicular ramps.~~

Balance of 4-42 remains unchanged.

Reason: Delete the added language. It intended to explain all the configurations possible, it is commentary and therefore not needed. If intended to prohibit configurations that are not perpendicular, parallel, or a combination thereof, it is introducing a requirement into a definition, which is not appropriate.

4-42-12 PC3

Hope Reed, representing New Mexico Governor's Commission of Disability; Robin Roberts, representing Accessibility Professionals Association.

Revise by adding new text as follows:

406.2.3 Flared Sides. Where a pedestrian circulation path crosses the curb ramp, flared sides shall be sloped 10 percent maximum, measured parallel to the curb line.

Balance of 4-42 remains unchanged

Reason:

REED: Proposal 4-42-12 appears to have missed the requirement for flared sides, add PROWAG text shown below:

> **R304.2.3 Flared Sides.** Where a pedestrian circulation path crosses the curb ramp, flared sides shall be sloped 10 percent maximum, measured parallel to the curb line.

ROBERTS: In following with the Access Board's Proposed Public Rights of Way standards, R304.2.3 provides the user the maximum slope of the flare and how it is measured for the locations referenced in the document. Additionally, the 2010 Standards at 406.3 also states that curb ramp flares cannot be more than 10% slope. Adding this section to the A117.1 be consistent with harmonizing the regulations.

4-42-12 PC4

Curt Wiehle, Minnesota Construction Codes and Licensing, representing self

Further revise as follows:

406.2.1 ~~Turning Space~~ Landing. A ~~turning space~~ landing 48 inches (1220 mm) minimum by 48 inches (1220 mm) minimum shall be provided at the top of the curb ramp and shall be permitted to overlap ~~other turning spaces~~ pedestrian routes and clear spaces. Where the ~~turning space~~ landing is constrained at the back-of-sidewalk, the ~~turning space~~ landing shall be 48 inches (1220 mm) minimum by 60 inches (1525 mm) minimum. The 60 inch~~es~~ (1525 mm) dimension shall be provided in the direction of the ramp run. The slope of the landing shall be 1:48 maximum in all directions.

406.2.2 Running Slope. The running slope of the curb ramp shall cut through or shall be built up to the curb at right angles or shall meet the gutter grade break at right angles where the curb is curved. The running slope of the curb ramp shall be 1:20 minimum and 1:12 maximum ~~but shall not require the ramp length to exceed 15 feet (4570 mm)~~. ~~The running slope of the turning space shall be 1:48 maximum.~~

406.3.1 ~~Turning Space~~ Landing. A ~~turning space~~ landing 48 inches (1220 mm) minimum by 48 inches (1220 mm) minimum shall be provided at the bottom of the curb ramp and shall be permitted to overlap ~~other turning spaces~~ pedestrian routes and clear spaces. Where the ~~turning space~~ landing is constrained on 2 or more sides, the ~~turning space~~ landing shall be 48 inches (1220 mm) minimum by 60 inches (1525 mm) minimum. The 60 inch~~es~~ (1525 mm) dimension shall be provided in the direction of the pedestrian street crossing. The slope of the landing shall be 1:48 maximum in all directions.

406.3.2 Running Slope. The running slope of the curb ramp shall be in-line with the direction of sidewalk travel. The running slope of the curb ramp shall be 1:20 minimum and 1:12 maximum ~~but shall not require the ramp length to exceed 15 feet (4570 mm)~~. minimum. ~~The running slope of the turning space shall be 1:48 maximum.~~

406.5.1 Width. The clear width of curb ramp runs (excluding any flared sides)~~,~~ and blended transitions~~, and turning spaces~~ shall be 48 inches (1220 mm) minimum.

406.5.2 Grade Breaks. Grade breaks at the top and bottom of curb ramp runs shall be perpendicular to the direction of the ramp run. Grade breaks shall not be permitted on the surface of ramp runs and ~~turning spaces~~ landings. Surface slopes that meet at grade breaks shall be flush.

406.5.3 Cross Slope. The cross slope of curb ramps~~,~~ and blended transitions~~, and turning spaces~~ shall be 1:48 maximum. At pedestrian street crossings without yield or stop control and at midblock pedestrian street crossings, the cross slope shall be permitted to equal the street or highway grade.

406.5.4 Counter Slope. The counter slope of the gutter or street at the foot of curb ramp runs, blended transitions, and ~~turning spaces~~ landings shall be 1:20 maximum.

Balance of 4-42 remains unchanged

Reason: The area at top and bottom of curb ramps should not be confused with a turning space. Maintain current curb ramp language which refers to this area as a landing.
Relocate the slope of the landing [turning space] requirement to the landing [turning space] sections.
Delete the reference to a maximum length of 15 feet as this implies that curbs can be 15 inches high.
The minimum size of the landing [turning space] has been addressed and does not need to be restated at Section 406.5.1.
The slope of the landing [turning space] has been addressed and does not need to be restated at Section 406.5.3.

4-42-12 PC5

Chad Beebe, representing American Society for Healthcare Engineering (ASHE)

Disapprove this change. Return the text to that found in existing standard.

Reason: In review of the 2014 Final Draft of the ICC A117.1 document, it has come to our attention that several of the proposed changes will have a significantly negative impact to the healthcare industry design/built environment of buildings designed under the 2015 IBC. Further, it is our understanding that the overwhelming majority of these changes have been derived from a single uncorroborated report which has neither been properly vetted nor adopted by any other credible agency or (similar) jurisdictional body.

As we do not feel these dramatic and substantial changes have been given proper and appropriate consideration by all interested stakeholders in this process, and since we question the authenticity of the underlying premise used to make such changes, we respectfully request they either be removed entirely from consideration in this draft, or that the entire draft adoption process be held in abeyance for a minimum of 12-months so that further collaboration can be conducted with all interested parties. If the Committee opts to delay this process for 12-months, it will be in keeping with the mission of the ICC, and best assure that all parties can be provided with the opportunity to reasonably participate in this process.

4-42-12 / 4-44-12 - The addition of large landings at both top and bottom of all curb ramps.
These new requirements would add thousands of required square feet to a new hospital and significantly impact any renovations to an existing hospital by requiring increased patient room sizes to meet the new requirements and thus, due to the fixed square footage within the building foot print, will reduce the number of allowable beds the hospital can maintain. With hospital construction cost averaging around $300.00 per square foot these additional increases in square footage will significantly impact the cost of construction. Thank you for your consideration of this request, and in keeping alive the goals and mandates of the entire ICC organization and membership.

4-42-12 PC6

Tony Ewalt, representing Sletten Construction of Nevada, Inc.; Michael Gentille, representing Philip Chun North America, Inc.; Michael McGettigan, representing Terracon Consultant; Robert W. Potter, Construction Company, representing Affordable Concepts; Eric J. Rowland, representing Rowland Design;

Disapprove this change. Return the text to that found in existing standard.

Reason: In review of the 2014 Final Draft of the ICC A117.1 document, it has come to my attention that several of the proposed changes (ratified by this Committee) will have a significantly negative impact to the design/built environment of buildings designed under the 2015 IBC. Further, it is my understanding that the overwhelming majority of these changes have been derived from a single uncorroborated report which has neither been properly vetted nor adopted by any other credible agency or (similar) jurisdictional body.

As I do not feel these dramatic and substantial changes have been given proper and appropriate consideration by all interested stakeholders in this process, and I question the authenticity of the underlying premise used to make such changes, I respectfully request they either be removed entirely from consideration in this draft, or that the entire draft adoption process be held in abeyance for a minimum of 12-months.

If the Committee opts to delay this process for 12-months, it will be in keeping with the mission of the ICC, and best assure that all parties can be provided with the opportunity to reasonably participate in this process.

4-42-12 PC7

Jeffrey T. O'Neill, representing self

Disapprove this change. Return the text to that found in existing standard.

Reason: See reason statement from Jeffrey O'Neill found under proposal 3-6-12.

4-42-12 PC8

Minh N. Vu; representing American Hotel and Lodging Association.

Disapprove this change. Return the text to that found in existing standard.

Comment: The American Hotel & Lodging Association (hereinafter, the "AH&LA") [1] opposes the proposal to increase the minimum width of curb ramps from 36" to 48" (section 406.5.1), and require a 48" turning radius at the top and bottom of curb ramps (Sections 406.2.1, 406.3.1) to increase the length of landings at the top of curb ramps from 36" to 48". The ANSI Committee has provided no justification for why this change is necessary. This proposal would substantially increase construction and renovation costs for the exterior accessible routes of lodging facilities for no apparent reason. In existing facilities, the proposed requirement would also require extensive re-landscaping of grounds and in some cases could not be implemented due to space restrictions.

To the extent that this proposal is based on the Access Board's proposal for public rights of way, AH&LA urges the ANSI Committee to wait until the Access Board completes its public rulemaking process. That process is still pending and enacting this proposed change now could result in inconsistency between ANSI A117.1 and the Access Board's public right of way rule.

The ANSI Committee should also reject this proposal because it would undermine the Committee's past efforts to harmonize the A117.1 Standard with the 2010 ADA Standards. As the ANSI Committee is well aware, for the first twenty (20) years of the Americans with Disabilities Act of 1990 (hereinafter, the "ADA"), the ANSI All7.1 Standard was not the same as the ADA Standards for Accessible Design adopted by the United States Department of Justice (hereinafter, the "DOJ"). The lack of harmonization caused a great deal of confusion among owners of public accommodations and commercial facilities who had to comply with building code and ADA requirements which differed. In September 2010, the DOJ issued the 2010 Standards which was the culmination of an effort by the ANSI Committee and the Access Board to harmonize the ANSI A117.1 Standard with the ADA 2010 Standards. The ADA 2010 Standards just took effect on March 15, 2012.

If the ANSI Committee is unwilling to postpone the adoption of these proposals for further study, it should, at a minimum, limit their application to facilities constructed after a jurisdiction adopts the changes. As can be seen throughout the preceding discussion, the proposed changes -- once they are adopted by jurisdictions as part of their building codes -- will be particularly problematic for existing facilities that will have to comply with them in future renovations. In most instances, lodging facility owners will face three alternatives: (1) comply with the new requirements by making extensive changes to their exterior routes upon renovation; (2) attempt to obtain a variance from local building officials assuming such a process is available; or (3) not renovate. All options are highly undesirable. The first two options involve substantial cost and uncertainty while the third option would actually undermine accessibility by causing owners to defer or not make renovations that may improve access.

1. The American Hotel & Lodging Association is a membership organization that represents the interests of every segment of the lodging industry, including REITs, brand, franchisee, management companies, independent property owners, and state associations.

4-44– 12

Revise as follows:

406.12 Detectable Warnings at Raised Marked Crossings. ~~Marked crossings that are raised to the same level as the adjoining sidewalk shall be preceded by a detectable warning 24 inches (610 mm) in depth complying with Section 705. The detectable warning shall extend the full width of the marked crossing.~~

406.12 Where detectable warnings are required. Detectable warning surfaces complying with Section 705 shall be provided at the following locations on pedestrian access routes and at transit stops:

1. Curb ramps and blended transitions at pedestrian street crossings;

2. Pedestrian refuge islands;

3. Pedestrian at-grade rail crossings not located within a street or highway;

4. Boarding platforms at transit stops for buses and rail vehicles where the edges of the boarding platform are not protected by screens or guards; and

5. Boarding and alighting areas at sidewalk or street level transit stops for rail vehicles where the side of the boarding and alighting areas facing the rail vehicles is not protected by screens or guards.

Exception: Detectable warning surfaces are not required at pedestrian refuge islands that are cut-through at street level and are less than 6 feet (1830 mm) in length in the direction of pedestrian travel.

~~**406.13 Detectable Warnings at Curb Ramps.** Where detectable warnings are provided on curb ramps, they shall comply with Sections 406.13 and 705.~~

~~**406.13.1 Area Covered.** Detectable warnings shall be 24 inches (610 mm) minimum in depth in the direction of travel. The detectable warning shall extend the full width of the curb ramp or flush surface.~~

~~**406.13.2 Location.** The detectable warning shall be located so the edge nearest the curb line is 6 inches (150 mm) minimum and 8 inches (205 mm) maximum from the curb line.~~

~~**406.14 Detectable Warnings at Islands or Cut-through Medians.** Where detectable warnings are provided on curb ramps or at raised marked crossings leading to islands or cut-through medians, the island or cut-through median shall be provided with detectable warnings complying with Section 705, that are 24 inches (610 mm) in depth, and extend the full width of the pedestrian route or cut-through. Where such island or cut-through median is less than 48 inches (1220 mm) in depth, the entire width and depth of the pedestrian route or cut-through shall have detectable warnings.~~

705.6 Size. Detectable warning surfaces shall extend 24 inches (610 mm) minimum in the direction of pedestrian travel. At curb ramps and blended transitions, detectable warning surfaces shall extend the full width of the curb ramp run excluding any flared sides or blended transition. At pedestrian at-grade rail crossings not located within a street or highway, detectable warnings shall extend the full width of the crossing. At boarding platforms for buses and rail vehicles, detectable warning surfaces shall extend the full length of the public use areas of the platform. At boarding and alighting areas at sidewalk or street level transit stops for rail vehicles, detectable warning surfaces shall extend the full length of the transit stop.

705.7 Placement. The placement of detectable warning surfaces shall comply with Section 705.7.

705.7.1 Perpendicular Curb Ramps. On perpendicular curb ramps, detectable warning surfaces shall be placed as follows:

1. Where the ends of the bottom grade break are in front of the back of curb, detectable warning surfaces shall be placed at the back of curb.

2. Where the ends of the bottom grade break are behind the back of curb and the distance from either end of the bottom grade brake to the back of curb is 60 inches (1525 mm) or less,

detectable warning surfaces shall be placed on the ramp run within one dome spacing of the bottom grade break.

3. Where the ends of the bottom grade break are behind the back of curb and the distance from either end of the bottom grade brake to the back of curb is more than 60 inches (1525 mm), detectable warning surfaces shall be placed on the lower landing at the back of curb.

705.7.2 Parallel Curb Ramps. On parallel curb ramps, detectable warning surfaces shall be placed on the turning space at the flush transition between the street and sidewalk.

705.7.3 Blended Transitions. On blended transitions, detectable warning surfaces shall be placed at the back of curb. Where raised pedestrian street crossings, depressed corners, or other level pedestrian street crossings are provided, detectable warning surfaces shall be placed at the flush transition between the street and the sidewalk.

705.7.4 Pedestrian Refuge Islands. At cut-through pedestrian refuge islands, detectable warning surfaces shall be placed at the edges of the pedestrian island and shall be separated by a 24 inches (610 mm) minimum length of surface without detectable warnings.

705.7.5 Pedestrian At-Grade Rail Crossings. At pedestrian at-grade rail crossings not located within a street or highway, detectable warning surfaces shall be placed on each side of the rail crossing. The edge of the detectable warning surface nearest the rail crossing shall be 72 inches (1830) minimum and 15 feet (4570 mm) maximum from the centerline of the nearest rail. Where pedestrian gates are provided, detectable warning surfaces shall be placed on the side of the gates opposite the rail.

705.7.6 Boarding Platforms. At boarding platforms for buses and rail vehicles, detectable warning surfaces shall be placed at the boarding edge of the platform.

705.7.7 Boarding and Alighting Areas. At boarding and alighting areas at sidewalk or street level transit stops for rail vehicles, detectable warning surfaces shall be placed at the side of the boarding and alighting area facing the rail vehicles.

805.10 Track Crossings. Where a circulation path crosses tracks, it shall comply with Section 402 and shall have a detectable warning ~~24 inches (610 mm) in depth~~ complying with Section 705 ~~extending the full width of the circulation path. The detectable warning surface shall be located so that the edge nearest the rail crossing is 6 foot (1830 mm) minimum and 15 foot (4570 mm) maximum from the centerline of the nearest rail.~~

EXCEPTION: Openings for wheel flanges shall be permitted to be $2^1/_2$ inches (64 mm) maximum.

4-44-12 PC1

Harold Kiewel, representing self

Comment: The question for the Exception to Article 406.12 is when is a mid-street "island" not a safe "refuge?" For me, if the island is not a real destination of its own, then it shouldn't be considered a place of refuge. If the island is part of a walkable park, has a news-stand, or some kind of public use then perhaps it could be marked as pedestrian safe zone. If the primary purpose of the island is vehicular traffic control it should be treated as part of the street. See further information at 1-1-12.

4-44-12 PC2

Karen Gridley, representing Target Corporation

Further revise as follows:

~~**406.12 Where detectable warnings are required.** Detectable warning surfaces complying with Section 705 shall be provided at the following locations on pedestrian access routes and at transit stops:~~

~~**1.** Curb ramps and blended transitions at pedestrian street crossings;~~

~~**2.** Pedestrian refuge islands;~~

~~**3.** Pedestrian at-grade rail crossings not located within a street or highway;~~

~~**4.** Boarding platforms at transit stops for buses and rail vehicles where the edges of the boarding platform are not protected by screens or guards; and~~

~~**5.** Boarding and alighting areas at sidewalk or street level transit stops for rail vehicles where the side of the boarding and alighting areas facing the rail vehicles is not protected by screens or guards.~~

~~**Exception:** Detectable warning surfaces are not required at pedestrian refuge islands that are cut-through at street level and are less than 6 feet (1830 mm) in length in the direction of pedestrian travel~~.

Balance of 4-44-12 remains unchanged.

Reason: The proposed language of 406.12 is scoping language and should not be included in the technical criteria of the A117.1 Standard. Per Chapter 2 of A117.1 it is made clear that "*This standard provides technical criteria…*" and, "*The administrative authority shall provide scoping provisions to specify the extent to which these technical criteria apply*."

Also, the Access Board has gone to great lengths to relocate the requirement for detectable warnings out of the 2010 ADA Standards and into rulemaking on the public-right-of way, clarifying that detectable warnings are not required at buildings or facilities covered by Title II and Title III, and that detectable warnings are only intended to be provided within the public right-of-way at specific pedestrian access route locations.

If this proposed scoping language is included in the new A117.1 Standard it will again effectively require detectable warnings at buildings or facilities covered by Title II and Title III, which is in conflict with the action taken on relocating the scoping requirement into public right-of-way rulemaking, and bring A117.1 out of harmonization with the new 2010 ADA Standards.

4-44-12 PC3

Karen Gridley, representing Target Corporation

Further revise as follows:

406.12 Where detectable warnings are required. Detectable warning surfaces complying with Section 705 shall be provided at the following locations on pedestrian access routes within the public right-of-way and at transit stops:

1. Curb ramps and blended transitions at pedestrian street crossings;

2. Pedestrian refuge islands;

3. Pedestrian at-grade rail crossings not located within a street or highway;

4. Boarding platforms at transit stops for buses and rail vehicles where the edges of the boarding platform are not protected by screens or guards; and

5. Boarding and alighting areas at sidewalk or street level transit stops for rail vehicles where the side of the boarding and alighting areas facing the rail vehicles is not protected by screens or guards.

Exception: Detectable warning surfaces are not required at pedestrian refuge islands that are cut-through at street level and are less than 6 feet (1830 mm) in length in the direction of pedestrian travel

Balance of 4-44-12 remains unchanged.

Reason: Per our other public comment on the same item, Target does not support the addition of this section of proposed scoping language. However, if the Committee approves the inclusion of this new scoping language for detectable warnings, additional clarifying language should be added indicating the requirement is only for detectable warnings located within the Public Right-of-Way in order to maintain consistency and harmonization with the action taken by the Access Board for other Federal rulemaking, providing much needed clarity for enforcement officials.

The proposed language of 406.12 is scoping language and should not be included in the technical criteria of the A117.1 Standard. Per Chapter 2 of A117.1 it is made clear that "*This standard provides technical criteria…*" and, "*The administrative authority shall provide scoping provisions to specify the extent to which these technical criteria apply.*"

The Access Board has gone to great lengths to relocate the requirement for detectable warnings out of the 2010 ADA Standards and into rulemaking on the public-right-of way, clarifying that detectable warnings are not required at buildings or facilities covered by Title II and Title III, and that detectable warnings are only intended to be provided within the public right-of-way at specific pedestrian access route locations.

If this proposed scoping language is included in the new A117.1 Standard, it will again effectively require detectable warnings at buildings or facilities covered by Title II and Title III, which is in conflict with the action taken on relocating the scoping requirement into public right-of-way rulemaking, and brings A117.1 out of harmonization with the new 2010 ADA Standards.

4-44-12 PC4

Jean Tessmer, representing self.

Further revise as follows:

705.6 Size. Detectable warning surfaces shall extend 0 ~~24~~ inches (~~610~~ mm) minimum in the direction of pedestrian travel. At curb ramps and blended transitions, detectable warning surfaces shall extend the full width of the curb ramp run excluding any flared sides or blended transition. At pedestrian at-grade rail crossings not located within a street or highway, detectable warnings shall extend the full width of the crossing. At boarding platforms for buses and rail vehicles, detectable warning surfaces shall extend the full length of the public use areas of the platform. At boarding and alighting areas at sidewalk or street level transit stops for rail vehicles, detectable warning surfaces shall extend the full length of the transit stop.

Reason: Detectable warnings are hazardous to the elderly and ambulatory persons. They have caused trips and falls and serious permanent debilitating injury. Children are prone to falling face first on hard surfaces while running what if they fell face first on a dome. DOT my comments on DW's I believe there are also photos. There needs to be a non-hazardous alternative to the domes. The doctor said it was like the person was hit on the head with a hammer when they fell on the domes.

4-44-12 PC5

Curt Wiehle, Minnesota Construction Codes and Licensing, representing self

Further revise as follows:

406.11 Detectable Warnings. Where detectable warnings are provided they shall comply with Section 705 as applicable. ~~**Where detectable warnings are required.** Detectable warning surfaces complying with Section 705 shall be provided at the following locations on pedestrian access routes and at transit stops:~~

1. ~~Curb ramps and blended transitions at pedestrian street crossings;~~
2. ~~Pedestrian refuge islands;~~
3. ~~Pedestrian at-grade rail crossings not located within a street or highway;~~
4. ~~Boarding platforms at transit stops for buses and rail vehicles where the edges of the boarding platform are not protected by screens or guards; and~~
5. ~~Boarding and alighting areas at sidewalk or street level transit stops for rail vehicles where the side of the boarding and alighting areas facing the rail vehicles is not protected by screens or guards.~~

~~**Exception:** Detectable warning surfaces are not required at pedestrian refuge islands that are cut-through at street level and are less than 6 feet (1830 mm) in length in the direction of pedestrian travel.~~

Reason: This is scoping and is not appropriate for the standard.

4-44-12 PC6

Chad Beebe, – representing American Society for Healthcare Engineering (ASHE)

Disapprove this change. Return the text to that found in existing standard.

Reason: In review of the 2014 Final Draft of the ICC A117.1 document, it has come to our attention that several of the proposed changes will have a significantly negative impact to the healthcare industry design/built environment of buildings designed under the 2015 IBC. Further, it is our understanding that the overwhelming majority of these changes have been derived from a single uncorroborated report which has neither been properly vetted nor adopted by any other credible agency or (similar) jurisdictional body.

As we do not feel these dramatic and substantial changes have been given proper and appropriate consideration by all interested stakeholders in this process, and since we question the authenticity of the underlying premise used to make such changes, we respectfully request they either be removed entirely from consideration in this draft, or that the entire draft adoption process be held in abeyance for a minimum of 12-months so that further collaboration can be conducted with all interested parties. If the Committee opts to delay this process for 12-months, it will be in keeping with the mission of the ICC, and best assure that all parties can be provided with the opportunity to reasonably participate in this process.

4-42-12 / 4-44-12 - The addition of large landings at both top and bottom of all curb ramps.
These new requirements would add thousands of required square feet to a new hospital and significantly impact any renovations to an existing hospital by requiring increased patient room sizes to meet the new requirements and thus, due to the fixed square footage within the building foot print, will reduce the number of allowable beds the hospital can maintain. With hospital construction cost averaging around $300.00 per square foot these additional increases in square footage will significantly impact the cost of construction. Thank you for your consideration of this request, and in keeping alive the goals and mandates of the entire ICC organization and membership.

4-44-12 PC7

Tony Ewalt, representing Sletten Construction of Nevada, Inc.; Michael Gentille, representing Philip Chun North America, Inc.; Michael McGettigan, representing Terracon Consultant; Robert W. Potter, Construction Company, representing Affordable Concepts; Eric J. Rowland, representing Rowland Design;

Disapprove this change. Return the text to that found in existing standard.

Reason: In review of the 2014 Final Draft of the ICC A117.1 document, it has come to my attention that several of the proposed changes (ratified by this Committee) will have a significantly negative impact to the design/built environment of buildings designed under the 2015 IBC. Further, it is my understanding that the overwhelming majority of these changes have been derived from a single uncorroborated report which has neither been properly vetted nor adopted by any other credible agency or (similar) jurisdictional body.

As I do not feel these dramatic and substantial changes have been given proper and appropriate consideration by all interested stakeholders in this process, and I question the authenticity of the underlying premise used to make such changes, **I** respectfully request they either be removed entirely from consideration in this draft, or that the entire draft adoption process be held in abeyance for a minimum of 12-months.

If the Committee opts to delay this process for 12-months, it will be in keeping with the mission of the ICC, and best assure that all parties can be provided with the opportunity to reasonably participate in this process.

4-44-12 PC8

Jeffrey T. O'Neill, representing self

Disapprove this change. Return the text to that found in existing standard.

Reason: See reason statement from Jeffrey O'Neill found under proposal 3-6-12.

4-49– 12

Revise as follows:

407.4.6.1 Location. Controls shall be located within one of the reach ranges specified in Section 308.

EXCEPTIONS:

1. Where the elevator panel complies with Section 407.4.8.

2. In existing elevators, where a parallel approach is provided to the controls, car control buttons with floor designations shall be permitted to be located 54 inches (1370 mm) maximum above the floor. Where the panel is changed, it shall comply with Section ~~407.4.6.1~~ 308.

4-49-12 PC1

Harold Kiewel, representing self

Further revise as follows:

407.4.6.1 Elevator Control Location. Controls shall be ~~located~~ centered on one edge of the clear floor space that served them and within ~~one of~~ the appropriate reach ~~ranges~~ range limits specified in Section 308.

EXCEPTIONS:

1. Where the elevator panel complies with Section 407.4.8.
2. In existing elevators, where a parallel approach is provided to the controls, car control buttons with floor designations shall be permitted to be located 54 inches (1370 mm) maximum above the floor. Where the panel is changed, it shall comply with Section 308.

Reason: See general information from Mr. Kiewel at 1-1-12.

4-49-12 PC2

Kim Paarlberg, representing International Code Council

Further revise as follows:

407.4.6.1 Location. Controls shall be located within one of the reach ranges specified in Section 308.

EXCEPTIONS:

1. Where the elevator panel complies with Section 407.4.8.

2. In existing elevators, where a parallel approach is provided to the controls, car control buttons with floor designations shall be permitted to be located 54 inches (1370 mm) maximum above the floor. Where the panel is changed, ~~it shall comply with Section 308~~ for the operable parts on the panel, the high reach shall be 48 inches (1220 mm) maximum and the low forward reach shall be 15 inches (380 mm) minimum above the floor. (4-49-12)

~~**407.4.10.1**~~ **407.4.10.2 Height.** The highest operable part of a two-way communication system shall ~~comply with Section 308~~ be located to have the high reach of 48 inches (1220 mm) maximum and the low forward reach shall be 15 inches (380 mm) minimum above the floor..

408.4.6 Elevator Car Controls. Elevator car controls shall comply with Section 407.4.6. Control panels shall be centered on a side wall.

Reason: Existing elevators may not be able to get all control panels within the new forward reach. In addition, the emergency phone may not be within the new forward reach range. I want input from the industry. LULA's get the same requirements by reference to the elevator provisions.

4-50– 12

Revise as follows:

407.4.6.2.2 Arrangement. Buttons shall be arranged with numbers in ascending order. ~~Floors shall be designated . . . -4, -3, -2, -1, 0, 1, 2, 3, 4, etcetera, with floors below the main entry floor designated with minus numbers. Numbers shall be permitted to be omitted, provided the remaining numbers are in sequence. Where a telephone keypad arrangement is used, the number key ("#") shall be utilized to enter the minus symbol ("-").~~ When two or more columns of buttons are provided they shall read from left to right.

407.4.7.1.2 Designation. Floors shall be designated . . . -4, -3, -2, -1, 0, 1, 2, 3, 4, etcetera, with floors below the main entry floor designated with minus numbers. Numbers shall be permitted to be omitted, provided the remaining numbers are in sequence. Where a telephone keypad arrangement is used, the number key ("#") shall be utilized to enter the minus symbol ("-"). Ancillary letters shall be permitted to be used in conjunction with the numbers provided the letters are located to the right of the numbers and not more than two letters are used for each floor designation.

4-50-12 PC1

Harold Kiewel, representing self

Further revise as follows:

407.4.6.2.2 Arrangement. Buttons shall be arranged with numbers in ascending order. When two or more columns of buttons are provided they shall read from left to right.

407.4.7.1.2 Floor Designation. Floors shall be designated . . . -4, -3, -2, -1, 0, 1, 2, 3, 4, etcetera, with floors below the main entry floor designated with minus numbers. Numbers shall be permitted to be omitted, provided the remaining numbers are in sequence. Where a telephone keypad arrangement is used, the number key ("#") shall be utilized to enter the minus symbol ("-"). Ancillary letters shall be permitted to be used in conjunction with the numbers provided the letters are located to the right of the numbers and not more than two letters are used for each floor designation.

Reason: This is very sophisticated and highly restrictive system that although technically correct is not at all consistent with common knowledge – one of the fundamentals of Universal Design. Most Americans expect that they walk into a building on the first floor, and go up to the second or down to the basement.

They will resist thinking of the ground level as Floor Zero; this only makes sense on a number line where 0 is only a point on a line and has no dimension. Where this theoretical 0 point or 0 level has, in common perception, a whole floor of building with an area, and probably a 3-dimensional volume as its descriptor – the point on a line definition falls apart. Hospitality facilities will have lobbies, lounges, conference centers in these prominent locations and refuse to designate them as the zero level. Not to mention all the negative connotations of "minus" numbers for subterranean levels. Who, besides the authors of this Standard, will know that the pound-key (#) means minus (-)?

See additional information from Mr. Kiewel at 1-1-12.

4-54– 12

407.4.10 Emergency communications. Visual and audible emergency two-way communication systems between the elevator car and a point outside the hoistway shall comply with Section 407.4.10 and ASME A17.1/CSA B44 listed in Section 105.2.5 and provide a two-way visual communication device.

407.4.10.1 Visual Display Device shall be provided for two-way visual communication to be activated by the elevator occupant. Visual communication devices shall consist of a key pad and monitor to enable text based or sign-language communication provided through a certified Visual relay Service.

4-54-12 PC1

Kim Paarlberg, representing International Code Council

Disapprove this change. Return the text to that found in existing standard.

Reason: Due to the requirements for access to the call buttons, the two way communication system in elevators is typically in a box down near the floor. Some two way communication are to remote sites. I do not see how this location would work with a key pad or a sign language system.

4-54-12 PC2

Harold Kiewel, representing self

Disapprove this change. Return the text to that found in existing standard.

Comment: OMG ! Has this technology been proofed, staffed up, made vandal resistant, and cheap enough that a hotelier in Wall, SD, with an annualized occupancy rate of 60-precent of his 50 rooms, can make this commitment to the American public?

4-54-12 PC3

Minh N. Vu; representing American Hotel and Lodging Association.

Disapprove this change. Return the text to that found in existing standard.

Reason: The American Hotel and Lodging Association(hereinafter, "AH&LA")opposes the proposed new requirement for a visual display device that allows for text-based or sign language communication through relay services in every elevator car. (Sections 407.4.10 and 407.4.10.1). To meet this requirement lodging facility owners would have to install a TTY device that is connected to a phone line that can be used to call a relay service and a videophone that is connected to a phone line which can be used to call a relay service that is staffed with operators who know sign language. This proposal must be rejected for at least three reasons.

First, it is unclear whether this technology even exists for elevators, or whether there is enough room in the elevator panel for this equipment. Second, the cost of providing and maintaining these visual display devices would be high because they would be prone to vandalism and misuse. Third, and most importantly, a requirement for this device would conflict with the ASME A17.1/CSA B44-13 Safety Code for Elevators and Escalators. A17.1//B44 requires the emergency communication system in elevator cars to call authorized personnel who can take appropriate action with respect to the elevator emergency and communicate the proper building location and elevator number to such personnel. (See Sec. A17.1/B44 227.1.13). Having a visual display device which allows a deaf person to call a relay operator is not consistent with these requirements and, more importantly, would not help deaf passengers. If a deaf passenger were to call a relay operator, the passenger would have no idea what elevator he was in and the relay operator would not know who to call to get help.

For all the above reasons, the ANSI Committee should reject this proposal.

4-56– 12

Revise as follows:

408.4.1 Inside Dimensions. Elevator cars shall provide a clear floor width of 42 inches (1065 mm) minimum. The clear floor area shall not be less than 15.75 square feet (1.46 m^2). The elevator car shall provide a clear floor space complying with Section 305.3.

EXCEPTIONS:

1. For installations in existing buildings, elevator cars that provide a clear floor area of 15 square feet (1.4 m^2) minimum, and provide a clear inside dimension of 36 inches (915 mm) minimum in width and 54 inches (1370 mm) minimum in depth, shall be permitted. This exception shall not apply to cars with doors on adjacent sides.

2. For installations in existing buildings, cars that provide a clear width 51 inches (1295 mm) minimum shall be permitted to provide a clear depth 51 inches (1295 mm) minimum provided that car doors provide a clear opening 36 inches (915 mm) wide minimum.

4-56-12 PC1

Harold Kiewel, representing self

Comment: The problem with small elevators that do not provide full turning space is reaching the control panel. In pass-through designs the controls should be either on the near side-wall or on both door return panels. In front-access only designs the control panel should be centered on the strike-jamb side wall. Elevators with doors in two adjoining walls should be required to have turning space.

Also, two-stop, automatic, passenger-elevators should know where you're going; when you enter the car, the controller should register a call for the other landing automatically. For general comments from Mr. Kiewel see 1-1-12.

4-56-12 PC2

Ron Burton, PTW Advisors LLC, representing Building Owners and Managers Association, International; David S. Collins, The Preview Group, representing American Institute of Architects (AIA); Ron Nickson, representing the National Multi-housing Council; Steve Orlowski, representing the National Association of Home Builders; Kim Paarlberg, representing International Code Council

See comment under 3-6-12 PC2

Chapter 5

5-1– 12

Revise as follows:

502.1 General. Accessible car and van parking spaces in parking lots shall comply with ~~Section 502~~ Sections 502.2 through 502.8. Accessible car and van parking spaces provided as part of on-street parking shall comply with Sections 502.9 through 502.10.

502.9 Parallel Parking Spaces. On-street parallel parking spaces shall comply with Section 502.9.1. On-street perpendicular of angled parking shall comply with Section 502.9.2.

502.9.1 Wide Sidewalks. Where the width of the adjacent sidewalk or available right-of-way exceeds 14 feet (4270 mm), an access aisle 60 inches (1525 mm) wide minimum shall be provided at street level the full length of the parking space and shall connect to a pedestrian access route. The access aisle shall comply with Section 502.4 and shall not encroach on the vehicular travel lane.

502.9.1.1 Alterations. In alterations where the street or sidewalk adjacent to the parking spaces is not altered, an access aisle shall not be required provided the parking spaces are located at the end of the block face.

502.9.1.2 Narrow Sidewalks. An access aisle is not required where the width of the adjacent sidewalk or the available right-of-way is less than or equal to 14 feet (4270 mm). Where an access aisle is not provided, the parking spaces shall be located at the end of the block face.

502.9.2 Perpendicular or Angled Parking Spaces. Where perpendicular or angled parking is provided, an access aisle 96 inches (2440 mm) wide minimum shall be provided at street level the full length of the parking space and shall connect to a pedestrian access route. The access aisle shall comply with Section 502.4 and shall be marked so as to discourage parking in the access aisle. Two parking spaces are permitted to share a common access aisle.

502.10 Parking Meters and Parking Pay Stations. Parking meters and parking pay stations that serve accessible parking spaces shall comply with Section 309.

502.10.1 Location. At accessible parallel parking spaces, parking meters shall be located at the head or foot of the parking space.

502.10.2 Displays and Information. Displays and information shall be visible from a point located 40 inches (1015 mm) maximum above the center of the clear space in front of the parking meter or parking pay station.

5-1-12 PC1

Harold Kiewel, representing self

Further revise as follows:

502.1 General. Accessible car and van parking spaces in parking lots and structures shall comply with Sections 502.2 through 502.8. Accessible car and van parking spaces provided as part of on-street parking shall comply with Sections 502.9 through 502.10.

502.9.1.1 ~~Alterations~~ Exceptions. In alterations where the street or sidewalk adjacent to the parking spaces is not altered, an access aisle shall not be required provided the parking spaces are located at the end of the block face.

~~502.9.1.2~~ **502.9.2 Narrow Sidewalks.** An access aisle is not required where the width of the adjacent sidewalk or the available right-of-way is less than or equal to 14 feet (4270 mm). Where an access aisle is not provided, the parking spaces shall be located at the end of the block face.

~~502.9.2~~ **502.9.3 Perpendicular or Angled Parking Spaces.** Where perpendicular or angled parking is provided, an access aisle 96 inches (2440 mm) wide minimum shall be provided at street level the full length of the parking space and shall connect to a pedestrian access route. The access aisle shall comply with Section 502.4 and shall be marked so as to discourage parking in the access aisle. ~~Two parking spaces are permitted to share a common access aisle.~~

Comments and Reason: Curb-side, parallel parking spaces are not accessible, unless they meet the very rare and special conditions outlined in Article 502.9.1 "Wide Sidewalks." 502.9.1 Did you mean 67-inches? An access-aisle can only be shared when the driver can choose between driving into the parking space either forwards or backwards (in order place the side of the vehicle used by the disabled person against the access-aisle.

This choice is rarely available except in parking lots with 2-way drive aisles and perpendicular parking. Angled parking always excludes this choice.

502.10.1 Location. The language here needs to clarify the difference between rules for a pay-station which serves multiple spaces, a two-headed meter which serves a pair of adjoining spaces and a meter which serves a specific space.

Also see Mr. Kiewel's general comments at 1-1-12.

5-1-12 PC2

Kim Paarlberg, representing ICC

Further revise as follows:

502.9.1 Wide Sidewalks. Where the width of the adjacent sidewalk or available right-of-way exceeds 14 feet (4270 mm), an access aisle ~~60~~ 67 inches (~~1525~~ 1700 mm) wide minimum shall be provided at street level the full length of the parking space and shall connect to a pedestrian access route. The access aisle shall comply with Section 502.4 and shall not encroach on the vehicular travel lane.

(portions of proposal not shown remain unchanged)

Reason: If parking lots need a 67 inch access aisle, it seems like the street parking access aisle should be the same.

5-1-12 PC3

Robin Roberts, Chair, Technical Standards Committee, representing Accessibility Professionals Association

Add new text as follows:

502.9.3. Curb Ramps or Blended Transitions. Curb ramps or blended transitions complying with Section 406 shall connect the access aisle to the pedestrian access route. Curb ramps shall not be located within the access aisle.

Reason: In following with the Access Board's Proposed Public Rights of Way standards, R309.4 provides the user the requirement that a curb ramp or blended transition must be provided at the access aisle. This section should be included with the remainder of 502.

5-8 – 12

Revise as follows:

503.3.3 Length. Access aisles shall be extend the full length of the vehicle pull-up *spaces* they serve. ~~20 feet (6100 mm) minimum in length.~~

5-8-12 PC1

Gene Boecker, Code Consultants, Inc, representing National Association of Theatre Owners

Further revise as follows:

503.3.3 Length. Access aisles shall ~~be~~ extend 18 feet (5485 mm) minimum in length but not less than the full length of the vehicle pull-up *spaces* they serve.

Reason: The prior text indicated a length not less than 20 feet. The proposal removed that and simply requires the length to be not less than the length of the parking space. Nothing in the standard or scoping documents requires the passenger loading to be parallel to the curb. The minimum standard parking space length is 18 feet for 90 degree (head-in/head-out) loading. If no minimum is provided the length could be based on the assumed compact car size spaces which could be only 15 feet in length. Since vehicles used for accessibility needs tend to be larger vehicles, some minimum should be included so that a reasonable length is provided in an area where the pull-up space position is not known. It is necessary to make sure that the vehicle space is adequate for its intended use. If the space is greater than 18 feet or 20 feet, the additional text will address that condition. Otherwise, the passenger loading zoen could be relegated to compact sizes and inadequate for the needs of the users.

A search of records from various states indicate that the following is fairly standard for lengths of vehicle parking spaces.

DIMENSIONS FOR STANDARD PARKING SPACES AND AISLES

Parking Angle	Space Width	Space Length	Aisle Width		Width at Curb
			(1-way)	(2-way)	
90°	9'	18'0"	24'0"	24'0"	9'0"
60°	9'	21'0"	18'0"	20'0"	10'5"
45°	9'	19'10"	15'0"	20'0"	12'9"
30°	9'	16'10"	12'0"	20'0"	18'0"
Parallel	8'	24'0"	12'0"	24'0"	n/a

DIMENSIONS FOR COMPACT PARKING SPACES AND AISLES

Parking Angle	Space Width	Space Length	Aisle Width		Width at Curb
			(1-way)	(2-way)	
90°	8'	15'0"	24'0"	24'0"	8'0"
60°	8'	16'8"	18'0"	20'0"	9'3"
45°	8'	16'6"	15'0"	20'0"	11'4"
30°	8'	14'0"	12'0"	20'0"	16'0"
Parallel	7'	21'0"	12'0"	24'0"	n/a

5-13– 12

Revise as follows:

504.5.1 Visual contrast. The leading 2 inches (51 mm) of the landing and tread shall have visual contrast of dark on-light or light-on-dark from the remainder of the tread.

5-13-12 PC1

Allan B. Fraser, representing self

Delete and substitute as follows:

~~**504.5.1 Visual contrast.** The leading 2 inches (51 mm) of the landing and tread shall have visual contrast of dark on-light or light-on-dark from the remainder of the tread.~~

504.5.1 Visual contrast.

505.5.1.1 Every tread and landing shall have two surface colors for visual contrast, dark on-light or light-on dark.

505.5.1.2 The contrasting color of the leading edge of the tread or landing shall:

a. Extend the full width of the tread or landing,
b. Start at a line 2 inches (51 mm) back from the furthest point of the nosing and,
c. Extend on the tread or landing toward the nosing, perpendicular to the path of travel, continuing to cover the profile of the nosing and down the riser until the color has extended 3 inches (75 mm) from the start line.

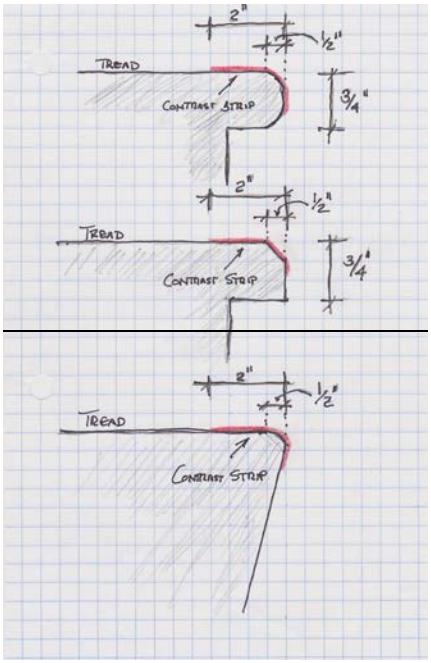


FIGURE 504.1

Reason: The concept in Proposal 5-13-13 has great merit, but the committee was unable to agree on adequate language to describe the contrasting edge stripe so that it is clear as to what is required. The proposed language and figure do that.

5-16 – 12

Revise as follows:

504.9 ~~Stair Level Identification~~ Tactile signage within the stairway enclosure. Stair level identification signs in raised characters and braille complying with Sections 703.3 and 703.4 shall be located at each floor level landing in all enclosed stairways adjacent to the door leading from the stairwell into the corridor to identify the floor level. The exit door discharging to the outside or to the level of exit discharge shall have a sign with raised characters and braille stating "EXIT."

504.10 Tactile signage at exits. A sign stating EXIT in raised characters and Braille and complying with Sections 703.3 and 703.4 shall be provided adjacent to each door to an *area of refuge*, an exterior area for assisted rescue, an *exit stairway*, an *exit ramp*, an *exit passageway* and the *exit discharge*.

5-16-12 PC1

Christopher G. Bell, representing American Council of the Blind

Comment: ACB is concerned that 504.9 & 504.10 only require signage which is tactile, and in braille. There is no cross-reference whether such signage is required to satisfy the BSF LRV standard provided for in Chapter 7. There are many different ways that 504.9 &504.10 could be amended to make clear that the reference signage must also provide sufficient contrast. Revisions could also be made to proposal number 7-1– 12

To rectify this issue. ACB is not providing a proposed revision to solve these issues because there are so many possible ways by which this issue could be addressed. However, ACB strongly believes that the signage referenced in 504.9 & 504.10 must have the requisite contrasting colors for the text.

5-22– 12

Revise as follows:

506.1 General. Where operable ~~Accessible~~ windows are provided in an accessible room or space, at least one shall be accessible and have operable parts complying with Section 309. Where operable windows required to provide natural ventilation or operable windows are required to provide an emergency escape and rescue openings that window shall be the accessible operable window.

EXCEPTIONS:

1. Operable windows that are operated only by employees are not required to comply with this section.

2. Operable windows in Type A units that comply with Section 1003.13.

3. Operable skylights are not required to comply with this section.

506.2 Opening force. The opening force for opening operable windows shall be as follows:

1. 8.5 pounds (37.7 N) maximum for casement or horizontal sliding windows
2. 25 pounds (111 N) maximum for double hung windows

1002.9 Operable Parts. Lighting controls, electrical panelboards, electrical switches and receptacle outlets, environmental controls, appliance controls, ~~operating hardware for operable windows,~~ plumbing fixture controls, and user controls for security or intercom systems shall comply with Section 309.

EXCEPTIONS:
(Exceptions are not changed)

1002.13 Windows. Operable windows shall comply with Section ~~1002.13~~ 506.1.

EXCEPTIONS:

1. Windows in kitchens are not required to comply with this section.
2. Windows in bathrooms are not required to comply with this section.

~~**1002.13.1 Natural ventilation.** Operable windows required to provide natural ventilation shall comply with Sections 309.2 and 309.3.~~

~~**1002.13.2 Emergency escape.** Operable windows required to provide an emergency escape and rescue opening shall comply with Section 309.2.~~

1003.9 Operable Parts. Lighting controls, electrical panelboards, electrical switches and receptacle outlets, environmental controls, appliance controls, ~~operating hardware for operable windows,~~ plumbing fixture controls, and user controls for security or intercom systems shall comply with Section 309.

EXCEPTIONS:
(Exceptions are not changed)

1003.13 Windows. Operable windows shall comply with Section 1003.13.

1003.13.1 Natural ventilation. Operable windows required to provide natural ventilation shall comply with Sections 309.2 and 309.3.

1003.13.2 Emergency escape. Operable windows required to provide an emergency escape and rescue opening shall comply with Section 309.2.

5-22-12 PC1

Harold Kiewel, representing self

Further revise as follows:

1002.9 Operable Parts. Lighting controls, electrical panelboards, electrical switches and ~~receptacle~~ power- and communication- outlets, environmental controls, appliance controls, plumbing fixture controls, operating hardware for accessible windows, plumbing fixtures controls and user controls for security or intercom systems shall comply with Section 309.

1003.9 Operable Parts. Lighting controls, electrical panelboards, electrical switches and ~~receptacle~~ power- and communication- outlets, environmental controls, appliance controls, operating hardware for accessible windows, plumbing fixture controls, and user controls for security or intercom systems shall comply with Section 309.

(Balance of 5-22-12 remains unchanged)

Reason: 506.1 Exception 1 – windows operated by employees. There is some confusion here. If this is a residential dwelling unit, who constitutes an employee? But, if this just pertains to operable, accessible windows, what about windows in places of employment? The redundancy of these two articles points to a major flaw in the underlying construction of the Standard. The Construction Specifications Institute teaches that one of the goals of our technical writing is to say everything once in the right place. Also see Mr. Kiewel's general comments at 1-1-12.

5-22-12 PC2

Hope Reed, representing New Mexico Governor's Commission on Disability (NMGCD)

Further revise as follows:

506.1 General. Where operable windows are provided in an accessible room or space, at least one shall be accessible and have operable parts complying with Section 309. Where operable windows required to:

1. Provide natural ventilation,
2. To provide an emergency escape and rescue ~~openings~~ opening or operable windows are required that window shall be the accessible operable window.

EXCEPTIONS:

1. Operable windows that are operated only by employees are not required to comply with this section.

2. Operable windows in Type A units that comply with Section ~~1003.13~~ 1103.13.

3. Operable skylights are not required to comply with this section.

506.2 Opening force. The opening force for opening operable windows shall be as follows:

1. 5.0 pounds (22.2 N) 8.5 pounds (37.7 N) maximum for casement or horizontal sliding windows
2. ~~25 pounds (111 N) maximum for double hung windows~~

(Balance of 5-22-12 remains unchanged)

Reason: Correct citation number from ~~1003.13~~ to 1103.13

ANSI's general approach to measurements is to provide a range. There are windows on the market that can be operable with 5 pounds of force. To be consistent with ANSI, GCD recommends providing a range for casement and sliding window opening force. This will encourage designers to find windows with the lowest opening force.

Delete the exception to allow 25 opening force for double hung widows. This is not an accessible standard. This is not usable by people with disabilities. This is the industry standard, it does not provide good access, and does not belong in ANSI.

Double hung windows can be operably at less than 5 lbs. opening force with an attached operating mechanism. ANSI should lead designers to find the most accessible window on the market.

ANSI should not provide a double hung window opening force just as it does not providing an exterior door opening weight. Remain silent if there is no good solution.

5-22-12 PC3

Hope Reed, representing New Mexico Governor's Commission on Disability (NMGCD)

Further revise as follows:

506.2 Opening force. The opening force for opening operable windows shall be as follows:

1. 5.0 pounds (22.2 N) to 8.5 pounds (37.7 N) maximum for casement or horizontal sliding windows
2. 5.0 pounds (22.2 N) to 25 pounds (111 N) maximum for double hung windows

(Balance of 5-22-12 remains unchanged)

Reason: ANSI's general approach to measurements is to provide a range. There are windows on the market that can be operable with 5 pounds of force. To be consistent with ANSI, GCD recommends providing a range for window opening force. This will encourage designers to find windows with the lowest opening force.

Double hung windows can be operably at less than 5 lbs. opening force with an attached operating mechanism. Provide range to encourage designers to find a lower operating force by using an attachment.

5-22-12 PC4

Julie Ruth, representing American Architectural Manufacturers Association

Further revise as follows:

506.1 General. Where operable windows are provided in an accessible room or space, at least one shall be accessible and have operable parts complying with Section 309. Where operable windows required to provide natural ventilation or operable windows are required to provide an emergency escape and rescue openings that window shall be the accessible operable window.

EXCEPTIONS:

1. Operable windows that are operated only by employees are not required to comply with this section.

2. Operable windows in Type A units that comply with Section 1003.13.

3. Operable skylights are not required to comply with this section.

506.2 ~~Opening~~ Operating force. The operating force for windows includes forces for opening, closing, locking or latching, and unlocking or unlatching, and shall be determined in accordance with AAMA 513. Operable parts shall be operable with one hand and shall not require tight grasping, pinching or twisting of the wrist. The force required for locking or latching and unlocking or unlatching shall be 5 pounds(22.2 N) maximum. The ~~opening~~ operating force for opening and closing operable windows shall be as follows:

1. 8.5 pounds (37.7 N) maximum for casement or horizontal sliding windows
2. 25 pounds (111 N) maximum for double hung windows

Add new reference standard as follows:

106.2.12 Standard Laboratory Test Method for Determination of Forces and Motions Required to Activate Operable Parts of CW and AW Class Operable Windows, Sliding Glass Doors and Terrace Doors in Accessible Spaces AAMA 513 (AAMA, 1827 Walden Office Square, Suite 550, Schaumburg, IL 60173-4268)

(Balance of 5-22-12 remains unchanged)

Reason: This comment specifies the standard to be used to measure the operating force of accessible, operable windows. AAMA 513 was developed specifically to clarify the methodology that is to be used to measure the force required to open, close, lock and unlock, latch and unlatch commercial grade (Class CW and AW) operable windows. Applicable provisions of Section 309 regarding the operability of the accessible components have also been brought forward to clarify that these provisions apply to window operation as well.

5-22-12 PC5

Julie Ruth, representing American Architectural Manufacturers Association

Further revise as follows:

506.1 General. Where operable windows are provided in an accessible room or space, at least one shall be accessible and have operable parts complying with Section 309. Where operable windows required to provide natural ventilation or operable windows are required to provide an emergency escape and rescue openings that window shall be the accessible operable window.

EXCEPTIONS:

1. Operable windows that are operated only by employees are not required to comply with this section.

2. Operable windows in Type A units that comply with Section 1003.13.

3. Operable skylights are not required to comply with this section.

506.2 Opening force. The opening force for opening operable windows shall be as follows:

1. ~~8.5~~ 5 pounds (~~37.7~~ 22.2 N) maximum for casement ~~or horizontal sliding~~ or rotary operated projected windows
2. 25 pounds (22.2 N) maximum for crank or motor operated vertical or horizontal sliding windows
~~2~~ 3. 25 pounds (111 N) maximum for other vertical sliding and ~~double~~ hung windows
4. 12 pounds (52.5 N) maximum for non-rotary operated projected windows
5. 10 pounds (45 N) maximum for other horizontal sliding windows

((Balance of 5-22-12 remains unchanged)

Reason: The purpose of this comment is twofold:

1. Establish challenging but achievable maximum operating forces for all types of operable windows.
2. Provide the building designer or architect the option of specifying operable windows that meet the 5 pound force requirement of Section 309 of ANSI A117 if they desire to do so, with the understanding that such a choice will severely limit the types of operating windows that can be used to serve accessible spaces.

An informal survey of window manufacturers whose products meet the structural, water penetration resistance and forced entry requirements of the 2012 International Building Code indicates that the maximum force required to operate these windows varies widely, depending upon the size and operator type of the window. 41 product lines were included in the survey. The survey findings indicated:

1. Only 1 Class AW window could meet the 5 pound operating force limit. That window was a 3 foot high by 5 foot wide, rotary operated awning window. Note Class AW and CW windows are considered to be commercial grade windows. These are the class of windows typically used in hospitals and other large, commercial buildings.

   The force required to operate other awning windows included in the survey ranged from 6 pounds for a Class CW window of the same size which was also rotary operated, to 12 pounds for a Class AW window of the same size that was not rotary operated.

2. Only 1 Class LC window could meet the 5 pound operating force limit. That window was a 3 foot wide by 6 foot high casement window. Note Class LC windows are intended for “light” commercial applications. They are typically used for smaller commercial buildings such as one or two story office buildings or hotels whose opening sizes are more similar to those in residential construction than those in commercial construction.

   The force to operate other casement windows included in the survey ranged from 6 pounds for a 3 foot high by 5 foot wide Class AW casement to 14 pounds for a 6 foot wide by 5 foot high Class AW casement.

3. There was also 1 Class R window that could meet the 5 pound operating force limit. That window was a 6 foot wide by 6 foot high horizontal sliding window. Class R windows are intended for residential or light commercial construction. The requirements of the IBC and IRC in terms of resistance to structural load, air leakage and water resistance, are not as stringent for Class R and LC windows as they are for Class CW and AW windows.

   The force to operate other horizontal sliding windows included in the survey ranged from 10 pounds for a 6 foot high by 6 foot wide Class R horizontal siding windows to 28 pounds for a 6 foot wide by 5 foot high Class LC horizontal sliding window. Only 1 Class C horizontal sliding window was included in the survey. It was 6 foot wide by 6 foot high, and had an operating force of 15 pounds.

4. The lowest operating force for any hung or vertically sliding window was 20 pounds. That window was a 4 foot by 5 foot Class R window.

   The force to operate other Class R or LC hung or vertically sliding windows included in the survey ranged from 21 pounds to 60 pounds.

5. The lowest operating force for any Class AW or CW hung or vertically sliding window was 33 pounds. That window was a 5 foot wide by 8 foot high (both sashes) Class AW double hung window.

   The force to operate other Class AW or CW windows included in the survey ranged from 35 to 58 pounds.

Based upon these survey results AAMA is recommending:

1. The 5 pound maximum operating force be maintained for casement, rotary operated projected or crank or motor operated vertical or horizontal sliding windows.
2. A maximum operating force of 12.5 pounds be established for non-rotary operated projected windows.
3. A maximum operating force of 25 pounds be maintained for all other vertical sliding windows.
4. A maximum operating force of 10 pounds be established for horizontal sliding windows.

Establishing a 5 pound maximum operating force for some types of windows will allow a building designer or architect to specify only windows that meet the 5 pound operating force limit specified elsewhere in ANSI A117 for operable components, if they choose to do so. Permitting higher operating forces for other types of windows would expand the window choices a designer has. It is hoped that the combination of these two approaches will reduce the likelihood that the building designer or architect will choose to simply not specify any operable windows in accessible spaces. It should be noted that the maximum operating forces proposed in this comment are achievable, but they would be a challenge to the window manufacturer and they are definitely NOT standard practice.

5-23– 12

Add new text as follows:

507 Accessible Routes through Parking. Where accessible routes pass through parking facilities, the routes shall be physically separated from vehicular traffic.

EXCEPTIONS:

1. Crossings at drive aisles shall not be required to comply with Section 507.
2. Parking spaces complying with Section 502 and passenger loading zones complying with Section 503 shall not be required to comply with Section 507.

5-23-12 PC1

Karen Gridley, representing Target Corporation

Further revise as follows:

507 Accessible Routes through Parking. Where accessible routes pass through parking facilities, the routes shall be physically separated from vehicular traffic.

EXCEPTIONS:

1. Crossings at drive aisles shall not be required to comply with Section 507.
2. Parking spaces and access aisles complying with Section 502 and passenger loading zones complying with Section 503 shall not be required to comply with Section 507.
3. Where an accessible route is provided at the head of accessible parking stalls and access aisles complying with Section 502, the head-of-stall accessible route shall not be required to comply with Section 507.

Reason: In parking facilities providing a "head-of-car" accessible route at the head of accessible parking stalls and access aisles, these routes are already considered to be a safe path of travel by not compelling users to go behind parked cars or in drive aisles. The stalls and access aisles themselves create a separation from the drive aisles. Adding this additional exception will provide clarity for enforcing officials who might otherwise require other barriers or tripping hazards where connection is intended to be made with, and intersect the head-of-stall route. Without the clarifying exception, inconsistent interpretation and random requirements will be problematic.

Some examples of problematic applications at head-of-stall accessible routes include:

Where a raised sidewalk is used as the separation from traffic and the sidewalk also leads past the head of accessible parking stalls, as this proposed Section 507 is currently written, in order to access the sidewalk one would need to recess the sidewalk at access aisles, and ramp up and down at each accessible stall creating a cumbersome, undulating route of travel for both mobility device users and ambulatory persons alike at the head-of-stall accessible route from accessible parking area, which in itself could be hazardous to traverse.

In lieu of ramping up and down at the head-of-stall route, where routes that are flush with access aisles, enforcement officials could require installation of raised curbs along the sides of the route, creating trough-like conditions with openings at access aisles to join the path. H**owever**, raised curbs and wheel stops have proven to be dangerous tripping hazards for ambulatory persons when located within the accessible parking area and adjacent to the head-of-stall accessible route. Raised curbs and wheel stops become especially problematic when there is no vehicle utilizing an accessible stall to block someone from tripping over the obstruction. Rather than wheel stops, raised curbs or raised sidewalks to prevent cars from pulling too far forward over the head-of-stall accessible route, existing vertical protection bollards and post mounted signage already serve as a separation element between the accessible route and vehicles. Without the additional proposed clarifying exception enforcement official could easily require some sort of other random separation that could cause hazardous path of travel conditions or hinder access to the accessible route.

5-23-12 PC2

Kim Paarlberg, representing ICC

Disapprove this change.

Reason: While I have respect for the issue for the visually impaired the proponent is attempting to address, the language is too broad to be uniformly enforced. 'Physically separated' could be interpreted as anything from walls to bollards to raised sidewalks. If this route goes past the accessible parking spaces, even with the exception, there is nothing to say that a person on the access aisle be able get onto this route. Since accessible routes are required from all public arrival points, this could be a very extensive requirement. This needs a lot more work.

5-23-12 PC3

Minh N. Vu, representing American Hotel & Lodging Association

Disapprove this change.

Reason: The American Hotel & Lodging Association (hereinafter, the AH&LA) opposes the proposed new requirements that 'where accessible routes pass through parking facilities, they shall be physically separated from vehicular traffic."(Section 507). AH&LA is unable to full comment on this proposal because the requirements are unclear. Specifically, what constitutes 'physical separation?" If the separation must be accomplished with either a raised sidewalk, landscaping, barriers or railings, new parking facilities would have to be much larger to accommodate this new path because, currently, in most jurisdictions, the path can overlap the vehicular route. Applying this proposed rule to existing parking facilities would require the complete reconfiguration of parking lots to crate a physically separated route and reduce the space available for parking spaces. The AH&LA urges the ANSI Committee not to adopt this proposal until it is clarified and issued for further public comment.

The ANSI Committee should also reject the proposal because it would undermine the Committee's past efforts to harmonize the A117.1 Standard with the 2010 ADA Standards. As the ANSI Committee is well aware, the first 20 years of the Americans with Disabilities Act of 1990 (hereinafter the 'ADA"), the A117.1 Standard was not the same as the ADA Standards for Accessible Design adopted by the United State Department of Justice.(hereinafter the "DOJ"). The lack of harmonization caused a great deal of confusion among owners of public accommodations and commercial facilities who had to comply with the building code and ADA requirements which differed. In September 2010, the DOJ issued the 2010 Standards which was the culmination of an effort by the ANSI Committee and the Access Board to harmonize the ANSI A117.1 standard with the 2010 Standards. If adopted, the proposed change to curb ramp requirements will undo this harmonization effort by introducing entirely different standards into future editions of the International Building Code which will then be adopted by state governments as their building codes. Owners seeking to comply with both sets of requirements will yet again be thrown into a state of confusion even though, as discussed above, there is no need for the changes in the first place. In AH&LA's experience, compliance regimes that are confusing or difficult to understand/implement usually result in less accessibility and operate to the detriment of individuals with disabilities. AH&LA, thus, urges the ANSI Committee to reject any rule changes that would conflict with the 2010 ADA Standards, including the poposed minimum exterior accessible route width.

If the ANSI Committee is unwilling to postpone the adoption of these proposals for further study, it should, at a minimum, limit the application to facilities constructed after a jurisdiction adopts the changes. As can be seen throughout the preceding discussion, the proposed changes -- once they are adopted by jurisdictions as part of their building codes -- will be particularly problematic for existing facilities that will have to comply with them in future renovations. IN most instances, lodging facility owners will face three alternatives: (1) Comply with the new requirements by making extensive changes to their exterior routes upon renovation; (2) Attempt to obtain a variance from local building officials, assuming such a process is available; or (3) Defer renovating for as long as possible. All options are highly undesirable. The first two options involve substantial cost and uncertainty while the third option would actually undermine accessibility by causing owners to defer renovations that may improve access.

5-24– 12

Revise as follows:

309.1 General. Operable parts required to be accessible shall comply with Section 309.

Exception: Equipment used only for emergencies by emergency responders or emergency personnel shall not be required to comply with Section 309.

5-24-12 PC1

Marsha K. Mazz, representing U.S. Access Board (ATBCB)

Further revise as follows:

309.1 General. Operable parts required to be accessible shall comply with Section 309.

Exception: ~~Equipment~~ Firefighting devices, such as hose connections, valve controls, gauges, and annunciator panels shall not be required to comply with Section 309 provided that they are used only for emergencies by ~~emergency responders or~~ emergency personnel ~~shall not be required to comply with Section 309~~ acting in their official capacity.

Reason: The terms “emergency responder” and “emergency personnel” are somewhat ambiguous. Anyone who responds to an emergency can be considered an emergency responder. This proposal clarifies that the exception applies only where responders would act in an official capacity to distinguish between professional responders and ordinary building occupants. We found the list in the original proposal.

Chapter 6

6-2– 12

Revise as follows:

602 Drinking Fountains <u>and Bottle Filling Stations</u>.

<u>602.7 Bottle Filling Stations.</u> <u>Bottle filling stations which shall comply with Sections 602.7.1 and 602.7.2.</u>

> **<u>Exception:</u>** <u>Where bottle filling stations are part of the drinking fountain for standing persons, the bottle filling station is not required to comply with this section provided a bottle filling station is located at the wheelchair accessible drinking fountain.</u>

<u>602.7.1 Clear Floor Space.</u> <u>A clear floor space complying with Section 305, positioned for a forward or side approach, shall be provided.</u>

<u>602.7.2 Controls.</u> <u>Controls for bottle filling stations shall be hand operated or automatic. Hand operated controls shall comply with Section 309.</u>

6-2-12 PC1

John C. Watson, representing Elkay

Further revise as follows:

602 Drinking Fountains and Bottle Filling Stations.

602.7 Bottle Filling Stations. Bottle filling stations which shall comply with Sections 602.7.1 and 602.7.2.

> **Exception:** Where bottle filling stations are part of the drinking fountain for standing persons, the bottle filling station is not required to comply with this section provided a bottle filling station is located at the wheelchair accessible drinking fountain <u>or it complies with obstructed reach range requirements as outlined in Section 308</u>.

602.7.1 Clear Floor Space. A clear floor space complying with Section 305, positioned for a forward or side approach, shall be provided.

602.7.2 Controls. Controls for bottle filling stations shall be hand operated or automatic. Hand operated controls shall comply with Section 309.

Reason: Adds clarity to the language.

6-5– 12

Revise as follows:

604.4 Height. The height of water closet seats shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum above the floor, measured to the top of the seat. Seats shall not be sprung to return to a lifted position.

EXCEPTIONS:

1. An accessible water closet which is adjustable in height by the user is permitted provided that at least one adjustment setting provides a seat within the range specified in Section 604.4.

2. A water closet in a toilet room for a single occupant, accessed only through a private office and not for common use or public use, shall not be required to comply with Section 604.4.

6-5-12 PC1

Hope Reed, representing New Mexico Governor's Commission on Disability (NMGCD)

Further revise as follows:

604.4 Height. The height of wheelchair accessible and ambulatory water closet seats shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum above the floor, measured to the top of the seat. Seats shall not be sprung to return to a lifted position.

EXCEPTIONS:

1. An accessible water closet which is adjustable in height by the user is permitted provided that at least one adjustment setting provides a seat within the range specified in Section 604.4.

2. A water closet in a toilet room for a single occupant, accessed only through a private office and not for common use or public use, shall not be required to comply with Section 604.4.

Reason: Ambulatory stalls often do not have a raised seats installed. A raised seat is important for people who use walkers, canes and crutches because they have difficulty bending their knees and may have poor balance. Provide this direct reference.
See companion proposal 604.10.3.

6-5-12 PC2

Kimberly Paarlberg, representing ICC

Disapprove the change. Return the text to that found in existing standard.

Reason: Alternative means are already an option under Section 103, therefore, exception 1 is not needed. In addition, I have serious concerns about safety and sanitary issues with exception. If it is mechanical, is has a high chance of breaking given the wide range of persons weights. If it is something you physically lift on and off, besides the sanitary issue, how do you make sure that piece stays in the bathroom? If a person has a disability, how do you know that they will be able to perform the adjustment? This should be deleted.

6-7-12

Revise as follows:

604.5.1 Fixed Side Wall Grab Bars. Fixed side wall grab bars shall include a horizontal bar complying with Section 605.4.1.1 and a vertical grab bar complying with Section 604.5.1.2. The vertical grab bar at water closets primarily for children's use shall comply with Section 609.4.2

604.5.1.1 Horizontal Grab Bar. A ~~fixed~~ horizontal ~~side-wall~~ grab bar~~s shall be~~ 42 inches (1065 mm) minimum in length~~,~~ shall be located 12 inches (305 mm) maximum from the rear wall and extend~~ing~~ 54 inches (1370 mm) minimum from the rear wall.

604.5.1.2 Vertical Grab Bar. ~~In addition,~~ A vertical grab bar 18 inches (455 mm) minimum in length shall be mounted with the bottom of the bar located 39 inches (990 mm) minimum and 41 inches (1040 mm) maximum above the floor, and with the center line of the bar located 39 inches (990 mm) minimum and 41 inches (1040 mm) maximum from the rear wall.

> **EXCEPTION:** ~~The vertical grab bar at water closets primarily for children's use shall comply with Section 609.4.2.~~

6-7-12 PC1

Harold Kiewel, representing self

Further revise as follows:

604.5.1 Fixed Side Wall Grab Bars. Fixed side wall grab bars shall include a horizontal bar complying with Section 605.4.1.1 and a vertical grab bar complying with Section 604.5.1.2. The vertical grab bar at water closets primarily for children's use shall comply with Section 609.4.2

604.5.1.1 Horizontal Grab Bar. ~~A horizontal grab bar 42 inches (1065 mm) minimum in length, shall be located 12 inches (305 mm) maximum from the rear wall and extending 54 inches (1370 mm) minimum from the rear wall.~~ Mount a grab bar horizontally extending from a point 12 inches (305 mm) maximum from the rear wall to a point 54 inches (1370 mm) minimum from the rear wall. Center the bar 10-inches above the finished seat height of the water-closet it serves.

604.5.1.2 Vertical Grab Bar. ~~A vertical grab bar 18 inches (455 mm) minimum in length shall be mounted with the bottom of the bar located 39 inches (990 mm) minimum and 41 inches (1040 mm) maximum above the floor, and with the center line of the bar located 39 inches (990 mm) minimum and 41 inches (1040 mm) maximum from the rear wall.~~ Mount a grab bar vertically with 4-inches clearance from the horizontal bar, extending upwards a minimum of 18-inches, and with its center line located 10 inches (990 mm) minimum to 12-inches (1040 mm) maximum in front of the water-closet rim or leading edge of the bench or seat it serves.

Reason: I am opposed to changing dimensions to non-modular (odd) numbers. I believe that dimensional requirements of the Standard should, to the maximum extent practicable, be modular in both Imperial and metric (SI) systems. Imperial dimensions should be multiples of 4-inches, and conversion to metric measure should use 4-inches = 100 mm.

As a professional technical writer, I take exception to the modern practice of wasting the first Article of every major sub-part with the phrase "[this work] shall comply with this Standard." If the Standard has a purpose, and the Article has title, the phrase is superfluous. You could save a couple of pages by deleting those lines.

I have not pointed out spelling, tense, or minor grammatical errors. There are some, but I presume that the committee has access to editors who will, in due course, correct those items.

6-10– 12

Revise as follows:

604.5.2 Rear Wall Grab Bars. The fixed rear wall grab bar shall be 36 inches (915 mm) minimum in length ~~and extend from the centerline of the water closet between 12 inches (305) minimum on the side closest to the wall, and 24 inches (610 mm) minimum on the transfer side.~~, located 6 inches maximum (150 mm) from the side wall and extending 42 inches (1065 mm) from the side wall.

> **EXCEPTIONS:** *(No change to exceptions)*

6-10-12 PC1

Curt Wiehle, Minnesota Construction Codes and Licensing, representing self

Delete without substitution:

~~**604.5.2 Rear Wall Grab Bars.** The fixed rear wall grab bar shall be 36 inches (915 mm) minimum in length located 6 inches maximum (150 mm) from the side wall and extending 42 inches (1065 mm) from the side wall.~~

~~**EXCEPTIONS:**~~

~~1. The rear grab bar shall be permitted to be 24 inches (610 mm) minimum in length, centered on the water closet, where wall space does not permit a grab bar 36 inches (915 mm) minimum in length due to the location of a recessed fixture adjacent to the water closet.~~

~~2. Where an administrative authority requires flush controls for flush valves to be located in a position that conflicts with the location of the rear grab bar, that grab bar shall be permitted to be split or shifted to the open side of the toilet area.~~

Reason: Delete the provision in its entirety. As has been pointed out, the proposed change does not comply with the ADA standard. It has also been pointed out that the rear bar has no use and provides no benefit. If the standard is going to conflict with the ADA, it may as well go all the way and eliminate this unnecessary grab bar.

6-14– 12

Further revise as follows:

604.7 Dispensers. Toilet paper dispensers shall comply with Section 309.4. Where the dispenser is located above the grab bar, the outlet of the dispenser shall be located within an area 24 inches (610 mm) minimum and 36 inches (915 mm) maximum from the rear wall. Where the dispenser is located below the grab bar, the outlet of the dispenser shall be located within an area 24 inches (610 mm) minimum and 42 inches (1065 mm) maximum from the rear wall. The outlet of the dispenser shall be located 18 inches (455 mm) minimum and 48 inches (1220 mm) maximum above the floor. Dispensers shall comply with Section 609.3. Dispensers shall not be of a type that control delivery, or do not allow continuous paper flow.

EXCEPTION: Toilet paper dispensers that accommodate a maximum of 2 toilet paper rolls of not more than 5 inch (125 mm) diameter each shall be permitted to be located 7 inches (180 mm) minimum and 9 inches (230 mm) maximum in front the of the water closet measured to the centerline of the dispenser.

604.11.7 Dispensers. Toilet paper dispensers primarily for children's use shall comply with Section 309.4. The outlet of dispensers shall be located within an area 24 inches (610 mm) minimum and 42 inches (1065 mm) maximum from the rear wall. The outlet of the dispenser shall be 14 inches (355 mm) minimum and 19 inches (485 mm) maximum above the floor. There shall be a clearance of 1 1/2 inches (38 mm) minimum below the grab bar. Dispensers shall not be of a type that control delivery or do not allow continuous paper flow.

EXCEPTION: Toilet paper dispensers that accommodate a maximum of 2 toilet paper rolls of not more than 5 inch (125 mm) diameter each shall be permitted to be located 7 inches (180 mm) minimum and 9 inches (230 mm) maximum in front the of the water closet measured to the centerline of the dispenser

6-14-12 PC1

Gene Boecker, Code Consultants, Inc, representing National Association of Theatre Owners

Further revise as follows:

604.7 Dispensers. Toilet paper dispensers shall comply with Section 309.4. Where the dispenser is located above the grab bar, the outlet of the dispenser shall be located within an area 24 inches (610 mm) minimum and 36 inches (915 mm) maximum from the rear wall. Where the dispenser is located below the grab bar, the outlet of the dispenser shall be located within an area 24 inches (610 mm) minimum and 42 inches (1065 mm) maximum from the rear wall. The outlet of the dispenser shall be located 18 inches (455 mm) minimum and 48 inches (1220 mm) maximum above the floor. Dispensers shall comply with Section 609.3. Dispensers shall not be of a type that control delivery, or do not allow continuous paper flow.

~~**EXCEPTION:**~~ **604.7.1 Multiple roll dispensers.** Toilet paper dispensers that accommodate a maximum of 2 toilet paper rolls of not more than 5 inch (125 mm) diameter each shall be permitted to be located 7 inches (180 mm) minimum and 9 inches (230 mm) maximum in front the of the water closet measured to the centerline of the dispenser.

604.11.7 Dispensers. Toilet paper dispensers primarily for children's use shall comply with Section 309.4. The outlet of dispensers shall be located within an area 24 inches (610 mm) minimum and 42 inches (1065 mm) maximum from the rear wall. The outlet of the dispenser shall be 14 inches (355 mm) minimum and 19 inches (485 mm) maximum above the floor. There shall be a clearance of 1 1/2 inches (38 mm) minimum below the grab bar. Dispensers shall not be of a type that control delivery or do not allow continuous paper flow.

~~**EXCEPTION:**~~ **504.11.7.1 Multiple roll dispensers.** Toilet paper dispensers that accommodate a maximum of 2 toilet paper rolls of not more than 5 inch (125 mm) diameter each shall be permitted to be located 7 inches (180 mm) minimum and 9 inches (230 mm) maximum in front the of the water closet measured to the centerline of the dispenser

Reason: The exception is not really an exception. As written the body of the text does not limit/prohibit multiple roll dispensers, not does it place any restrictions on where the outlets can be of those dispensers. The body of the text gives multiple possible locations for dispenser locations. According to the body of the text, there is nothing to prohibit anyone from placing a half dozen or more dispensers (or a single 4-roll dispenser) on the side wall as long as all of the outlets are within the broad range of locations noted. Since exceptions are optional considerations, it is not necessary to use the exception to place multiple roll dispensers.

There is nothing requiring the outlets of any double roll dispenser from being located according to the exception. The choice can be made to place multiple roll dispensers at the position indicated in the exception or at any of the possible locations. If the intent is to limit where multiple roll dispensers can be placed, then it must be a subsection – not an exception. Keep the main body as it is (which still allows a half dozen dispensers at various locations) but change the exception to a requirement if the dispenser contains multiple rolls.

6-14-12 PC2

Kimberly Paarlberg, representing ICC

Further revise as follows:

604.7 Dispensers. Toilet paper dispensers shall comply with Section 309.4. Dispensers shall comply with Section 609.3. Dispensers shall not be of a type that control delivery, or do not allow continuous paper flow.

~~**604.7 Dispensers.** Toilet paper dispensers shall comply with Section 309.4.~~ **604.7.1 Location.** Where the dispenser is located above the grab bar, the outlet of the dispenser shall be located within an area 24 inches (610 mm) minimum and 36 inches (915 mm) maximum from the rear wall. Where the dispenser is located below the grab bar, the outlet of the dispenser shall be located within an area 24 inches (610 mm) minimum and 42 inches (1065 mm) maximum from the rear wall. The outlet of the dispenser shall be located 18 inches (455 mm) minimum and 48 inches (1220 mm) maximum above the floor. Dispensers shall comply with Section 609.3. ~~Dispensers shall not be of a type that control delivery, or do not allow continuous paper flow.~~

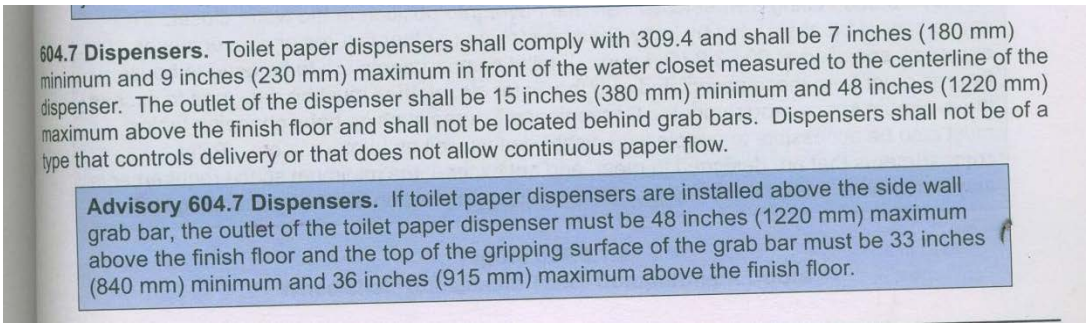
EXCEPTION: Toilet paper dispensers that accommodate a maximum of 2 toilet paper rolls of not more than 5 inch (125 mm) diameter each shall be permitted to be located 7 inches (180 mm) minimum and 9 inches (230 mm) maximum in front the of the water closet measured to the centerline of the dispenser. The outlet of the dispenser shall be 15 inches (380 mm) minimum and 48 inches (1220 mm) maximum above the floor.

604.11.7 Dispensers. Toilet paper dispensers primarily for children's use shall comply with Section 309.4. There shall be a clearance of 1 1/2 inches (38 mm) minimum below the grab bar. Dispensers shall not be of a type that control delivery or do not allow continuous paper flow.

~~**604.11.7 Dispensers.** Toilet paper dispensers primarily for children's use shall comply with Section 309.4~~. **604.7.11.7.1 Location.** The outlet of toilet paper dispensers primarily for children's use shall be located within an area 24 inches (610 mm) minimum and 42 inches (1065 mm) maximum from the rear wall. The outlet of the dispenser shall be 14 inches (355 mm) minimum and 19 inches (485 mm) maximum above the floor. ~~There shall be a clearance of 1 1/2 inches (38 mm) minimum below the grab bar. Dispensers shall not be of a type that control delivery or do not allow continuous paper flow.~~

EXCEPTION: Toilet paper dispensers that accommodate a maximum of 2 toilet paper rolls of not more than 5 inch (125 mm) diameter each shall be permitted to be located 7 inches (180 mm) minimum and 9 inches (230 mm) maximum in front the of the water closet measured to the centerline of the dispenser. The outlet of the dispenser shall be 14 inches (355 mm) minimum and 19 inches (485 mm) maximum above the floor.

Reason: For adults - The original intent was to allow for an exception consistent with 2010 ADA. Current organization of text is unclear as to what pieces the exception is applicable too (i.e., just distance forward or also height). Moving the three sentences into a different paragraph would help, but then the height is not clear without the additional sentence in the exception. Would ADA require the toilet paper dispenser to meet the 1-1/2" below and 12" above in 609.3? Child size implies this. The last sentence in 2010 ADA 607.4 is unclear.

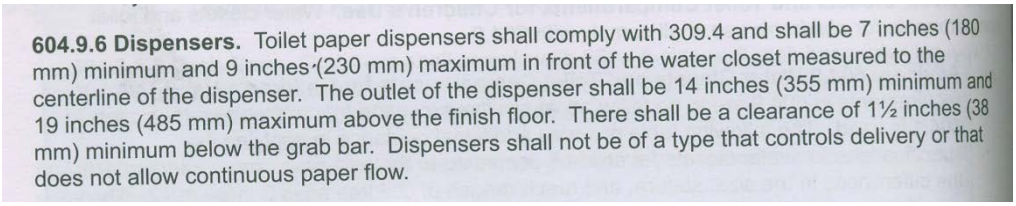


604.7 Dispensers. Toilet paper dispensers shall comply with 309.4 and shall be 7 inches (180 mm) minimum and 9 inches (230 mm) maximum in front of the water closet measured to the centerline of the dispenser. The outlet of the dispenser shall be 15 inches (380 mm) minimum and 48 inches (1220 mm) maximum above the finish floor and shall not be located behind grab bars. Dispensers shall not be of a type that controls delivery or that does not allow continuous paper flow.

Advisory 604.7 Dispensers. If toilet paper dispensers are installed above the side wall grab bar, the outlet of the toilet paper dispenser must be 48 inches (1220 mm) maximum above the finish floor and the top of the gripping surface of the grab bar must be 33 inches (840 mm) minimum and 36 inches (915 mm) maximum above the finish floor.

For children - Original diagram has errata. The original intent was to allow for an exception consistent with 2010 ADA. Current organization of text is unclear as to what pieces the exception is applicable too (i.e., just distance forward or also height). Moving the three sentences into a different paragraph would help, but then the height is not clear without the additional sentence in the exception.

2010 ADA text



604.9.6 Dispensers. Toilet paper dispensers shall comply with 309.4 and shall be 7 inches (180 mm) minimum and 9 inches (230 mm) maximum in front of the water closet measured to the centerline of the dispenser. The outlet of the dispenser shall be 14 inches (355 mm) minimum and 19 inches (485 mm) maximum above the finish floor. There shall be a clearance of 1½ inches (38 mm) minimum below the grab bar. Dispensers shall not be of a type that controls delivery or that does not allow continuous paper flow.

6-18– 12

Add new text as follows:

604.9.2.3 Alternate Wheelchair Accessible Compartments. Where an alternate wheelchair compartment is required, the minimum area of an alternate wheelchair accessible compartment shall be 60 inches (1525 mm) minimum width measured perpendicular to the side wall, and 82 inches (2085 mm) minimum in depth measured perpendicular to the rear wall.

604.9.3 Doors. Toilet compartment doors, including door hardware, shall comply with Section 404, except if the approach is to the latch side of the compartment door clearance between the door side of the stall and any obstruction shall be 42 inches (1065 mm) minimum. The door shall be self-closing. A door pull complying with Section 404.2.6 shall be placed on both sides of the door near the latch. Toilet compartment doors shall not swing into the required minimum area of the compartment.

> **Exception:** In an alternate wheelchair accessible compartment, the door can swing into the stall where a clear floor space complying with Section 305.3 is provided within the stall beyond the arc of the door swing.

6-18-12 PC1

Hope Reed, representing New Mexico Governor's Commission on Disability (NMGCD)

Further revise as follows:

604.9.2.3 Alternate Wheelchair Accessible Compartments. Where an alternate wheelchair compartment is required, the minimum area of an alternate wheelchair accessible compartment shall be 60 inches (1525 mm) minimum width measured perpendicular to the side wall, and 82 inches (2085 mm) minimum in depth measured perpendicular to the rear wall.

604.9.3 Compartment Doors. Toilet compartment doors, including door hardware, shall comply with Section 404, except if the approach is to the latch side of the compartment door clearance between the door side of the stall and any obstruction shall be 42 inches (1065 mm) minimum. The door shall be self-closing~~. A door pull complying with Section 404.2.6 shall be placed on both sides of the door near the latch.~~ Toilet compartment doors shall not swing into the required minimum area of the compartment.

> **Exception:** In an alternate wheelchair accessible compartment, the door can swing into the stall where a clear floor space complying with Section 305.3 is provided within the stall beyond the arc of the door swing.

604.9.3.1 Door Pulls. Door pulls complying with Section 404.2.6 shall be placed on both sides of the compartment door near the latch.

Reason: The door pull requirement is frequently overlooked and needs to be formatted to stand out as a minimum requirement. A standing person can always reach the top of the stall door and pull it open, but a person with disabilities cannot reach the top or bottom of the stall door.

Door pulls are essential for people with disabilities. To enter the self-closing door must be pulled open. Once inside a person has to hold the stall door tight to align and engage the latch. A door pull is essential for this task.

See companion proposals for 604.10.3.

6-18-12 PC2

Curt Wiehle, representing self

Further revise as follows:

604.9.2.3 Alternate Wheelchair Accessible Compartments. Where an alternate wheelchair compartment is required, the minimum area of an alternate wheelchair accessible compartment shall be 60 inches (1525 mm) minimum width measured perpendicular to the side wall, and 82 inches (2085 mm) minimum in depth measured perpendicular to the rear wall.

604.9.3 Doors. Toilet compartment doors, including door hardware, shall comply with Section 404, except if the approach is to the latch side of the compartment door clearance between the door side of the stall and any obstruction shall be 42 inches (1065 mm) minimum. The door shall be self-closing. A door pull complying with Section 404.2.6 shall be placed on both sides of the door near the latch. Toilet compartment doors shall not swing into the required minimum area of the compartment.

Exception: ~~In an alternate wheelchair accessible compartment,~~ The door can swing into the ~~stall~~ compartment where a clear floor space complying with Section 305.3 is provided within the ~~stall~~ compartment beyond the arc of the door swing.

604.9.3.1 Door Opening Location. ~~The farthest edge of toilet compartment door opening shall be located in the front wall or partition or in the side wall or partition as required by Table 604.9.3.1.~~

~~Table 604.9.3.1 – Door Opening Location~~

~~Door Opening Location~~	~~Measured From~~	~~Dimension~~
~~Front Wall or Partition~~	~~From the side wall or partition closest to the water closet~~	~~56 inches (1420 mm) minimum~~
	~~or~~	
	~~From the side wall or partition farthest from the water closet~~	~~5 inches (127mm) maximum~~
~~Side Wall or Partition - Wall-Hung Water Closet~~	~~From the rear wall~~	~~52 inches (1320 mm) minimum~~
	~~or~~	
	~~From the front wall or partition~~	~~5 inches (127mm) maximum~~
~~Side Wall or Partition - Floor-Mounted Water Closet~~	~~From the rear wall~~	~~55 inches (1395 mm) minimum~~
	~~or~~	
	~~From the front wall or partition~~	~~5 inches (127mm) maximum~~

(6-20-12)

Toilet compartment doors shall be located in accordance with Section 604.9.3.1.1 or 604.9.3.1.2 as applicable.

604.9.3.1.1 Minimum Sized Compartment. In toilet compartments complying with Sections 604.9.2.1 and 604.9.2.2, the hinge side of the compartment door shall be located in the front partition or in the side partition farthest from the water closet in accordance with one of the following:

1. Door located in front partition, 4 inches (100 mm) maximum from the side wall or partition.
2. Door located in side partition, 4 inches (100 mm) maximum from the front wall or partition.

604.9.3.1.2 Alternate Wheelchair Compartment. In toilet compartments complying with Section 604.9.2.3, a maneuvering clearance within the compartment measuring 18 inches (445 mm) minimum beyond the latch side of the door and 48 inches (1220 mm) minimum perpendicular from the door shall be provided.

Reason: Exception 3 is unnecessarily restrictive by referencing the alternate compartment. Any compartment with a clear floor space clear of the door swing should allow the door to swing in.

As an alternative to exception 3, the charging statement could be modified as follows (exception 3 would be deleted):

604.9.3 Doors. Toilet compartment doors, including door hardware, shall comply with Section 404. The door shall be self-closing. A door pull complying with Section 404.2.6 shall be placed on both sides of the door near the latch. Toilet compartment

doors shall not swing into the required minimum area of the compartment unless a clear floor space complying with Section 305.3 is provided within the compartment beyond the arc of the door swing.

Table 604.9.3.1 was intended to provide more flexibility for door placement in larger compartments. It is still too restrictive in larger compartments as it always requires that the door be located diagonally from the water closet. The new Section 604.9.3.1.1 maintains the 2010 ADA requirement except that it specifically references the hinge side of the door. This is necessary to ensure that the latch is not located in the corner of the compartment. Accessing and operating the latch mechanism can be difficult if it is located in the corner of the compartment. Section 604.9.3.1.2 allows the door in any location provided the stated maneuvering clearance is provided. The maneuvering clearance is intended to provide access to the latch and is required whether the door swings in or out of the compartment.

6-18-12 PC3

Kimberly Paarlberg, representing ICC

Disapprove the change. Return the text to that found in existing standard.

Reason: I know that A117.1 does not address scoping, but if I do not understand that intent of this provision, I do not see the value of adding technical criteria for the standard. Where is it intended for this to be utilized?

6-19– 12

Revise as follows:

604.9.3 Doors. Toilet compartment doors, including door hardware, shall comply with Section 404~~, except if the approach is to the latch side of the compartment door clearance between the door side of the stall and any obstruction shall be 42 inches (1065 mm) minimum~~. The door shall be self-closing. A door pull complying with Section 404.2.6 shall be placed on both sides of the door near the latch. Toilet compartment doors shall not swing into the required minimum area of the compartment.

EXCEPTIONS:

1. Outside of the compartment, where the approach is to the latch side of the compartment door clearance between the door side of the compartmentl and any obstruction shall be 42 inches (1065 mm) minimum.
2. Within the compartment, maneuvering clearances at the door are not required to comply with Section 404.

604.10.3 Doors. Toilet compartment doors, including door hardware, shall comply with Section 404~~, except if the approach is to the latch side of the compartment door the clearance between the door side of the compartment and any obstruction shall be 42 inches (1065 mm) minimum~~. The door shall be self-closing. A door pull complying with Section 404.2.6 shall be placed on both sides of the door near the latch. Compartment doors shall not swing into the required minimum area of the compartment.

EXCEPTIONS:

1. Outside of the compartment, where the approach is to the latch side of the compartment door, clearance between the door side of the compartment and any obstruction shall be 42 inches (1065 mm) minimum.
2. Within the compartment, maneuvering clearances at the door are not required to comply with Section 404.

6-19-12 PC1

Harold Kiewel, representing self

Further revise as follows:

604.9.3 Doors. Toilet compartment doors, including door hardware, shall comply with Section 404. The door shall be self-closing. A door pull complying with Section 404.2.6 shall be placed on both sides of the door near the latch. Toilet compartment doors shall not swing into the required minimum area of the compartment.

EXCEPTIONS:

1. Outside of the compartment, where the approach is to the latch side of the compartment door clearance between the door side of the compartment and any obstruction shall be 42 inches (1065 mm) minimum.
2. Within the compartment, maneuvering clearances at the door are not required to comply with Section 404.
3. Omit the door pull on the exterior of in-swimming doors.

Reason: A door-pull on the exterior of an in-swinging door tells the arriving individual to pull the door to see if the compartment is available for use, but you cannot pull an in-swinging door open - you must push it open. A door pull in this position will give a false "in-use" signal to a disabled person causing at least some frustration, at worst considerable discomfort.

6-19-12 PC2

Hope Reed, representing New Mexico Governor's Commission on Disability (NMGCD)

Further revise as follows:

604.9.3 Doors. Toilet compartment doors, including door hardware, shall comply with Section 404. The door shall be self-closing. A door pull complying with Section 404.2.6 shall be placed on both sides of the door near the latch. Toilet compartment doors shall not swing into the required minimum area of the compartment.

EXCEPTIONS:

1. Outside of the compartment, where the approach is to the latch side of the compartment door clearance between the door side of the compartment and any obstruction shall be 42 inches (1065 mm) minimum.
2. Within the compartment, maneuvering clearances at the door are not required to comply with Section 404.

604.10.3 Doors. Ambulatory toilet compartment doors, including door hardware, shall comply with Section 404. The door shall be self- closing. ~~A door pull complying with Section 404.2.6 shall be placed on both sides of the door near the latch.~~ Compartment doors shall not swing into the required minimum area of the compartment.

EXCEPTIONS:

1. Outside of the compartment, where the approach is to the latch side of the compartment door, clearance between the door side of the compartment and any obstruction shall be 42 inches (1065 mm) minimum.
2. Within the compartment, maneuvering clearances at the door are not required to comply with Section 404.

604.10.3.1 Door Pulls. Door pulls complying with Section 404.2.6 shall be placed on both sides of the compartment door near the latch.

Reason: The door pull requirement is frequently overlooked and needs to be formatted to stand out as a minimum requirement. A standing person can always reach the top of the stall door and pull it open, but a person with disabilities cannot reach the top or bottom of the stall door.

Door pulls are essential for people with disabilities. To enter the self-closing door must be pulled open. Once inside a person has to hold the stall door tight to align and engage the latch. A door pull is essential for this task.

See companion proposals for 604.9.3.

PROPOSED rewrite of AMBULATORY COMPARTMENTS shown below:

604.10 Ambulatory Accessible Compartments.

604.10.1 General. Ambulatory accessible compartments shall comply with Section 604.10.

(New Comment, no change)
604.10.2 Size. The minimum area of an ambulatory accessible compartment shall be 60 inches (1525 mm) minimum in depth and a width of 35 inches (890 mm) minimum and 37 inches (940 mm) maximum**.**

(New Comment, proposed revisions)
604.10.3 Doors. Ambulatory ~~T~~toilet compartment doors shall comply with section 604.9.3., including door hardware, shall comply with Section 404. The door shall be self-closing. ~~A door pull complying with Section 404.2.6 shall be placed on both sides of the door near the latch.~~ Compartment doors shall not swing into the required minimum area of the compartment.

EXCEPTIONS:
1. Outside of the compartment, where the approach is to the latch side of the compartment door clearance between the door side of the compartment and any obstruction shall be 42 inches (1065 mm) minimum.
2. Within the compartment, maneuvering clearances at the door are not required to comply with Section 404.

604.9.3.1 Door Pulls. Door pulls complying with Section 404.2.6 shall be placed on both sides of the compartment door near the latch.

(New Proposal)
604.10.4 Ambulatory Water Closet. The ambulatory accessible water closet shall comply with Sections 604.2 and 604.4.

(New Proposal)

604.10,~~4~~ 5 Grab Bars. Grab bars shall comply with Section 609. Side wall grab bars, both horizontal and vertical, shall complying with Section 604.5.1 shall be provided on both sides of the compartment.

6-20– 12

Revise Table as follows:

Table 604.9.3.1 – Door Opening Locations

Door Opening Location	Measured From	Dimension
Front Wall or Partition	From the side wall or partition closest to the water closet	56 inches (1420 mm) minimum
	Or	
	From the side wall or partition farthest from the water closet	~~4~~ 5 inches (~~102~~ 127 mm) maximum
Side Wall or Partition - Wall-Hung Water Closet	From the rear wall	52 inches (1320 mm) minimum
	Or	
	From the front wall or partition	~~4~~ 5 inches (~~102~~ 127 mm) maximum
Side Wall or Partition - Floor-Mounted Water Closet	From the rear wall	55 inches (1395 mm) minimum
	Or	
	From the front wall or partition	~~4~~ 5 inches (~~102~~ 127 mm) maximum

6-20-12 PC1

Kim Paarlberg, representing ICC

Disapprove the change. Return the text to that found in existing standard.

Reason: The committee did a great job last cycle of revising the requirements to allow for larger stalls and the correct placement of the door. The proposal to change the 4" to 5" was based on the proponent saying then needed more than 4" for support. Well, they could already do that under the current provisions by providing a larger stall so they could get any size support they wanted. There was no technical justification for requiring an additional 1" for the inside stall dimension. Other manufacturers have not identified that that the 4" support does not work for them. In addition, this could put bathrooms currently in compliance in violation for no technical reason. This text should be restored to what it says in the 20009 ICC A117.1.

6-22– 12

Revise as follows:

604.9.5 Toe Clearance <u>at Accessible Compartments</u>. Toe clearance for compartments primarily for children's use shall comply with Section 604.9.5.2. Toe clearance for other wheelchair accessible compartments shall comply with Section 604.9.5.1.

604.9.5.1 Toe Clearance at Compartments. The front partition and at least one side partition <u>of compartments</u> shall provide a toe clearance of ~~9~~ <u>12</u> inches (~~230~~ <u>305</u> mm) minimum above the floor and extending ~~6~~ <u>8</u> inches (~~150~~ <u>205</u> mm) beyond the compartment side face of the partition, exclusive of partition support members.

EXCEPTIONS:

1. Toe clearance at the front partition is not required in a compartment greater than ~~62~~ <u>64</u> inches (~~1575~~ <u>1625</u> mm) in depth with a wall-hung water closet, or greater than ~~65~~ <u>67</u> inches (~~1650~~ <u>1700</u> mm) in depth with a floor-mounted water closet.

2. Toe clearance at the side partition is not required in a compartment greater than ~~66~~ <u>68</u> inches (~~1675~~ <u>1730</u> mm) in width.

604.9.5.2 Toe Clearance at Compartments for Children's Use. The front partition and at least one side partition of compartments primarily for children's use shall provide a toe clearance of 12 inches (305 mm) minimum above the floor and extending ~~6~~ <u>8</u> inches (~~150~~ <u>205</u> mm) beyond the compartment side face of the partition, exclusive of partition support members.

EXCEPTIONS:

1. Toe clearance at the front partition is not required in a compartment greater than ~~65~~ <u>67</u> inches (~~1650~~ <u>1700</u> mm) in depth.

2. Toe clearance at the side partition is not required in a compartment greater than ~~66~~ <u>68</u> inches (~~1675~~ <u>1730</u> mm) in width.

6-22-12 PC1

Harold Kiewel, representing self

Comment: Most national manufacturers of toilet compartments specify their doors and privacy panels to be set with 14-inches of clearance from the floor so that the tops of doors and panels will be high enough to provide privacy for the average user. Are you asking manufacturers to lower this clearance which would reduce the effective privacy? Or to make larger panels (which would require retooling the whole industry and cause an increase in costs)?

6-24– 12

Revise as follows:

604.10.2 Size. The minimum area of an ambulatory accessible compartment shall be 60 inches (1525 mm) minimum in depth and a width of 35 inches (890 mm) minimum and 37 inches (940 mm) maximum ~~36 inches (915 mm) in width~~.

604.11.2 Location. The water closet primarily for children's use shall be located with a wall or partition to the rear and to one side. The centerline of the water closet shall be 12 inches (305 mm) minimum and 18 inches (455 mm) maximum from the side wall or partition except that the water closet shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum from the side wall or partition in the ambulatory *accessible* toilet compartment specified in Section 604.10.1. Water closets located in ambulatory accessible toilet compartments specified in Section 604.10 shall be located as specified in Section 604.2.

605.2 Height and Depth. Urinals shall be of the stall type or shall be of the wall hung type with the rim at 17 inches (430 mm) maximum above the floor. ~~Wall hung~~ Urinals shall be 13 ½ inches (345 mm) minimum in depth measured from the outer face of the urinal rim to the wall.

6-24-12 PC1

Kimberly Paarlberg, representing ICC

Further revise as follows:

604.10.2 Size. The minimum area of an ambulatory accessible compartment shall be 60 inches (1525 mm) minimum in depth and a width of 35 inches (890 mm) minimum and 37 inches (940 mm) maximum.

604.11.2 Location. The water closet primarily for children's use shall be located with a wall or partition to the rear and to one side. The centerline of the water closet shall be 12 inches (305 mm) minimum and 18 inches (455 mm) maximum from the side wall or ~~partition except that the water closet shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum from the side wall or partition in the ambulatory *accessible* toilet compartment specified in Section 604.10.1.~~ Water closets located in ambulatory accessible toilet compartments specified in Section 604.10 shall be located as specified in Section 604.2.

605.2 Height and Depth. Urinals shall be of the stall type or shall be of the wall hung type with the rim at 17 inches (430 mm) maximum above the floor. Urinals shall be 13 ½ inches (345 mm) minimum in depth measured from the outer face of the urinal rim to the wall.

Reason: The new language is in bad code form. In addition, it is not needed as it is already permitted by the reference in the last section.

6-24-12 PC2

Curt Wiehle, Minnesota Construction Codes and Licensing, representing self

Further revise as follows:

604.10.2 Size. The minimum area of an ambulatory accessible compartment shall be 60 inches (1525 mm) minimum in depth and a width of 35 inches (890 mm) minimum and 37 inches (940 mm) maximum.

604.11.2 Location. The water closet ~~primarily for children's use~~ in wheelchair accessible toilet compartments shall be located with a wall or partition to the rear and to one side. The centerline of the water closet shall be 12 inches (305 mm) minimum and 18 inches (455 mm) maximum from the side wall or partition ~~except that the water closet shall be 17 inches (430 mm) minimum and 19 inches (485 mm)~~

~~maximum from the side wall or partition in the ambulatory *accessible* toilet compartment specified in Section 604.10.1.~~ Water closets located in ambulatory accessible toilet compartments specified in Section 604.10 shall be located as specified in Section 604.2.

605.2 Height and Depth. Urinals shall be of the stall type or shall be of the wall hung type with the rim at 17 inches (430 mm) maximum above the floor. Urinals shall be 13 ½ inches (345 mm) minimum in depth measured from the outer face of the urinal rim to the wall.

Reason: The language added in proposal 6-24-12 is redundant with the last sentence in the provision. The revisions here are to clarify the ambulatory and wheelchair provisions.

6-37– 12

Add new text as follows:

606.5 Basin Location. The interior edge of the rim of the lavatory basin shall be located 3 inches (75 mm) maximum from the front edge of the fixture or countertop.

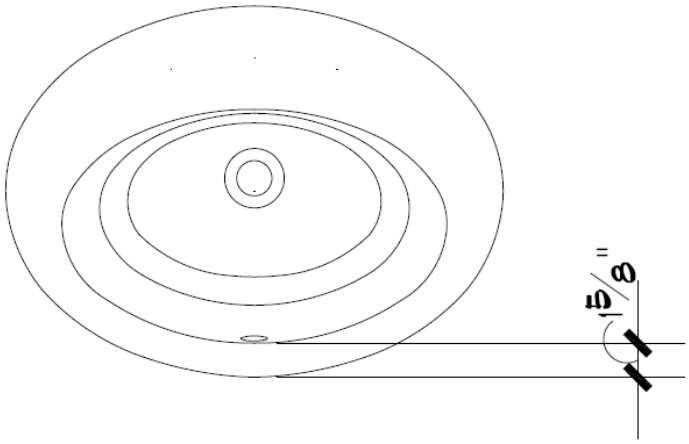
6-37-12 PC1

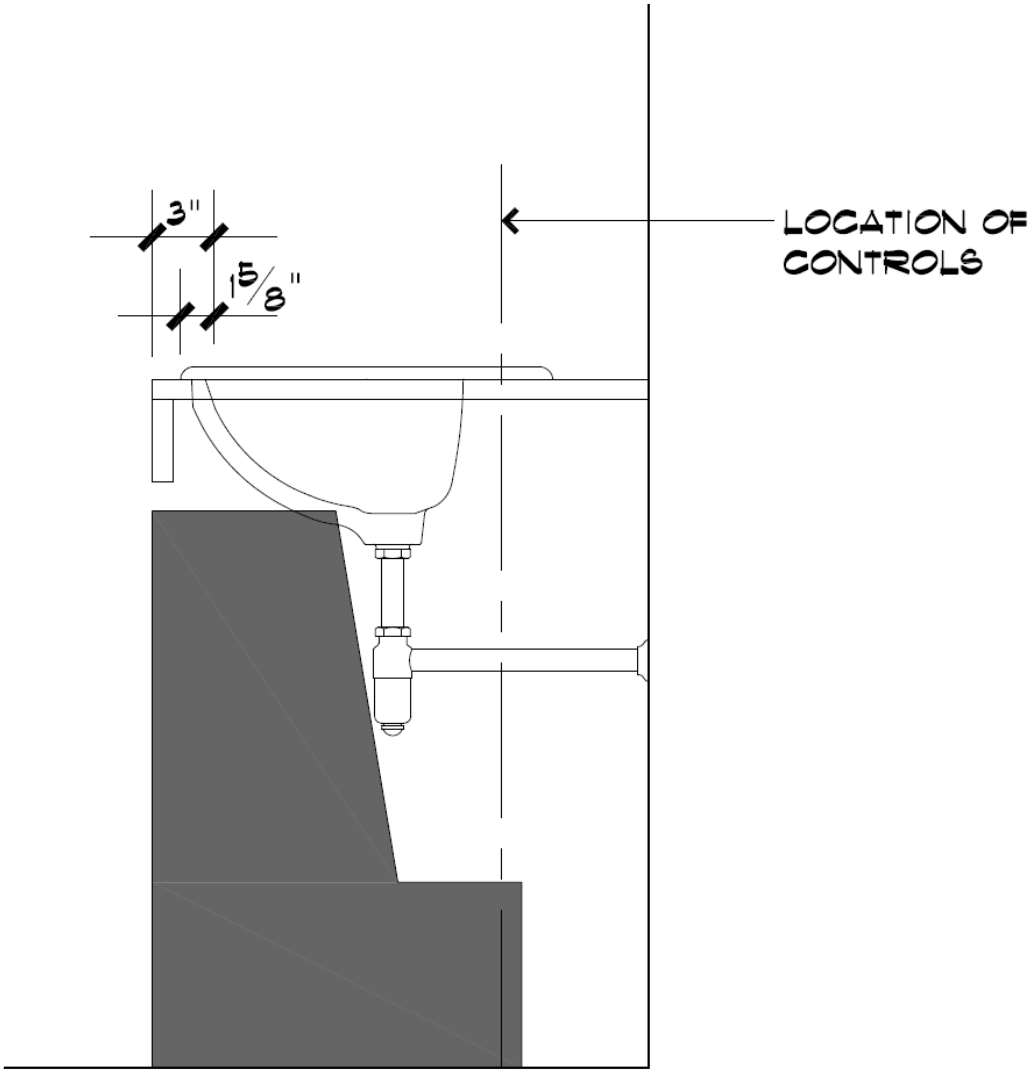
Brad Gaskins, representing self

Further revise as follows:

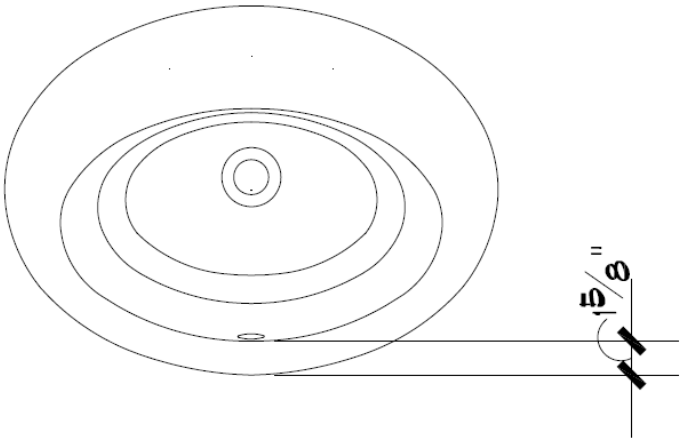
606.5 Basin Location. The interior edge of the rim of the lavatory basin shall be located 3 ½ inches (~~75~~ 90 mm) maximum from the front edge of the fixture or countertop.

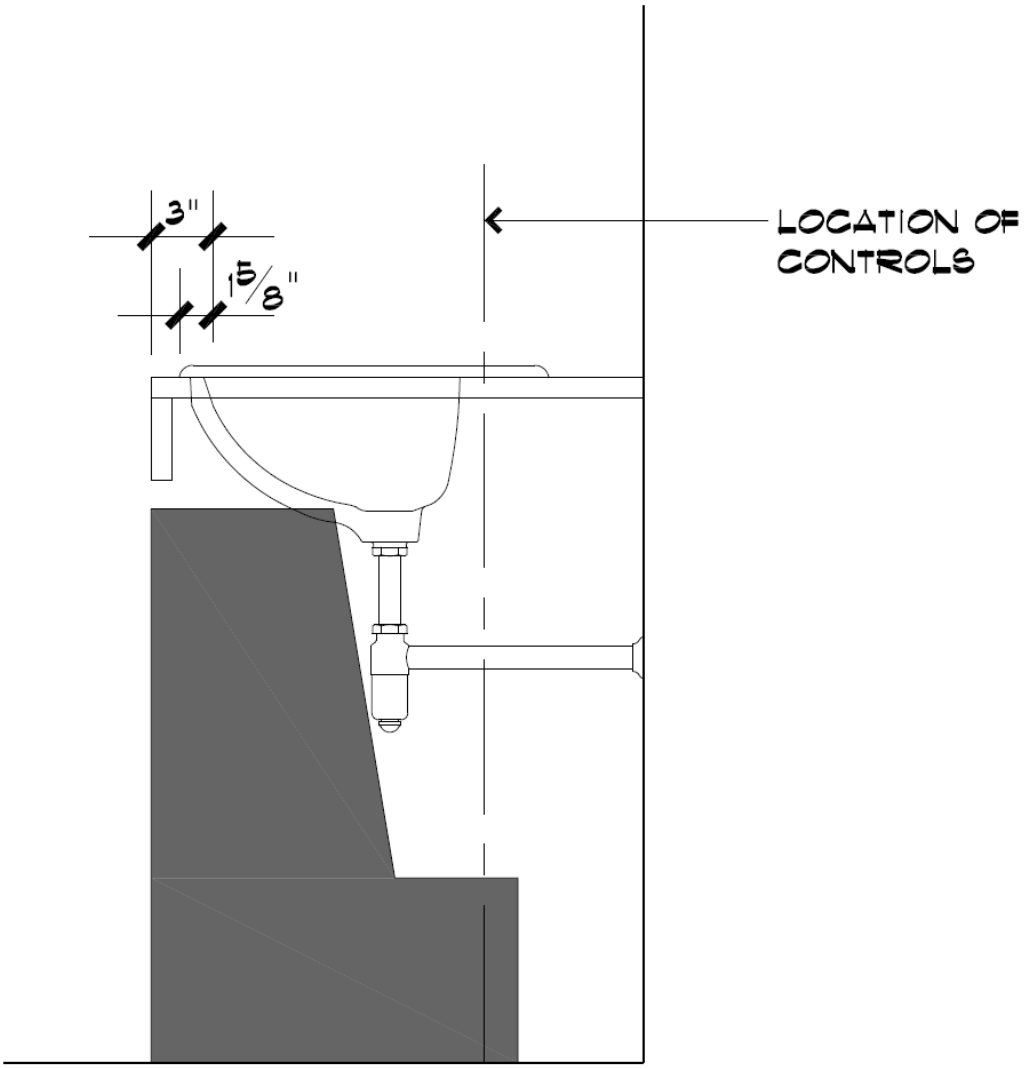
Reason: At the current 3" the from the front edge most sinks would not be able to comply with the required knee clearance. It would be impossible to meet the 8" deep requirement.



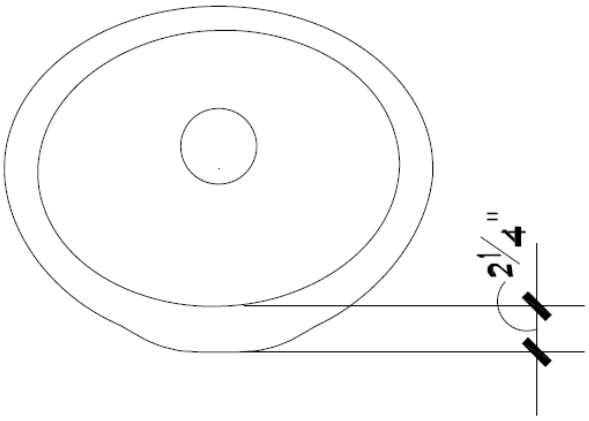


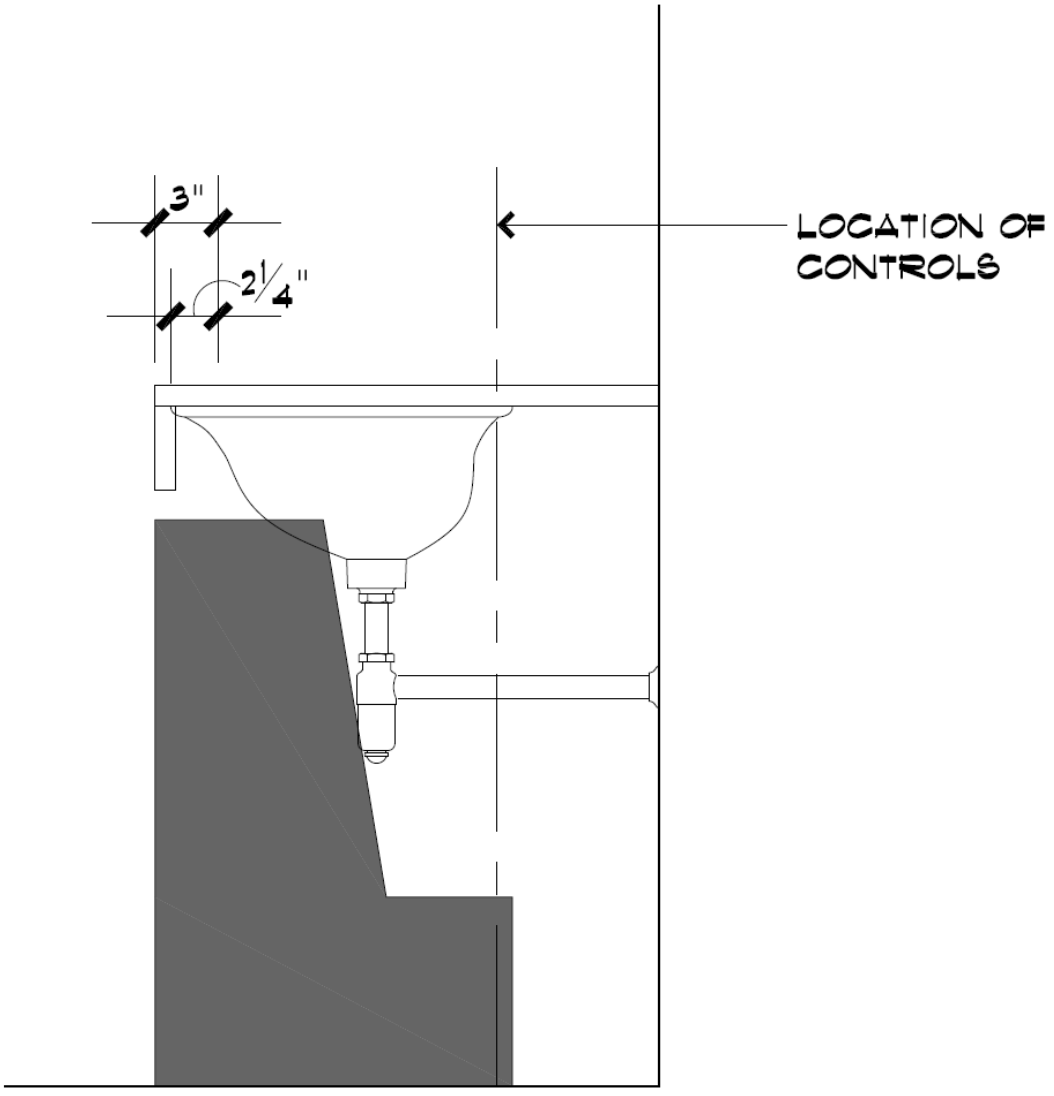
K-2907-1



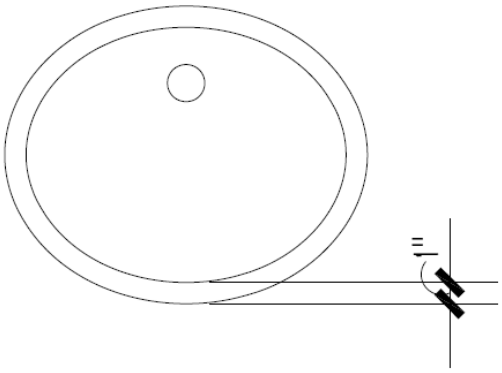


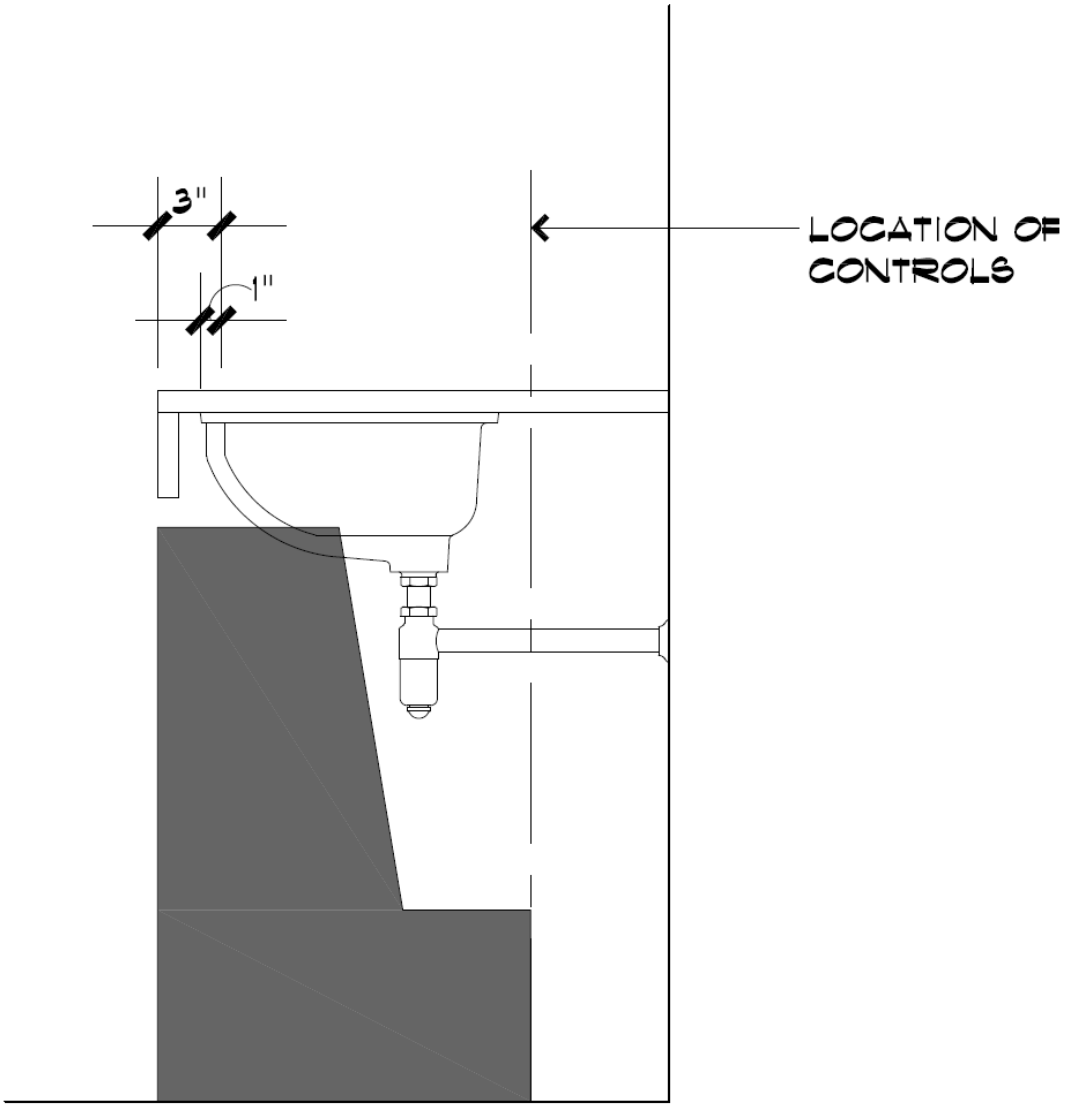
K-2907-4



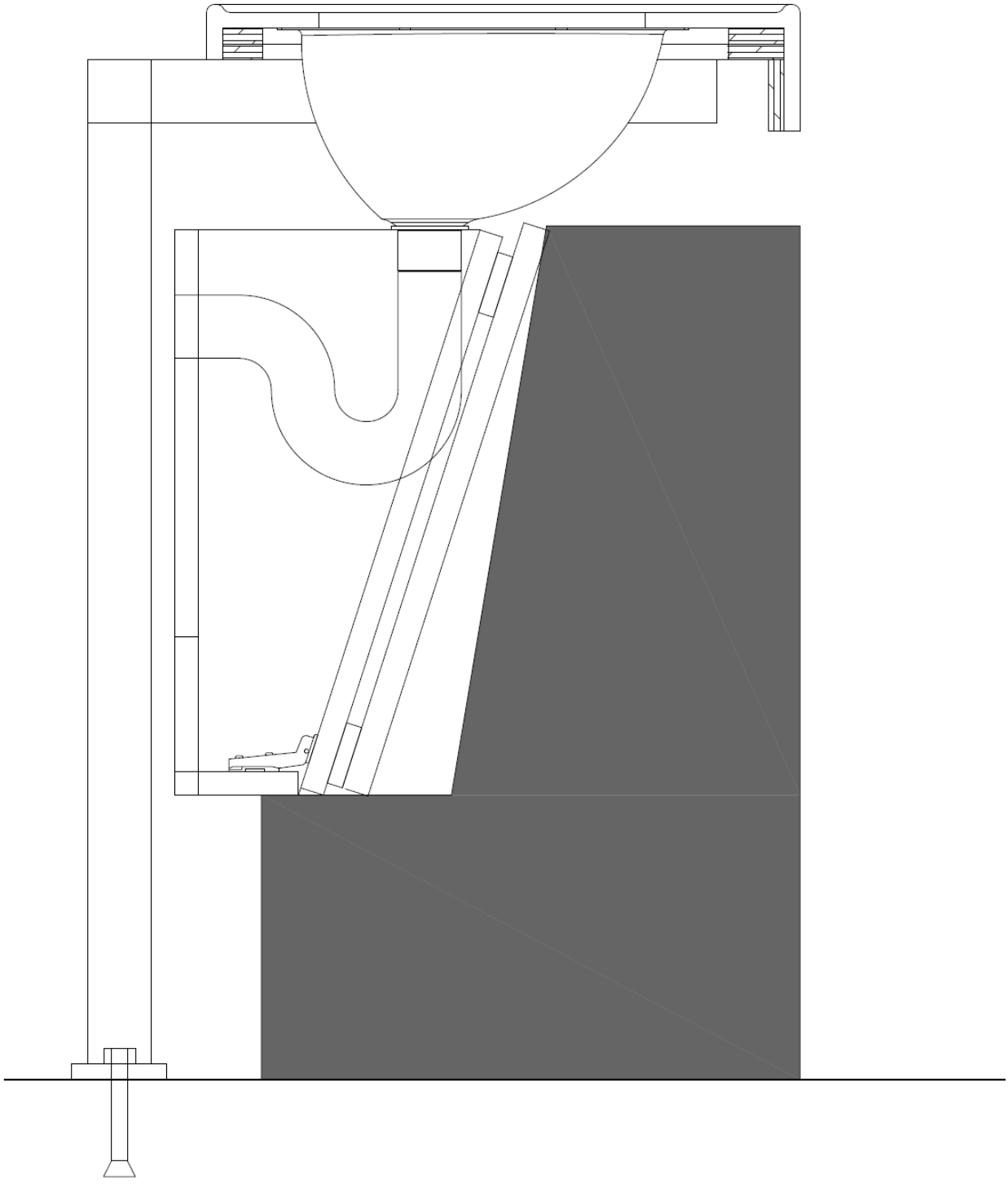


K-2336

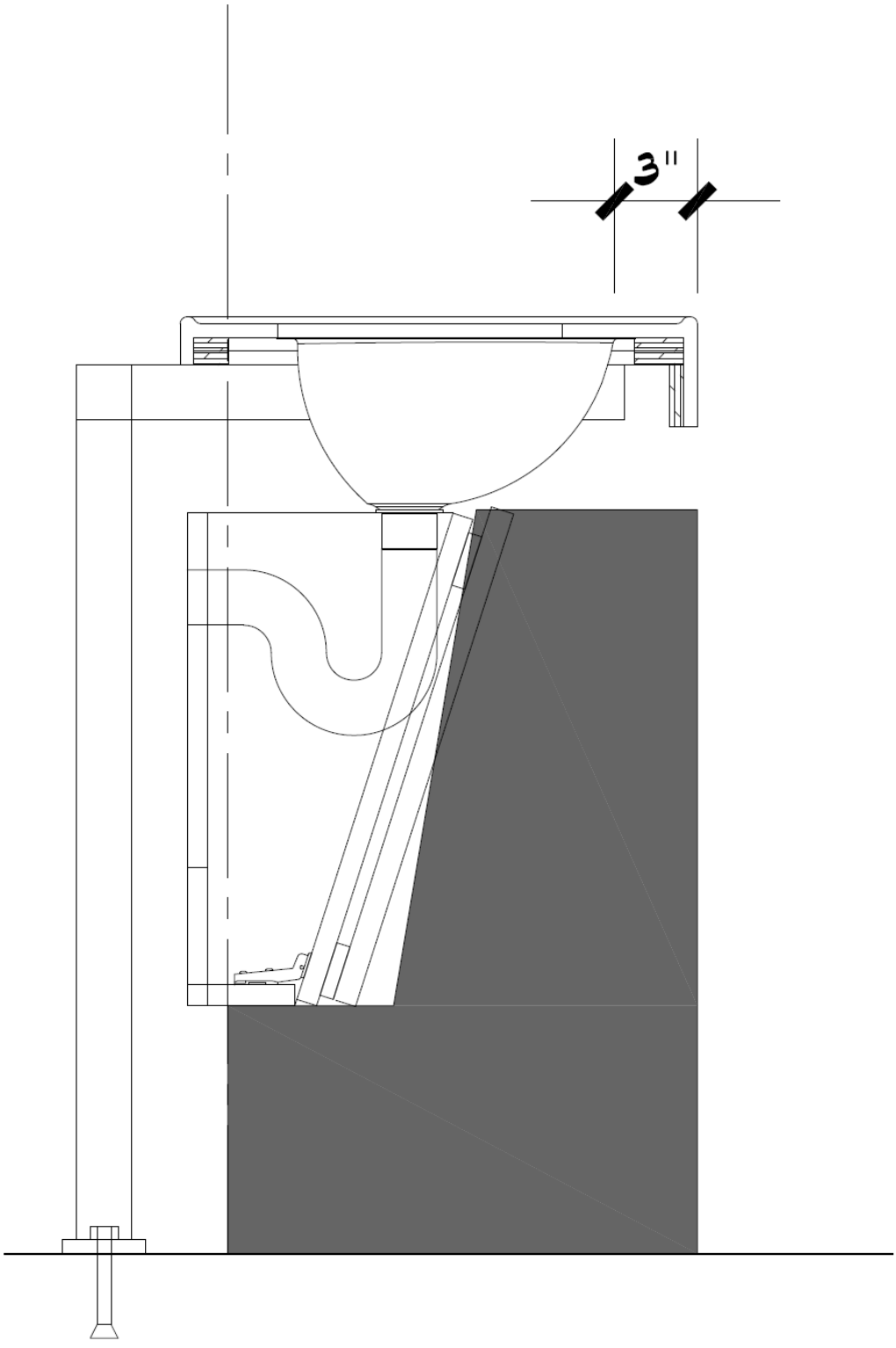




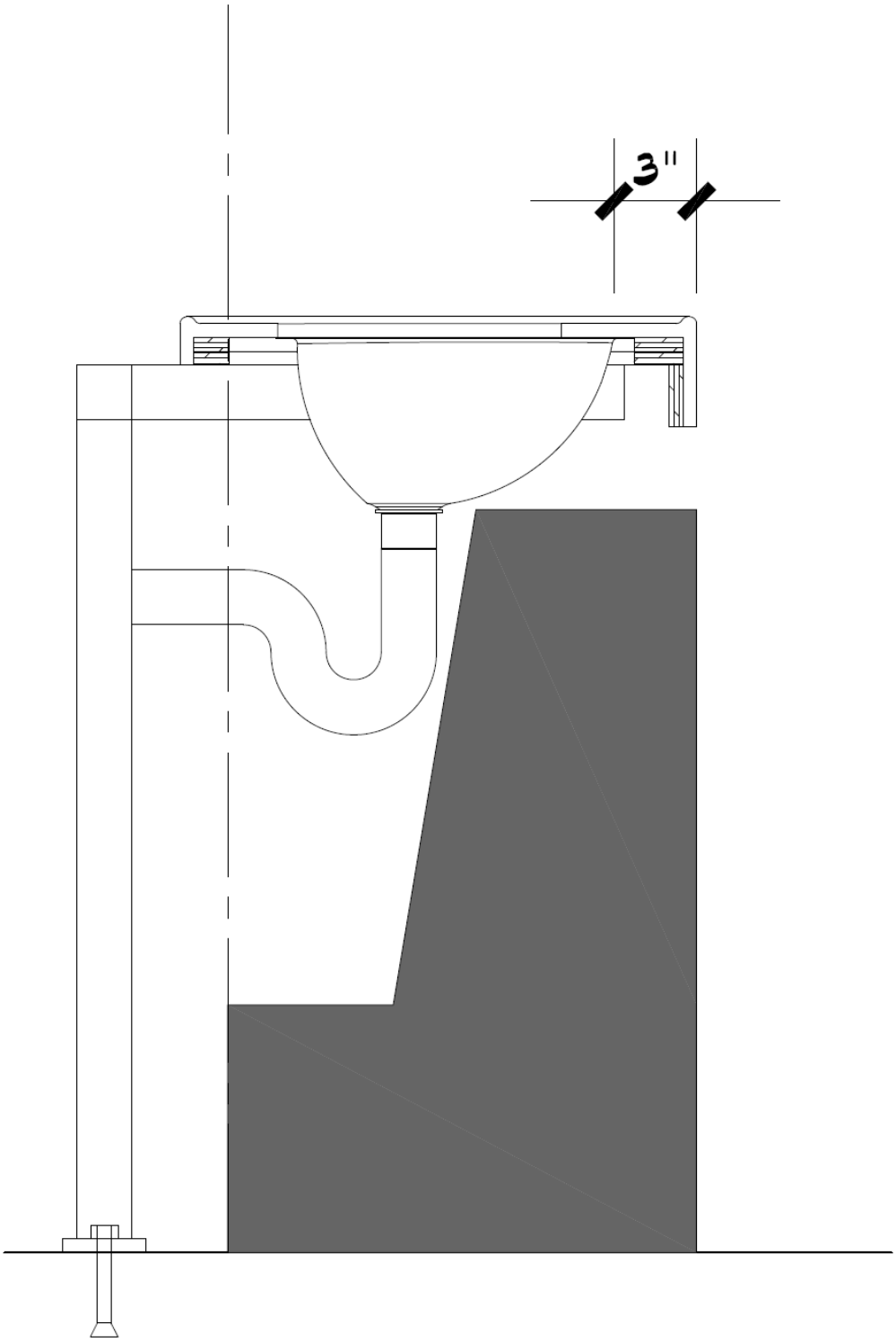
K-2210



EXISTING DESIGN



DESIGN W/ NEW PROPOSED STANDARD



DESIGN W/ NEW PROPOSED STANDARD
(PROTECTIVE SHROUD REMOVDED)

6-37-12 PC2

Kimberly Paarlberg, representing ICC

Delete and substitute as follows:

~~**606.5 Basin Location.** The interior edge of the rim of the lavatory basin shall be located 3 inches (75 mm) maximum from the front edge of the fixture or countertop.~~

1102.11.2.1 Basin Location. The interior edge of the rim of the lavatory basin shall be located 3 inches (75 mm) maximum from the front edge of the fixture or countertop measured at the counter top surface.

Reason: I have checked with some lavatory installers. I have been told that the 3" dimension is not possible to install safely with some undermount lavatories. In addition, the language does not make it clear on how to measure this requirement. If the issue is the ability to brush your teeth, perhaps this would be justifiable in an Accessible hotel room or dorm room bathroom, and is not needed in all public bathrooms as currently indicated – thus the move from 606.5 to 1102.11.2.1.

6-37-12 PC3

Larry Perry, representing self

Disapprove the change. Return the text to that found in existing standard.

Reason: The added requirement would significantly reduce design options for accessible lavatories.
Because of the requirement for knee/toe clearance below accessible lavatories, there The proponent selected a 3" distance as it is similar to what would typically be found at a kitchen sink. Equating a kitchen sink (which is typically made of relatively thin steel, and has vertical interior sides) with a lavatory, which typically is porcelain or other thicker material and has a rounded profile is not appropriate.

This requirement could result in accessible lavatories that would provide a shallow edge where it wouldn't be reached by the flow of water from the faucet.

The proposal will result in a large number of commercial and public/common toilet rooms where there would need to be a single separate accessible lavatory that would be rather 'spartan' compared to that provided at other lavatories.

6-46– 12

Revise as follows:

608.2.1.2 Clearance. A clearance of ~~48~~ 52 inches (~~1220~~ 1360 mm) minimum in length measured perpendicular from 12 inches (305 mm) beyond the ~~control~~ seat wall, and 36 inches (915 mm) minimum in depth shall be provided adjacent to the open face of the compartment.

6-46-12 PC1

Ron Burton, PTW Advisors LLC, representing Building Owners and Managers Association, International; David S. Collins, The Preview Group, representing American Institute of Architects (AIA); Ron Nickson, representing the National Multi-housing Council; Steve Orlowski, representing the National Association of Home Builders; Kim Paarlberg, representing International Code Council

See comment under 3-6-12 PC2

6-46-12 PC2

Kimberly Paarlberg, representing ICC

Further revise as follows:

608.2.1.2 Clearance. A clearance of 52 inches (1360 mm) minimum in length measured perpendicular from ~~12 inches (305 mm) beyond~~ the control ~~seat~~ wall, and 36 inches (915 mm) minimum in depth shall be provided adjacent to the open face of the compartment.

Reason: The increased clear floor space, combined with the change to measure from the seat wall instead of the control wall now prohibits the transfer shower from ever being located in the corner. The shower has to have at least 4" offset (see figure). The study information provided for the increase in clear floor space did not include information on acceptable transfers. The plumbing industry has done these studies. They should be investigated before revising this measurement.

In addition, the transfer location in an alternate roll-in shower does not include the same offset. Therefore, the standard is inconsistent in application.

608.2.3 Alternate Roll-in-Type Shower Compartments. Alternate roll-in-type shower compartments shall comply with Section 608.2.3.

608.2.3.1 Size. Alternate roll-in shower compartments shall have a clear inside dimension of 60 inches (1525 mm) minimum in width, and 36 inches (915 mm) in depth, measured at the center point of opposing sides. An entry 36 inches (915) mm) minimum in width shall be provided at one end of the 60-inch (1525 mm) width of the compartment. A seat wall, 24 inches (610 mm) minimum and 36 inches (915 mm) maximum in length, shall be provided on the entry side of the compartment.

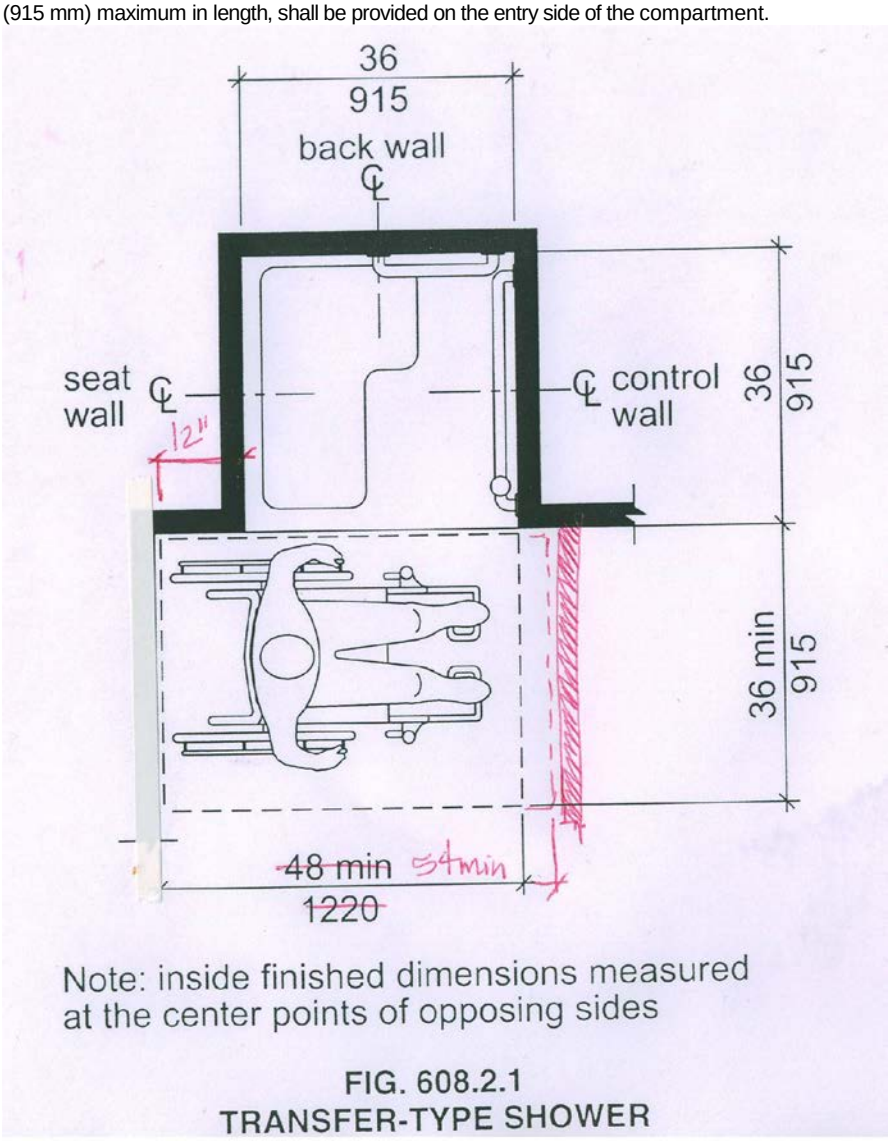


FIG. 608.2.1
TRANSFER-TYPE SHOWER

6-46-12 PC3

Larry Perry, representing self

Further revise as follows:

608.2.1.2 Clearance. A clearance of 48 ~~52~~ inches (1220 ~~1360~~ mm) minimum in length measured perpendicular from ~~12 inches (305 mm) beyond~~ the control ~~seat~~ wall, and 36 inches (915 mm) minimum in depth shall be provided adjacent to the open face of the compartment.

Reason: If the change to increase the wheelchair clear floor space from 48" to 52" does move forward, the proposed transfer shower language is too complicated and is unclear. If the change survives, the clear floor space should be measured from the control wall, as the current text requires.

As proposed, the text doesn't clearly say that the 12" from the control wall would need to be measured away from the shower compartment.

6-46-12 PC4

Curt Wiehle, Minnesota Construction Codes and Licensing, representing self

Further revise as follows:

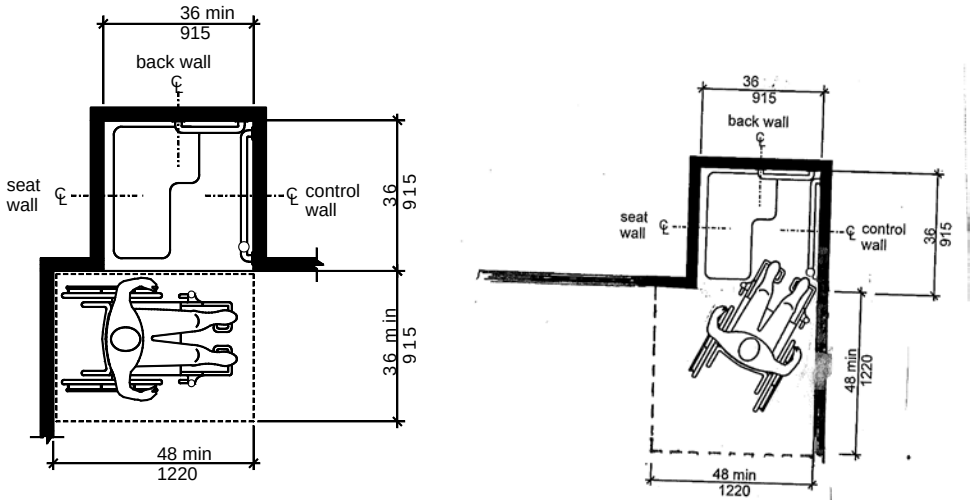
608.2.1.2 Clearance. A clearance of 48 ~~52~~ inches (1220 ~~1360~~ mm) minimum in length measured perpendicular from ~~12 inches (305 mm) beyond the seat~~ the control wall, and ~~36~~ 48 inches (~~915~~ 1220 mm) minimum in depth shall be provided adjacent to the open face of the compartment.

Reason: Delete this figure

The existing figure to accompany this provision should be modified because transfers for individuals who are non-weight bearing or non-ambulatory are not linear transfers. The figure implies a transfer position that is non-functional and impossible for non-weight bearing and non-ambulatory individuals to transfer from. This linear figure should not appear anywhere in the standard.

Non-weight bearing and non-ambulatory wheelchair users will position the wheelchair anywhere from a 45 degree angle to a 90 degree angle from the shower seat. They will run the front of the wheelchair (feet) into the shower as far as possible and plant their feet and pivot in an arc to the shower seat. Additional floor space beyond the control wall is useless and unnecessary for this type of transfer. To accommodate the larger clear floor space of the wheelchair, additional depth of the clearance is required.

This arc type transfer is similar for transferring to any object, water closet, bench, etc.



6-46-12 PC5

Larry Eberly, representing Pennsylvania Builders Association

Disapprove this change. Return the text to that found in existing standard.

Reason: This proposed change relates to the anthropometric study of mobility device users by The Center for IDeA at the University at Buffalo, SUNY which questions decades of universally accepted accessibility clearances and maneuverability contained within Chapter 3: Building Blocks. This revision is based on this single study and should be researched further before such changes occur in the standard.

Pennsylvania Builders Association opposes any change to the ANSI 117.1 building blocks for numerous reasons.

The requirements within Chapter 3: Building Blocks are the standard and precedent for the development of decades of accessibility required clearances, maneuverability and reach ranges both in ANSI A117.1 and federal accessibility laws and their standards (ADA/FHA/ ABA/ UFAS, etc).

Any changes will conflict with and be more stringent than these accepted laws and standards and contradictory to the efforts of the ADA/A117 Harmonization Task Group (HTG) to provide consistent language with the ADA. Residual unforeseen consequences and conflicts with these laws and within the ANSI 117.1 standard itself due to the vast references to this chapter will require extensive future coordination, revisions and clarifications and create a financial burden for residential communities.

These changes are predicated on the anthropometric study of mobility device users by The Center for IDeA at the University at Buffalo, SUNY which predominantly addresses the potential need to accommodate existing electric mobility devices. The Committee's and Wheeled Mobility Task Group's (WMTG) supporting documentation and comments contained in the Backround Report raises serious questions to the study's testing methods, criteria and results and clearly acknowledges the unforeseen residual impact and consequences.

Instead of changing the Building Blocks, a more prudent approach would be to require mobility device manufacturers to comply with the decades of accepted standards, particularly taking in consideration future technology and advances in design.

Stringent changes to the requirements in the ANSI 117.1 standards make private residential communities more handicap accessible than public, institutional and commercial buildings and sites including USPS postal centers, hospitals, schools, retail, office, recreational and cultural establishments. A substantial disparity and financial burden is placed on residential communities, homeowners and builders by requiring residential buildings to comply with stricter standards. In addition, any change to these basic building blocks may also set a precedent for a re-evaluation of all other clearances and requirements not currently included in these proposed changes, particularly dwelling unit bathroom and kitchens.

Pennsylvania adopts the accessibility provisions of the newest triennial revisions to the ICC Family of Codes that have been adopted in PA, which includes the IBC, IRC, IMC, IPC and IEBC. without modification. This includes the references to ICC/ANSI A117.1.

Mandatory adoption in Pennsylvania, without modification, has unforeseen consequences to the building industry, both commercial and residential communities.

6-46-12 PC6

Minh V. Vu, representing American Hotel & Lodging Association

Disapprove this change. Return the text to that found in existing standard.

Reason: See comment 3-6.

6-55 – 12

Please Note: The version of 6-55-12 included in the public review draft was not the final version of 6-55-12 as approved by the committee. The version approved by the committee is a shown in 6-55-12 PC1

6-55-12 as show in public review draft

Revise as follows:

608.3.2 Standard Roll-in-Type Showers. In standard roll-in type showers, a grab bar shall be provided on the back wall beginning at the edge of the seat. The grab bars shall not be provided above the seat. The back wall grab bar shall extend the length of the wall to within 6 inches (150 mm) of the side wall but shall not be required to exceed 48 inches (1220 mm) in length. Where a side wall is provided opposite the seat within 72 inches (1830 mm) of the seat wall, a grab bar shall be provided on the side wall opposite the seat. The side wall grab bar shall extend the length of the wall but shall not be required to exceed 30 inches (760 mm) in length. Grab bars on the side wall shall be 6 inches (150 mm) maximum from the adjacent back wall.

6-55-12 PC1

Kim Paarlberg, representing ICC

Please note: The following reflects the version of 6-55-12 that was approved by the Committee.

608.3.2 Standard Roll-in-Type Showers. Grab bars in standard roll-in showers shall comply with Section 608.3.2.

608.3.2.1 Back wall grab bar. In standard roll-in type showers, a grab bar shall be provided on the back wall beginning at the edge of the seat. The grab bars shall not be provided above the seat. The back wall grab bar shall extend the length of the wall and extend within 6 inches (150 mm) maximum from the adjacent side wall opposite the seat.

Exceptions:

1. The back wall grab bar ~~but~~ shall not be required to exceed 48 inches (1220 mm) in length.

2. The back wall grab bar is not required to extend within 6 inches (150 mm) of the adjacent side wall opposite the seat if it would require the grab bar length to exceed 48 inches (1220 mm) in length.

608.3.2.2 Side wall grab bars. Where a side wall is provided opposite the seat within 72 inches (1830 mm) of the seat wall, a grab bar shall be provided on the side wall opposite the seat. The side wall grab bar shall extend the length of the wall and extend within 6 inches (150 mm) maximum from the adjacent back wall.

Exception: The side wall grab bar ~~but~~ shall not be required to exceed 30 inches (760 mm) in length. ~~Grab bars shall be 6 inches (150 mm) maximum from the adjacent wall.~~

6-55-12 PC2

Brad Gaskins, representing self

Further revise as follows:

608.3.2.2 Side wall grab bars. Where a side wall is provided opposite the seat within 72 inches (1830 mm) of the seat wall, a grab bar shall be provided on the side wall opposite the seat. The side wall grab bar shall extend the length of the wall and extend within 6 inches (150 mm) maximum from the adjacent back wall.

~~**Exception**~~ **Exceptions:**

1. The side wall grab bar shall not be required to exceed 30 inches (760 mm) in length.
2. The side wall grab bar shall not be required to extend closer than 2 inches (50 mm) from the front edge of the shower.

(portions of proposal not shown remain unchanged)

Reason: This change is for constructability. As the section is currently worded the grab bar could be forced to the absolute edge of the wall.

6-55-12 PC3

Curt Wiehle, Minnesota Construction Codes and Licensing, representing self

Further revise as follows:

608.3.2.1 Back wall grab bar. In standard roll-in type showers, a grab bar shall be provided on the back wall beginning at the edge of the seat. The grab bars shall not be provided above the seat. The back

wall grab bar shall extend the length of the wall and extend within 6 inches (150 mm) maximum from the adjacent side wall opposite the seat.

Exceptions:

1. The back wall grab bar ~~but~~ shall not be required to exceed 48 inches (1220 mm) in length.

~~2. The back wall grab bar is not required to extend within 6 inches (150 mm) of the adjacent side wall opposite the seat if it would require the grab bar length to exceed 48 inches (1220 mm) in length.~~

Reason: The first exception already limits the length of the bar to 48 inches. Exception 2 is redundant.

Chapter 7

7-1– 12

Add new text as follows:

105.2.13 Light reflectance value (LRV) of a surface. Method of Test. BS 8493:2008 + A1: 2010 (British Standards Institution, 389 Chiswick High Road, London W4 4AL, United Kingdon).

701.1.2 Light Reflectance Value. The light reflectance value (LRV) of surfaces shall be determined in accordance with BS 8493 for the following surface types:

1. Opaque paint coatings and paint systems, including those that cause extreme angular dependences of reflected light and those that have a surface texture of less than 2 mm;

2. Opaque coverings including those that cause extreme angular dependences of reflected light, and those that have an unyielding texture of less than 2 mm;

3. Opaque coverings with a yielding pile, e.g. carpet;

4. Opaque materials, including those that cause extreme angular dependences of reflected light, and those that have a texture of less than 2 mm, e.g. finished metals;

5. Opaque materials coated with non-opaque coatings or coverings, e.g. timber door coated with a woodstain, including those that cause extreme angular dependences of reflected light, and those that have a texture of less than 2 mm;

6. Multi-colored surfaces;

701.1.2.1 Other Surfaces. Other surfaces shall comply with Section 703.1.3.1.

701.1.3 Contrast Value. The contrast between the LRVs of adjacent surfaces required by Sections 703.2.1.2, 703.5.3.2, 703.6.3.2, 705.3, and 504.5.1 shall be determined by Equation 7-1,

Contrast = [(B1-B2)/B1] x 100 percent **Equation 7-1**

Where

B1 = light reflectance value (LRV) of the lighter surface,
B2 = light reflectance value (LRV) of the darker surface.

701.1.3.1 Other Surfaces. Surfaces not within the scope of BS 8493 shall provide contrast between adjacent surfaces that are either light on dark or dark on light.

Revise as follows

703.2.1 General. Visual characters shall comply with the following:

(Balance of section is not changed)

703.2.1.1 Nonglare Finish. The glare from coverings, the finish of characters and their background shall not exceed 19 as measured on a 60-degree gloss meter.

703.2.1.2 Contrast. The Light Reflectance Value (LRV) of characters and their background shall contrast 70 percent minimum as determined in accordance with Equation 7-1. The lighter surface shall have a LRV of not less than 45.

703.5.3 Finish and Contrast. Pictograms and their fields shall have a nonglare finish. Pictograms shall contrast with their fields, with either light pictograms on a dark field, or dark pictograms on a light field.

703.5.3.1 Nonglare Finish. The glare from coverings and the finish of pictograms and their fields shall not exceed 19 as measured on a 60-degree gloss meter.

703.5.3.2 Contrast. The Light Reflectance Value (LRV) of pictograms and their fields shall contrast 70 percent minimum as determined in accordance with Equation 7-1. The lighter surface shall have a LRV of not less than 45.

703.6.2 Finish and Contrast. Symbols of accessibility and their backgrounds shall have non-glare finish. Symbols of accessibility shall contrast with their backgrounds with either a light symbol on a dark background or a dark symbol on a light background.

703.6.3.1 Nonglare Finish. The glare from coverings and the finish of symbols of accessibility and their backgrounds shall not exceed 19 as measured on a 60-degree gloss meter.

703.6.3.2 Contrast. The Light Reflectance Value (LRV) of symbols of accessibility and their backgrounds shall contrast 70 percent minimum, as determined in accordance with Equation 7-1. The lighter surface shall have a LRV of not less than 45.

705.3 Contrast. Detectable warning surfaces shall contrast visually with adjacent surfaces, either light-on-dark or dark-on-light.

The Light Reflectance Value (LRV) of the surfaces shall contrast 70 percent minimum, as determined in accordance with Equation 7-1. The lighter surface shall have a LRV of not less than 45.

504.5.1 Visual Contrast. The leading 2 inches (51 mm) of the tread shall have visual contrast of dark-on-light or light-on-dark from the remainder of the tread.

The Light Reflectance Value (LRV) of the 2-inch (51 mm) stripe and tread shall contrast 70 percent minimum, as determined in accordance with Equation 7-1. The lighter surface shall have a LRV of not less than 45.

7-1-12 PC1

Christopher G. Bell, representing American Council of the Blind

Comment: ACB strongly supports the revisions to this standard proffered by Allan Fraser. ACB has been told by one of its affiliates that builders are frequently using dots or dashes on tread edges rather than the continuous two surface contrasting colors across the width of the tread which this section contemplates. Because of this apparent confusion, ACB believes the revisions proposed by Mr. Fraser makes clear that there can be no break in the contrasting surface colors.

7-1-12 PC2

Gene Boecker, Code Consultants, Inc, representing National Association of Theatre Owners

Further revise as follows:

~~**701.1.2**~~ **310.1 Light Reflectance Value**. The light reflectance value (LRV) of surfaces shall be determined in accordance with BS 8493 for the following surface types:

1. Opaque paint coatings and paint systems, including those that cause extreme angular dependences of reflected light and those that have a surface texture of less than 2 mm;

2. Opaque coverings including those that cause extreme angular dependences of reflected light, and those that have an unyielding texture of less than 2 mm;

3. Opaque coverings with a yielding pile, e.g. carpet;

4. Opaque materials, including those that cause extreme angular dependences of reflected light, and those that have a texture of less than 2 mm, e.g. finished metals;

5. Opaque materials coated with non-opaque coatings or coverings, e.g. timber door coated with a woodstain, including those that cause extreme angular dependences of reflected light, and those that have a texture of less than 2 mm;

6. Multi-colored surfaces;

~~**701.1.2.1**~~ **310.1.1 Other Surfaces.** Other surfaces shall comply with Section ~~703.1.3.1~~ 310.3.

~~**701.1.3**~~ **310.2 Contrast Value.** The contrast between the LRVs of adjacent surfaces required by Sections 703.2.1.2, 703.5.3.2, 703.6.3.2, 705.3, and 504.5.1 shall be determined by ~~Equation 7-1~~, the following equation:

Contrast = [(B1-B2)/B1] x 100 percent ~~**Equation 7-1**~~

Where

B1 = light reflectance value (LRV) of the lighter surface,
B2 = light reflectance value (LRV) of the darker surface.

~~**701.1.3.1**~~ **310.3 Other Surfaces.** Surfaces not within the scope of BS 8493 shall provide contrast between adjacent surfaces that are either light on dark or dark on light.

Revise as follows

703.2.1 General. Visual characters shall comply with the following:

(Balance of section is not changed)

703.2.1.1 Nonglare Finish. The glare from coverings, the finish of characters and their background shall not exceed 19 as measured on a 60-degree gloss meter.

703.2.1.2 Contrast. The Light Reflectance Value (LRV) of characters and their background shall contrast 70 percent minimum as determined in accordance with ~~Equation 7-1~~ Section 310.2. The lighter surface shall have a LRV of not less than 45.

703.5.3 Finish and Contrast. Pictograms and their fields shall have a nonglare finish. Pictograms shall contrast with their fields, with either light pictograms on a dark field, or dark pictograms on a light field.

703.5.3.1 Nonglare Finish. The glare from coverings and the finish of pictograms and their fields shall not exceed 19 as measured on a 60-degree gloss meter.

703.5.3.2 Contrast. The Light Reflectance Value (LRV) of pictograms and their fields shall contrast 70 percent minimum as determined in accordance with ~~Equation 7-1~~ Section 310.2. The lighter surface shall have a LRV of not less than 45.

703.6.2 Finish and Contrast. Symbols of accessibility and their backgrounds shall have non-glare finish. Symbols of accessibility shall contrast with their backgrounds with either a light symbol on a dark background or a dark symbol on a light background.

703.6.3.1 Nonglare Finish. The glare from coverings and the finish of symbols of accessibility and their backgrounds shall not exceed 19 as measured on a 60-degree gloss meter.

703.6.3.2 Contrast. The Light Reflectance Value (LRV) of symbols of accessibility and their backgrounds shall contrast 70 percent minimum, as determined in accordance with ~~Equation 7-1~~ Section 310.2. The lighter surface shall have a LRV of not less than 45.

705.3 Contrast. Detectable warning surfaces shall contrast visually with adjacent surfaces, either light-on-dark or dark-on-light.

The Light Reflectance Value (LRV) of the surfaces shall contrast 70 percent minimum, as determined in accordance with ~~Equation 7-1~~ Section 310.2. The lighter surface shall have a LRV of not less than 45.

504.5.1 Visual Contrast. The leading 2 inches (51 mm) of the tread shall have visual contrast of dark-on-light or light-on-dark from the remainder of the tread.

The Light Reflectance Value (LRV) of the 2-inch (51 mm) stripe and tread shall contrast 70 percent minimum, as determined in accordance with ~~Equation 7-1~~ Section 310.2. The lighter surface shall have a LRV of not less than 45.

Portions not shown remain unchanged.

Reason: The added language is a building block and not limited to visual communication items in Chapter 7. Section 504.4.1 is included so this should be relocated to Chapter 3 where it can be referenced as necessary for any additional contrast and/or LRV provisions that may enter into the standard. The majority of the change is the renumbering to make it compatible with the new location in Chapter 3 and a new title to the 310 Section.

One additional change was in Section 701.1.3 (new 310.2). Rather than list an equation number, the language is changed to reflect the manner in which another equation is used in the standard. Section 407.3.4 addresses elevator door and signal timing. The equation is maintained but the reference is to the section in which the equation is located.

7-1-12 PC3

Teresa E. Cox, representing International Sign Association

Delete and substitute as follows:

~~**105.2.13 Light reflectance value (LRV) of a surface. Method of Test.** BS 8493:2008 + A1: 2010 (British Standards Institution, 389 Chiswick High Road, London W4 4AL, United Kingdon).~~

~~**701.1.2 Light Reflectance Value**. The light reflectance value (LRV) of surfaces shall be determined in accordance with BS 8493 for the following surface types:~~

~~1. Opaque paint coatings and paint systems, including those that cause extreme angular dependences of reflected light and those that have a surface texture of less than 2 mm;~~

~~2. Opaque coverings including those that cause extreme angular dependences of reflected light, and those that have an unyielding texture of less than 2 mm;~~

~~3. Opaque coverings with a yielding pile, e.g. carpet;~~

~~4. Opaque materials, including those that cause extreme angular dependences of reflected light, and those that have a texture of less than 2 mm, e.g. finished metals;~~

5. Opaque materials coated with non-opaque coatings or coverings, e.g. timber door coated with a woodstain, including those that cause extreme angular dependences of reflected light, and those that have a texture of less than 2 mm;

6. Multi-colored surfaces;

701.1.2.1 Other Surfaces. Other surfaces shall comply with Section 703.1.3.1.

701.1.3 Contrast Value. The contrast between the LRVs of adjacent surfaces required by Sections 703.2.1.2, 703.5.3.2, 703.6.3.2, 705.3, and 504.5.1 shall be determined by Equation 7-1,

Contrast = [(B1-B2)/B1] x 100 percent **Equation 7-1**

Where

B1 = light reflectance value (LRV) of the lighter surface,
B2 = light reflectance value (LRV) of the darker surface.

701.1.3.1 Other Surfaces. Surfaces not within the scope of BS 8493 shall provide contrast between adjacent surfaces that are either light on dark or dark on light.

Revise as follows

703.2.1 General. Visual characters shall comply with the following:

(Balance of section is not changed)

703.2.1.1 Nonglare Finish. The glare from coverings, the finish of characters and their background shall not exceed 19 as measured on a 60-degree gloss meter.

703.2.1.2 Contrast. The Light Reflectance Value (LRV) of characters and their background shall contrast 70 percent minimum as determined in accordance with Equation 7-1. The lighter surface shall have a LRV of not less than 45.

703.5.3 Finish and Contrast. Pictograms and their fields shall have a nonglare finish. Pictograms shall contrast with their fields, with either light pictograms on a dark field, or dark pictograms on a light field.

703.5.3.1 Nonglare Finish. The glare from coverings and the finish of pictograms and their fields shall not exceed 19 as measured on a 60-degree gloss meter.

703.5.3.2 Contrast. The Light Reflectance Value (LRV) of pictograms and their fields shall contrast 70 percent minimum as determined in accordance with Equation 7-1. The lighter surface shall have a LRV of not less than 45.

703.6.2 Finish and Contrast. Symbols of accessibility and their backgrounds shall have non-glare finish. Symbols of accessibility shall contrast with their backgrounds with either a light symbol on a dark background or a dark symbol on a light background.

703.6.3.1 Nonglare Finish. The glare from coverings and the finish of symbols of accessibility and their backgrounds shall not exceed 19 as measured on a 60-degree gloss meter.

703.6.3.2 Contrast. The Light Reflectance Value (LRV) of symbols of accessibility and their backgrounds shall contrast 70 percent minimum, as determined in accordance with Equation 7-1. The lighter surface shall have a LRV of not less than 45.

~~**705.3 Contrast.** Detectable warning surfaces shall contrast visually with adjacent surfaces, either light-on-dark or dark-on-light.~~

~~The Light Reflectance Value (LRV) of the surfaces shall contrast 70 percent minimum, as determined in accordance with Equation 7-1. The lighter surface shall have a LRV of not less than 45.~~

~~**504.5.1 Visual Contrast.** The leading 2 inches (51 mm) of the tread shall have visual contrast of dark-on-light or light-on-dark from the remainder of the tread.~~

~~The Light Reflectance Value (LRV) of the 2-inch (51 mm) stripe and tread shall contrast 70 percent minimum, as determined in accordance with Equation 7-1. The lighter surface shall have a LRV of not less than 45.~~

703.2.1 General. Visual characters shall comply with the following:

(Balance of section is not changed)

703.2.1.1 Nonglare Finish. The glare from coverings, the finish of characters and their background shall not exceed 19 as measured on a 60-degree gloss meter.

703.2.10 Contrast. Characters shall contrast with their background, with either light characters on a dark background or dark characters on a light background.

703.5.3.1 Nonglare Finish. The glare from coverings and the finish of pictograms and their fields shall not exceed 19 as measured on a 60-degree gloss meter.

703.5.3.2 Contrast. Characters shall contrast with their background, with either light characters on a dark background or dark characters on a light background.

703.6.2 Finish and Contrast. Symbols of accessibility and their backgrounds shall have non-glare finish. Symbols of accessibility shall contrast with their backgrounds with either a light symbol on a dark background or a dark symbol on a light background.

703.6.3.1 Nonglare Finish. The glare from coverings and the finish of symbols of accessibility and their backgrounds shall not exceed 19 as measured on a 60-degree gloss meter.

705.3 Contrast. Detectable warning surfaces shall contrast visually with adjacent surfaces, either light-on-dark or dark-on-light.

504.5.1 Visual Contrast. The leading 2 inches (51 mm) of the tread shall have visual contrast of dark-on-light or light-on-dark from the remainder of the tread.

Reason: 1. The LRV's of many standard sign materials cannot be measured using the British Standard Method of Test.

2. Site conditions, particularly the type and intensity of lighting, have great impact on perceived contrast. Following the formula without considering site conditions, would allow combinations that do not have enough contrast, and prohibit others that are perfectly legible when appropriate lighting is provided.

3. The British Standard states in part "The method described in this standard is not appropriate for making on-site measurements. Therefore it is recommended that published LRV data, determined in accordance with this standard, are used for the determination of visual contrast." Relying on the British Standard (BS) establishes a design standard that lacks a corresponding field method to accurately calculate conforming color contrast of signs installed on-site.

4. The BS is referenced by a British government accessibility standard, Approved Document M (ADM 2010, with 2013 amendments), in association with measuring the difference in LRV's of adjacent building elements. Consistent with this application, the BS specifies sample sizes ranging from 450 mm x 450 mm (appx. 17.7 inches x 17.7 inches) to 25 mm x 25 mm (appx. 1 inch x 1 inch). But there appears to be no supporting evidence that the BS's LRV difference measurements are predictive of legibility for any population with special visual needs (e.g. elders, those with mild low vision), and the BS does not provide a means to measure for conformance, under actual field conditions, the LRV's of small graphic elements, especially text or visual symbols.

5. This proposal is really no different than proposals that have been defeated numerous times for multiple reasons, except for the addition of a new standard of questionable utility. The mere addition of any new standard, though, does not in any way support the adoption of 70% as a threshold value. In fact, the 70% figure is not mentioned in the BS.

6. Research is sorely needed to provide a rational basis for a signage contrast standard that can be applied simply, and prior to final site installation, whose conformance is predictive of legibility under typical if not actual field conditions.

7-1-12 PC4

David Hall, representing self

Disapprove the change. Return the text to that found in existing standard.

Reason: You people are out of your minds. Delete this new section. Although I can sympathize with people that have visual impairments, as I have the beginnings of cataracts, it is my opinion that you people have stepped over the line. It was always the physically disabled wanted to be treated equally. This change and a few others now appear to make the physically disabled a special group above the so call "normal" people. It would be much simpler and better if you just called out 2 colors that eceryone has to use of for any non-electric signs.

The building community will not be happy with what you are proposing. You have no idea how many calls I get as a building code official from people complaining that they have to spend all this money for accessibility when on one, especially people in wheel chairs, ever comes to their buildings.

I expect you to write this comment off, but from my perspective as a building official. You guys are heading for a huge backlash from the real world.

7-1-12 PC5

Harold Kiewel, representing self

Revise as follows:

Add definitions of *Visual Contrast* and *Non-Glare Finish* to Part 1 reading as follows

Visual Contrast means 70-percent or more separation between the LRV of an object and its field or background when calculated using Cv = 100 ((B1 - B2) / B1), where:

Cv = visual contrast expressed as the percent of LRV separation,
B1 = BS 8493 LRV of the lighter surface, and
B2 = BS 8493 LRV of the darker surface

Non-Glare Finish means an ASTM D 523, specular gloss of 19 or less when measured with a 60-degree gloss meter.

Add to list of references in Part 1 of the Standard:

BS 8493-2008 - Test Method for Light Reflectance Value (LRV) of a surface
ASTM D 523 - Specular Gloss

703.2.1.1 Nonglare Finish. ~~The glare from coverings, the finish of characters and their background shall not exceed 19 as measured on a 60-degree gloss meter.~~ Characters, their background field, and surrounding surface coverings shall have non-glare finish.

Reason: How available is the BS 8493 test data for the kinds of materials in question? Is there a hand-held meter that you can point-and-shoot at materials in the field (like concrete)? Are we going to be able to police this?

How realistic is 70-percent contrast as an across-the-board standard? It may be readily achievable in signage, but in other construction material combinations like detectable warning tile and concrete, or stair-nosing inserts and bar-grating treads, it may be difficult to approach even 50-percent separation.

703.2.1.1; 703.5.3.1; and 703.6.3.1 verbatim redundancy
703.2.1.2; 703.5.3.2; and 703.6.3.2 verbatim redundancy

The repetition of this language clearly points to an inefficient and archaic writing style; we should mount an effort to streamline the Standard.

7-1-12 PC6

Rick Lupton, representing self

Revise as follows:

106.2.3 ~~105.2.13~~ Light reflectance value (LRV) of a surface. Method of Test. BS 8493:2008 + A1: 2010 (British Standards Institution, 389 Chiswick High Road, London W4 4AL, United ~~Kingdon~~ Kingdom).

106.5 Defined Terms.

gloss units (GU): The measurement scale of a glossmeter, based on a reference black glass standard with a defined refractive index having a specular reflectance of 100GU at the specified angle.

310 Contrast

310.1 General. The contrast of adjacent surfaces shall comply with Section 310.

310.2 ~~701.1.3~~ Percent Contrast ~~Value~~. The percent contrast between the light reflectance value (LRV)~~s~~ of adjacent surfaces ~~required by Sections 703.2.1.2, 703.5.3.2, 703.6.3.2, 705.3, and 504.5.1~~ shall be calculated ~~determined~~ by the following equation: ~~Equation 7-1,~~

Percent Contrast = [(B1 - B2) / B1] x 100 percent- **~~Equation 7-1~~**

Where:

B1 = ~~light reflectance value (LRV)~~ the LRV of the lighter surface~~,~~
B2 = ~~light reflectance value (LRV)~~ the LRV of the darker surface.

310.2.1 ~~701.1.2~~ Light Reflectance Value. The light reflectance value (LRV) of surfaces shall be determined in accordance with BS 8493, listed in Section 106.2.3, for the following surface types:

1. Opaque paint coatings and paint systems, including those that cause extreme angular dependences of reflected light and those that have a surface texture of less than 2 mm;

2. Opaque coverings including those that cause extreme angular dependences of reflected light, and those that have an unyielding texture of less than 2 mm;

3. Opaque coverings with a yielding pile~~, e.g. carpet~~;

4. Opaque materials, including those that cause extreme angular dependences of reflected light, and those that have a texture of less than 2 mm~~, e.g. finished metals~~;

5. Opaque materials coated with non-opaque coatings or coverings, ~~e.g. timber door coated with a woodstain,~~ including those that cause extreme angular dependences of reflected light, and those that have a texture of less than 2 mm;

6. Multi-colored surfaces;

~~**701.1.2.1 Other Surfaces.** Other surfaces shall comply with Section 703.1.3.1.~~

> **Exception: ~~701.1.3.1 Other Surfaces.~~** Surfaces not within the scope of BS 8493, listed in Section 106.2.3, shall provide contrast between adjacent surfaces that are either light on dark or dark on light.

504.5.1 Visual Contrast. The leading 2 inches (51 mm) of the tread shall have visual contrast of dark-on-light or light- on-dark from the remainder of the tread.

The contrast ~~Light Reflectance Value (LRV)~~ of the 2-inch (51 mm) stripe to the ~~and~~ tread shall be

~~contrast~~ 70 percent minimum, in accordance with Section 310. ~~as determined in accordance with Equation 7-1.~~ The lighter surface shall have a LRV of not less than 45.

703.2.1.1 Nonglare Finish. The glare from coverings, the finish of characters and their background shall not exceed 19 *gloss units (GU)* as measured on a 60-degree gloss meter.

703.2.1.2 Contrast. The contrast ~~Light Reflectance Value (LRV)~~ of characters to ~~and~~ their background shall be ~~contrast~~ 70 percent minimum in accordance with Section 310. ~~as determined in accordance with Equation 7-1.~~ The lighter surface shall have a LRV of not less than 45.

703.5.3.1 Nonglare Finish. The glare from coverings and the finish of pictograms and their fields shall not exceed 19 *gloss units (GU)* as measured on a 60-degree gloss meter.

703.5.3.2 Contrast. The contrast ~~Light Reflectance Value (LRV)~~ of pictograms and their fields shall be ~~contrast~~ 70 percent minimum in accordance with Section 310. ~~as determined in accordance with Equation 7-1.~~ The lighter surface shall have a LRV of not less than 45.

703.6.3.1 Nonglare Finish. The glare from coverings and the finish of symbols of accessibility and their backgrounds shall not exceed 19 *gloss units (GU)* as measured on a 60-degree gloss meter.

703.6.3.2 Contrast. The contrast ~~Light Reflectance Value (LRV)~~ of symbols of accessibility to ~~and~~ their backgrounds shall be ~~contrast~~ 70 percent minimum, in accordance with Section 310. ~~as determined in accordance with Equation 7-1.~~ The lighter surface shall have a LRV of not less than 45.

705.3 Contrast. Detectable warning surfaces shall contrast visually with adjacent surfaces, either light-on-dark or dark-on- light.

The contrast ~~Light Reflectance Value (LRV)~~ of the surfaces shall be ~~contrast~~ 70 percent minimum, in accordance with Section 310. ~~as determined in accordance with Equation 7-1.~~ The lighter surface shall have a LRV of not less than 45.

Reason: I've submitted this public comment to:

- Relocate the section on how contrast is measured to Chapter 3 Building Blocks;
- Clarify that appropriate contrast of adjacent surfaces is the measure sought;
- Provide language consistent with the conventions of the A117.1 standard, and;
- Omit commentary.
- Define the units for measuring glare;

There is no intent to modify the technical substance of the original proposal.

The proposed Sections 701.1.2 through 701.1.3.1, regarding the measurement of contrast, are improperly located as a subsection to the "scope" section in Chapter 7. It is not a part of scope but an independent provision. Additionally, the measure of contrast is applicable to more than communication elements and features; for example, by reference from Section 504.5.1 regarding edge stripping at stair treads. I propose locating these provisions as a new Section 310 in Chapter 3 Building Blocks is more appropriate, as was suggested to me, as a Public Comment, by the editing committee. The scoping provisions of Chapter 3 will limit the applicability of the contrast provisions to where required by Chapters 4 through 11, rather than providing a laundry list of code sections. Public Comment Sections 310 through 310.2.1, plus an exception, includes all technical substance of the current proposal, Sections 701.1.2 through 701.1.3.1.

While the current proposal leads with how to measure the reflectance of a surface (light reflectance value) then follows with an equation to calculate contrast, I reason that the contrast of adjacent surfaces is the primary consideration of these provisions, and measuring the reflectance (LRV) necessary only a means to measure the contrast between adjacent surfaces. Hence, I propose leading with the equation for measuring contrast and the method for measuring surface reflectance as a subsection to the equation. And, Sections 504.5.1, 703.2.1.2, 703.5.3.2, 703.6.3.2 and 705.3, each of which points to Section 310, are modified to reflect a percentage of contrast rather than a percentage of light reflectance value. The term "percent" is added, within Section 310.2 to coincide with reference sections, as the resultant measure of contrast.

In addition, because 701.1.2.1 serves only to reference 701.1.3.1, and 701.1.3.1 is an exception for when the surfaces do not fall within the scope of BS 8493; I've omitted Section 701.1.2.1 and changed Section 701.1.3.1 to an exception to new Section 310.2. The result is one either calculates the contrast, using the light reflectance value of adjacent surfaces, or one provides light on dark or dark on light where the surface materials are not within the scope of BS8493.

Then I've used this standard's convention for referencing a standard outside of A117.1 and I propose omitting, as commentary, examples of materials described in new Section 310.2.1.

Lastly, I've proposed labeling the units of the value limiting glare (as measured by a gloss meter), so that the

scale used by this standard (A117.1) is clear. By my research, gloss meters use a scale based on gloss units. Introducing "gloss units (GU)" meant adding a definition in Section 106.5.

In summary, the original proposal is intended to provide minimum limits for contrast and maximum limits for glare. The result of this Public Comment is the provisions are moved to building blocks; the order and language clarifies that the critical determination is the contrast between adjacent surfaces; ANSI convention used to reference outside standard and commentary language omitted, and; glare limits are related to the scale of a gloss meter.

7-1-12 PC7

David W. Miller, representing Society for Experiential Graphic Design

Delete and substitute as follows:

~~**105.2.13 Light reflectance value (LRV) of a surface. Method of Test.** BS 8493:2008 + A1: 2010 (British Standards Institution, 389 Chiswick High Road, London W4 4AL, United Kingdon).~~

~~**701.1.2 Light Reflectance Value**. The light reflectance value (LRV) of surfaces shall be determined in accordance with BS 8493 for the following surface types:~~

~~1. Opaque paint coatings and paint systems, including those that cause extreme angular dependences of reflected light and those that have a surface texture of less than 2 mm;~~

~~2. Opaque coverings including those that cause extreme angular dependences of reflected light, and those that have an unyielding texture of less than 2 mm;~~

~~3. Opaque coverings with a yielding pile, e.g. carpet;~~

~~4. Opaque materials, including those that cause extreme angular dependences of reflected light, and those that have a texture of less than 2 mm, e.g. finished metals;~~

~~5. Opaque materials coated with non-opaque coatings or coverings, e.g. timber door coated with a woodstain, including those that cause extreme angular dependences of reflected light, and those that have a texture of less than 2 mm;~~

~~6. Multi-colored surfaces;~~

~~**701.1.2.1 Other Surfaces.** Other surfaces shall comply with Section 703.1.3.1.~~

~~**701.1.3 Contrast Value.** The contrast between the LRVs of adjacent surfaces required by Sections 703.2.1.2, 703.5.3.2, 703.6.3.2, 705.3, and 504.5.1 shall be determined by Equation 7-1,~~

~~Contrast = [(B1-B2)/B1] x 100 percent **Equation 7-1**~~

~~Where~~

~~B1 = light reflectance value (LRV) of the lighter surface,~~
~~B2 = light reflectance value (LRV) of the darker surface.~~

~~**701.1.3.1 Other Surfaces.** Surfaces not within the scope of BS 8493 shall provide contrast between adjacent surfaces that are either light on dark or dark on light.~~

~~**Revise as follows**~~

~~**703.2.1 General.** Visual characters shall comply with the following:~~

~~*(Balance of section is not changed)*~~

~~**703.2.1.1 Nonglare Finish**. The glare from coverings, the finish of characters and their background shall not exceed 19 as measured on a 60-degree gloss meter.~~

~~**703.2.1.2 Contrast.** The Light Reflectance Value (LRV) of characters and their background shall contrast 70 percent minimum as determined in accordance with Equation 7-1. The lighter surface shall have a LRV of not less than 45.~~

~~**703.5.3 Finish and Contrast.** Pictograms and their fields shall have a nonglare finish. Pictograms shall contrast with their fields, with either light pictograms on a dark field, or dark pictograms on a light field.~~

~~**703.5.3.1 Nonglare Finish**. The glare from coverings and the finish of pictograms and their fields shall not exceed 19 as measured on a 60-degree gloss meter.~~

~~**703.5.3.2 Contrast.** The Light Reflectance Value (LRV) of pictograms and their fields shall contrast 70 percent minimum as determined in accordance with Equation 7-1. The lighter surface shall have a LRV of not less than 45.~~

~~**703.6.2 Finish and Contrast.** Symbols of accessibility and their backgrounds shall have non-glare finish. Symbols of accessibility shall contrast with their backgrounds with either a light symbol on a dark background or a dark symbol on a light background.~~

~~**703.6.3.1 Nonglare Finish**. The glare from coverings and the finish of symbols of accessibility and their backgrounds shall not exceed 19 as measured on a 60-degree gloss meter.~~

~~**703.6.3.2 Contrast.** The Light Reflectance Value (LRV) of symbols of accessibility and their backgrounds shall contrast 70 percent minimum, as determined in accordance with Equation 7-1. The lighter surface shall have a LRV of not less than 45.~~

~~**705.3 Contrast.** Detectable warning surfaces shall contrast visually with adjacent surfaces, either light-on-dark or dark-on-light.~~

~~The Light Reflectance Value (LRV) of the surfaces shall contrast 70 percent minimum, as determined in accordance with Equation 7-1. The lighter surface shall have a LRV of not less than 45.~~

~~**504.5.1 Visual Contrast.** The leading 2 inches (51 mm) of the tread shall have visual contrast of dark-on-light or light-on-dark from the remainder of the tread.~~

~~The Light Reflectance Value (LRV) of the 2-inch (51 mm) stripe and tread shall contrast 70 percent minimum, as determined in accordance with Equation 7-1. The lighter surface shall have a LRV of not less than 45.~~

703.2.1.1 Nonglare Finish. The glare from coverings, the finish of characters and their background shall not exceed 19 as measured on a 60-degree gloss meter.

703.2.10 Contrast. Characters shall contrast with their background, with either light characters on a dark background or dark characters on a light background.

703.5.3.1 Nonglare Finish. The glare from coverings and the finish of pictograms and their fields shall not exceed 19 as measured on a 60-degree gloss meter.

703.5.3.2 Contrast. Characters shall contrast with their background, with either light characters on a dark background or dark characters on a light background.

703.6.2 Finish and Contrast. Symbols of accessibility and their backgrounds shall have non-glare finish. Symbols of accessibility shall contrast with their backgrounds with either a light symbol on a dark background or a dark symbol on a light background.

703.6.3.1 Nonglare Finish. The glare from coverings and the finish of symbols of accessibility and their backgrounds shall not exceed 19 as measured on a 60-degree gloss meter.

705.3 Contrast. Detectable warning surfaces shall contrast visually with adjacent surfaces, either light-on-dark or dark- on-light.

504.5.1 Visual Contrast. The leading 2 inches (51 mm) of the tread shall have visual contrast of dark-on-light or light-on- dark from the remainder of the tread.

Reason: 1. The LRV's of many standard sign materials cannot be measured using the British Standard Method of Test.

2. Site conditions, particularly the type and intensity of lighting, have great impact on perceived contrast. Following the formula without considering site conditions, would allow combinations that do not have enough contrast, and prohibit others that are perfectly legible when appropriate lighting is provided.

3. The British Standard states in part "The method described in this standard is not appropriate for making on-site measurements. Therefore it is recommended that published LRV data, determined in accordance with this standard, are used for the determination of visual contrast." Relying on the British Standard (BS) establishes a design standard that lacks a corresponding field method to accurately calculate conforming color contrast of signs installed on-site.

4. The British Standard is referenced by a British government accessibility standard, Approved Document M (ADM 2010, with 2013 amendments), in association with measuring the difference in LRV's of adjacent building elements. Consistent with this application, the British Standard specifies sample sizes ranging from 450 mm x 450 mm (approximately 17.7 inches x 17.7 inches) to 25 mm x 25 mm (approximately 1 inch x 1 inch), but there appears to be no supporting evidence that the British Standard's LRV difference measurements are predictive of legibility for any population with special visual needs (e.g. elders, those with mild low vision), and the British Standard does not provide a means to measure for conformance, under actual field conditions, the LRV's of especially for small graphic elements, such as text or visual symbols.

5. This proposal is really no different than proposals that have been defeated numerous times for multiple reasons, except for the addition of a new standard of questionable utility. The mere addition of any new standard, though, does not in any way support the adoption of 70% as a threshold value. In fact, the 70% figure is not mentioned in the British Standard.

When the 70% "standard" was mentioned in the Appendix to the 1991 ADAAG, the recommendation was to measure reflectivity with a 60° Gloss Meter. The British Standard requires the use of a "Global Reflectometer," a piece of equipment that is even more rare than the 60° Gloss Meter, which is uncommon enough and usually found only in the possession of a paint manufacturer. Very few independent labs, if any, now offer the service of establishing an LRV on a commercially available basis. If this were the case, all sign manufacturers and designers would use them. They do not. Even though the recommendation was in effect for some 20 years, no "cottage industry" emerged to provide LRV's for colors not provided on commercial paint charts, attesting to the difficulty of offering such a service.

An interesting negative effect of adopting the British Standard is that any LRV figures now available would be rendered useless because they have been measured on a flat lumisphere Reflectometer, not a Global Reflectometer, as newly required by the proposal. Re-measurement of all present published values is not likely to happen because the size of the sign industry is minuscule compared to all components of the construction industry.

6. More research is needed to improve existing requirements for contrast on signage and how to measure for conformance under actual field conditions.

7-1-12 PC8

Sharon Toji, representing Hearing Loss Association of America

Further revise as follows:

701.1.2 Light Reflectance Value. The light reflectance value (LRV) of surfaces shall be determined in accordance with BS 8493 for the following surface types:

Numbers 1 through 6 are unchanged.

7. Ordinary surfaces, which are defined as material which is neither retroreflecting nor fluorescent nor phosphorescent nor involves electrical power for light emission nor is self-luminous.

701.1.3.1 Other Surfaces. Surfaces not within the scope of BS 8493 shall provide contrast between adjacent surfaces that are either light on dark or dark on light. Other surfaces shall include

1. Thermochromic;
2. Photochromic;
3. Retroreflective;
4. Fluorescent;
5. Phosphorescent;
6. Surfaces involving electrical power for light emission;
7. Self-luminous
8. Free-standing non-opaque materials such as glass and clear plastic for curved surfaces.

Reason: I have three major points to deal with in my comments. For one, I don't think we take seriously enough the issue of defective color vision when it is not accompanied by another severe vision impairment. However, this topic is now getting a lot more attention, and defective color vision, with or without the accompaniment of another disability, is at the heart of the issue of contrast in the built environment.

A. The issue of impaired color vision is just now entering the consciousness, partly because of the increased use of color in teaching and testing materials, and because technology is increasing our ability to present all kinds of elements in color, and to do so inexpensively and with some fidelity.

Normally, when impaired color vision is not accompanied by some other vision impairment, we do not consider the person to have a disability. However, that view is changing. When a person with impaired color vision is confronted with a message, whether printed, on a sign, or on the internet, that is in colors that he or she cannot distinguish clearly, that person might as well be functionally blind during that instant. The "message" is out of reach. On top of that, the list of professions that are that are either closed to or discouraged for a person with defective color vision is growing.

We are talking about a very large group of people. Some defective color vision is genetic, including the common "red/green" type which affects about 8 percent of males, and 1/2 percent of females. The females are carriers. This condition can be seriously affected by signs, since so many safety signs and transportation signs are red on black, or vice versa. Those two colors are virtually indistinguishable for people with this type. On top of that, there is an even larger group with an acquired type of condition. In an email from T.J. Waggoner, Director, Color Vision Products of Konan Medical USA, he said: "You are correct in saying that 8% of males are born with a color vision deficiency. One statistic that I did not see mentioned is that 10% - 15% of the general population, both males and females, have an acquired (tritan) deficiency according to Rayman's Clinical Aviation Medicine 5th Edition. It is chapter 9 that discusses color vision and mentions the 10%-15% statistic." There is a wealth of material on color deficiency, and I have received a letter from one doctor affiliated with the Navy about it. One list of jobs and professions possibly closed to those with color deficiencies probably had 25 jobs on it. Certainly, the inability to read directional and informational signs, some of which are safety oriented, is important. I will be sending more material as I receive it.

B. Marsha Mazz, delegate from the Access Board, changed her vote to "negative" on the strength of a comment presented by Dr. Edward Steinfeld of RESNA, as well as a quote from Dr. Geoffrey Cook, as relayed by Dr. Aries Arditi. I have been speaking and corresponding with Dr. Cook in regard to the contrast issue, as well as the Standard of Test, for some time. He had assured me that ordinary sign materials, and specifically materials where a layer of color has been applied to the second surface of a clear cover material, where a colored material is coated with a clear coating, or a clear piece of material is installed directly on top of a piece of colored material without a measurable separation, would not have a deflection that would influence the LRV reading in any appreciable manner.

These situations describe the great majority of instances where there is a clear layer of material over or above a layer of colored material, as used for architectural signs that come under the restrictions of the ADA Design Standards.

Dr. Cook has now replied directly to these comments. Dr Cook has a very large body of work having to do with contrast and color in the built environment, and its effect on persons with vision impairments. He is the lead author of the Method of Test, clearly understands it, and has told me that he is anxious to see it adopted as widely as possible, since he believes it is the most reliable way to determine the LRVs of many different kinds of surfaces. Since the IOS has not currently adopted a Method of Test, although their own standards do require contrast for various architectural elements, CEN (European Committee for Standardization) has adopted the British Standard for the determination of LRVs for this purpose. An Australian organization called CIAL has done the same. So, this is a widely recognized standard of test. Some countries use the 70 percent formula, others such as the UK list the required difference between two LRV extremes. In the UK, the suggested difference for signs is 70 (not 70 percent), which is much more stringent than what we are recommending.

About Dr Geoff Cook

I am attaching a link to his very impressive list of qualifications and publications on the subjects of lighting, color, and vision impairments in the built environment. I have not encountered anyone else with such an extensive background in these topics that are so relevant to our discussion. https://www.reading.ac.uk/CME/about/staff/g-k-cook.aspx.

The University of Reading: The School of Construction Management and Engineering

Testimony in support of BS8493:2008+A1:2010

Overview of the Impact of the UK approach to Colour & Contrast

The research as described in the references to this testimony has allowed the definition of best practice in visual contrast in the built and transport environments to be established. It has brought significant benefit to VIPs. The findings are also of direct benefit to those responsible for the design and management of these environments. They can be confident that they are providing inclusive, accessible environments rather than environments that may be considered non-inclusive, unsafe and discriminatory under the scope of the UK Disability Discrimination Acts 1995 and 2005 (as embedded within the more recent UK Equality Act 2010). Results have led directly to new formal standards and design/test methods and, crucially, to changes in national regulation.

The research findings relating to colour and contrast have been adopted by large companies including ICI Dulux. Celia Taylor, Business Area R&D Director commenting on the 'Colour and Contrast' guide and CD published by ICI Dulux as a result of the Reading work (in correspondence dated 4 March 2013) noted:
".. this guide forms the basis of various offerings to specifiers and healthcare organisations… It is regularly presented around the country, and showing how the colour palette notation makes it easy to specify in accordance with the Equality Act guidelines is also good for sales volumes."
The company Gradus refer to the Reading findings on contrast in their product literature in their 'Experts view' at: http://www.gradusworld.com/geoff-cook-expert-view-part-1. The charity The Thomas Pocklington Trust have used the findings of the Reading work to produce a design guide for housing for people with sight loss which is available at: http://www.pocklingtontrust.org.uk/Resources/Thomas%20Pocklington/Documents/PDF/Research%20Publications/RF17.pdf
Sue Sharp, Director of Services and Public Affairs at charity RLSB has noted (in correspondence dated 4 March 2013) how the research continues to be used to advise on the provision for vision impaired people, and concludes:
"Overall, Project Rainbow has, in my view, had a significant impact on the regulation and design of public transport and public infrastructure for the benefit of vision impaired people."
In the area of standards development, BS8300:2001 (a code of practice for designing buildings to meet the needs of disabled people) provides the foundation for the latest edition of BS8300:2009. . This is now incorporated into Annex B of BS8300:2009 which defines contrast requirements and references the Reading work. The measurement Standard, BS 8493:2008+A1:2010 specifies the test method to determine the light reflectance value (LRV) of different surfaces of materials and is drawn from the Reading work and is now a referenced document in BS8300:2009. The UK Building Regulations 2010 Approved Document M, available at:
http://www.planningportal.gov.uk/uploads/br/BR_PDF_AD_M_2010.pdf, continues to include the need for adequate visual contrast to be provided in new buildings (as appeared in the 2004 version), and continues to make reference to the Reading work. Current developments include the international standard ISO 23599 (Assistive products for blind and vision-impaired persons) which is concerned with tactile surfaces and has adopted the Reading LRV contrast approach. Also standards development at the European level (via CEN/BT/WG 207 on accessibility in the built environment) is also drawing on the Reading work. This is shown in references to the Reading work and detail relating to LRV measurement in Sections 33 and 35 and more detailed comments in Annex B 9.2 of ISO21542. The work is continuing to have impact in the transport sector. Commenting on a new emerging pan-European access standard for mainline trains and stations (PRM TSI, from 2008) John Bengough of the UK Department for Transport (DfT) has http://www.planningportal.gov.uk/uploads/br/BR_PDF_AD_M_2010.pdf, continues to include the need for adequate visual contrast to be provided in new buildings (as appeared in the 2004 version), and continues to make reference to the Reading work. Current developments include the international standard ISO 23599 (Assistive products for blind and vision-impaired persons) which is concerned with tactile surfaces and has adopted the Reading LRV contrast approach. Also standards development at the European level (via CEN/BT/WG 207 on accessibility in the built environment) is also drawing on the Reading work. This is shown in references to the Reading work and detail relating to LRV measurement in Sections 33 and 35 and more detailed comments in Annex B 9.2 of ISO21542. The work is continuing to have impact in the transport sector. Commenting on a new emerging pan-European access standard for mainline trains and stations (PRM TSI, from 2008) John Bengough of the UK Department for Transport (DfT) has noted (in correspondence dated 5 March 2013) that it initially used a different contrast measure from the Reading work for adequate contrast but:
"… This has proved to be unworkable so British representatives [on the EN drafting committee] have used Reading's work to develop a Euro-Norm that combines both techniques… Once in force, it will guide the interpretation of the PRM TSI across the European Union."
The In 2008 the Government amended and updated the Rail Vehicle Accessibility Regulations 1998 (RVAR) (S.I.1998/2456), the latest version drawing directly on the Reading work. Several sections of these regulations, including Appendix A of the RVAR Guidance 1998, explain contrast in terms of the Reading work. Indeed the Reading researchers were consulted in the drafting of the RVAR. Therefore all new Regulated rail vehicles must now comply with the contrast requirements defined at Reading. The work has also been adopted by the Department for Transport (DfT) in relation to the requirements for train stations as: DfT Accessible Train Station Design for Disabled People, published in 2011 and available at:
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/3191/accessible-train-station-design-cop.pdf This is in addition to existing DfT documents which include the Reading work and which, despite predating the Impact Period, continue to have impact - including 'Inclusive Mobility', available at: www.dft.gov.uk/transportforyou/access/peti/inclusivemobility!!
The reach of the contrast wok at Reading is very wide, covering the built environment sector as well as major elements of the transport sector also, particularly relating to public transport provision. Its impact is in the areas of quality of life (including health and safety), employment and manufacturing. Additionally, employers need to deal with current and potential employees (including VIPs) in a non-discriminatory way and thus the Reading LRV work is highly relevant for improving the employability of VIPs as well as their safety in the workplace. Manufacturers, e.g. ICI Dulux and Gradus, have used the Reading work to develop a unique market position and enhance their activities and tailor their products to meet clear LRV criteria. Further evidence of impact can also be found in many new buildings completed since 2004, including Heathrow Terminal 5 and the London Olympics 2012 facilities. The ODA/LOCOG Inclusive Design Standard Sources used in this testimony:
1. Celia Taylor, Business Area R&D Director, Decorative Paints, ICI Dulux (a brand of AkzoNobel), Member of the drafting committee on BS8394:2009.
2. John Bengough, Department for Transport (Rolling Stock – Technical &Accessibility).
3. Sue Sharp, Director of Services and Public Affairs, Royal London Society for Blind People
4. Keith Oakes, Technical Director, Gradus Ltd; also a member of the drafting committee of BS8394.
5. Iain MacKinnon, Senior Manager - Accessibility and Inclusive Design, London Legacy Development Corporation.
Publications: Cook, G.K., Lighting Quality aspects - Essential Requirements for Visually Impaired People, Proceedings of the First Symposium on Lighting Quality, National Research Council, Ottawa, Canada, 1998, pp48-59 ISBN 3 900 734 91 7.
Cook, G.K., Bright, K.T., 1999, Project Rainbow: A Research Project to Provide Colour and Contrast Design Guidance for Internal Built Environments, Occasional Paper No. 57, The Chartered Institute of Building, Ascot, Berkshire. ISBN 1 85380 084 8 (Winner of the CIOB Innovation Award Research Papers Competition 1997).

Cook, G.K., Bright, K.B., Harris, J., 1999, Building Design: The importance of flooring pattern and finish for people with a visual impairment, The British Journal of Visual Impairment, 17, 3, 121-126.
Cook, G.K., Bright, K., 2010, The colour, light and contrast manual- Designing and managing inclusive built environments, Wiley-Blackwell, Oxford ISBN 978 1 4051 9504 1.
http://www.london2012.com/documents/oda-publications/inclusive-designstandards.pdf) goes further than BS8300: 2001/9 and makes specific reference to the concept of LRV developed by Reading.
The School of Construction Management and Engineering

Comments in relation to the email from Sharon Toji dated 19th December 2013
My comments are shown as red in the text.

In relation to comments from Edward Steinfeld: RESNA – Edward Steinfeld
Negative: Ballot:
Comment/reason: Research was not presented to demonstrate that this is a serious issue. Making objects perceptible to people with poor vision is assisted by the provision of adequate contrast (Bright & Cook, 1999). Before adopting extensive standards, it would be good to know whether it is or not. See reference (Bright & Cook, 1999) Further, the standards are based on testing a sample. This is not equivalent to field conditions. Very few research studies involving people with poor vision use real-world conditions, but the Bright & Cook 1999 reference shows that real-world tests were carried out as part of the study.

Following the standard will not necessarily lead to signage that is usable for people with visual impairments, or anyone else for that matter. In field conditions, lighting levels, type of light source, the presence of disabling glare in the visual field, and the angle of incidence of the light sources can have a greater effect on readability than surface characteristics. Whilst this is an opinion, adopting this view would mean that there is no real need for any artificial lighting design recommendations, as all of the factors listed are equally applicable. However, this is nonsense as it ignores the real value to be achieved by the non-cost option of changing the colour of a material – most coloured materials cost the same. Further, in daylight, the conditions vary significantly within short periods of time. While this may be enforceable based on laboratory testing, it is highly doubtful that this rule will actually contribute to improved usability. Interesting point as the wider utilization of daylight is seen internationally as a good thing since it reduces electrical energy consumption. Since daylight, even inside buildings can equal or exceed the illuminance provided by artificial lights, when sufficient contrast is provided as drawn from laboratory conditions which have a generally low illuminance; this will actually enhance the perception of contrast as contrast perception increases with increased illuminance – up to the point where glare or veiling reflections start to appear. In general the points about glare, illuminance and types of light source all impact on the perception of surfaces inside buildings. However, good designers can predict these things with accuracy and ensure that signs are effective – providing they have sufficient LRV differences between the symbols/letters on the sign.

Further comments received from Marsha Mazz:
Of particular concern is Dr. Aries Arditit's observation that "Many of the accessible signs in use in the US today are made from clear material with color applied to the second surface (subsurface). *According to Dr.Geoff Cook and Mark Rose, the BS8493 test method is not suitable for multi---layered materials as the measurement equipment needs to accurately assess the difference between the light sent to the measurement surface and that reflected from the measurement surface. A layer of clear material between the meter and colored measurement surface would allow light to escape after reflection and render the measurement invalid*." The role of LRV is to give an accurate measure of the light reflectance of a surface. Where an opaque coloured surface is overlaid with a clear surface, then the comments italicised are true, but this is not the way to consider the use of the standard. The standard is a way of determining the LRV of opaque surfaces which are to be seen by people with poor vision. If the LRV of an opaque surface is measured then it is placed behind a clear protective layer, the LRV of the surface will not fundamentally change. Therefore the LRV of the underlying opaque material can be measured with the standard and can be used. Remember that this standard is making measurements to help people see a contrast when looking at two surfaces, not precluding from LRV measurements multi-layered materials. In a strictly scientific sense there may be some reduction in the light being reflected from the underlying opaque surface as there will be a very small amount absorbed by the overlaying surface, but this is not likely to be a significant effect. Several commenters indicated that research is underway in other countries. Perhaps we should await those studies prior to establishing a standard that is potentially flawed. It is difficult to believe that any respectable funding body would fund such a weak project. The LRV of the opaque underlying layer will not change so the losses due to different overlying layers would be interesting to measure, but if these overlying layers remain clear, the effects will continue to be insignificant. So the way forward for multi-layer signs to try to measure of the LRV of the coloured surface directly. The other points in previous emails relate to very thin coloured surfaces being included in a material which becomes part of a sign. It is possible to measure the LRV of these materials, even if they have to be mounted onto some material to allow this. It is also worth considering that; presumably, the colour of these materials is known and therefore measured? If so then the LRV can be measured.

References:
Bright, K.T., Cook, G.K.,1999, Project Rainbow: A Research Project to Provide Colour and Contrast Design Guidance for Internal Built Environments, Occasional Paper No. 57, The Chartered Institute of Building, Ascot, Berkshire. ISBN 1 85380 084 8

Third, there is still some reluctance to approve a standard that cannot be easily tested in the field, and also a belief that lighting is so important, that we might as well not even concern ourselves with contrast, if lighting may not be adequate. Dr Cook deals with this somewhat, and he is an expert in the field of lighting. We all recognize that if the lighting is poor, or there is none, the signs, no matter how much contrast they may have, will not be visible. The fact is, though, that even if we passed standards for lighting that would require that every sign be perfectly lit, with controls that would change lighting for different conditions during the day, we could not control the maintenance of the lighting. To save money, management could remove bulbs, reduce watts, or just not replace bulbs when they burn out. Lights could be turned off. If we start with good contrast, and lighting is adequate, the sign will be useful to more people. If we start with poor contrast, the signs may not be usable, especially for people with defective color vision, no matter how good the lighting. If you cannot distinguish colors, lighting will not help much, if at all.

As to testing in the field, unfortunately I did not get the comments promised to me by the Company in the UK that has recently finished testing 105 people with vision impairments. This company has a testing device that is portable, and much less expensive than the ones we have seen earlier. I will be submitting these comments later through the Secretariat as soon as I receive them. Other comments are coming in from various sources as well, and I will be submitting those. Unfortunately, it has been difficult to light a fire under the various scientists I have been contacting, to get commentary back to me in a timely manner.
I believe that if those who are objecting to the Standard of Test will read it carefully, including the definitions and the scoping and commentary, they will understand that it can be a very useful standard. It is being adopted by other standards organizations. It is true that the UK does not enforce its standards in the same manner we do, but I am told that gradually, the standard and Method of Test are being used, and having an important influence on signage and other architectural elements.

8. Purpose and Reason: The purpose is to present a faithful representation of the Method of Test, one that includes all the materials that the Method of Test is intended to include. The purpose of the second addition is to present a faithful list of those exact materials that are not appropriate for the Method of Test.

The list of sign material types included in the BSI Standard of Test and in the amended standard introduced and voted on after my early departure from the July meeting, left out the most inclusive: "Ordinary Materials," a defined term. The revised standard is too restrictive when this category is eliminated. Perhaps the individuals who proposed adding the restrictive list of materials that could be tested by the BSI Method of Test were unaware that the term "Ordinary Materials" was a defined term, and should have been included in order to faithfully reflect the Standard. Without this item, the test is restricted to just a few materials, and many of them are not used very often for architectural signs covered by our Standard. In the case of the British Standard, "Ordinary" is not synonymous with "Other," or even "Miscellaneous," but includes one of the largest category of architectural sign materials, i.e. plastics. As long as the term "Ordinary" is defined, as it is in the Standard, it is appropriately restrictive and useful.
If the list of materials that cannot be tested is added, then the Standard becomes even more useful. I recommend both adding "Ordinary Materials" to the allowed list, and listing those that cannot be tested. I ask that we, as delegates to the organization that represents the United States in the field of accessibility in the built environment, join other national and international organizations in recognizing that people with disabilities based on communication deserve just as much specificity and attention paid to elements that are important to them, as we pay to those who use wheelchairs. It is time that we gave designers and inspectors something better than vague generalities. As technology improves, and testing instrumentation is more available, this standard will serve as a useful basis for further refinement.

7-2 – 12

Revise as follows:

702.1 General. Accessible audible and visible alarms and notification appliances <u>that are part of a building fire alarm system</u> shall be installed in accordance with NFPA 72 listed in Section 105.2.2, be powered by a commercial light and power source, be permanently connected to the wiring of the premises electric system, and be permanently installed.

> **<u>EXCEPTION:</u>** <u>Audible and visible notification appliances provided within dwelling or sleeping units shall comply with Sections 1006.2 through 1006.4.4.</u>

7-2-12 PC1

Harold Kiewel, representing self

Further revise as follows:

702.1 General. Accessible audible and visible alarms and notification appliances that are part of a building ~~fire~~ <u>emergency</u> alarm system shall be installed in accordance with NFPA 72 listed in Section 105.2.2, be powered by a commercial light and power source, be permanently connected to the wiring of the premises electric system, and be permanently installed.

> **EXCEPTION:** Audible and visible notification appliances provided within dwelling or sleeping units shall comply with Sections 1006.2 through 1006.4.4.

Reason: I am opposed to changing dimensions to non-modular (odd) numbers. I believe that dimensional requirements of the Standard should, to the maximum extent practicable, be modular in both Imperial and metric (SI) systems. Imperial dimensions should be multiples of 4-inches, and conversion to metric measure should use 4-inches = 100 mm. As a professional technical writer, I take exception to the modern practice of wasting the first Article of every major sub-part with the phrase "[this work] shall comply with this Standard." If the Standard has a purpose, and the Article has title, the phrase is superfluous. You could save a

couple of pages by deleting those lines. I have not pointed out spelling, tense, or minor grammatical errors. There are some, but I presume that the committee has access to editors who will, in due course, correct those items.

7-16– 12

Add new text as follows:

704.8 Visual Relay Service Booth. Each public Visual Relay Service Booth shall be accessible and accommodate one user with seating, a visual monitor, control device, diffuse lighting with a minimum lighting level of 20 foot candles (215 lux). And privacy enclosure with a flat, non-textured surface and finish color in contrast with the full range of human skin tones to provide a background for clear visual communication.

7-16-12 PC1

Harold Kiewel, representing self

Comment: In the phrase "*[the] finish color [shall be] in contrast with the full range of human skin tones*" does contrast mean 70-percent, BS 8493 LRV separation? Is that physically possible? Aren't there going to have to be booths with light backgrounds for people of color and booths with dark backgrounds for light-skinned people? More likely there would be louver blinds at the back of the booth that create a background that is switchable from a No. 9 Cool Gray (dark) to No.2 Warm Gray (light) (color names are from a Pentel marker set).

7-16-12 PC2

Rick Lupton, representing self

Revise as follows:

704.8 Visual Relay Service Booth. Each public Visual Relay Service Booth shall be ~~accessible and~~ accommodate one user with seating and privacy enclosure, a visual monitor, a video camera device, control device, diffuse lighting with a minimum lighting level of 20 foot candles (215 lux). ~~And privacy enclosure with a flat, non-textured surface and finish color in contrast with the full range of human skin tones to provide a background for clear visual communication.~~ The background of the seating area, and within range of the video camera device, shall have a flat, non-textured surface and finish color in the bright green or blue range.

Reason: The current proposal omits necessary equipment for the facility, includes language that cannot be consistently enforced, and is grammatically incorrect. This Public Comment attempts to address each of these issues.

The current last sentence is grammatically incorrect and cannot be enforced consistently. The "full range of human skin tones" is quite broad and unless one is expert, is subject to interpretation (see picture in Supporting Information below). In addition, the extent of contrast is not specified. I've proposed a color in the bright green or blue range. This is based on the need for a background at the seating area and in view of a video camera that provides a contrast from a broad range of human skin tones to provide a background for signing. Bright green or blue are specifically used in the film industry (see Supporting Information below) as mattes because they are seldom within the human skin color spectrum and so enable the human to stand out. There may be other colors that work but this provision should include the degree of contrast and point to the contrast provisions proposed for A117.1. In addition, the current language appears to require the entire privacy screen to require contrasting color, not addressing the specific need of a background to the video area.

I've added a video camera device to the laundry list of requirements for this facility (see FCC quote in Supporting Information below) and clarified (what I think was intended) that the privacy enclosure is for the seating area and not just the monitor.

I've omitted "be accessible" as scoping. Where accessibility is required by the scoping document, the current language provides no guidance. By accessible, is it intended that a wheelchair space be provided in addition to the seating, etc.

The result of this Public Comment is not perfect, but maintains the intent of the proposed provision while clarifying much of what is intended.

A description of visual relay service by the Federal Communications Commission (http://www.fcc.gov/guides/video-relay-services):
How VRS Works

VRS, like other forms of TRS, allows persons who are deaf or hard-of-hearing to communicate through the telephone system with hearing persons. The VRS caller, using a television or a computer with a video camera device and a broadband (high speed) Internet connection, contacts a VRS CA, who is a qualified sign language interpreter. They communicate with each other in sign language through a video link. The VRS CA then places a telephone call to the party the VRS user wishes to call. The VRS CA relays the conversation back and forth between the parties -- in sign language with the VRS user, and by voice with the called party. No typing or text is involved. A voice telephone user can also initiate a VRS call by calling a VRS center, usually through a toll-free number.
• From an article on photography and green screens, Creating Realistic Composites, Part 1: Shooting on a Green Screen by Rob Taylor (http://photography.tutsplus.com/tutorials/creating-realistic-composites-part-1-shooting-on-green-screen--photo-14288)

"Why am I choosing green? Well, chroma green is a color rarely found in nature, particularly human skin tones, so people stand out nicely in front of it."

A Color Wheel Based On The Range Of Human Skin Tones (http://www.fastcodesign.com/1669972/a-color-wheel-based-on-the-range-of-human-skin-tones#5)

Images courtesy of Superscript and Pierre David

7-16-12 PC3

Kimberly Paarlberg representing ICC

Delete without substitution:

Reason: There are several problems with the language in this requirement. If I have to have a space for both a wheelchair ("accessible") and a seat within this booth ("seating"), is my hearing impaired person close enough to the screen/keyboard to be able to use the device? If this is intended for wheelchair access, is a turning space needed similar to a dressing room? Where is

the light level measured? What would meet 'non-textured' surface? What is the full range of human skin tones? What color would contrast with that? How much contrast? What is the device required in the space anyhow?

7-21 – 12

Revise as follows:

TABLE 707.6.1—RAISED SYMBOLS

Key Function	Description of Raised Symbol	Raised Symbol
Enter or Proceed:	CIRCLE	◯
Clear or Correct:	LEFT ARROW	← or <
Cancel:	"X"	X
Add Value:	PLUS SIGN	+
Decreased Value:	MINUS SIGN	-

7-21-12 PC1

Harold Kiewel, representing self

Revise as follows:

TABLE 707.6.1—RAISED SYMBOLS

Key Function	**Description of Raised Symbol**	**Raised Symbol**
Enter or Proceed:	CIRCLE	◯
Clear or Correct:	LEFT ARROW	← or <
Cancel:	"X"	X
~~Add~~ Increase Value:	PLUS SIGN	+
~~Decreased~~ Decrease Value:	MINUS SIGN	-

Reason: I am opposed to changing dimensions to non-modular (odd) numbers. I believe that dimensional requirements of the Standard should, to the maximum extent practicable, be modular in both Imperial and metric (SI) systems. Imperial dimensions should be multiples of 4-inches, and conversion to metric measure should use 4-inches = 100 mm.

As a professional technical writer, I take exception to the modern practice of wasting the first Article of every major sub-part with the phrase "[this work] shall comply with this Standard." If the Standard has a purpose, and the Article has title, the phrase is superfluous. You could save a couple of pages by deleting those lines.

I have not pointed out spelling, tense, or minor grammatical errors. There are some, but I presume that the committee has access to editors who will, in due course, correct those items.

7-23– 12

Revise as follows:

703.3.8 Character Spacing. Character spacing shall be measured between the two closest points of adjacent raised characters within a message, excluding word spaces. Spacing between individual raised characters shall be 15% or 1/8 inch (3.2 mm) minimum, whichever is greater, and 35% maximum of the character height measured at the top of the surface of the characters, 1/16 inch (1.6 mm) minimum measured at the base of the characters, ~~and four times the raised character stroke width maximum.~~ Characters shall be separated from raised borders and decorative elements 3/8 inch (9.5 mm) minimum.

7-23-12 PC1

Sharon Toji, representing Hearing Loss self

Disapprove the change. Return the text to that found in existing standard.

Reason: The proponents did not analyze the effect of the change. The proposed change would actually have, in many cases, the opposite effect to what they wish, and would have other negative impacts as well.

The proponents of the change state that the current standard does not allow for good graphic design in terms of spacing, because it forces artificial spacing between characters. However, the proposed solution is just as artificial, makes more work for layout artists, plan checkers and inspectors, and does not satisfy the designer's wishes for either tighter kerning or more design freedom. It does just the opposite, except for the very smallest sign characters.

Do the math!

We are requiring minimum spacing of 1/8 inch between the two closest points of characters because of a test we carried out, many years ago, of a large number of people at the national convention of the American Council of the Blind, under the direction of Julie Carroll, a former Committee delegate. Let's assume that the Committee has accepted that.

Since we are retaining the 1/8 inch space as a minimum, we must check and perhaps alter the spacing for all signs with characters up 7/8 inches in height (most designers would not tend to specify 27/32 inch characters.) Many designers prefer 5/8 inch characters for signs, but 15 percent of character height is not even 1/10 inch. Here is a chart for the smaller size characters normally used for tactile signs. It shows when we can
begin to use the 15 percent minimum spacing. It also shows that, in regard to "standard" spacing, the 35
percent maximum is more restrictive than the original maximum of 4 times the character stroke width, based on the minimum stroke width requirement of 10 percent:

Height	Decimal of 15%	Decimal of 35%	Required (1/8 inch)	Maximum 4 x stroke	Use 15%	Use 35%
5/8 inch (.625)	**.09375**	**.21875**	**.125**	**.250**	**No**	**Yes**
3/4 inch (.75)	.1125	.2625	.125	.300	No	Yes
13/16 inch (.8125)	.121875	.284375	.125	.325	No	Yes
53/64 inch (.8281)	.124215	.289835	.125	.33124	No	Yes
27/32 inch (.8437)	**.126555**	**.295295**	**.125**	**.33748**	**Yes**	**Yes**
7/8 inch (.875)	**.13125**	**.30625**	**.125**	**.350**	**Yes**	**Yes**

Once we go to characters 7/8 inch high, and if we use standard Adobe Illustrator spacing for characters, we find that very few character pairs don't already have spacing of at least 1/8 inch. In checking a number of common room function names, most words have one, or perhaps two such character pairs. Therefore, assuming we are satisfied with standard Adobe Illustrator character spacing, there will be very few necessary changes in the spacing. Whichever code you apply, the current one or the proposed one, you will have to tweak those few pairs of characters.
For instance, in any word with "ROOM," there is not 15 percent space between the two "Os." That is the case even with two inch high characters.

Height	Decimal of 15%	Decimal of 35%	Required (1/8 inch)	Maximum 4x stroke	Use 15%	Use 35%
53/64 inch (.8281)	**.124215**	**.289835**	**.125**	**.33124**	**No**	**Yes**
27/32 inch (.8437)	**.126555**	**.295295**	**.125**	**.33748**	**Yes**	**Yes**
7/8 inch (.875)	**.13125**	**.30625**	**.125**	**.350**	**Yes**	**Yes**
1 1/2 inch (1.500)	**.225**	**.525**	**.125**	**.600**	**Yes**	**Yes**
2 inch (2.00)	**.300**	**.700**	**1.25**	**.800**	**Yes**	**Yes**

Therefore, for every job, the layout artist for the tactile characters may not only have to increase certain spacing to meet the 1/8 inch rule, but may also have to increase additional character spacing to meet the 15 percent rule. On top of that, the 35 percent maximum rule is slightly more restrictive. There will be more "tweaking" rather than less. Where is the benefit? There is none.

The other losers are the plan checker and the inspector. With the 1/8 inch rule, it is very fast and simple to have a tool with a 1/8 inch measurement. When characters appear very tight, the tool can determine in an instant if 1/8 inch space is there or not. With the 15 percent rule, you have to measure the height, determine what 15 percent is, and then devise a measurement tool just for that job. Now, you have to measure for both 1/8 inch and 15 percent. As an inspector, you would have to take a a whole key-chain of measurement tools with you, for every eventuality from 7/8 to 2 inch high characters.

Part of the problem is that many people are not correctly understanding what the current standard requires.

1. It does not require "monospacing." Every letter pair does not require 1/8 inch spacing, no more or less. Variable spacing generally in line with accepted spacing protocols for visual signs is acceptable and possible within this standard.

2. The measurement is between the two closest points, not between two artificial rectangles drawn around all the points of each character.

3. There are several ways to mitigate the visual appearance of the signs:

A. Do not use the smallest possible characters. The minimum size is not really the best size for visual readers, so don't use it except when absolutely necessary. With larger characters, the required spacing will also be more pleasing.

B. Ease, bevel, or provide a "shoulder" for the edges of the raised characters. They will be much easier to read by touch, and the top surfaces of the characters will be slightly further apart, so most normal character spacing will be compliant. As a designer, if you use certain types of materials and an extreme bevel, you can place the characters as close as 1/16 inch to each other.

C. Whenever possible, use the new rule that allows two separate sign sections, one visual and one tactile. The visual characters allow for much tighter spacing, and the tactile characters can be “invisible," so the wide spacing will not have a visual impact on the appearance. Each section can be easier to read for more people with varying types of disability.

D. Be sure you are choosing sans serif font styles. "Simple serif" styles for tactile characters went out with the original ADAAG. If you have to separate the tips of serifs by 1/8 inch, naturally you will get much larger and more unattractive spaces between letter pairs.

Although the requirement for 35 percent space maximum, rather than 4 times the stroke width, makes very little practical difference in character pairs we have looked at, it’s probably easier for an inspector to make a quick measurement on site of four times the stroke width, than it is to calculate 35 percent of the character height. Since thirty-five percent is actually a slightly more limiting standard, at least when calculated using the minimum stroke width of 10 percent of character height, why not just retain it? For instance, for a one inch high character, the range of maximum space allowed would be between 40 and 60 percent of character height, versus 35 percent. Although a plan checker or inspector may need to measure some spaces to determine if they are no more than 35 percent, and that restriction may mean that layout artists have to artificially change spacing of a few characters,that will almost never happen with the current requirement. Allowing more space between characters will not usually be an incentive to designers to widen the spacing, since they almost always prefer tighter spacing.

Following are some slides that I intend to show at the January meeting. They clearly demonstrate the fact that more space “tweaking” is required when you use a standard of 15 percent of character height, than if you retain our original requirement of 1/8 inch.

The only exception is between characters when the characters are between 5/8 inch and 7/8 inches high.

However, since our ANSI project some years ago showed that 1/8 inch was the minimum required between characters if people who are blind can distinguish one letter from the other, the Committee has at this point decided to retain a requirement for 1/8 inch minimum between characters.

Chapter 8

8-2 – 12

Revise as follows:

802.1 General. Wheelchair spaces and wheel chair space locations in assembly areas with spectator seating shall comply with Section 802. Where tiered seating includes dining surfaces or work surfaces, wheelchair spaces and wheelchair space locations shall comply with Section 802.6, 802.7, 802.9, 802.10 and 902. Team and player seating shall comply with Sections 802.2 through 802.6.

802.7.2 Companion Seat Alignment. In row seating, the companion seat shall be located to provide shoulder alignment with the wheelchair space occupant. The shoulder of the wheelchair space occupant shall be measured either 36 inches (915 mm) from the front or 12 inches (305 mm) from the rear of the wheelchair space. The floor surface for the companion seat shall be at the same elevation as the wheelchair space floor surface.

> **EXCEPTION:** Companion seat alignment is not required in tiered seating includes dining surfaces or work surfaces.

8-2-12 PC1

Ron Burton, PTW Advisors LLC, representing Building Owners and Managers Association, International; David S. Collins, The Preview Group, representing American Institute of Architects (AIA); Ron Nickson, representing the National Multi-housing Council; Steve Orlowski, representing the National Association of Home Builders; Kim Paarlberg, representing International Code Council

See comment under 3-6-12 PC2

8-3– 12

Revise as follows:

802.4 Depth. Where a wheelchair space can be entered from the front or rear, the wheelchair space shall be ~~48~~ 52 inches (~~1220~~ 1320 mm) minimum in depth. Where a wheelchair space can only be entered from the side, the wheelchair space shall be 60 inches (1525 mm) minimum in depth.

8-3-12 PC1

Ron Burton, PTW Advisors LLC, representing Building Owners and Managers Association, International; David S. Collins, The Preview Group, representing American Institute of Architects (AIA); Ron Nickson, representing the National Multi-housing Council; Steve Orlowski, representing the National Association of Home Builders; Kim Paarlberg, representing International Code Council

See comment under 3-6-12 PC2

8-4 – 12

Revise as follows:

802.10.1 Horizontal Dispersion. Wheelchair space locations shall be dispersed horizontally to provide viewing options. Where seating encircles the stage or field, in whole or in part, horizontal dispersion shall include the entire seating area. Two wheelchair spaces shall be permitted to be located side-by-side.

EXCEPTION:
(*No change to the exception)*

8-4-12 PC1

Curt Wiehle, Minnesota Construction Codes and Licensing, representing self

Further revise as follows:

802.10.1 Horizontal Dispersion. Wheelchair space locations shall be dispersed horizontally to provide viewing options. Where seating encircles the stage or field, in whole or in part, horizontal dispersion shall ~~include~~ occur around the entire seating area. Two wheelchair spaces shall be permitted to be located side-by-side.

EXCEPTION:
(*No change to the exception)*

Reason: Around is the word used in the 2010 ADA guidelines and is more descriptive than include.

8-6– 12

Add new text as follows:

802.11 Stage Lighting for Sign Language Interpreters. Lighting shall be provided at each side of a stage for the purposes of illuminating a Sign Language Interpreter. The illuminated presentation area shall be 25 square feet (2.3 m^2) minimum measured in a vertical plane with the bottom edge at 48 inches (1220 mm) above the finished floor and a minimum of 36 inches (915 mm) measured from the presentation wall. The illumination shall be provided by directional light fixtures controlled independently from the general room lighting. The fixtures shall be located as necessary to provide a diagonal cast of light for facial illumination at no less than 15 degrees from the vertical plane. The illumination shall be 10 foot candles (108 lux) minimum greater than the least light level.

8-6-12 PC1

Hansel Bauman representing National Association of the Deaf

Further revise as follows:

~~**802.11 Stage Lighting for Sign Language Interpreters.** Lighting shall be provided at each side of a stage for the purposes of illuminating a Sign Language Interpreter. The illuminated presentation area shall be 25 square feet (2.3 m^2) minimum measured in a vertical plane with the bottom edge at 48 inches (1220 mm) above the finished floor and a minimum of 36 inches (915 mm) measured from the presentation wall. The illumination shall be provided by directional light fixtures controlled independently from the general room lighting. The fixtures shall be located as necessary to provide a diagonal cast of~~

~~light for facial illumination at no less than 15 degrees from the vertical plane. The illumination shall be 10 foot candles (108 lux) minimum greater than the least light level.~~

802.11 General. Sign language interpreter stations shall comply with 802.11.

802.11.1 Area. A sign language interpreter station shall provide a level and clear floor of sufficient floor area necessary to enable a sign language interpreter to produce sign language legible from the seating area identified in 802.11.2 and allow periodic interpreter shift changes to take place.

802.11.2 Location. Sign language interpreter stations shall be located so that seating within an arc centered on the station and subtending 120 degrees maximum and not more than 65 feet from the station is provided with sightlines providing unobstructed view of the signers from top of their heads to their waists and to an arm's length to both sides of the signer, all as measured to the center of the station. The vertical viewing angle to the interpreter station shall not exceed 30 degrees.

802.11.4 Illumination: The sign language interpreter station shall be illuminated in compliance with 802.11.2 while signing is underway. Illumination of the sign language interpreter station shall comply with the Recommended Maintained Illuminance Targets established for a "Transitional Sermon" by IES Handbook 10th Edition, Table 37.2.

802.11.5 Backdrop. When a sign language interpreter station is located no grater than 10 feet in front of a permanent wall as measured tangent to the centerline of the arc described in 802.11.2 a portion of the wall measuring 69 inches wide centered on the sign language interpreter station and 96 inches high from the finish floor shall be considered as a backdrop. *The surface treatment of the backdrop shall comply with 802.11.5 while sign language interpretation is being provided.* The backdrop shall provide a flat, smooth surface with a monochromatic, low-luster finish treatment.

Reason: The proposed revision to **802.11 Stage Lighting for Sign Language Interpreters** is a complete replacement of the text provided in the Public Review Draft dated October 25, 2013. The revised proposal provides a performance standard for **Sign Language Interpreter Stations** to accommodates a reasonable range of possible performance venues where sign language interpreting would likely be provided rather than providing targeted guidance for a specific location. The revision provides measureable lighting conditions, spatial relationships and adds guidance for the surface treatment for a backdrop which could greatly enhance ones acuity of reading sign language from a prescribed area within audience seating.

In the revised text the sign language interpreter station (the station) is defined in terms of its performance as an area that enables an interpreter to perform visual communication. The station is located in relation to a seating area within the audience that would have reasonable visual access to the station. The dimensions and geometry used to describe the Location / seating area derived from information on acceptable theater viewing angles published in Time Saver Standards for Building Types by De Chiara and Callender.

Measures for lighting are provided by way of reference to the Illuminating Engineering Society (IES) Handbook. The proposed lighting levels and methods for measuring the lighting levels at the station are consistent with lighting levels determined as beneficial for viewing sign language in similar conditions observed over time at public forums held at Gallaudet University where sign-language interpreting is used in public forums on a daily basis. The IES standard substantiates the lighting levels for viewing gestures in sermons that are video recorded. Until further detailed research is provided this the IES standard provides a reasonable measure of light levels in both the vertical and horizontal directions in which sign language is viewed.

Finally the proposal provides guidance for surface treatment for a permanent wall that, because of its proximity to the area identified as the station would serve as a backdrop to the sign language produced by the interpreter. The proposed language seeks to provide a reasonable requirement for an architectural backdrop that would not interfere or be a part of the stage set of the performance being interpreted. Furthermore, the standard for the backdrop intends to allows reasonable flexibility to the wall surface treatment while controlling glare and visual vibrations caused by shadows produced by heavy wall texture and or surface patterns. Controlling these adverse conditions greatly reduces eye strain and enhances acuity.

8-6-12 PC2

Harold Kiewel, representing self

Further revise as follows:

802.11 Stage Lighting for Sign Language Interpreters. Lighting shall be provided at each side of a stage for the purposes of illuminating a Sign Language Interpreter. The illuminated presentation area shall be 25 square feet (2.3 m^2) minimum measured in a vertical plane with the bottom edge at 48 inches (1220 mm) above the finished floor and a minimum of 36 inches (915 mm) measured from the

presentation wall. The illumination shall be provided by directional light fixtures controlled independently from the general room lighting. The fixtures shall be located as necessary to provide a diagonal cast of light for facial illumination at no less than 15 degrees from the vertical plane. The illumination shall be 10 foot candles (108 lux) minimum greater than the least light level of the seating area.

Reason: I am opposed to changing dimensions to non-modular (odd) numbers. I believe that dimensional requirements of the Standard should, to the maximum extent practicable, be modular in both Imperial and metric (SI) systems. Imperial dimensions should be multiples of 4-inches, and conversion to metric measure should use 4-inches = 100 mm.
As a professional technical writer, I take exception to the modern practice of wasting the first Article of every major sub-part with the phrase "[this work] shall comply with this Standard." If the Standard has a purpose, and the Article has title, the phrase is superfluous. You could save a couple of pages by deleting those lines.
I have not pointed out spelling, tense, or minor grammatical errors. There are some, but I presume that the committee has access to editors who will, in due course, correct those items.

8-6-12 PC3

Kimberly, Paarlberg, representing ICC

Disapprove the change. Return the text to that found in existing standard.

Reason: The proposal does not take into consideration the size of the stage. Not all stages would need two locations. I do not understand the language for the size of the presentation area. Are they saying this always has to be a platform 48" above the floor of the auditorium, even if the stage area is higher or lower? Given the slope of the floor and the height of the ceiling, the angle of light may be substantially higher than 15 degrees. Is directly overhead okay? Since theaters typically turn their lights off in the seating area for performances, is the lighting level set for 10 foot candles, or are they measuring the room with he lights on. This is not clear.

8-9– 12

Revise as follows:

804.2.2 U-Shaped Kitchens. In kitchens enclosed on three contiguous sides, clearance between all opposing base cabinets, countertops, appliances, or walls within kitchen work areas shall be 60 inches (1525 mm) minimum.

> **EXCEPTION:** U-shaped kitchens with an island shall be permitted to comply with Section 804.2.1.

1003.12.1.2 U-Shaped Kitchens. In kitchens with counters, appliances, or cabinets on three contiguous sides, clearance between all opposing base cabinets, countertops, appliances, or walls within kitchen work areas shall be 60 inches (1525 mm) minimum.

> **EXCEPTION:** U-shaped kitchens with an island shall be permitted to comply with Section 1003.12.1.1.

1004.12.1.2 U-Shaped Kitchens. In kitchens with counters, appliances, or cabinets on three contiguous sides, clearance between all opposing base cabinets, countertops, appliances, or walls within kitchen work areas shall be 60 inches (1525 mm) minimum.

> **EXCEPTION:** U-shaped kitchens with an island shall be permitted to comply with Section 1004.12.1.1.

8-9-12 PC1

Ron Burton, PTW Advisors LLC, representing Building Owners and Managers Association, International; David S. Collins, The Preview Group, representing American Institute of Architects (AIA); Ron Nickson, representing the National Multi-housing Council; Steve Orlowski,

representing the National Association of Home Builders; Kim Paarlberg, representing International Code Council

See comment under 3-6-12 PC2

8-9-12 PC2

Harold Kiewel, representing self

Comment: The problem with redundancy is every time you change a word, requirement, or exception you also have to make the change in all the places that the language is repeated. It creates an exponential inflation pattern in the size of the Standard and creates the opportunity for one case to be missed, or for one of the iterations to be done incorrectly or incompletely – a coordination nightmare.

8-10– 12

Revise as follows:

804.3 Work Surface. At least one accessible work surface shall be provided in accordance with Section 902. At least one accessible work surface shall be located in accordance with Section 804.5.5.2 or 804.5.5.3.

> **EXCEPTION:** Spaces that do not provide a cooktop or conventional range shall not be required to provide an accessible work surface.

1002.12 Kitchens and kitchenettes**.** Kitchens and kitchenettes shall comply with Section 804. ~~At least one work surface, 30 inches (760 mm) minimum in length, shall comply with Section 902.~~

> ~~**EXCEPTION:** Spaces that do not provide a cooktop or conventional range shall not be required to provide an accessible work surface.~~

1003.12.3 Work Surface. At least one section of counter shall provide an accessible work surface 30 inches (760 mm) minimum in length complying with Section 1003.12.3.

> **EXCEPTION:** Spaces that do not provide a cooktop or conventional range shall not be required to provide an accessible work surface.

8-10-12 PC1

Harold Kiewel, representing self

Further revise as follow:

804.3 Work Surface. At least one accessible work surface shall be provided in accordance with Section 902. At least one accessible work surface shall be located in accordance with Section 804.5.5.2 or 804.5.5.3.

> ~~**EXCEPTION:** Spaces that do not provide a cooktop or conventional range shall not be required to provide an accessible work surface.~~

1003.12.3 Work Surface. At least one section of counter shall provide an accessible work surface 30 inches (760 mm) minimum in length complying with Section 1003.12.3.

> ~~**EXCEPTION:** Spaces that do not provide a cooktop or conventional range shall not be required to provide an accessible work surface.~~

Reason: This exception implies that micro-wave cooking and other kitchen activities require no preparation which is definitely not the case. Even mixing a salad, or making a cold-cut sandwich, neither of which requires cooking, requires preparation – i.e. a work surface.

8-13– 12

Revise as follows:

804.2 Clearance. Where a pass-through kitchen is provided, clearances shall comply with Section 804.2.1. Where a U-shaped kitchen is provided, clearances shall comply with Section 804.2.2. Kitchens where a cook top or conventional range are not provided shall comply with Section 804.2.3.

~~**EXCEPTION:** Spaces that do not provide a cooktop or conventional range shall not be required to comply with Section 804.2 provided there is a 40-inch (1015 mm) minimum clearance between all opposing base cabinets, counter tops, appliances, or walls within work areas.~~

804.2.3 Spaces where a cook top or conventional range are not provided. In a kitchen space where a cooktop or conventional range is not provides, clearance between all opposing base cabinets, counter tops, appliances, or walls within work areas shall be 40-inch (1015 mm) minimum.

1002.12 Kitchens ~~and kitchenettes.~~ Kitchens ~~and kitchenettes~~ shall comply with Section 804. ~~At least one work surface, 30 inches (760 mm) minimum in length, shall comply with Section 902.~~

~~**EXCEPTION:** Spaces that do not provide a cooktop or conventional range shall not be required to provide an accessible work surface.~~

1003.12.3 Work Surface. At least one section of counter shall provide a work surface 30 inches (760 mm) minimum in length complying with Section 1003.12.3.

EXCEPTION: Spaces that do not provide a cooktop or conventional range shall not be required to provide an accessible work surface.

1003.12.4 Sink. Sinks shall comply with Section 1003.12.4.

Exception: A parallel approach complying with Section 305 and centered on the sink, shall be permitted to a kitchen sink in a space where a cook top or conventional range is not provided.

8-13-12 PC1

Harold Kiewel, representing self

Further revise as follow:

1003.12.4 Sink. Sinks shall comply with Section 1003.12.4.

~~**Exception:** A parallel approach complying with Section 305 and centered on the sink, shall be permitted to a kitchen sink in a space where a cook top or conventional range is not provided.~~

Reason: This exception implies that no "work" will be done at the kitchen sink by the disabled person because a parallel approach the sink allows only one-handed access to the fixture. One may rinse a cup, or leave a plate, but one will not be able to WASH their cup or other dishes. This puts the disabled person in an elitist position; it appears to others that the common courtesy kitchen duties(cleaning up after one-self) are too far beneath him/her.

Also, as an added benefit, knee space at the kitchen sink or a work space builds turning space into the design - it's a win-win situation.

8-15– 12

Add new text as follows:

Section 808
Acoustics

808.1 General. Classrooms not exceeding 20,000 cubic feet (565 m^3) and required to provide enhanced acoustics shall comply with Section 808.

808.2 Reverberation Time. Classrooms shall provide reverberation times complying with Sections 808.2.1 or 808.2.2. Reverberation times shall apply to fully furnished classrooms while not in use.

808.2.1 Compliance Method A. In each of the octave frequency bands of 500, 1000, and 2000 Hz, reverberation times for sound to decay by 60 dB (*T*60) shall not exceed the times specified below:

1. 0.6 seconds in classrooms 10,000 cubic feet (285 m^3) maximum.

2. 0.7 seconds in classrooms more than 10,000 cubic feet (285 m^3) but not exceeding 20,000 cubic feet (565 m^3).

Reverberation times shall be field verified and shall be measured over a minimum level decay of 20 dB for which the maximum time shall not exceed 0.2 seconds for classrooms listed in item #1 and 0.23 seconds for classrooms listed in item #2 .

808.2.2 Compliance Method B. Small classrooms 10,000 cubic feet (285 m^3) maximum complying with Table 808.2.2(a) for T60 of 0.6 s., and large classrooms more than 10,000 cubic feet (285 m^3) but not exceeding 20,000 cubic feet (565 m^3) complying with Table 808.2.2(b) for T60 of 0.7s., shall be deemed to comply with Section 808.2.

Table 808.2.2(a) — Minimum surface area of acoustical treatment for small classrooms.

Sound absorption coefficient, α_1	**Ceiling height, H, ft.**								
	8	9	10	11	12	13	14	15	16
	Ceiling height, H, m.								
	2.44	2.74	3.05	3.35	3.66	3.96	4.27	4.57	4.88
	Minimum combined area of wall and ceiling sound-absorbing material as a percentage of the floor area								
0.45	112	130	148	167	185	203	221	239	257
0.50	101	117	134	150	166	183	199	215	232
0.55	92	107	121	136	151	166	181	196	211
0.60	84	98	111	125	139	152	166	179	193
0.65	78	90	103	115	128	141	153	166	178
0.70	72	84	95	107	119	130	142	154	166
0.75	67	78	89	100	111	122	133	144	154
0.80	63	73	83	94	104	114	124	135	145
0.85	59	69	79	88	98	107	117	127	136
0.90	56	65	74	83	92	101	111	120	129
0.95	53	62	70	79	88	98	105	113	116
1.00	50	59	67	75	83	91	100	108	116

Table 808.2.2(b) — Minimum surface area of acoustical treatment for large classrooms.

Sound absorption	**Ceiling height, H, ft.**								
	8	9	10	11	12	13	14	15	16

coefficient, α_1	Ceiling height, H, m.								
	2.44	2.74	3.05	3.35	3.66	3.96	4.27	4.57	4.88
	Minimum combined area of wall and ceiling sound-absorbing material as a percentage of the floor area								
0.45	91	107	122	138	154	169	185	200	216
0.50	82	96	110	124	138	152	166	180	194
0.55	75	87	100	113	126	138	151	164	177
0.60	68	80	92	104	115	127	139	150	162
0.65	63	74	85	96	106	117	128	139	149
0.70	59	69	79	89	99	109	119	129	139
0.75	55	64	73	83	92	102	111	120	130
0.80	51	60	69	78	86	95	104	113	121
0.85	48	57	65	73	81	90	98	106	114
0.90	46	53	61	69	77	85	92	100	108
0.95	43	51	58	65	73	80	88	95	102
1.00	41	48	55	62	69	76	83	90	97

808.3 Ambient Sound Level. Ambient sound levels within a classroom shall comply with Section 808.3. Ambient sound levels from exterior and interior sound sources shall be evaluated individually. The greatest one-hour averaged sound levels shall be evaluated at a height of 36 inches (915 mm) above the floor and no closer than 36 inches (915 mm) from any wall, window, or fixed object. Ambient sound levels shall apply to fully furnished classrooms while not in use.

808.3.1 Exterior Sound Sources. Ambient sound levels within a classroom 20,000 cubic feet (565 m^3) maximum shall not exceed 35 dBA and 55 dBC for noise intrusion from exterior sound sources.

808.3.2 Interior Sound Sources. Ambient sound levels within a classroom not larger than 20,000 cubic feet (565 m^3) shall not exceed 35 dBA and 55 dBC, for noise from interior sound sources.

8-15-12 PC1

Maria Haynes, representing self

Comment: I am licensed and certified as a Speech/Language Pathologist and also as an Audiologist (MA State Board of Registration, and American Speech/Language Hearing Association. I have worked in the public school system for 30 yrs., have also taught at the college level. My experience is that even in the newest schools the classroom acoustics are poor. All surfaces are hard surfaces(in an attempt to make them easy to clean) but makes them terrible listening situations At least 25-30% will have difficulty catching all the auditory material – anyone with a hearing loss is doomed, and more than are realized in the rest of the class miss information because of auditory discrimination/processing issue, 2nd language learning , and someone with a cold, which is much of the winter in the northeast. They don't complain because they figure everyone else can hear well, and don't know what they missed. Especially now that there is an emphasis on class discussion, they don't hear other children. I have given up being able to do speech therapy within classrooms for several reasons, one of which is I know the kids I am there for are not hearing it all. When we have had hearing impaired children we have treated surfaces with acoustic material. That should be standard in ALL classrooms, plus use FM equipment.

8-15-12 PC2

Chantal Kealey, representing CASLPA

Comment: CASLPA has reviewed and supports the October 25, 2013 changes/amendments to the ICC A117.1 building codes standard, Chapter 8, Section 808. CASLPA has long supported the need for improved classroom acoustics in Canada and has advocated on this issue. www.caslpa.ca/caslpa-work/classroom-acoustics

8-15-12 PC3

Kimberly Paarlberg, representing ICC

Comment: I don't know if this will be addressed by the editorial committee or not. The proponent does not use consistent terminology for the ranges in sizes or levels.

8-15-12 PC4

Robert H. Mallory, FCSI, CCS, CCPR, CCCA, LEED AP BD+C, representing self

Further revise as follows:

Section 808
Acoustics

808.1 General. Classrooms not exceeding 20,000 cubic feet (565 m^3) and required to provide enhanced acoustics shall comply with Section 808.

808.2 Reverberation Time. Classrooms shall provide reverberation times complying with Sections 808.2.1 or 808.2.2. Reverberation times shall apply to ~~fully furnished~~ unfurnished classrooms while not in use.

808.2.1 Compliance Method A. In each of the octave frequency bands of 500, 1000, and 2000 Hz, reverberation times for sound to decay by 60 dB (*T*60) shall not exceed the times specified below:

1. 0.6 seconds in classrooms 10,000 cubic feet (285 m^3) maximum.

2. 0.7 seconds in classrooms more than 10,000 cubic feet (285 m^3) but not exceeding 20,000 cubic feet (565 m^3).

Reverberation times shall be field verified and shall be measured over a minimum level decay of 20 dB for which the maximum time shall not exceed 0.2 seconds for classrooms listed in item #1 and 0.23 seconds for classrooms listed in item #2 .

808.2.2 Compliance Method B. Small classrooms 10,000 cubic feet (285 m^3) maximum complying with Table 808.2.2(a) for T60 of 0.6 s., and large classrooms more than 10,000 cubic feet (285 m^3) but not exceeding 20,000 cubic feet (565 m^3) complying with Table 808.2.2(b) for T60 of 0.7s., shall be deemed to comply with Section 808.2.

Table 808.2.2(a) — Minimum surface area of acoustical treatment for small classrooms.

Sound absorption coefficient, α_1	Ceiling height, H, ft.								
	8	9	10	11	12	13	14	15	16
	Ceiling height, H, m.								
	2.44	2.74	3.05	3.35	3.66	3.96	4.27	4.57	4.88
	Minimum combined area of wall and ceiling sound-absorbing material as a percentage of the floor area								
0.45	112	130	148	167	185	203	221	239	257
0.50	101	117	134	150	166	183	199	215	232
0.55	92	107	121	136	151	166	181	196	211
0.60	84	98	111	125	139	152	166	179	193
0.65	78	90	103	115	128	141	153	166	178
0.70	72	84	95	107	119	130	142	154	166
0.75	67	78	89	100	111	122	133	144	154
0.80	63	73	83	94	104	114	124	135	145
0.85	59	69	79	88	98	107	117	127	136
0.90	56	65	74	83	92	101	111	120	129
0.95	53	62	70	79	88	98	105	113	116
1.00	50	59	67	75	83	91	100	108	116

Table 808.2.2(b) — Minimum surface area of acoustical treatment for large classrooms.

Sound absorption	Ceiling height, H, ft.								
	8	9	10	11	12	13	14	15	16

coefficient, α_1	Ceiling height, H, m.								
	2.44	2.74	3.05	3.35	3.66	3.96	4.27	4.57	4.88
	Minimum combined area of wall and ceiling sound-absorbing material as a percentage of the floor area								
0.45	91	107	122	138	154	169	185	200	216
0.50	82	96	110	124	138	152	166	180	194
0.55	75	87	100	113	126	138	151	164	177
0.60	68	80	92	104	115	127	139	150	162
0.65	63	74	85	96	106	117	128	139	149
0.70	59	69	79	89	99	109	119	129	139
0.75	55	64	73	83	92	102	111	120	130
0.80	51	60	69	78	86	95	104	113	121
0.85	48	57	65	73	81	90	98	106	114
0.90	46	53	61	69	77	85	92	100	108
0.95	43	51	58	65	73	80	88	95	102
1.00	41	48	55	62	69	76	83	90	97

808.3 Ambient Sound Level. Ambient sound levels within a classroom shall comply with Section 808.3. Ambient sound levels from exterior and interior sound sources shall be evaluated individually. The greatest one-hour averaged sound levels shall be evaluated at a height of 36 inches (915 mm) above the floor and no closer than 36 inches (915 mm) from any wall, window, or fixed object. Ambient sound levels shall apply to ~~fully furnished~~ unfurnished classrooms while not in use.

808.3.1 Exterior Sound Sources. Ambient sound levels within a classroom 20,000 cubic feet (565 m^3) maximum shall not exceed 35 dBA and 55 dBC for noise intrusion from exterior sound sources.

808.3.2 Interior Sound Sources. Ambient sound levels within a classroom not larger than 20,000 cubic feet (565 m^3) shall not exceed 35 dBA and 55 dBC, for noise from interior sound sources.

Reason: I see that the reverberation times are for fully furnished classrooms. This will make the modeling much more unpredictable and will not provide for flexibility in use of the classroom space. If, for example the room is modeled with 30 desks, plus teacher's desk and appurtenances, then the requirements change to an open classroom with different furniture, the reverberation time could change significantly. I have seen great variation in how standard classrooms are being furnished.

It seems much more predictable to model an unfurnished classroom, and assume that furniture will add to the absorption. The unfurnished method will provide a school district with much more flexibility as the rooms will all be controlled to the same T-60 initially. Plus it will add a standardization to the methodology. I can fore vision continuing arguments with Architects and Designers concerning furnishings, and then have some poor school district end up with spaces with high reverberation times when they change out furniture to something less absorptive than the originally modeled arrangement

8-15-12 PC5

Mark Schaffer, representing self

Delete and replace as follows:

~~Section 808~~
~~Acoustics~~

~~808.1 General.~~ ~~Classrooms not exceeding 20,000 cubic feet (565 m^3) and required to provide enhanced acoustics shall comply with Section 808.~~

~~808.2 Reverberation Time.~~ ~~Classrooms shall provide reverberation times complying with Sections 808.2.1 or 808.2.2. Reverberation times shall apply to fully furnished classrooms while not in use.~~

~~808.2.1 Compliance Method A.~~ ~~In each of the octave frequency bands of 500, 1000, and 2000 Hz, reverberation times for sound to decay by 60 dB (*T*60) shall not exceed the times specified below:~~

1. 0.6 seconds in classrooms 10,000 cubic feet (285 m^3) maximum.

2. 0.7 seconds in classrooms more than 10,000 cubic feet (285 m^3) but not exceeding 20,000 cubic feet (565 m^3).

Reverberation times shall be field verified and shall be measured over a minimum level decay of 20 dB for which the maximum time shall not exceed 0.2 seconds for classrooms listed in item #1 and 0.23 seconds for classrooms listed in item #2 .

808.2.2 Compliance Method B. Small classrooms 10,000 cubic feet (285 m^3) maximum complying with Table 808.2.2(a) for T60 of 0.6 s., and large classrooms more than 10,000 cubic feet (285 m^3) but not exceeding 20,000 cubic feet (565 m^3) complying with Table 808.2.2(b) for T60 of 0.7s., shall be deemed to comply with Section 808.2.

Table 808.2.2(a) — Minimum surface area of acoustical treatment for small classrooms.

Sound absorption coefficient, α_1	Ceiling height, H, ft.								
	8	9	10	11	12	13	14	15	16
	Ceiling height, H, m.								
	2.44	2.74	3.05	3.35	3.66	3.96	4.27	4.57	4.88
	Minimum combined area of wall and ceiling sound-absorbing material as a percentage of the floor area								
0.45	112	130	148	167	185	203	221	239	257
0.50	101	117	134	150	166	183	199	215	232
0.55	92	107	121	136	151	166	181	196	211
0.60	84	98	111	125	139	152	166	179	193
0.65	78	90	103	115	128	141	153	166	178
0.70	72	84	95	107	119	130	142	154	166
0.75	67	78	89	100	111	122	133	144	154
0.80	63	73	83	94	104	114	124	135	145
0.85	59	69	79	88	98	107	117	127	136
0.90	56	65	74	83	92	101	111	120	129
0.95	53	62	70	79	88	98	105	113	116
1.00	50	59	67	75	83	91	100	108	116

Table 808.2.2(b) — Minimum surface area of acoustical treatment for large classrooms.

Sound absorption coefficient, α_1	Ceiling height, H, ft.								
	8	9	10	11	12	13	14	15	16
	Ceiling height, H, m.								
	2.44	2.74	3.05	3.35	3.66	3.96	4.27	4.57	4.88
	Minimum combined area of wall and ceiling sound-absorbing material as a percentage of the floor area								
0.45	91	107	122	138	154	169	185	200	216
0.50	82	96	110	124	138	152	166	180	194
0.55	75	87	100	113	126	138	151	164	177
0.60	68	80	92	104	115	127	139	150	162
0.65	63	74	85	96	106	117	128	139	149
0.70	59	69	79	89	99	109	119	129	139
0.75	55	64	73	83	92	102	111	120	130
0.80	51	60	69	78	86	95	104	113	121
0.85	48	57	65	73	81	90	98	106	114
0.90	46	53	61	69	77	85	92	100	108
0.95	43	51	58	65	73	80	88	95	102
1.00	41	48	55	62	69	76	83	90	97

~~**808.3 Ambient Sound Level.** Ambient sound levels within a classroom shall comply with Section 808.3. Ambient sound levels from exterior and interior sound sources shall be evaluated individually. The greatest one-hour averaged sound levels shall be evaluated at a height of 36 inches (915 mm) above the floor and no closer than 36 inches (915 mm) from any wall, window, or fixed object. Ambient sound levels shall apply to fully furnished classrooms while not in use.~~

~~**808.3.1 Exterior Sound Sources.** Ambient sound levels within a classroom 20,000 cubic feet (565 m^3) maximum shall not exceed 35 dBA and 55 dBC for noise intrusion from exterior sound sources.~~

~~**808.3.2 Interior Sound Sources.** Ambient sound levels within a classroom not larger than 20,000 cubic feet (565 m^3) shall not exceed 35 dBA and 55 dBC, for noise from interior sound sources.~~

Section 808
Acoustics

808.1 General. This section applies to classrooms with volumes up to 20,000 cubic feet (565 m^3)

808.2 Reverberation Time. Classroom Reverberation Times shall comply with either section 808.2.1 or section 808.2.2, depending on the size of the room. Reverberation times shall apply to fully-furnished, unoccupied classrooms.

808.2.1 Performance Method. For each of the octave frequency bands with center frequencies of 500, 1000, and 2000 Hz, the Reverberation Time (*T*60) shall not exceed the times specified below:

1. 0.6 seconds in classrooms with volumes up to and including 10,000 cubic feet (285 m^3).

2. 0.7 seconds in classrooms with volumes of more than 10,000 cubic feet (285 m^3), but less than 20,000 cubic feet (566 m^3).

Reverberation times shall be field-verified via measurements made in accordance with ASTM E2235-04(2012) "Standard Test Method for Determination of Decay Rates for Use in Sound Insulation Test Methods" over a minimum 20 dB decay in each octave frequency band.

808.2.2 Prescriptive Method. The Noise Reduction Coefficient (NRC) ratings for floor, wall and ceiling surface finishes shall conform to the following equations:

For a classroom with a volume less than or equal to 10,000 cubic feet (285 cubic meters):

$$(NRC_{Floor} \times S_{Floor}) + (NRC_{Ceiling} \times S_{Ceiling}) + (NRC_{Wall} \times S_{Wall}) \geq Volume/12$$

For a classroom with a volume between 10,000 cubic feet (285 cubic meters) and 20,000 cubic feet (565 cubic meters):

$$(NRC_{Floor} \times S_{Floor}) + (NRC_{Ceiling} \times S_{Ceiling}) + (NRC_{Wall} \times S_{Wall}) \geq Volume/14$$

where NRC_{Floor} = NRC rating of the floor finish material
S_{Floor} = floor area in square feet
$NRC_{Ceiling}$ = NRC rating of the ceiling finish material
$S_{Ceiling}$ = ceiling area in square feet
NRC_{Wall} = NRC rating of the wall acoustical treatment
S_{Wall} = wall treatment area in square feet
Volume = room volume in cubic feet

Where a floor, ceiling or wall has multiple surface finishes, the NRC x S product for each surface finish shall be added to the left side of the equation.

808.3 Ambient Sound Level. Classroom ambient sound levels shall comply with Sections 808.3.1 and 808.3.2. Ambient sound levels from sound sources outside and inside the classroom shall be evaluated individually. The greatest one-hour averaged sound levels shall be evaluated at the loudest usable location in the room at a height of 36 inches (915 mm) to 42 inches (1065 mm) above the floor and no closer than 36 inches (915 mm) from any wall, window, or object. The ambient sound level limits shall apply to fully-furnished, unoccupied classrooms, and with only permanent HVAC, electrical and plumbing systems functioning. Classroom equipment, including, but not limited to, computers, printers, fish tank pumps shall be turned off during these measurements.

808.3.1 Sound Sources Outside of the Classroom. Classroom ambient sound levels shall not exceed 35 dBA and 55 dBC due to intruding noise from sound sources outside of the classroom, whether from the exterior or from other interior spaces.

808.3.2 Sound Sources Inside the Classroom. Classroom ambient sound levels shall not exceed 35 dBA and 55 dBC for noise from sound sources inside the classroom.

Reason: Includes edits from Mark Schaffer. I'm sorry to not have followed the specified review protocol, but I found that the number of suggested changes made my "Track Changes" document very difficult to read. I offer the wording below with the knowledge that the vast majority of this section's users will not be familiar with acoustical terminology and calculation methods. For example, the tables in paragraph 808.2.2. assume that the reader knows how to calculate an average sound absorption coefficient; I doubt that this is the case. I know that the NRC method that I suggest below is not as accurate as a calculation method that uses octave band absorption coefficients, but I believe that in the overall scheme of things it is accurate enough, while being more accessible to non-acoustical people.

8-15-12 PC6

David Hall, representing self

Disapprove the change.

Reason: Delete this entire section! Once again you guys are going way over the line. There is now ay anyone in the field can inspect and verify this proposed requirement. Only a Registered Engineer that specializes in this type of work can understand all this and no builder is ever going to want to build another school in this country if they have to comply with these requirements.

Have any of you even considered how a teacher conducts their class? Have you considered what they teachers may bring into the room and use versus what this code will require the room to look like? Once again the disabled are becoming a special class . . . not "equal" with the "normal people". As I said before . . . you are heading for a huge backlash from the real world.

Chapter 9

9-1– 12

Revise as follows:

901.1 Scope. ~~Built-in~~ furnishings and equipment required to be accessible by the scoping provisions adopted by the administrative authority shall comply with the applicable provisions of Chapter 9.

905.1 General. Accessible built-in storage facilities shall comply with Section 905.

9-1-12 PC1

Meg Haley, representing self

Revise Title of Chapter as follows:

Chapter 9. ~~Built-in~~ Furnishings and Equipment

Reason: Consistent with accepted revisions in body of chapter and intent of the code to provide that all furnishings, whether fixed or not, should be accessible based on the scoping of IBC Section 1108.2.9 Deletion accepted to strike "built-in" from "901.1 Scope" per revision 9-1-12.

9-2– 12

Revise as follows:

1003.12.3 Work Surface. At least one section of counter shall provide a work surface 30 inches (760 mm) minimum in length complying with Section 1003.12.3.

1003.12.3.1 Clear Floor Space. A clear floor space, positioned for a forward approach to the work surface, shall be provided. Knee and toe clearance complying with Section 306 shall be provided. ~~The clear floor space shall be centered on the work surface.~~

EXCEPTION: Cabinetry shall be permitted under the work surface, provided the following criteria are met:

(a) the cabinetry can be removed without removal or replacement of the work surface,
(b) the floor finish extends under such cabinetry, and the walls behind and surrounding cabinetry are finished.

9-2-12 PC1

Harold Kiewel, representing self

Further revise as follow:

1003.12.3.1 Clear Floor Space. A clear floor space, positioned for a forward approach to the work surface, shall be provided. Knee and toe clearance complying with Section 306 shall be provided.

EXCEPTION: Cabinetry shall be permitted under the work surface, provided that the following criteria are met:

(a) The cabinetry can be removed without removal or replacement of the work surface,

(b) The floor finish extends the full depth under such cabinetry, and
(c) The walls ~~behind~~ and ~~surrounding~~ cabinetry surfaces exposed by such removal are finished to match equivalent adjoining surfaces.

Reason: I am opposed to changing dimensions to non-modular (odd) numbers. I believe that dimensional requirements of the Standard should, to the maximum extent practicable, be modular in both Imperial and metric (SI) systems. Imperial dimensions should be multiples of 4-inches, and conversion to metric measure should use 4-inches = 100 mm.

As a professional technical writer, I take exception to the modern practice of wasting the first Article of every major sub-part with the phrase "[this work] shall comply with this Standard." If the Standard has a purpose, and the Article has title, the phrase is superfluous. You could save a couple of pages by deleting those lines.

I have not pointed out spelling, tense, or minor grammatical errors. There are some, but I presume that the committee has access to editors who will, in due course, correct those items.

9-4– 12

Revise as follows:

903.2 Clear Floor Space. A clear floor space complying with Section 305, positioned ~~for a parallel approach to the bench seat, shall be provided.~~ at the end of the bench seat and parallel to the short axis of the bench.

> **Exception.** A clear floor space positioned for a parallel approach to the front of the bench seat, shall be permitted where a clear floor space is also positioned at the end the bench seat.

9-4-12 PC1

Kim Paarlberg, representing ICC

Further revise as follow:

903.2 Clear Floor Space. A clear floor space complying with Section 305, positioned at the end of the bench seat and parallel to the short axis of the bench.

> ~~**Exception.** A clear floor space positioned for a parallel approach to the front of the bench seat, shall be permitted where a clear floor space is also positioned at the end the bench seat.~~

Reason: There is no need for an exception that says you can exceed the minimum requirement. At a minimum the exception has to be deleted. If the committee believes that someone can transfer to a bench from the front vs. the end, then the original text should be restored.

9-4-12 PC2

Larry Perry, representing self

Further revise as follow:

903.2 Clear Floor Space. A clear floor space complying with Section 305, positioned at the end of the bench seat and parallel to the short axis of the bench.

> ~~**Exception.** A clear floor space positioned for a parallel approach to the front of the bench seat, shall be permitted where a clear floor space is also positioned at the end the bench seat.~~

Reason: The proposed exception is either meaningless or is unclear and needs to be re-written.
As written, it appears to state that you can provide additional space at the bench, as long as you provide the clear floor space as specified in the base paragraph. If that is the intent, the exception is meaningless and should be deleted.

If the intent is that by providing additional clear floor space in front of the bench, the orientation or position of the clear floor space at the end of the bench can change, that needs to be more clearly stated.

9-4-12 PC3

Curt Wiehle, Minnesota Construction Codes and Licensing, representing self

Disapprove the change. Return the text to that found in existing standard.

Reason: Do not make the proposed change shown above. This change only serves to provide compliance with a provision of the 2010 ADA standard that is nonfunctional. A non-ambulatory, non-weight bearing wheelchair user is not able to transfer from a clear floor space at the end of the bench (see comment to Proposal 6-46-12) unless the wheelchair is positioned facing the back of the bench which, after transferring, will put the person sitting sideways on the end of the bench.

At the very least, delete the pointless exception.

9-6– 12

Revise as follows:

904.3 Sales and Service Counters. Sales and service counters shall comply with Section 904.3.1 or 904.3.2. The accessible portion of the countertop shall extend the same depth as the sales and service countertop.

> **EXCEPTION:** In *alterations*, when the provision of a counter complying with Section 904.4 would result in a reduction of the number of existing counters at work stations or a reduction of the number of existing *mail boxes*, the counter shall be permitted to have a portion which is 24 inches (610 mm) long minimum complying with Section 904.4.1 provided that the required clear floor *space* is centered on the *accessible* length of the counter.

9-6-12 PC1

Harold Kiewel, representing self

Comment: The exception is too broadly written and could permit some owners or operators to side-step the intention of the regulations.

In the ADA, this provision is intended to prevent financial hardship among small retailers, who may, if required to bring their existing facility into full compliance with the Standard, trim their profit margin to a point that risks their very viability.

The opening phrase of the Exception, "*In alterations,*" is a wide door, open to any owner making any change. It does not differentiate between the Owner fitting up an abandoned or empty shell space and the Owner of a small, long-standing business trying to modernize its layout. The former should not have access to this provision, where the later, with the concurrence of administrative authority, is more likely to pass this hardship test. This language belongs in the Administrative rules (IBC Chapter 11) that control application of the Standard, where it can be set among other building modernization regulations and be thereby constrained by concepts like change-of-use, existing facilities, historic properties, etc.

9-10– 12

Revise as follows:

904.3 Sales and Service Counters. Sales and service counters and windows shall comply with Sections 904.3.1 ~~or~~ and 904.3.2 or 904.3.3. Where a counter is provided, the accessible portion of the countertop shall extend the same depth as the sales and service countertop provided for standing customers.

904.3.1 Vertical separation. At service windows or service counters, any vertical separation shall be at a height of 43 inches (1090 mm) maximum above the floor.

> **Exception:** Transparent security glazing is permitted above the 43 inches (1090 mm) maximum height.

~~**904.3.1**~~ **904.3.2 Parallel Approach.** A portion of the counter surface 36 inches (915 mm) minimum in length and 26 inches (660 mm) minimum to 36 inches (915 mm) maximum in height above the floor shall be provided. Where the counter surface is less than 36 inches (915 mm) in length, the entire counter surface shall be 26 inches (660 mm) minimum to 36 inches (915 mm) maximum in height above the floor. A clear floor space complying with Section 305, positioned for a parallel approach adjacent to the accessible counter, shall be provided. The space between the accessible counter surface and any projecting objects above the accessible counter shall be 12 inches (305 mm) minimum.

~~**904.3.2**~~ **904.3.3 Forward Approach.** A portion of the counter surface 30 inches (760 mm) minimum in length and 36 inches (915 mm) maximum in height above the floor shall be provided. A clear floor space complying with Section 305, positioned for a forward approach to the accessible counter, shall be provided. Knee and toe clearance complying with Section 306 shall be provided under the accessible counter. The space between the accessible counter surface and any projecting objects above the accessible counter shall be 12 inches (305 mm) minimum.

9-10-12 PC1

Karen Gridley, representing Target Corporation

Further revise as follow:

904.3.2 Parallel Approach. A portion of the public side of the counter surface ~~36 inches (915 mm)~~ 24 inches (610 mm) minimum in length and 26 inches (660 mm) minimum to 36 inches (915 mm) maximum in height above the floor shall be provided. ~~Where the counter surface is less than 36 inches (915 mm) in length, the entire counter surface shall be 26 inches (660 mm) minimum to 36 inches (915 mm) maximum in height above the floor.~~ A clear floor space complying with Section 305, positioned for a parallel approach adjacent to the accessible counter, shall be provided. The space between the accessible counter surface and any projecting objects above the accessible counter shall be 12 inches (305 mm) minimum.

904.3.3 Forward Approach. A portion of the public side of the counter surface 30 inches (760 mm) minimum in length and 36 inches (915 mm) maximum in height above the floor shall be provided. A clear floor space complying with Section 305, positioned for a forward approach to the accessible counter, shall be provided. Knee and toe clearance complying with Section 306 shall be provided under the accessible counter. The space between the accessible counter surface and any projecting objects above the accessible counter shall be 12 inches (305 mm) minimum.

Balance of 9-10-12 remains unchanged

Reason: For reference, we have submitted an additional and separate comment with alternate language changes for consideration on this item.

This code change proposal is to remove the ambiguous language over the 36 inch length provided for public use. In one sentence the requirement states the counter *shall* be 36 inches in length. But in a following sentence it states *"…where the counter surface is less than 36 inches…*", which implies it is OK to have a length less than 36, and seems to provide an allowance or exception to the length. The language in the two sentences conflict with each other and are confusing because there is no clear exception stated.

Considering that the implication is that it is ok to have a length less than 36 inches, this proposal provides clear criteria on the dimension allowance for a shorter length of 24 inches. Effective lengths could vary depending on the purpose for which a counter is in place.

For example:

In current real world applications we see a variety of existing counters where the pass-through portion of the counter is clearly less than 36 inches in length; some as narrow as 12 inches, and they work extremely well in their intended application. Counters where this would be beneficial are food & beverage hand-off counters, pass-through windows, quick service style counters, teller windows and ticket windows, to name a few, where the only action occurring is to hand off or pass through small items such as food or beverages, tickets, or payment.

9-10-12 PC2

Karen Gridley, representing Target Corporation

Further revise as follow:

904.3.2 Parallel Approach. A portion of the public side of the counter surface 36 inches (915 mm) minimum in length and 26 inches (660 mm) minimum to 36 inches (915 mm) maximum in height above the floor shall be provided. At pass-through or hand-off portions of counters, the counter surface shall be 12 inches minimum in length. Where the counter surface at pass-through or hand-off elements of a counter is less than 36 inches (915 mm) in length, the entire pass-through or hand-off element of the counter surface shall be 26 inches (660 mm) minimum to 36 inches (915 mm) maximum in height above the floor. A clear floor space complying with Section 305, positioned for a parallel approach adjacent to the accessible counter, shall be provided. The space between the accessible counter surface and any projecting objects above the accessible counter shall be 12 inches (305 mm) minimum.

904.3.3 Forward Approach. A portion of the public side of the counter surface 30 inches (760 mm) minimum in length and 36 inches (915 mm) maximum in height above the floor shall be provided. A clear floor space complying with Section 305, positioned for a forward approach to the accessible counter, shall be provided. Knee and toe clearance complying with Section 306 shall be provided under the accessible counter. The space between the accessible counter surface and any projecting objects above the accessible counter shall be 12 inches (305 mm) minimum.

Balance of 9-10-12 remains unchanged

Reason: For reference, we have submitted an additional and separate comment with alternate language changes for consideration on this item.

This code change proposal is the second of two comments we have submitted for this item. It is an attempt to remove the ambiguous language over the 36 inch length provided for public use. In one sentence the requirement states the counter *shall* be 36 inches in length. But in a following sentence it states *"…where the counter surface is less than 36 inches…*", which implies it is OK to have a length less than 36, and seems to provide an allowance or exception to the length. The language in the two sentences conflict with each other and are confusing because there is no clear exception stated.

Considering the implication is that it is ok to have a length less than 36 inches, this proposal provides clear criteria on the dimension allowance for a shorter length of 12 inches at pass-through or hand-off elements of counters. Effective lengths could vary depending on the purpose for which a counter is in place.

For example:

In current real world applications we see a variety of existing counters where the pass-through portion of the counter is clearly less than 36 inches in length; some as narrow as 12 inches, and they work extremely well in their intended application. Counters where this would be beneficial are food & beverage hand-off counters, pass-through windows, quick service style counters, teller windows and ticket windows, to name a few, where the only action occurring is to hand off or pass through small items such as food or beverages, tickets, or payment.

This comment also introduces the idea of identifying different elements of counters that might have different length requirements, such as the pass-through portion of the counter versus the front public side, and which widths are appropriate at those different counter elements.

9-10-12 PC3

Kim Paarlberg, representing ICC

Further revise as follow:

904.3 Sales and Service Counters. Sales and service counters and windows shall comply with Sections 904.3.1 and either 904.3.2 or Section 904.3.3. Where a counter is provided, the accessible portion of the countertop shall extend the same depth as the sales and service countertop provided for standing customers.

904.3.1 Vertical separation. At service windows or service counters, any vertical separation shall be at a height of 43 inches (1090 mm) maximum above the floor.

> **Exception:** Transparent security glazing is permitted above the 43 inches (1090 mm) maximum height.

904.3.2 Parallel Approach. A portion of the counter surface 36 inches (915 mm) minimum in length and 26 inches (660 mm) minimum to 36 inches (915 mm) maximum in height above the floor shall be

provided. Where the counter surface is less than 36 inches (915 mm) in length, the entire counter surface shall be 26 inches (660 mm) minimum to 36 inches (915 mm) maximum in height above the floor. A clear floor space complying with Section 305, positioned for a parallel approach adjacent to the accessible counter, shall be provided. The space between the accessible counter surface and any projecting objects above the accessible counter shall be 12 inches (305 mm) minimum.

904.3.3 Forward Approach. A portion of the counter surface 30 inches (760 mm) minimum in length and 36 inches (915 mm) maximum in height above the floor shall be provided. A clear floor space complying with Section 305, positioned for a forward approach to the accessible counter, shall be provided. Knee and toe clearance complying with Section 306 shall be provided under the accessible counter. The space between the accessible counter surface and any projecting objects above the accessible counter shall be 12 inches (305 mm) minimum.

Reason: Clarification to show that the counters have to allow for visual interaction between the customer and employee over the counter, but can do either a parallel or forward approach.

The following is the combined section:
904 Sales and Service Counters

904.3 Sales and Service Counters and Windows. Sales and service counters and windows shall comply with Sections 904.3.1 and either 904.3.2 or Section 904.3.3. . Where counters are provided, the accessible portion of the countertop shall extend the same depth as the public portion of the sales and service countertop provided for standing customers. (9-7-12) (9-9-12)(9-10-12)

> **EXCEPTION:** In *alterations*, when the provision of a counter complying with Section 904.4 would result in a reduction of the number of existing counters at work stations or a reduction of the number of existing *mail boxes*, the counter shall be permitted to have a portion which is 24 inches (610 mm) long minimum complying with Section 904.4.1 provided that the required clear floor *space* is centered on the *accessible* length of the counter. (9-6-12)

904.3.1 Vertical separation. At service windows or service counters, any vertical separation shall be at a height of 43 inches (1090 mm) maximum above the floor. (9-10-12)

> **Exception:** Transparent security glazing is permitted above the 43 inches (1090 mm) maximum height. (9-10-12)

904.3.2 Parallel Approach. A portion of the counter surface 36 inches (915 mm) minimum in length and 26 inches (660 mm) minimum to 36 inches (915 mm) maximum in height above the floor shall be provided. Where the counter surface is less than 36 inches (915 mm) in length, the entire counter surface shall be 26 inches (660 mm) minimum to 36 inches (915 mm) maximum in height above the floor. A clear floor space complying with Section 305, positioned for a parallel approach adjacent to the accessible. The space between the accessible counter surface and any projecting objects above the accessible counter shall be 12 inches (305 mm) minimum. (9-10-12)

904.3.3 Forward Approach. A portion of the counter surface 30 inches (760 mm) minimum in length and 36 inches (915 mm) maximum in height above the floor shall be provided. A clear floor space complying with Section 305, positioned for a forward approach to the accessible counter, shall be provided. Knee and toe clearance complying with Section 306 shall be provided under the accessible counter. The space between the accessible counter surface and any projecting objects above the accessible counter shall be 12 inches (305 mm) minimum. (9-10-12)

Chapter 10

10-1 – 12

Chapter 10, Chapter 11 - Revise as follows:

Chapters 10 and 11: Renumber all sections the standard to exchange the order of these 2 chapters.

10-1-12 PC1

Larry Eberly, representing Pennsylvania Builders Association

Disapprove the change. Return the text to that found in existing standard.

Reason: ANSI A117.1 Chapters and numbering have been in place for decades and will confuse future use for those acquainted with the standards and coordination with prior versions of the Standard. In addition, this requirement may conflict with any specific jurisdictional reference standards which may exist elsewhere specific to either chapter. The reason for this proposed change contained in the First Public Review Draft – Background Report is to coordinate the numbering of ANSI A117.1 Chapter 11: Recreational Facilities to be consistent with a chapter name change in 2010 ADA (Chapter 10: Recreation Facilities previously Transportation Facilities.) The reference to ANSI A117.1 Chapter 10 as Dwelling Units and Sleeping Units has been in place for much longer than this 2010 ADA chapter change and much longer than ANSI's addition of Chapter 11 for Recreational Facilities.

10-2– 12

Add new text as follows:

1001.2 Mail Receptacles. Where provided, mail receptacles shall be accessible in accordance with Section 1001.2.1 or 1001.2.2.

1001.2.1 Dwelling Units and Sleeping Units. Where mail receptacles are provided for Accessible, Type A or Type B dwelling and sleeping units, accessible mail receptacles shall be provided in accordance with Section 1001.2.1.1 or 1001.2.1.2.

1001.2.1.1 Centralized Mail Receptacles. Where each individual mail compartment of a centralized mail receptacle is assigned to a specific dwelling unit or sleeping unit, the individual mail compartments shall comply with Section 1001.2.1.1.1 or 1001.2.1.1.2.

1001.2.1.1.1 Buildings Without an Elevator. In a structure without an elevator, all individual mail compartments assigned to Accessible units, Type A units and Type B units in each location shall be accessible.

1001.2.1.1.2 Buildings with an Elevator. In a structure with an elevator, fifty percent of all individual mail compartments in each location shall be accessible. Individual mail compartments assigned to Accessible and Type A units shall be included in the accessible mailboxes. In addition to the individual mail compartments assigned to dwelling or sleeping units, an additional number of individual mail compartments that is equal to ten percent of the total number of dwelling units and sleeping units, but not less than one, at each location shall be accessible.

1001.2.1.1.3 Parcel Lockers. All parcel lockers of centralized mail receptacles shall be accessible.

1001.2.1.2 Individual House-mounted and Curbside Mail Receptacles. Where an individual house-mounted or curbside mail receptacle serves a dwelling unit or sleeping unit that is required to be an Accessible unit, Type A unit or Type B unit, the mail receptacle shall be accessible.

10-2-12 PC1

Kimberly Paarlberg, representing ICC

Delete and substitute as follows:

~~**1001.2 Mail Receptacles.** Where provided, mail receptacles shall be accessible in accordance with Section 1001.2.1 or 1001.2.2.~~

~~**1001.2.1 Dwelling Units and Sleeping Units.** Where mail receptacles are provided for Accessible, Type A or Type B dwelling and sleeping units, accessible mail receptacles shall be provided in accordance with Section 1001.2.1.1 or 1001.2.1.2.~~

~~**1001.2.1.1 Centralized Mail Receptacles.** Where each individual mail compartment of a centralized mail receptacle is assigned to a specific dwelling unit or sleeping unit, the individual mail compartments shall comply with Section 1001.2.1.1.1 or 1001.2.1.1.2.~~

~~**1001.2.1.1.1 Buildings Without an Elevator.** In a structure without an elevator, all individual mail compartments assigned to Accessible units, Type A units and Type B units in each location shall be accessible.~~

~~**1001.2.1.1.2 Buildings with an Elevator.** In a structure with an elevator, fifty percent of all individual mail compartments in each location shall be accessible. Individual mail compartments assigned to Accessible and Type A units shall be included in the accessible mailboxes. In addition to the individual mail compartments assigned to dwelling or sleeping units, an additional number of individual mail compartments that is equal to ten percent of the total number of dwelling units and sleeping units, but not less than one, at each location shall be accessible.~~

~~**1001.2.1.1.3 Parcel Lockers.** All parcel lockers of centralized mail receptacles shall be accessible.~~

~~**1001.2.1.2 Individual House-mounted and Curbside Mail Receptacles.** Where an individual house-mounted or curbside mail receptacle serves a dwelling unit or sleeping unit that is required to be an Accessible unit, Type A unit or Type B unit, the mail receptacle shall be accessible.~~

1102.13 Mail compartments. Mail compartment serving Accessible units shall comply with Section 906.

1103.13 Mail compartments. Mail compartment serving Type A units shall comply with Section 906.

1104.13 Mail compartments. Where mail compartments are serving Type B units, accessible mail compartments shall be provided in accordance with Section 1104.13.1 or 1104.13.2. All accessible mail compartments shall comply with Section 906.

1104.13.1 Centralized Mail Receptacles. Where each individual mail compartment of a centralized mail receptacle is assigned to a dwelling unit or sleeping unit, accessible individual mail compartments shall be provided in accordance with Section 1104.13.1.1 or 1104.13.1.2.

1104.13.1.1 Buildings Without Elevator Service. In a structure without elevator service, individual mail compartments assigned to Type B units shall be accessible.

1104.13.1.2 Buildings With Elevator Service. In a structure with elevator service, fifty percent of individual mail compartments shall be accessible. Individual mail compartments assigned to Accessible and Type A units and complying with Section 1102.13 or 1103.13 shall be permitted to be included in the number of required accessible mail compartments. In addition to the individual mail compartments assigned to dwelling or sleeping units, an additional number of individual mail compartments that is equal to ten percent of the total number of dwelling units and sleeping units, but not less than one, shall be accessible mail receptacles.

1104.13.2 Individual house-mounted and curbside mail compartments. Where an individual house-mounted or curbside mail compartments serves a Type B dwelling unit or sleeping unit the mail compartments with Section 906.

906 Mail Compartments

906.1 General. Accessible mail compartment shall comply with Section 906.

906.2 Clear floor space. A clear floor space complying with Section 305, positioned for either a forward or parallel approach, shall be provided adjacent to each accessible mail compartment.

906.3 Height. Operable parts on accessible mail compartment shall be located within at least one of the reach ranges specified in Section 308.

> **Exception:** Operable parts on accessible mail compartments in centralized mail receptacles and serving Type B units shall be permitted an unobstructed high side reach range at 54 inches (1370 mm) maximum above the floor.

906.4 Operable parts. Operable parts of accessible mail compartments shall comply with Section 309.

Reason: The purpose of this proposal is a clarification of what is required for accessible mailboxes. Please keep in mind that mailbox locations are also regulated by the U.S. Post Office.

Mailboxes are only addressed for dwelling and sleeping units. This is a new Section 1101.2. The current requirements to not clarify what makes a mailbox accessible. Therefore, technical requirements similar to storage facilities are provided in a new Section 9063. The exception (already approved by the committee as an exception to Section 308.3.1 for unobstructed high side reach) was relocated to these provisions so that the requirements/allowances can be together. The exception is still needed for facilities such as high rise apartment buildings and dorm facilities. The exception is also clarified/limited to only apply to accessible mail receptacles assigned to Type B units in centralized facilities. Mail receptacles for Type B units in centralized facilities that are not accessible mail receptacles can be at any height approved by the U.S. Post Office. Accessible mail receptacles for Accessible and Type A units cannot use this exception.

There is also an attempt to editorially clean up the language for accessible mail compartments. Mail receptacles are either centralized or individual, so an additional charging paragraph (1101.2.1) is not needed. If mail receptacles are centralized in groups throughout a facility, than 'at each location' is not needed – the language will apply to all centralized facilities. The text and title is revised to 'elevator service' for consistency with the language in the exceptions for Type B units in IBC Section 1107.7. The terms 'mail receptacles', 'mail compartments' and 'mailboxes' appear to be used interchangeably. We need to be consistent. The proposal is written with mail receptacles as room the boxes are located in and mail compartments as the individual boxes.

Below is what I had revised looking at just the original text – this if for committee information only so it is clear what I was looking at. Once I had it cleaned up, it became clear that it would work better within the individual unit requirements, the same way we address other facilities that serve Accessible, Type A or Type B units.

1101 General

1101.1 Scoping. Dwelling units and sleeping units required to be Accessible units, Type A units, Type B units, Type C (Visitable) units or units with accessible communication features by the scoping provisions adopted by the administrative authority shall comply with the applicable provisions of Chapter 11.

1101.2 Mail ~~Receptacles~~ Compartments. Where mail compartments are provided for Accessible, Type A or Type B dwelling and sleeping units, accessible mail ~~receptacles~~ compartments shall be ~~accessible~~ provided in accordance with Section~~s~~1101.2.1 or 1101.2.2. All accessible mail compartments shall comply with Section 1101.2.3

.

> **~~1101.2.1 Dwelling Units and Sleeping units.~~** ~~Where mail receptacles are provided for Accessible, Type A or Type B dwelling and sleeping units, accessible mail receptacles shall be provided in accordance with Section 1101.2.1.1 or 1101.2.1.2.~~
>
> **1101.2.1.~~1~~ Centralized Mail Receptacles.** Where each individual mail compartment of a centralized mail receptacle is assigned to a ~~specific~~ dwelling unit or sleeping unit, ~~the~~ accessible individual mail compartments shall ~~comply~~ be provided in accordance with Section 1101.2.1.1.~~1~~ or 1101.2.1.~~1.~~2.
>
> > **1101.2.1.1.~~1~~ Buildings Without ~~an~~ Elevator Service.** In a structure without ~~an~~ elevator service, ~~all~~ individual mail compartments assigned to Accessible units, Type A units and Type B units ~~in each location~~ shall be accessible.
> >
> > **1101.2.1.1.~~2~~ Buildings With ~~an~~ Elevator Service.** In a structure with ~~an~~ elevator service, fifty percent of ~~all~~ individual mail compartments ~~in each~~ shall be accessible. Individual mail compartments assigned to Accessible and Type A units shall be included in the accessible mail compartments ~~mailboxes~~. In addition to the individual mail compartments

assigned to dwelling or sleeping units, an additional number of individual mail compartments that is equal to ten percent of the total number of dwelling units and sleeping units, but not less than one, ~~at each location~~ shall be accessible.

1101.2.~~1.~~2 Individual house-mounted and curbside mail ~~receptacle~~ compartment. Where an individual house-mounted or curbside mail ~~receptacle~~ compartment serves a dwelling unit or sleeping unit that is required to be an Accessible unit, Type A unit or Type B unit, the mail ~~receptacle~~ compartment shall be accessible.

10-2-12 PC2

Kimberly Paarlberg, representing ICC

Further revise as follows:

1001.2 Mail Receptacles. Where provided, mail receptacles shall be accessible in accordance with Section 1001.2.1 or 1001.2.2.

1001.2.1 Dwelling Units and Sleeping Units. Where mail receptacles are provided for Accessible, Type A or Type B dwelling and sleeping units, accessible mail receptacles shall be provided in accordance with Section 1001.2.1.1 or 1001.2.1.2.

1001.2.1.1 Centralized Mail Receptacles. Where each individual mail compartment of a centralized mail receptacle is assigned to a specific dwelling unit or sleeping unit, the individual mail compartments shall comply with Section 1001.2.1.1.1 or 1001.2.1.1.2.

1001.2.1.1.1 Buildings Without an Elevator. In a structure without an elevator, all individual mail compartments assigned to Accessible units, Type A units and Type B units in each location shall be accessible.

1001.2.1.1.2 Buildings with an Elevator. In a structure with an elevator, fifty percent of all individual mail compartments in each location shall be accessible. Individual mail compartments assigned to Accessible and Type A units shall be included in the accessible mailboxes~~. In addition to the individual mail compartments assigned to dwelling or sleeping units, an additional number of individual mail compartments that is equal to ten percent of the total number of dwelling units and sleeping units, but not less than one, at each location shall be accessible.~~

1001.2.1.1.3 Parcel Lockers. All parcel lockers of centralized mail receptacles shall be accessible.

1001.2.1.2 Individual House-mounted and Curbside Mail Receptacles. Where an individual house-mounted or curbside mail receptacle serves a dwelling unit or sleeping unit that is required to be an Accessible unit, Type A unit or Type B unit, the mail receptacle shall be accessible.

Reason: According to comments in the past from the U.S. Post Office, the requirements would require and excessive number of unneeded or unused mailboxes. The basic requirements already accounts for and requires accessible mailboxes that can be assigned to individual units as needed.

10-2-12 PC3

Larry Perry, representing self

Disapprove the change. Return the text to that found in existing standard.

Reason: Mail receptacles, Mailboxes and Mail Facilities should be mandated by USPS standards subject by law under the Architectural Barriers Act (ABA) and should not be complicated by standards which only target residential uses within ANSI A117.1. In addition, Type B dwelling units should not have the same requirements as Type A and Accessible Units. Type B dwelling Units are more prevalent, have less accessibility and rely on adaptability for persons with disabilities; they typically will not be adapted even in the instance of someone with a handicap or mobility device attributable to the individual's preferences, their mobility device's design and their individual abilities. For the vast majority of people living in Type B dwelling units without a mobility device especially taller people, lower postal boxes may create a strain. Most homes in a multifamily community are required to be Type B with minimal users requiring lower; All units in an elevator serviced building (other than those to required to be Type A or accessible units) and all ground floor units in a building without elevator service. The term "accessible mail receptacle" is also not clearly defined nor referenced.

Pennsylvania Builders Association opposes any change to the ANSI 117.1 accessibility requirements which affect residential communities and dwelling units. Requirements for Mailboxes, Mail Facilities and mail receptacles for residential uses are regulated by USPS standards and should not be mandated in the ANSI A117.1 standard. Any change or new requirement will conflict with USPS standards, USPS manufactured approved mailbox design and installation and creates excessive space for mailboxes in residential communities. The STANDARD-4C (or STD-4C) is the current USPS regulation for any centralized, wall-mounted mailboxes, whether located inside an office high-rise or within a new single-family subdivision as an outdoor centralized mailbox kiosk.

The USPS Accessibility Guidelines published by the United States Access Board include scoping chapters related to enforcement of the ADA for accessibility requirements although as a matter of law, the Postal Service is subject to the Architectural Barriers Act (ABA), rather than the ADA. Accessibility requirements targeting only mail facilities for dwelling units in the ANSI Standard further complicates coordination of all the requirements and create further conflicts and unforeseen consequences.

Pennsylvania adopts the accessibility provisions of the newest triennial revisions to the ICC Family of Codes that have been adopted in PA, which includes the IBC, IRC, IMC, IPC and IEBC., without modification. This includes the references to ICC/ANSI A117.1. Mandatory adoption in Pennsylvania, without modification, has unforeseen consequences to the building industry, both commercial and residential communities.

Reason: This proposal is almost entirely scoping and is inappropriate for inclusion in the standard. This language should be submitted to building codes for adoption with the other scoping provisions for A117.1.

The proposed text for centralized mail receptacles applies only where mailboxes are assigned to specific units; USPS recommends that mailboxes be numbered sequentially, and not be tied to specific unit numbers; this is for security purposes. As written, there would be no requirements for these configurations.

The proposed 50% accessible, plus 10% ‘spare’ accessible mailboxes, is not warranted. Adding a technical exception that would allow mailboxes at up to 54” high with an unobstructed side reach would allow a higher percentage of mailboxes to be deemed ‘accessible’ without impacting space requirements severely.

Outgoing mail slots are not addressed by the proposed text.

Centralized mailbox installations are subject to USPS 4C standard if they are to be used by USPS for mail delivery. Proposals to address these installations, already subject to the USPS standard, should be developed in concert with the USPS. The standard establishes minimum heights above the minimums allowed by A117.1, thereby reducing the space available for accessible boxes. Standard configurations without parcel lockers (which can be eliminated where there is another approved means for USPS to deliver packages, such as a concierge) typically provide more than 50% of mailboxes at 54” or less.

10-2-12 PC4

Larry Eberly, representing Pennsylvania Builders Association

Disapprove the change. Return the text to that found in existing standard.

Reason: Mail receptacles, Mailboxes and Mail Facilities should be mandated by USPS standards subject by law under the Architectural Barriers Act (ABA) and should not be complicated by standards which only target residential uses within ANSI A117.1. In addition, Type B dwelling units should not have the same requirements as Type A and Accessible Units. Type B dwelling Units are more prevalent, have less accessibility and rely on adaptability for persons with disabilities; they typically will not be adapted even in the instance of someone with a handicap or mobility device attributable to the individual's preferences, their mobility device's design and their individual abilities. For the vast majority of people living in Type B dwelling units without a mobility device especially taller people, lower postal boxes may create a strain. Most homes in a multifamily community are required to be Type B with minimal users requiring lower; All units in an elevator serviced building (other than those to required to be Type A or accessible units) and all ground floor units in a building without elevator service. The term "accessible mail receptacle" is also not clearly defined nor referenced.

Pennsylvania Builders Association opposes any change to the ANSI 117.1 accessibility requirements which affect residential communities and dwelling units. Requirements for Mailboxes, Mail Facilities and mail receptacles for residential uses are regulated by USPS standards and should not be mandated in the ANSI A117.1 standard. Any change or new requirement will conflict with USPS standards, USPS manufactured approved mailbox design and installation and creates excessive space for mailboxes in residential communities. The STANDARD-4C (or STD-4C) is the current USPS regulation for any centralized, wall-mounted mailboxes, whether located inside an office high-rise or within a new single-family subdivision as an outdoor centralized mailbox kiosk.

The USPS Accessibility Guidelines published by the United States Access Board include scoping chapters related to enforcement of the ADA for accessibility requirements although as a matter of law, the Postal Service is subject to the Architectural Barriers Act (ABA), rather than the ADA. Accessibility requirements targeting only mail facilities for dwelling units in the ANSI Standard further complicates coordination of all the requirements and create further conflicts and unforeseen consequences.

Pennsylvania adopts the accessibility provisions of the newest triennial revisions to the ICC Family of Codes that have been adopted in PA, which includes the IBC, IRC, IMC, IPC and IEBC., without modification. This includes the references to ICC/ANSI A117.1. Mandatory adoption in Pennsylvania, without modification, has unforeseen consequences to the building industry, both commercial and residential communities.

10-8– 12

Revise as follows:

1002.9 Operable Parts. Lighting controls, electrical panelboards, electrical switches and receptacle outlets, environmental controls, appliance controls, operating hardware for operable windows, plumbing fixture controls, and user controls for security or intercom systems shall comply with Section 309.

EXCEPTIONS:

1. Receptacle outlets serving a dedicated use.

2. In a kitchen, where two or more receptacle outlets are provided ~~in a kitchen~~ above a length of counter top that is uninterrupted by a sink or appliance, only one receptacle outlet shall ~~not~~ be required to comply with Section 309.

3. In a kitchen, where a clear floor space for a parallel approach cannot be located at a counter top in a corner between appliances, receptacle outlets over the counter top shall not be required to comply with Section 309 provided that the counter top is 7 square feet (0.65 m^2) maximum.

(Remaining exceptions are renumbered by unchanged)

1003.9 Operable Parts. Lighting controls, electrical panel boards, electrical switches and receptacle outlets, environmental controls, appliance controls, operating hardware for operable windows, plumbing fixture controls, and user controls for security or intercom systems shall comply with Section 309.

EXCEPTIONS:

1. Receptacle outlets serving a dedicated use.

2. In a kitchen, where two or more receptacle outlets are provided ~~in a kitchen~~ above a length of counter top that is uninterrupted by a sink or appliance, only one receptacle outlet shall ~~not~~ be required to comply with Section 309.

3. In a kitchen, where a clear floor space for a parallel approach cannot be located at a counter top in a corner between appliances, receptacle outlets over the counter top shall not be required to comply with Section 309 provided that the counter top is 7 square feet (0.65 m^2) maximum.

(Remaining exceptions are renumbered by unchanged)

1004.9 Operable Parts. Lighting controls, electrical switches and receptacle outlets, environmental controls, electrical panelboards, and user controls for security or intercom systems shall comply with Section 309.2 and 309.3.

EXCEPTIONS:

1. Receptacle outlets serving a dedicated use.

2. In a kitchen, where two or more receptacle outlets are provided ~~in a kitchen~~ above a length of counter top that is uninterrupted by a sink or appliance, only one receptacle outlet shall ~~not~~ be required to comply with Sections 309.2 and 309.3.

3. In a kitchen, where a clear floor space for a parallel approach cannot be located at a counter top in a corner between appliances, receptacle outlets over the counter top shall not be required to comply with Sections 309.2 and 309.3 provided that the counter top is 7 square feet (0.65 m^2) maximum.

(Remaining exceptions are renumbered by unchanged)

10-8-12 PC1

Cheryl Kent, representing U.S. Department of Housing and Urban Development

Comment: As part of this comment, we are requesting that figures be added to the standard to illustrate the application of the language at Sections 1002.9, 1003.9, and 1004.9, Exception 3. HUD believes the text in Sections 1002.9, 1003.9 and 1004.9, Operable Parts, Exception 3 is unclear in terms of the language dealing with 7 square feet. We do not believe this language will be clear or understandable to most users of the standard. We do not have alternative language to offer because it is not clear whether the 7 square feet could have 12 inches out from the corner at the front of the countertop on one side, and 36 inches out from the corner at the front of the counter on the other side; or is the intent that this applies when you have 24 inches out from the corner on each side, at the front of the countertop? We believe figures are needed to illustrate how this language is to be understood.

10-8-12 PC2

Larry Eberly, representing Pennsylvania Builders Association

Further revise as follows:

1002.9 Operable Parts. Lighting controls, electrical panelboards, electrical switches and receptacle outlets, environmental controls, appliance controls, operating hardware for operable windows, plumbing fixture controls, and user controls for security or intercom systems shall comply with Section 309.

EXCEPTIONS:

1. Receptacle outlets serving a dedicated use.

2. In a kitchen, where two or more receptacle outlets are provided above a length of counter top that is uninterrupted by a sink or appliance, only one receptacle outlet shall be required to comply with Section 309.

3. In a kitchen, where a clear floor space for a parallel approach cannot be located at a counter top in a corner ~~between appliances~~, receptacle outlets over the counter top shall not be required to comply with Section 309 provided that the counter top ~~is 7~~ area does not exceed 9 square feet (~~0.65~~ m^2) maximum.

(Remaining exceptions are renumbered by unchanged)

1003.9 Operable Parts. Lighting controls, electrical panel boards, electrical switches and receptacle outlets, environmental controls, appliance controls, operating hardware for operable windows, plumbing fixture controls, and user controls for security or intercom systems shall comply with Section 309.

EXCEPTIONS:

1. Receptacle outlets serving a dedicated use.

2. In a kitchen, where two or more receptacle outlets are provided above a length of counter top that is uninterrupted by a sink or appliance, only one receptacle outlet shall be required to comply with Section 309.

3. In a kitchen, where a clear floor space for a parallel approach cannot be located at a counter top in a corner ~~between appliances~~, receptacle outlets over the counter top shall not be

required to comply with Section 309 provided that the counter top ~~is 7~~ area does not exceed 9 square feet (~~0.65~~ m^2) maximum.

(Remaining exceptions are renumbered by unchanged)

1004.9 Operable Parts. Lighting controls, electrical switches and receptacle outlets, environmental controls, electrical panelboards, and user controls for security or intercom systems shall comply with ~~Section 309.2~~ Sections 1004.3.3 and 309.3.

EXCEPTIONS:

1. Receptacle outlets serving a dedicated use.

2. In a kitchen, where two or more receptacle outlets are provided above a length of counter top that is uninterrupted by a sink or appliance, only one receptacle outlet shall be required to comply with Sections ~~309.2~~ 1004.3.3 and 309.3.

3. In a kitchen, where a clear floor space for a parallel approach cannot be located at a counter top in a corner ~~between appliances~~, receptacle outlets over the counter top shall not be required to comply with Sections ~~309.2~~ 1004.3.3 and 309.3 provided that the counter top ~~is 7~~ area does not exceed 9 square feet (~~0.65~~ m^2) maximum.

(Remaining exceptions are renumbered by unchanged)

Reason: Electric outlet locations within dwelling unit kitchens with countertops typically 25" or 25 1/2" in depth particularly in corner conditions and with various appliances with different design and manufacturer's specifications definitely need to be addressed. Every kitchen is designed uniquely with different accessibility challenges. This change acknowledges and clarifies a condition which occurs frequently with no feasible solution, a corner cabinet situation which often times is a lazy susan 36" x 36". This condition also does not always occur in between two appliances. PBA would suggests the size of the corner countertop area maximum be increased to 9 s.f. accordingly to more accurately reflect countertop depth and corner cabinets' dimensions in both directions (larger than 7 s.f) This may have to be increased even more (13 sf.) if it is to occur at the centerline of the clear floor space.

10-8-12 PC3

Dominic Marinelli, representing United Spinal Association

Further revise as follows:

1002.9 Operable Parts. Lighting controls, electrical panelboards, electrical switches and receptacle outlets, environmental controls, appliance controls, operating hardware for operable windows, plumbing fixture controls, and user controls for security or intercom systems shall comply with Section 309.

EXCEPTIONS:

1. Receptacle outlets serving a dedicated use.

2. In a kitchen, where two or more receptacle outlets are provided above a length of counter top that is uninterrupted by a sink or appliance, only one receptacle outlet shall be required to comply with Section 309.

3. In a kitchen, where a clear floor space for a parallel approach cannot be located at a counter top in a corner between appliances, receptacle outlets over the counter top shall not be required to comply ~~with Section 309~~ provided that ~~the counter top is 7 square feet (0.65 m^2) maximum~~ at least one additional receptacle complying with Section 309 is provided over another kitchen counter top.

(Remaining exceptions are renumbered by unchanged)

1003.9 Operable Parts. Lighting controls, electrical panel boards, electrical switches and receptacle outlets, environmental controls, appliance controls, operating hardware for operable windows, plumbing fixture controls, and user controls for security or intercom systems shall comply with Section 309.

EXCEPTIONS:

1. Receptacle outlets serving a dedicated use.

2. In a kitchen, where two or more receptacle outlets are provided above a length of counter top that is uninterrupted by a sink or appliance, only one receptacle outlet shall be required to comply with Section 309.

3. In a kitchen, where a clear floor space for a parallel approach cannot be located at a counter top in a corner between appliances, receptacle outlets over the counter top shall not be required to comply ~~with Section 309~~ provided that the ~~counter top is 7 square feet (0.65 m^2) maximum~~ at least one additional receptacle complying with Section 309 is provided over another kitchen counter top..

(Remaining exceptions are renumbered by unchanged)

1004.9 Operable Parts. Lighting controls, electrical switches and receptacle outlets, environmental controls, electrical panelboards, and user controls for security or intercom systems shall comply with Section 309.2 and 309.3.

EXCEPTIONS:

1. Receptacle outlets serving a dedicated use.

2. In a kitchen, where two or more receptacle outlets are provided above a length of counter top that is uninterrupted by a sink or appliance, only one receptacle outlet shall be required to comply with Sections 309.2 and 309.3.

3. In a kitchen, where a clear floor space for a parallel approach cannot be located at a counter top in a corner between appliances, receptacle outlets over the counter top shall not be required to comply ~~with Sections 309.2 and 309.3~~ provided that ~~the counter top is 7 square feet (0.65 m^2) maximum~~ at least one additional receptacle complying with Section 309 is provided over another kitchen counter top.

(Remaining exceptions are renumbered by unchanged)

Reason: NONE PROVIDED

10-8-12 PC4

Kimberly Paarlberg, representing ICC

Further revise as follows:

1002.9 Operable Parts. Lighting controls, electrical panelboards, electrical switches and receptacle outlets, environmental controls, appliance controls, operating hardware for operable windows, plumbing fixture controls, and user controls for security or intercom systems shall comply with Section 309.

EXCEPTIONS:

1. Receptacle outlets serving a dedicated use.

~~2. In a kitchen, where two or more receptacle outlets are provided above a length of counter top that is uninterrupted by a sink or appliance, only one receptacle outlet shall be required to comply with Section 309.~~

~~3. In a kitchen, where a clear floor space for a parallel approach cannot be located at a counter top in a corner between appliances, receptacle outlets over the counter top shall not be required to comply with Section 309 provided that the counter top is 7 square feet (0.65 m^2) maximum.~~

2. In a kitchen, provide at least two receptacle outlets over the accessible work surface. Other receptacle outlets in a kitchen and located over counter tops are not required to comply with Section 309.

(Remaining exceptions are renumbered but unchanged)

1003.9 Operable Parts. Lighting controls, electrical panel boards, electrical switches and receptacle outlets, environmental controls, appliance controls, operating hardware for operable windows, plumbing fixture controls, and user controls for security or intercom systems shall comply with Section 309.

EXCEPTIONS:

1. Receptacle outlets serving a dedicated use.

~~2. In a kitchen, where two or more receptacle outlets are provided above a length of counter top that is uninterrupted by a sink or appliance, only one receptacle outlet shall be required to comply with Section 309.~~

~~3. In a kitchen, where a clear floor space for a parallel approach cannot be located at a counter top in a corner between appliances, receptacle outlets over the counter top shall not be required to comply with Section 309 provided that the counter top is 7 square feet (0.65 m^2) maximum.~~

2. In a kitchen, provide at least two receptacle outlets over the accessible work surface. Other receptacle outlets in the kitchen and located over counter tops are not required to comply with Section 309.

(Remaining exceptions are renumbered but unchanged)

1004.9 Operable Parts. Lighting controls, electrical switches and receptacle outlets, environmental controls, electrical panelboards, and user controls for security or intercom systems shall comply with Section 309.2 and 309.3.

EXCEPTIONS:

1. Receptacle outlets serving a dedicated use.

2. In a kitchen, where two or more receptacle outlets are provided above a length of counter top that is uninterrupted by a sink or appliance, only one receptacle outlet shall be required to comply with Sections 309.2 and 309.3.

3. In a kitchen, where a clear floor space for a parallel approach cannot be located at a counter top in a corner between appliances, receptacle outlets over the counter top shall not be required to comply with Sections 309.2 and 309.3 provided that the counter top is 7 square feet (0.65 m^2) maximum.

(Remaining exceptions are renumbered by unchanged)

Reason: The more we work with this the more complicated it gets. Provide an accessible outlet at the accessible work surface. Other outlets will be located as required by the National Electrical Code. Many household appliances are plugged in and stay that way, so access to all outlets is not necessary, nor it is possible for locations such as corners, or 12" pieces of counter tops between a stove and a refrigerator (both of which would be required by NEC).

10-8-12 PC5

Peter A. Stratton, representing self

Revise as follows:

1002.9 Operable Parts. Lighting controls, electrical panelboards, electrical switches and receptacle outlets, environmental controls, appliance controls, operating hardware for operable windows, plumbing fixture controls, and user controls for security or intercom systems shall comply with Section 309.

EXCEPTIONS:

1. Receptacle outlets serving a dedicated use.

2. In a kitchen, where two or more receptacle outlets are provided above a length of counter top that is uninterrupted by a sink or appliance, only one receptacle outlet shall be required to comply with Section 309.

3. In a kitchen, where a clear floor space for a parallel approach cannot be located at a counter top in a corner between appliances, receptacle outlets over the counter top shall not be required to comply with Section 309 provided that the counter top is 7 square feet (0.65 m^2) maximum.

(Remaining exceptions are renumbered by unchanged)

1003.9 Operable Parts. Lighting controls, electrical panel boards, electrical switches and receptacle outlets, environmental controls, appliance controls, operating hardware for operable windows, plumbing fixture controls, and user controls for security or intercom systems shall comply with Section 309.

EXCEPTIONS:

1. Receptacle outlets serving a dedicated use.

2. In a kitchen, where two or more receptacle outlets are provided above a length of counter top that is uninterrupted by a sink or appliance, only one receptacle outlet shall be required to comply with Section 309.

3. In a kitchen, where a clear floor space for a parallel approach cannot be located at a counter top in a corner between appliances, receptacle outlets over the counter top shall not be required to comply with Section 309 provided that the counter top is 7 square feet (0.65 m^2) maximum.

(Remaining exceptions are renumbered by unchanged)

1004.9 Operable Parts. Lighting controls, electrical switches and receptacle outlets, environmental controls, electrical panelboards, and user controls for security or intercom systems shall comply with Section 309.2 and 309.3.

EXCEPTIONS:

1. ~~Receptacle outlets serving a dedicated use.~~

~~2. In a kitchen, where two or more receptacle outlets are provided above a length of counter top that is uninterrupted by a sink or appliance, only one receptacle outlet shall be required to comply with Sections 309.2 and 309.3.~~

~~3. In a kitchen, where a clear floor space for a parallel approach cannot be located at a counter top in a corner between appliances, receptacle outlets over the counter top shall not be required to comply with Sections 309.2 and 309.3 provided that the counter top is 7 square feet (0.65 m^2) maximum.~~

1. Receptacle outlets serving a dedicated use.
2. In a kitchen, only one receptacle outlet shall be required to comply with Sections 309.2

(Remaining exceptions are renumbered by unchanged)

Reason:

Steven Winter Associates, Inc.
Improving the Built Environment Since 1972
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Norwalk, CT 06854
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Proposal: 10-8–12
1002.9, 1003.9, 1004.9

This discussion focuses on the proposed new language at 1004.9. The discussion also applies to proposed new language at 1002.9 and 1003.9, but to narrow the issue for discussion we choose only to address the Type B dwelling unit language at 1004.9 and hope that the Committee edits proposed language at 1002.9 and 1003.9 accordingly so that compliance with the criteria at these sections is achievable. As it currently exists, language at 1002.9 and 1003.9 is not achievable.[1]

The current proposal at 1004.9 is following:

1004.9 Operable Parts. Lighting controls, electrical switches and receptacle outlets, environmental controls, electrical panelboards, and user controls for security or intercom systems shall comply with Section 309.2 and 309.3.

EXCEPTIONS:

1. Receptacle outlets serving a dedicated use.

2. In a kitchen, where two or more receptacle outlets are provided ~~in a kitchen~~ above a length of counter top that is uninterrupted by a sink or appliance, only one receptacle outlet shall ~~not~~ be required to comply with Sections 309.2 and 309.3.

3. In a kitchen, where a clear floor space for a parallel approach cannot be located at a counter top in a corner between appliances, receptacle outlets over the counter top shall not be required to comply with Sections 309.2 and 309.3 provided that the counter top is 7 square feet (0.65 m^2) maximum.

[1] SWA is not addressing compliance Sections 1002.9 or 1003.9 because these sections do no recognize that in Accessible and Type A kitchens, countertops are permitted by the Standard to be installed at 36 inches, above the finished floor (AFF) and are limited to adjustable or lowered heights at two specific areas only; the sink and the work surface; moreover, accessible side reach is limited to 24 inches in Accessible and Type A units; conventional countertop depth of 25 ½ inches is not recognized by the Standard. The result of the language at 1002.9 and 1003.9 is that 100% of countertops must be installed no higher than 34 inches AFF; no deeper than 24 inches for a side approach; and, no deeper than 25 inches for a front approach in order for compliance with language at 1002.9 and 1003.9 to be achievable. Irresponsibly, the commentary on compliance with 1002.9 and 1003.9 offers installation of outlets at the front of base cabinets as a means of achieving compliance. This is preposterous and certainly dangerous for obvious reasons. However, since no language is proposed at 1002.9 and at 1003.9 which would recognize real life kitchen design, i.e., 36 inch high and 25 ½ inch deep countertops, we are not addressing these sections here. As written, the language at 1002.9 and 1003.9 does not work.

HUD provided the following rationale for the language change currently proposed at 10-8– 12:

HUD believes that providing accessible switches and outlets in Accessible, Type A and Type B kitchens is problematic

due to the depth of most of the appliances, as well as the standard overhang of the countertop, which typically creates a depth for the obstruction (countertop and cabinet) of 25 to 25 ½ inches. In addition, **the location of the appliances and their related depth, as well as corners or walls, typically makes it difficult if not impossible to achieve a full 48-inch parallel approach at the electrical outlet because the greater depth of the appliance makes it not possible to achieve a close parallel approach.** To address this concern, this proposal would require only one electrical receptacle that is located along a length of kitchen countertop to be accessible, irrespective of whether the countertop is interrupted by a sink or appliance. Further, the provisions for kitchen counter tops for accessible and Type A units makes it evident that counter tops other than the one that is the work surface and the one that
includes the sink, may be higher than 34 inches, that is, at the standard height of 36 inches. This automatically creates a non-compliance issue for outlets located above the 36-inch high counter tops. The Type B Unit language includes an exception related to the counter top height, and this exception has been added to the Accessible and Type A Units to address this concern.

Proposed language at 1004.9 is not achievable in conventional kitchen design

As HUD states in its rationale at 10-8—12 and as we have maintained ever since the current language made its way into the ANSI A117.1 Standard, 100% compliance with Sections 1004.9 "is difficult if not impossible" to achieve in conventional kitchen design and construction. We have attempted to lay out the issue below and hope that the Committee reconsiders the current and proposed language at 1004.9 (and 1002.9 and 1003.9).

Please consider the following facts:

As stated in the ANSI Standard at Section 101, Purpose: Type B dwelling unit criteria are intended to be consistent with the intent of the criteria of the US Department of Housing and Urban Development (HUD) Fair Housing Accessibility Guidelines.

The FHA Guidelines: Requirement 5, Light Switches, electrical outlets, thermostats and other environmental controls in accessible locations:

> Light switches, electrical outlets, thermostats and other environmental controls would meet [this section] if operable parts of the controls are located no higher than 48 inches, and no lower than 15 inches, above the floor. If the reach is over an obstruction between 20 and 25 inches in depth, the maximum height is reduced to 44 inches for a forward approach; or 46 inches for a side approach, provided the obstruction (for example, a kitchen base cabinet) is no more than 24 inches in depth. Obstruction should not extend more than 25 inches from the wall beneath a control.
>
> *Note:*
> Controls or outlets that do not satisfy these specification are acceptable provided that comparable controls or outlets (i.e., that perform the same functions) are provided within the same area and are accessible, in accordance with this guidelines for Requirement 5.

HUD's Fair Housing Act Design Manual, Page 5.8, states the following:

- Cabinet depth is limited to 24 inches. HUD permits use of a standard 24-inch deep cabinet with an additional extension of 1 to 1 ½ inches for countertops for a maximum depth of 25 ½ inches.
- "..The drawing in the Guidelines on which this drawing is based (the text refers to the drawing on Page 5.8 of the Design Manual depicting side reach over a kitchen counter), gives this dimension as 34". The 34" dimension shown in the Guidelines is in no way intended to dictate counter heights in covered dwelling units.

Federal Register, 24 CFR Part 100, Design and Construction Requirements; Compliance With ANSI A117.1 Standards; Final Rule, October 24, 2008; Page 63614:

> In making a determination as to whether the design and construction requirements of the Fair Housing Act have been violated, HUD uses the Fair Housing Act, the regulations, and the Guidelines, all of which reference the technical standards found in ANSI A117.1 – 1986.

Based on the above, ANSI 1004.9 and FHA Requirement 5 are aligned in the following ways:

They permit countertops depth at 25½ inches maximum; They permit countertop height at 36 inches maximum;

They require outlets to be installed a maximum of 46 inches, AFF when served by a side approach;

They permit inaccessible outlets over countertops as long as accessible outlets are provided "within the same area;"

Where the ANSI criteria at 1004.9 and FHA Requirement 5 are not aligned is as follows:

1. ANSI criteria at 1004.9 seeks to create accessible outlets over each countertop run when this specific requirement is not contemplated by any of the ten HUD- approved safe harbors for FHA compliance. The proposed language at 1004.9, Exception 3 offers some consideration for outlets over tight corners, but the language at Exception 3 does not work, as proven later in this discussion.
2. ANSI criteria at 1004.9 fails to consider that standard appliances in conventional kitchen design project beyond the front edge of countertops. If the cabinet run between appliances, for example, is less than 48 inches, then the 30 x 48-inch clear floor space cannot be positioned properly such that reach to outlets at the backsplash is possible. When the clear floor space positioned for a parallel approach is "pushed away" from the countertop edge by projecting appliances, compliance with 309.2, Clear Floor Space, is not possible. In order for compliance with 309.2 to be possible, the clear floor space must be aligned with the edge of a countertop that is not deeper than 25½ inches. If this cannot be achieved, then compliance with 309.2 is not achieved. This must be recognized by the Standard.
3. ANSI criteria at 1004.9 do not consider the requirements of the National Electric Code (NEC) in terms of its requirements for locations of outlets above countertops. The NEC requires that a receptacle outlet be installed at each wall countertop space that is 300 mm (12 in.) or wider and that receptacle outlets shall be installed so that no point along the wall line is more than 600 mm (24 in.) measured horizontally from a receptacle outlet in that space. Our suggested language will result in 100% compliance with the NEC.

FHA Requirement 5 does not require accessible outlets over every countertop run

The FHA permits inaccessible outlets to exist as long as there are accessible outlets located "within the same area." The language "within the same area" is HUD's language (see Guidelines, Requirement 5). There is no language in the FHA or any of the safe harbors, including the Guidelines, i.e., what HUD uses to determine whether the Act has been violated, which contemplates that if an inaccessible outlet exists over a run of countertop, that an accessible outlet must be provided over the same run of countertop. Yet, HUD's "within the same area" has translated into ANSI A117.1 language at 1004.9 requiring that where countertops are served by inaccessible outlets, an accessible outlet must be provided over the same run of countertop. This is certainly "difficult, if not impossible" to achieve.

If an inaccessible outlet is located above a run of countertop on one side of the range, and an accessible outlet is installed five feet away (measured along the wall), but above the run of countertop on the other side of the range, wouldn't the accessible outlet located on one side of the range be located "within the same area" as the inaccessible outlet, even though they are located above two different countertop runs? Separated by only 5 feet, in this case? The answer is "Yes," in our opinion. They are both "within the same area" even though they are located over two different countertops. If the intent was to have accessible outlets serve every countertop run then why would HUD not specify that requirement under Requirement 5? I think it was the intent to allow flexibility in the interpretation of "within the same area." There is no other rationale.

Similarly, wouldn't compliance with the FHA be achieved if an accessible outlet was located above the countertop adjacent to the sink (over the adjacent dishwasher, for example) while an inaccessible outlet exists on the other side of the sink (over a 12-inch wide countertop sandwiched between the sink and the adjacent refrigerator, for example)? The answer is "Yes;" both outlets are located "within the same area," even though they are located over two different countertops.

If the clear floor space is not aligned with the countertop edge, compliance with 309.2 as triggered by 1004.9 is not possible

Compliance with proposed language at 1004.9, exceptions 2 and 3 is not possible to achieve if countertops less than 48 inches are located between appliances which project beyond the front edge of the countertop; when they project beyond the front edge of a standard 25½-inch deep countertop, they essentially "push" the clear floor space required by 309.2 (1004.9, Exception 2) too far away from the edge of the countertop rendering the outlet installed at the backsplash unreachable and inaccessible.

For example, if an outlet was located over a 27-inch wide base cabinet (assume 25½-inch deep conventional countertop) flanked on one side by a refrigerator, which projects beyond the countertop edge by 4 inches, and a range on the other side, which projects beyond the front edge of the countertop by 2 inches; then 48-inch long clear floor space positioned for a side approach to the outlet will never be close enough to the edge of the countertop such that the outlet located over it is reachable (see Fig. A). Essentially, accessible reach supported by a side approach in Type B units cannot be achieved unless there is enough space to align the 48-inch long clear floor space such that it is not "pushed" away from the front edge of the countertop by obstructions such as appliances or walls (see Fig. B).

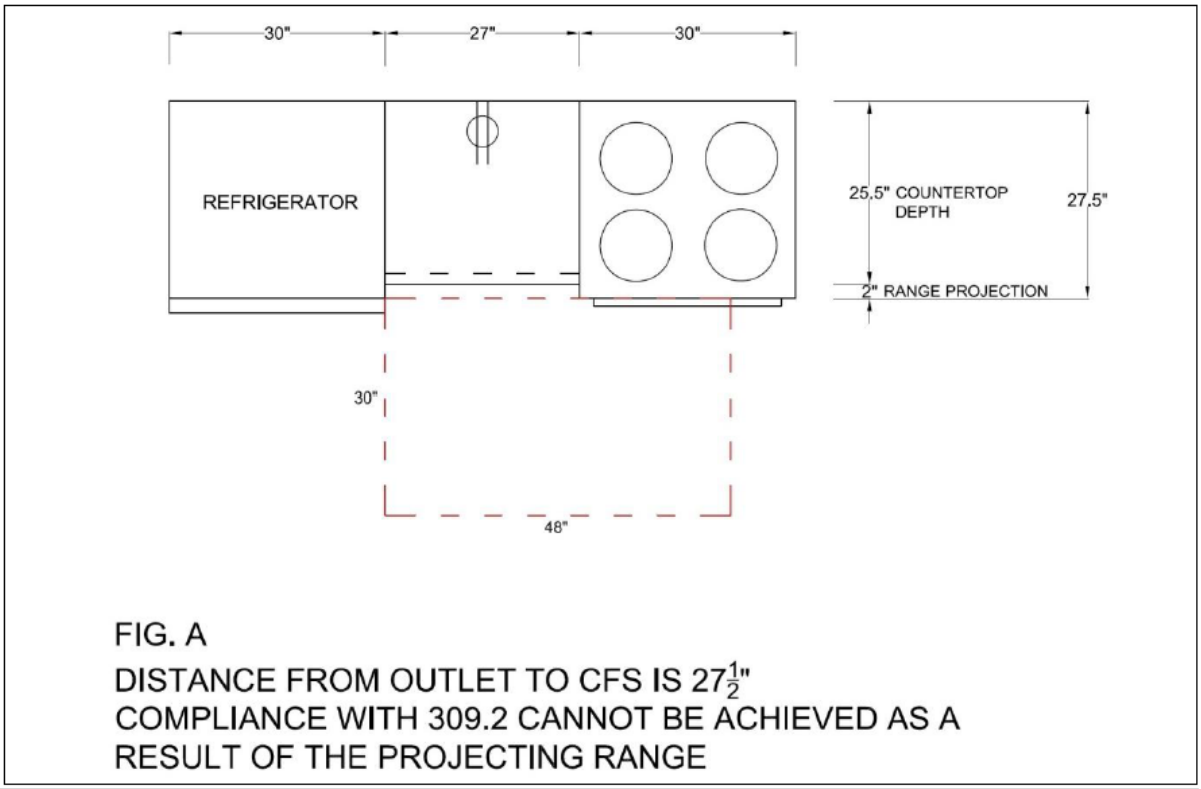


FIG. A
DISTANCE FROM OUTLET TO CFS IS $27\frac{1}{2}$"
COMPLIANCE WITH 309.2 CANNOT BE ACHIEVED AS A RESULT OF THE PROJECTING RANGE

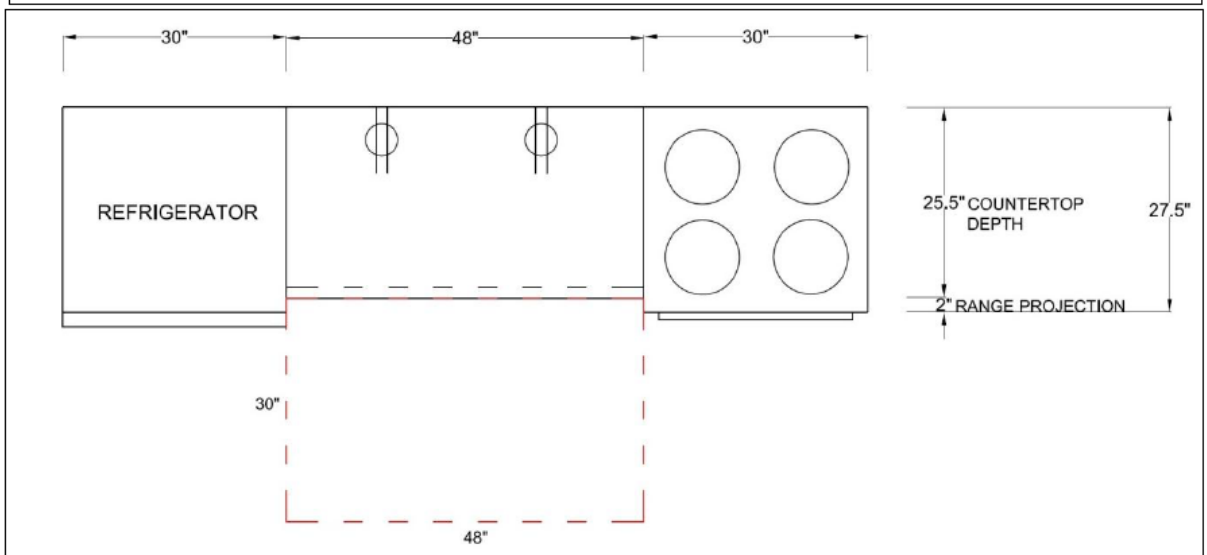


FIG. B
COMPLIANCE WITH 309.2 CAN BE ACHIEVED, BUT ONLY WHEN THE SPACE BETWEEN PROJECTING APPLIANCES IS AT LEAST 48"

Section1004.9, Exception 2 certainly is improved in that only one of a number of outlets serving a run of countertop uninterrupted by a sink or appliance is required to be accessible; whereas, before only one was permitted to be inaccessible. However, it does not go far enough. Exception 3 attempts to provide an exception for corner countertops recognizing that the clear floor space cannot be positioned at tight corners flanked by appliances, but again, it doesn't go far enough. Exception 3 contemplates difficultly with achieving compliance only when appliances (range and refrigerator) flank a tight corner. Again, compliance cannot be achieved if there is not enough space on one or both legs of the corner (measured along the front edge of the countertop) to

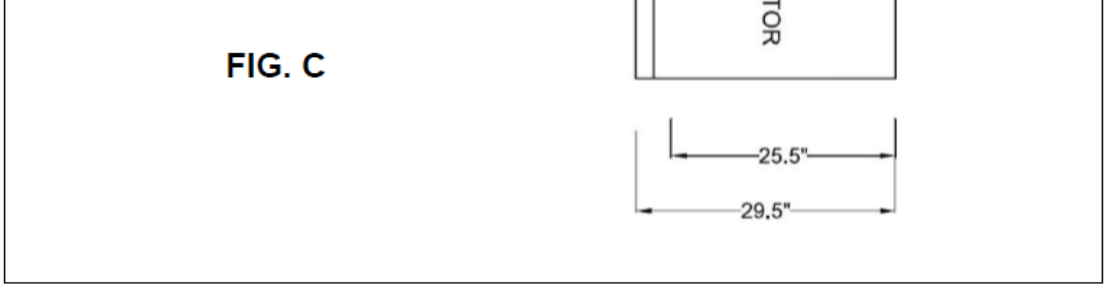


FIG. C

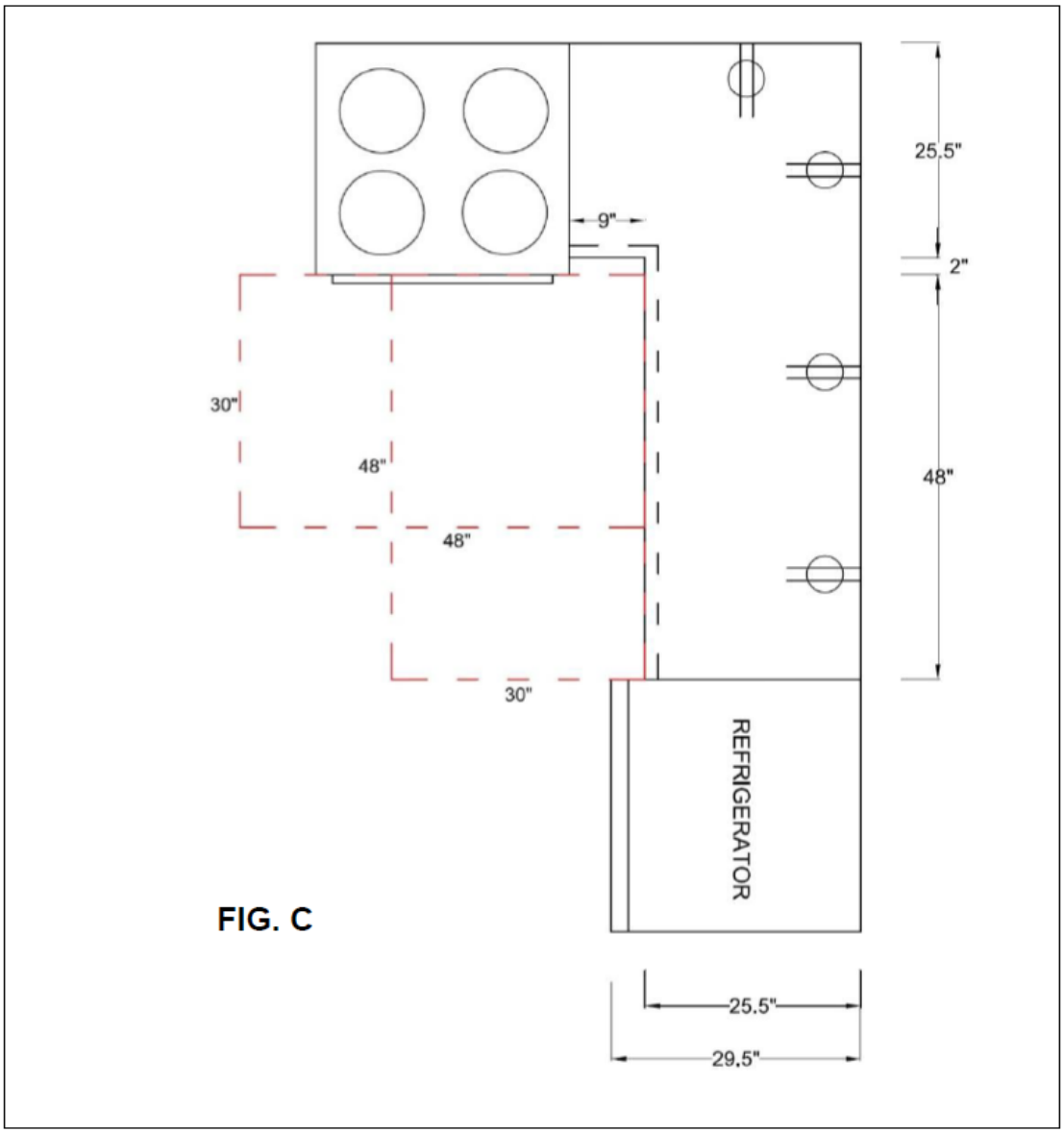
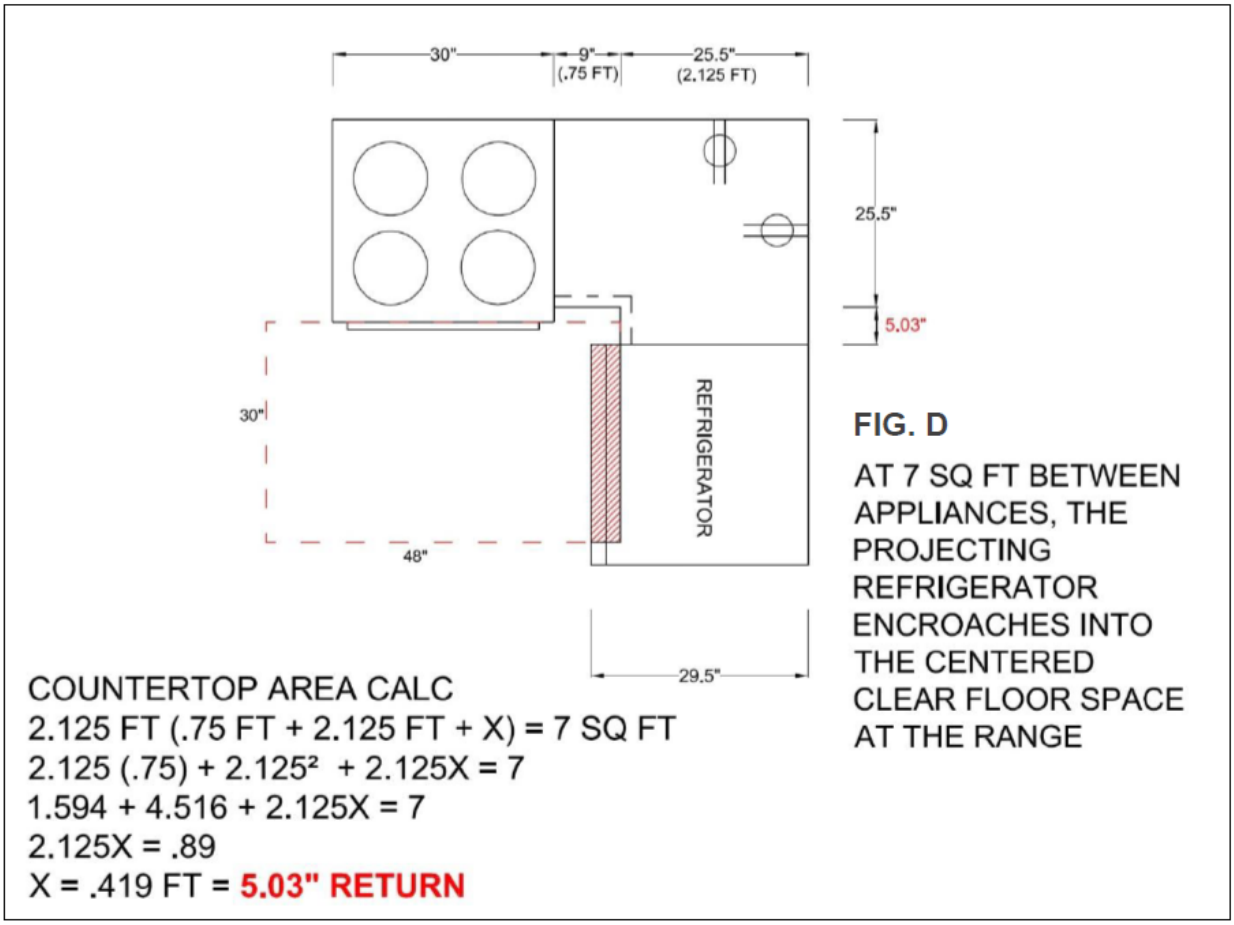


FIG. C

Moreover, at 1004.9, there is proposed countertop area limit of 7 sq ft., i.e., corner countertops less than 7 sq. ft. in area are exempt from the requirements. For one, the square footage limit does not make sense and should be revisited. When the 48-inch long side of the clear floor space is centered on a conventional 30-inch wide range, that leaves a minimum of 9 inches of countertop to the left and right of the range (30-inch wide range, plus 9 inches of countertop to the right, plus 9 inches of countertop to the left = 48 inch centered side approach). If the countertop to the right of the range is a corner countertop, that means the front edge of the countertop must be a minimum of 9 inches before it 'returns.' In order for the 7 sq ft max countertop area to be achieved and compliance over the corner countertops therefore exempt, the 'return' must be no more than 5.03 inches. (see Fig. D). Further, the red crosshatched area is the encroachment into the centered clear floor space at the range by the refrigerator when both appliance project beyond the edge of the countertop and flank a tight inside corner of exactly 7 sq ft in area. This are limit of 7 sq ft. does not work and should be deleted from the current proposed language.



The ANSI criteria at section 1004.9 fails to recognize NEC requirements

ANSI A117.1 1004.9, Exception 3 proposed language does not recognize that architects and designers cannot choose where outlets over countertops are installed. Designers cannot dictate during plan reviews and in the field during inspections where outlets must be located, relocated, added, shifted, etc. It is unreasonable to think that electrical outlets can be placed along the wall at locations and intervals determined by the architect or designer. The building inspector and/or electrical inspector enforce the National Electrical Code, which is what provides the requirements for the location of outlets on the backsplash over kitchen countertops. The NEC (see attached EXHIBIT A) requires the following at wall countertop spaces: A receptacle outlet shall be installed at each wall countertop space that is 300 mm (12 in.) or wider. Receptacle outlets shall be installed so that no point along the wall line is more than 600 mm (24 in.) measured horizontally from a receptacle outlet in that space.

The criteria at 1004.9 do not recognize the requirements of the NEC.

Conclusion

We propose language as indicated below.

1004.9 Operable Parts. Lighting controls, electrical switches and receptacle outlets, environmental controls, electrical panelboards, and user controls for security or intercom systems shall comply with Section 309.2 and 309.3.

EXCEPTIONS:

1. Receptacle outlets serving a dedicated use.
2. In a kitchen, only one receptacle outlet shall be required to comply with Sections 309.2

The language proposed is an attempt to comply with the requirements of the NEC in terms of the location of outlets on walls above counters and the FHA at Requirement 5: Light Switches, electrical outlets, thermostats and other environmental controls in accessible locations. The language we propose requires 100% of outlets in Type B kitchens to be located no higher than 46

inches, AFF, when served by a side approach (309.3); and, only one outlet to comply with the 309.2. This is 100% achievable.

More often than not, the sink is adjacent to a dishwasher in most conventional kitchens. If we use a common 27-inch sink base adjacent to a 30-inch dishwasher as an example to illustrate the point, then that means that the sink top and adjacent countertop over the dishwasher will be 57 inches, minimum. This is commonly the only area in a kitchen which is consistently available to position the 48-inch long side of the clear floor space flush with the edge of the countertop for the entire 48-inches. An outlet at the backsplash in this location (assuming that the countertop is not deeper than 25½ inches) is certainly "within the same area" as other inaccessible outlets which serve nearby countertops thereby achieving compliance with Requirement 5 of the Guidelines.

Finally, our proposed language will always result in compliance with the NEC since the NEC will always require an outlet to be located over a countertop against which a 30 x 48-inch clear floor space can be positioned for a side approach, i.e., outlets can never be more than 24 inches apart measured along the wall line.

We implore the committee to consider our proposed language to better develop language at 1002.9 and 1003.9.

EXHIBIT A
NEC Requirements for Countertop Outlets

such permanently installed heaters. Such receptacle outlets shall not be connected to the heater circuits.

Informational Note: Listed baseboard heaters include instructions that may not permit their installation below receptacle outlets.

(A) General Provisions. In every kitchen, family room, dining room, living room, parlor, library, den, sunroom, bedroom, recreation room, or similar room or area of dwelling units, receptacle outlets shall be installed in accordance with the general provisions specified in 210.52(A)(1) through (A)(3).

(1) Spacing. Receptacles shall be installed such that no point measured horizontally along the floor line of any wall space is more than 1.8 m (6 ft) from a receptacle outlet.

(2) Wall Space. As used in this section, a wall space shall include the following:

(1) Any space 600 mm (2 ft) or more in width (including space measured around corners) and unbroken along the floor line by doorways and similar openings, fireplaces, and fixed cabinets
(2) The space occupied by fixed panels in exterior walls, excluding sliding panels
(3) The space afforded by fixed room dividers, such as freestanding bar-type counters or railings

(3) Floor Receptacles. Receptacle outlets in floors shall not be counted as part of the required number of receptacle outlets unless located within 450 mm (18 in.) of the wall.

(4) Countertop Receptacles. Receptacles installed for countertop surfaces as specified in 210.52(C) shall not be considered as the receptacles required by 210.52(A).

(B) Small Appliances.

(1) Receptacle Outlets Served. In the kitchen, pantry, breakfast room, dining room, or similar area of a dwelling unit, the two or more 20-ampere small-appliance branch circuits required by 210.11(C)(1) shall serve all wall and floor receptacle outlets covered by 210.52(A), all countertop outlets covered by 210.52(C), and receptacle outlets for refrigeration equipment.

Exception No. 1: In addition to the required receptacles specified by 210.52, switched receptacles supplied from a general-purpose branch circuit as defined in 210.70(A)(1), Exception No. 1, shall be permitted.

Exception No. 2: The receptacle outlet for refrigeration equipment shall be permitted to be supplied from an individual branch circuit rated 15 amperes or greater.

(2) No Other Outlets. The two or more small-appliance branch circuits specified in 210.52(B)(1) shall have no other outlets.

Exception No. 1: A receptacle installed solely for the electrical supply to and support of an electric clock in any of the rooms specified in 210.52(B)(1).

Exception No. 2: Receptacles installed to provide power for supplemental equipment and lighting on gas-fired ranges, ovens, or counter-mounted cooking units.

(3) Kitchen Receptacle Requirements. Receptacles installed in a kitchen to serve countertop surfaces shall be supplied by not fewer than two small-appliance branch circuits, either or both of which shall also be permitted to supply receptacle outlets in the same kitchen and in other rooms specified in 210.52(B)(1). Additional small-appliance branch circuits shall be permitted to supply receptacle outlets in the kitchen and other rooms specified in 210.52(B)(1). No small-appliance branch circuit shall serve more than one kitchen.

(C) Countertops. In kitchens, pantries, breakfast rooms, dining rooms, and similar areas of dwelling units, receptacle outlets for countertop spaces shall be installed in accordance with 210.52(C)(1) through (C)(5).

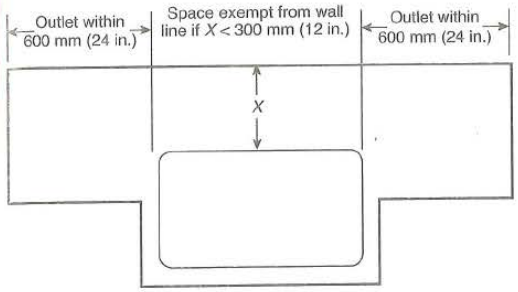
(1) Wall Countertop Spaces. A receptacle outlet shall be installed at each wall countertop space that is 300 mm (12 in.) or wider. Receptacle outlets shall be installed so that no point along the wall line is more than 600 mm (24 in.) measured horizontally from a receptacle outlet in that space.

Exception: Receptacle outlets shall not be required on a wall directly behind a range, counter-mounted cooking unit, or sink in the installation described in Figure 210.52(C)(1).

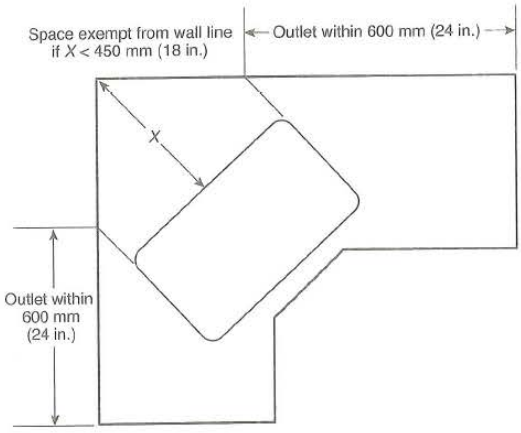
(2) Island Countertop Spaces. At least one receptacle shall be installed at each island countertop space with a long dimension of 600 mm (24 in.) or greater and a short dimension of 300 mm (12 in.) or greater.

(3) Peninsular Countertop Spaces. At least one receptacle outlet shall be installed at each peninsular countertop space with a long dimension of 600 mm (24 in.) or greater and a short dimension of 300 mm (12 in.) or greater. A peninsular countertop is measured from the connecting edge.

(4) Separate Spaces. Countertop spaces separated by rangetops, refrigerators, or sinks shall be considered as separate countertop spaces in applying the requirements of 210.52(C)(1). If a range, counter-mounted cooking unit, or sink is installed in an island or peninsular countertop and the depth of the countertop behind the range, counter-mounted cooking unit, or sink is less than 300 mm (12 in.), the range, counter-mounted cooking unit, or sink shall be considered to divide the countertop space into two separate countertop spaces. Each separate countertop space shall comply with the applicable requirements in 210.52(C).



Range, counter-mounted cooking unit extending from face of counter



Range, counter-mounted cooking unit mounted in corner

Figure 210.52(C)(1) Determination of Area Behind a Range, or Counter-Mounted Cooking Unit or Sink.

(5) Receptacle Outlet Location. Receptacle outlets shall be located on or above, but not more than 500 mm (20 in.) above, the countertop. Receptacle outlet assemblies listed for the application shall be permitted to be installed in countertops. Receptacle outlets rendered not readily accessible by appliances fastened in place, appliance garages, sinks, or rangetops as covered in 210.52(C)(1), Exception, or appliances occupying dedicated space shall not be considered as these required outlets.

Informational Note: See 406.5(E) for requirements for installation of receptacles in countertops.

Exception to (5): To comply with the conditions specified in (1) or (2), receptacle outlets shall be permitted to be mounted not more than 300 mm (12 in.) below the countertop. Receptacles mounted below a countertop in accordance with this exception shall not be located where the countertop extends more than 150 mm (6 in.) beyond its support base. OVERHANG

(1) Construction for the physically impaired

(2) On island and peninsular countertops where the cou tertop is flat across its entire surface (no backsplashe dividers, etc.) and there are no means to mount a r ceptacle within 500 mm (20 in.) above the counterto such as an overhead cabinet

(D) Bathrooms. In dwelling units, at least one receptacle outlet shall be installed in bathrooms within 900 mm (3 ft) of the outside edge of each basin. The receptacle outlet shall be located on a wall or partition that is adjacent to the basin or basin countertop, located on the countertop, or installed on the side or face of the basin cabinet not more than 300 mm (12 in.) below the countertop. Receptacle outlet assemblies listed for the application shall be permitted to be installed in the countertop.

Informational Note: See 406.5(E) for requirements for installation of receptacles in countertops.

(E) Outdoor Outlets. Outdoor receptacle outlets shall be installed in accordance with (E)(1) through (E)(3). *[See 210.8(A)(3).]*

(1) One-Family and Two-Family Dwellings. For a one-family dwelling and each unit of a two-family dwelling that is at grade level, at least one receptacle outlet accessible while standing at grade level and located not more than 2.0 m (6½ ft) above grade shall be installed at the front and back of the dwelling.

(2) Multifamily Dwellings. For each dwelling unit of a multifamily dwelling where the dwelling unit is located at grade level and provided with individual exterior entrance/egress, at least one receptacle outlet accessible from grade level and not more than 2.0 m (6½ ft) above grade shall be installed.

(3) Balconies, Decks, and Porches. Balconies, decks, and porches that are accessible from inside the dwelling unit shall have at least one receptacle outlet installed within the perimeter of the balcony, deck, or porch. The receptacle shall not be located more than 2.0 m (6½ ft) above the balcony, deck, or porch surface.

(F) Laundry Areas. In dwelling units, at least one receptacle outlet shall be installed for the laundry.

Exception No. 1: In a dwelling unit that is an apartment or living area in a multifamily building where laundry facilities are provided on the premises and are available to all building occupants, a laundry receptacle shall not be required.

Exception No. 2: In other than one-family dwellings where laundry facilities are not to be installed or permitted, a laundry receptacle shall not be required.

10-10– 12

Add new text as follows:

1002.9 Operable Parts. Lighting controls, electrical panelboards, electrical switches and receptacle outlets, environmental controls, appliance controls, operating hardware for operable windows, plumbing fixture controls, and user controls for security or intercom systems shall comply with Sections 1002.9 and 309.

EXCEPTIONS: *(remain unchanged)*

1002.9.1 Wheelchair Charging Area. A wheelchair charging area shall be adjacent to one bed. A clear floor space complying with Section 305 shall be located between the bedside and a parallel wall. The parallel wall shall be 36 inches (915 mm) minimum to 48 inches (1220 mm) maximum from the bed and provide a 110V duplex receptacle outlet located 24 inches (610 mm) minimum and 48 inches (1220 mm) maximum from the head wall of the bed and complying with Section 1002.9.

Exception: Where there is no parallel wall within 36 inches (915 mm) minimum to 48 inches (1220 mm) maximum of the bedside, a clear floor space complying with Section 305 shall be along the wall at the head of one bed. A 110V duplex receptacle outlet complying with Section 1002.9 shall be located along the wall at the bed head and within 24 inches (610 mm) minimum and 48 inches (1220 mm) maximum of the bedside.

106 Definitions

wheelchair charging area: A clear floor area where people with disabilities can recharge their wheelchair batteries.

10-10-12 PC1

Kimberly Paarlberg, – representing International Code Council

Further revise as follows:

1002.9 Operable Parts. Lighting controls, electrical panelboards, electrical switches and receptacle outlets, environmental controls, appliance controls, operating hardware for operable windows, plumbing fixture controls, and user controls for security or intercom systems shall comply with Sections 1002.9 and 309.

EXCEPTIONS: *(remain unchanged)*

1002.9.1 Wheelchair Charging Area. A wheelchair charging area shall be located adjacent to one bed. A clear floor space complying with Section 305 shall be ~~located between the bedside and a parallel wall~~. ~~The parallel wall shall be 36 inches (915 mm) minimum to 48 inches (1220 mm) maximum from the bed and provide a 110V duplex receptacle outlet located 24 inches (610 mm) minimum and 48 inches (1220 mm) maximum from the head wall of the bed and complying with Section 1002.9~~ positioned for parallel approach to the side of the bed.

~~**Exception:** Where there is no parallel wall within 36 inches (915 mm) minimum to 48 inches (1220 mm) maximum of the bedside, a clear floor space complying with Section 305 shall be along the wall at the head of one bed. A 110V duplex receptacle outlet complying with Section 1002.9 shall be located along the wall at the bed head and within 24 inches (610 mm) minimum and 48 inches (1220 mm) maximum of the bedside.~~

106 Definitions

wheelchair charging area: A clear floor area where people with disabilities can recharge their wheelchair batteries.

Reason: I understand the reasoning for the charging station in Accessible rooms. However, I think the wording could be a little cleaner and use the building blocks for sizes and heights.

10-10-12 PC2

Chad Beebe, – representing American Society for Healthcare Engineering (ASHE)

Disapprove the change. Return the text to that found in existing standard.

Reason: In review of the 2014 Final Draft of the ICC A117.1 document, it has come to our attention that several of the proposed changes will have a significantly negative impact to the healthcare industry design/built environment of buildings designed under the 2015 IBC. Further, it is our understanding that the overwhelming majority of these changes have been derived from a single uncorroborated report which has neither been properly vetted nor adopted by any other credible agency or (similar) jurisdictional body.

As we do not feel these dramatic and substantial changes have been given proper and appropriate consideration by all interested stakeholders in this process, and since we question the authenticity of the underlying premise used to make such changes, we respectfully request they either be removed entirely from consideration in this draft, or that the entire draft adoption process be held in abeyance for a minimum of 12-months so that further collaboration can be conducted with all interested parties. If the Committee opts to delay this process for 12-months, it will be in keeping with the mission of the ICC, and best assure that all parties can be provided with the opportunity to reasonably participate in this process.

10-10-12 - The addition for electric wheelchair charging stations in all Accessible units.
These new requirements would add thousands of required square feet to a new hospital and significantly impact any renovations to an existing hospital by requiring increased patient room sizes to meet the new requirements and thus, due to the fixed square footage within the building foot print, will reduce the number of allowable beds the hospital can maintain. With hospital construction cost averaging around $300.00 per square foot these additional increases in square footage will significantly impact the cost of construction. Thank you for your consideration of this request, and in keeping alive the goals and mandates of the entire ICC organization and membership.

10-10-12 PC3

Tony Ewalt, representing Sletten Construction of Nevada, Inc.; Michael Gentille, representing Philip Chun North America, Inc.; Michael McGettigan, representing Terracon Consultant; Robert W. Potter, Construction Company, representing Affordable Concepts; Eric J. Rowland, representing Rowland Design

Disapprove the change. Return the text to that found in existing standard.

Reason: In review of the 2014 Final Draft of the ICC A117.1 document, it has come to my attention that several of the proposed changes (ratified by this Committee) will have a significantly negative impact to the design/built environment of buildings designed under the 2015 IBC. Further, it is my understanding that the overwhelming majority of these changes have been derived from a single uncorroborated report which has neither been properly vetted nor adopted by any other credible agency or (similar) jurisdictional body.

As I do not feel these dramatic and substantial changes have been given proper and appropriate consideration by all interested stakeholders in this process, and I question the authenticity of the underlying premise used to make such changes, **I** respectfully request they either be removed entirely from consideration in this draft, or that the entire draft adoption process be held in abeyance for a minimum of 12-months.

If the Committee opts to delay this process for 12-months, it will be in keeping with the mission of the ICC, and best assure that all parties can be provided with the opportunity to reasonably participate in this process.

10-13– 12

Add new text as follows:

1002.15.3 Bed Height. At least one bed shall measure 17 to 23 inches (430 to 585 mm) high from the floor to the top of the mattress, whether or not the mattress is compressed.

10-13-12 PC1

Kimberly Paarlberg, – representing ICC

Further revise as follows:

1002.15.3 Bed Height. At least one bed shall measure 17 to 23 inches (430 to 585 mm) high from the floor to the top of the mattress~~, whether or not the mattress is compressed~~.

Reason: If the mattress complies when not compressed, then the language is not needed. What happens if the mattresses compresses to less than 17 inches? The amount of compressions depends on the weight of the person lying down. How would you measure that consistently?

10-13-12 PC2

Minh N. Vu, – representing American Hotel & Lodging Association

Delete without substitution.

Reason: The ANSI Committee has proposed a new requirement that at least one (1) bed in an accessible sleeping unit be 17"-23" high, "whether or not the mattress is compressed." (Section 1002.15.3). The American Hotel & Lodging Association (hereinafter, the "AH&LA" (1)) opposes the adoption of any bed height requirement at this time. The United States Department of Justice (hereinafter, the "DOJ") is working on a proposed rule under Title III of the Americans with Disabilities Act of 1990 (hereinafter, the "ADA") for bed heights in accessible lodging facilities, as well as a proposed rule for accessible furniture more generally that would apply to beds in nursing homes, hospitals and dormitories. The AH&LA encourages the ANSI Committee to work with the DOJ to develop a clear and consistent rule. If the ANSI Committee moves forward with this proposed requirement, states adopting this version of the ANSI may have bed height rules that conflict with the ADA standard ultimately issued by DOJ. Owners will be subject to potentially conflicting requirements which will cause confusion, unnecessary expense, and compliance difficulties.

The AH&LA also objects to the rule as drafted because it is vague and virtually impossible to objectively implement. The proposed requirement is that at least one (1) bed in an accessible sleeping unit have a height of 17"-23", "whether or not the mattress is compressed." (Section 1002.15.3). This rule raises a host of unanswered questions: How heavy should the person compressing the mattress be? How far from the edge of the bed will the height be measured? Where should the person compressing the mattress be located when a measurement is taken? Is the measurement taken from the top of the bedding or to the top of the mattress without bedding? The ANSI Committee should work with the DOJ to determine the answer to these questions before issuing any standard on this issue.

The American Hotel & Lodging Association is a membership organization that represents the interests of every segment of the lodging industry, including REITs, brand, franchisee, management companies, independent property owners, and state associations

1. The American Hotel & Lodging Association is a membership organization that represents the interests of every segment of the lodging industry, including REIT's, brand, franchise, with management companies, independent property owners, and state associations.

10-16 – 12

Revise as follows:

1003.5 Doors and Doorways. The primary entrance door to the unit, and all other doorways intended for user passage, shall comply with Section 404.

EXCEPTIONS:

~~1.~~ ~~Thresholds at exterior sliding doors shall be permitted to be 3/4 inch (19 mm) maximum in height, provided they are beveled with a slope not greater than 1:2.~~

~~2.~~ 1. In toilet rooms and bathrooms not required to comply with Section 1003.11.2, maneuvering clearances required by Section 404.2.3 are not required on the toilet room or bathroom side of the door.

~~3.~~ 2. A turning space between doors in a series as required by Section 404.2.5 is not required.
~~4.~~ 3. Storm and screen doors are not required to comply with Section 404.2.5.

~~5.~~ 4. Communicating doors between individual sleeping units are not required to comply with Section 404.2.5.

~~6.~~ 5. At other than the primary entrance door, where exterior space dimensions of balconies are less than the required maneuvering clearance, door maneuvering clearance is not required on the exterior side of the door.

10-16-12 PC1

Larry Perry, – representing self

Disapprove the change. Return the text to that found in existing standard.

Reason: Inadequate substantiation has been provided for the deletion of this exception, which has been in the A117.1 Standard since 1986. The proposal stated that this exception is not permitted by ADA; while that is accurate, the A117.1 Type A unit is not, and never was, intended to be an ADA compliant unit. The residential dwelling unit provisions in the new ADA standards are a new type of unit, falling somewhere between an A117.1 'Accessible' and 'Type A' unit. The vast, vast majority of projects that will require 'Type A' units will be multi-family residential projects where the ADA standards are not applicable; therefore, there is no conflict.

The exception should be put back into the standard.

10-21– 12

Revise as follows:

1003.12.4.1 Clear Floor Space. A clear floor space, positioned for a forward approach to the sink, shall be provided. Knee and toe clearance complying with Section 306 shall be provided.

EXCEPTIONS:

1. The requirement for knee and toe clearance shall not apply to more than one bowl of a multi-bowl sink.

2. Cabinetry shall be permitted to be added under the sink, provided the following criteria are met:
   (a) The cabinetry can be removed without removal or replacement of the sink,
   (b) The floor finish extends under the cabinetry, and
   (c) The walls behind and surrounding the cabinetry are finished.

3. A parallel approach complying with Section 305 and centered on the sink, shall be permitted at a kitchen sink in a space where a cook top or conventional range is not provided.

4. A parallel approach complying with Section 305 and centered on the sink, shall be permitted at wet bars.

10-21-12 PC1

Harold Kiewel, representing self

Disapprove the change. Return the text to that found in existing standard.

Reason: See previous Comments at 8-13 - 12 and 9-2 - 12

10-30 – 12

Revise as follows:

1004.11.3.1.3.3 Shower Compartment. If a shower compartment is the only bathing facility, the shower compartment shall have dimensions of 36 inches (915 mm) minimum in width and 36 inches (915 mm) minimum in depth. A clearance of 48 inches (1220 mm) minimum in length, measured perpendicular from the shower head wall, and 30 inches (760 mm) minimum in depth, measured from the face of the shower compartment, shall be provided. ~~Reinforcing for a shower seat is not required in shower compartments larger than 36 inches (915 mm) in width and 36 inches (915 mm) in depth.~~

10-30-12 PC1

Harold Kiewel, representing self

Disapprove the change. Return the text to that found in existing standard.

Reason: NO ! NO ! NO ! Showers are either 36 x 36 (transfer type) or roll-in which are much larger and more flexible. The standard cannot say 36-minimum by 36-minimum, because we'll get 40 x 42 showers with an 8-inch gap between the clear floor space and the shower bench, and a 42-inch reach from the shower bench to the controls - it doesn't work. The shower has to be one or the other, designers can't be left to their own imaginations - they still don't get it !! And, what's this "*clearance*" thing? If you mean a 30 x 48 clear floor space, say so; keep the language clear and consistent; this is technical writing not a creative writing exercise.

10-31– 12

Revise as follows:

1004.11.3.1.3.3 Shower Compartment. If a shower compartment is the only bathing facility, the shower compartment shall have dimensions of 36 inches (915 mm) minimum in width and 36 inches (915 mm) minimum in depth. A clearance of 48 inches (1220 mm) minimum in length, measured perpendicular from the shower head wall, and 30 inches (760 mm) minimum in depth, measured from the face of the shower compartment, shall be provided. Reinforcing for a shower seat is not required in shower compartments larger than 36 inches (915 mm) in width and 36 inches (915 mm) in depth.

> **EXCEPTION:** A shower compartment with dimensions of 30 inches (760 mm) minimum in depth and 44 inches (1120 mm) minimum in width shall be permitted.

10-31-12 PC1

Harold Kiewel, representing self

Disapprove the change. Return the text to that found in existing standard.

Reason: NO ! I don't buy it ! see Comment at 10-30 - 12

10-35– 12

Revise as follows:

1004.12.2.5 Refrigerator/Freezer. ~~A clear floor space, positioned for a parallel approach to the refrigerator/freezer, shall be provided. The centerline of the clear floor space shall be offset 24 inches (610 mm) maximum from the centerline of the appliance.~~ The refrigerator/freezer shall comply with Section 1004.12.2.5.

1004.12.2.5.1 Approach. A clear floor space positioned for a parallel or forward approach to the refrigerator/freezer shall be provided.

1004.12.2.5.2 Forward Approach. Where the clear floor space is positioned for a forward approach, the centerline of the clear floor space shall be offset 15 inches (380 mm) maximum from the centerline of the appliance.

1004.12.2.5.3 Parallel Approach. Where the clear floor space is positioned for a parallel approach, the centerline of the clear floor space shall be offset 24 inches (610 mm) maximum from the centerline of the appliance.

10-35-12 PC1

Harold Kiewel, representing self

Further revise as follows:

1004.12.2.5.2 Forward Approach. Where the clear floor space is positioned for a forward approach, the centerline of the clear floor space shall be offset ~~15~~ 10 to 16- inches (380 mm) ~~maximum~~ towards the latch from the centerline of the appliance.

1004.12.2.5.3 Parallel Approach. Where the clear floor space is positioned for a parallel approach, the centerline of the clear floor space shall be offset 16- to 24 inches (610 mm) ~~maximum~~ towards the latch from the centerline of the appliance.

Reason: I am opposed to changing dimensions to non-modular (odd) numbers. I believe that dimensional requirements of the Standard should, to the maximum extent practicable, be modular in both Imperial and metric (SI) systems. Imperial dimensions should be multiples of 4-inches, and conversion to metric measure should use 4-inches = 100 mm. As a professional technical writer, I take exception to the modern practice of wasting the first Article of every major sub-part with the phrase "[this work] shall comply with this Standard." If the Standard has a purpose, and the Article has title, the phrase is superfluous. You could save a couple of pages by deleting those lines.

I have not pointed out spelling, tense, or minor grammatical errors. There are some, but I presume that the committee has access to editors who will, in due course, correct those items.

10-38– 12

Revise as follows:

1003.11.2.5.1 Bathtub. Bathtubs shall comply with Section 607.

EXCEPTIONS:

~~1. The removable in-tub seat required by Section 607.3 is not required.~~

~~2~~ 1. Counter tops and cabinetry shall be permitted at one end of the clearance, provided the following criteria are met:

(a) The countertop and cabinetry can be removed;
(b) The floor finish extends under the countertop and cabinetry; and
(c) The walls behind and surrounding the countertop and cabinetry are finished.

10-38-12 PC1

Chad Beebe, – representing American Society for Healthcare Engineering (ASHE)

Disapprove the change. Return the text to that found in existing standard.

Reason: In review of the 2014 Final Draft of the ICC A117.1 document, it has come to our attention that several of the proposed changes will have a significantly negative impact to the healthcare industry design/built environment of buildings designed under the 2015 IBC. Further, it is our understanding that the overwhelming majority of these changes have been derived from a single uncorroborated report which has neither been properly vetted nor adopted by any other credible agency or (similar) jurisdictional body.

As we do not feel these dramatic and substantial changes have been given proper and appropriate consideration by all interested stakeholders in this process, and since we question the authenticity of the underlying premise used to make such changes, we respectfully request they either be removed entirely from consideration in this draft, or that the entire draft adoption process be held in abeyance for a minimum of 12-months so that further collaboration can be conducted with all interested parties. If the Committee opts to delay this process for 12-months, it will be in keeping with the mission of the ICC, and best assure that all parties can be provided with the opportunity to reasonably participate in this process.

10-38-12 - A new requirement to install a bathtub seat in all Type A units.

These new requirements would add thousands of required square feet to a new hospital and significantly impact any renovations to an existing hospital by requiring increased patient room sizes to meet the new requirements and thus, due to the fixed square footage within the building foot print, will reduce the number of allowable beds the hospital can maintain. With hospital construction cost averaging around $300.00 per square foot these additional increases in square footage will significantly impact the cost of construction. Thank you for your consideration of this request, and in keeping alive the goals and mandates of the entire ICC organization and membership.

10-38-12 PC2

Tony Ewalt, representing Sletten Construction of Nevada, Inc.; Michael Gentille, representing Philip Chun North America, Inc.; Michael McGettigan, representing Terracon Consultant; Robert W. Potter, Construction Company, representing Affordable Concepts; Eric J. Rowland, representing Rowland Design;

Disapprove the change. Return the text to that found in existing standard.

Reason: In review of the 2014 Final Draft of the ICC A117.1 document, it has come to my attention that several of the proposed changes (ratified by this Committee) will have a significantly negative impact to the design/built environment of buildings designed under the 2015 IBC. Further, it is my understanding that the overwhelming majority of these changes have been derived from a single uncorroborated report which has neither been properly vetted nor adopted by any other credible agency or (similar) jurisdictional body.

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If the Committee opts to delay this process for 12-months, it will be in keeping with the mission of the ICC, and best assure that all parties can be provided with the opportunity to reasonably participate in this process.

10-38-12 PC3

Larry Perry, – representing self

Disapprove the change. Return the text to that found in existing standard.

Reason: This exception was deleted with the rationale that the standard does not include a similar exception for built-in tub seats. If the standard permits grab bars to be installed after initial construction, and allows a removable base cabinet in the knee/toe space under the bathroom lavatory, why is it critical that a movable seat be provided at initial construction?

Chapter 11

11-1– 12

Revise as follows:

1101.2 .1 General Exceptions. The following shall not be required to be accessible or to be on an accessible route:

1. Raised structures used solely for refereeing, judging, or scoring a sport.
2. Water Slides.
3. Animal containment areas that are not for public use.
4. Raised boxing or wrestling rings.
5. Raised diving boards and diving platforms.
6. Bowling lanes that are not required to provide wheelchair spaces.
7. Mobile or portable amusement rides
8. Amusement rides that are controlled or operated by the rider.
9. Amusement rides designed primarily for children, where children are assisted on and off the ride by an adult.
10. Amusement rides that do not provide amusement ride seats.
11. Shooting facilities with firing positions on free-standing platforms that are elevated above grade 12 feet (3660 mm) minimum provided that the aggregate area of elevated firing positions is 500 square feet (46 m^2) maximum.

11-1-12 PC1

Harold Kiewel, representing self

Revise as follows:

Disapprove the change. Return the text to that found in existing standard.

Reason: Hunting from an elevated blind is a whole class of shooting. It's not some minor variation on a theme like the third tier in a dinner theater; it's a different menu, a different venue. There's no substitute for being there.