

3-2 – 12

302.1, 303.1

Proposed Change as Submitted

Proponent: Ed Roether, representing the ADA/A117 Harmonization Task Group

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.

Reason: The ADA/A117 Harmonization Task Group (HTG) was created as a task group of the A117.1 Committee to compare the 2010 ADA with the 2009 A117.1 Standard. The HTG has recommend a series of changes through a set of change proposals. The HTG is recommending changes, for the most part, address where the ADA was viewed as more stringent than the A117. Where the A117 contained provisions not addressed in the ADA, these were not considered a conflict needing action to amend the A117. In addition there are a number of places where the ADA and A117.1 are different as a result of specific actions, by the A117.1 Committee during the development of the 2009 edition, to remain or create a difference where, in the judgment of the committee the ADA was deficient.

The changes reflect new ADA provisions not in A117. Provides clarity and coordination with exceptions found in Chapter 11.

302.1-ROETHER.doc

Committee Action

Approved

Committee Reason: Provides better reference to provisions contained in Chapter 11. Provides consistency with the ADA 2010.

BALLOT COMMENTS

3-2.1

Commenter: Edward Steinfeld, Representing RESNA

Ballot: Affirmative with comment:

Comment: Refer to editorial committee: This should not be in building blocks section. Chapter 11 should address this, stating that these specific areas shall not be required to comply with 302.1 and 303.1

Committee Review of Comments and Action – July 2013

Approved.

Committee Reason: After consideration of the comment, the committee sustained its original action to approve the proposed text in the current location for consistency with the ADA.

3-4 – 12
303.3

Proposed Change as Submitted

Proponent: Kim Paarlberg, International Code Council

Revise as follows:

Add a new figure which is similar to the existing figure (a). Have the new figure show that the bottom ¼ inch can be beveled and that the ¼ inch vertical change of elevation can be at the top of the figure.

Similar to this configuration.



Reason: The quantity of change proposals submitted by International Code Council is reflective of three elements of our work: 1. ICC is the Secretariat for the Standard and some changes reflect inconsistencies or improvements suggested by staff; 2. ICC develops and publishes a Commentary on the standard and writing the commentary illuminates issues of the text and figures; and 3. ICC provides an interpretation service for the standard which results in the observation of provisions the users find most confusing.

The addition of a third figure may help eliminate some questions that have been received regarding the correct application of the change in level requirements. This type of arrangement with the beveled portion of the level change in the lower ¼ inch and the ¼ inch vertical portion located in the upper portion of the ½ inch maximum level change corresponds to what is used for most thresholds.

When reading the text of Section 303.3 it indicates that "Changes in level greater than ¼ inch in height and not more than ½ inch maximum in height shall be beveled. Unfortunately that language is sometimes being interpreted to limit the ¼ inch vertical change to being the bottom or first change and not allowing the vertical change to occur between the height of ¼ and ½ inches from the floor.

Providing this new configuration will show that the ¼ inch vertical is permitted at any point in the ½ inch level change. Unfortunately I have also received calls which indicate that Sections 303.2 and 303.3 cannot be combined [as shown in Figure 303.3(a)] and that Section 303.3 requires any level change which is greater than ¼ inch in height to be done only by a beveled slope.

While we will never eliminate all potential bad interpretations, showing the various options will eliminate most confusion and debate.

If the committee would prefer to change the text of the standard, an option would be as follows.

303.3.1 Beveled and vertical change. Changes in level not more than ½ inch (13 mm) maximum in height shall be permitted to be done by a combination of a beveled change complying with Section 303.3 and vertical change complying with Section 303.2. The vertical change may occur at any location within the ½ inch maximum height that is allowed by Section 303.3.

I don't believe a change in text is needed and would probably prefer that the committee did not take this option.

303.3(Figure)-PAARLBERG.doc

Committee Action

Disapproved

Committee Reason: The Committee concluded that the proposed figure doesn't reflect the intent of the section. The provisions should not be interpreted to reach this conclusion. Such a figure would encourage misunderstanding of the standard.

BALLOT COMMENTS

3-4.1

Commenter: Kimberly Paarlberg, Representing ICC
Ballot: Negative with comment:

Comment: As the standard currently is worded, I do not believe there is anything which prohibits the 1/4 inch vertical rise from occurring at the top portion of the 1/2 inch level change. However, given the committee's reason statement it appears as if they believe otherwise. If the committee truly believes the addition of a figure or the proposed alternate text does not reflect the intent of the section, then they should make an effort to clarify the requirement. It would provide better guidance to manufacturers so they are aware of the committee's opinion on this issue and can eliminate many of the existing products currently on the market and available for use at level changes on an accessible route.

The various sections and photos shown are a quick example of the types of thresholds which comply with the standard's current 1/2 inch maximum level change (Section 303.3) as well as the requirement that the maximum vertical change is 1/4 inch (Section 303.2).

To help further illustrate the need for the clarification the proposed alternate text can provide, the committee should reread Sections 303.2 and 303.3 as the separate sections they are. Sometimes trying to read the standard in a literal fashion or trying to see how it can be read incorrectly will help to identify problems. Taken separately and in a literal way, the current Figure 303.3(a) which shows a condition similar to the use of a bull-nose tile should be eliminated from the standard since it does not show a beveled level change and is allowing the use of Sections 303.2 and 303.3 to a single level change. If Section 303.3 is to be "properly" or literally applied it would require the entire level change to be beveled when the total height of the level change is greater than 1/4 inch and less than 1/2 inch. Therefore the committee should create additional language such as the proposed Section 303.3.1 to indicate that 303.2 either can or cannot be combined with Section 303.3 and in which order they are to be applied.



3-4.2

Commenter: Michael Tierney, Representing BHMA
Ballot: Negative with comment:

Comment: I am voting in opposition to the committee disapproval and reasoning. The wording in the current paragraph 303.3 allows for the configuration proposed by Kimberly Paarlberg. As a result, hundreds of thousands of thresholds meeting that profile have been produced for over 30 years, are offered by virtually every manufacturer, and have not been reported to hinder accessibility.

There are several functions for the configuration:

- windstorm protection by sealing against wind and water
- energy conservation by reducing air infiltration
- providing latching points to secure the door

If the Committee action were allowed to stand, business owners who have complied in good faith with A117 would be required to replace existing thresholds. Further, Kim's proposed wording for 303.3.1 would eliminate the ambiguity, and "reduce the unnecessary confusion and debate". There does not appear to be any justifiable reason to reject this proposal, and a host of reasons for acceptance.

Proponent Comment

3-4.3

Commenter: Kimberly Paarlberg, Representing ICC

Replace the proposal with the following:

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 and a bevel with a slope not steeper than 1:2.

303.4 Ramps. Changes in level greater than 1/2 inch (13 mm) in height shall be ramped and shall comply with Section 405 or 406.

Reason: The current graphics allow for a vertical and beveled combination (Figure 303.3(a)). The text should specifically state this allowance. The comment submitted with the ballot explains why how this change is accomplished should not make any difference. If the text is accepted, there should be an additional figure to allow for the bevel first and the change in elevation 2nd.

Committee Review of Comments and Action – July 2013

Approval with Modifications based on Comments.

Committee Reason: The committee debated the issue extensively because some perceived there to be an issue with the current text and others felt the current text was not ‘broken’. The final consensus was that text should be added to the code that clearly stated the arrangement of vertical and bevel elements in a change of level. Based on the text in Comment 3-4.3, and order was established by changing the proposal such that the vertical change was below the bevel in a combination change of level.

Modification

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.

Ballot Comments on July2013 Committee Action Report

NACS – Bradley Gaskins

Affirmative with Comment: Ballot:

Comment/reason: I have to agree with the comments from Mr. Tierney in 3-4.2. There are several valid reasons for allowing this at thresholds only... windstorm protection, energy conservation, latching points, and one not mentioned a safety issue of smoke infiltration. Again, this configuration of thresholds has been in use for many years and I am not aware of any accessibility issues being created due to its use.

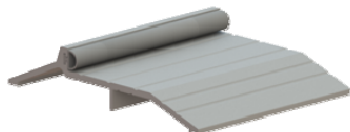
Considerations on this may be that a bevel with an vertical change at the top of the bevel is an issue and should not be allowed, whereas, the threshold shown has an vertical change separated from the bevel by a distance and this distance may be the key that does not create an accessibility issue. At what distance would this work? Maybe this should be studied to determine a more appropriate solution. As for this increasing clarity one could actually argue that the threshold is still allowed as the change in elevation in both instances is ¼” or less since there IS a separation. While this is hyper technical the words of the standard do matter and must be written in such a way as to be absolutely clear whenever possible. In this case it is possible to get this right.

Todd Andersen**Negative Ballot**

Comment/reason: I agree that the bump should not be on top, but I object to not fixing the text. The proponent is correct that the current text does not require what the committee thinks it says. We should amend the text to say what we mean.

BHMA- Michael Tierney**Negative Ballot**

Comment/reason: There needs to be discussion about an acceptable distance between the bevel and the vertical rise – typical bumper seal thresholds have at least a one inch separation with a level section as shown below. Such configurations are very common, and the recent interpretation will make countless existing doorways non-compliant.




RESNA Edward Steinfeld – Ballot is changed to Affirmative. The negative ballot had been misnumbered by Dr. Steinfeld; his original intent was 3-5-12. The ballot comment previously located here has been moved to 3-5.

AIA – Dave Collins**Negative Ballot**

Comment/reason: I agree with Todd Andersen's comment.

ICC – Kim Paarlberg**Negative Ballot**

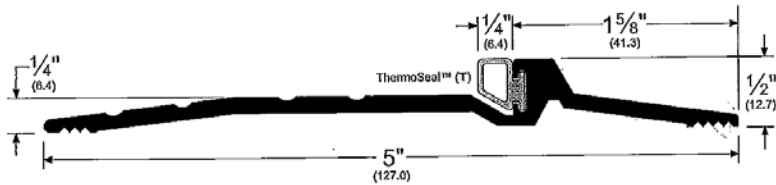
Comment/reason: I agree with BHMA-Michael Tierney and NACS- Brad Gaskins. The bump at the top of the threshold is often part of weather seals on doors and has not been shown to be a problem for accessibility. See attached example.




2005_T


COMMERCIAL THRESHOLD


1/2" Commercial Saddle Threshold




Testing/Ratings:










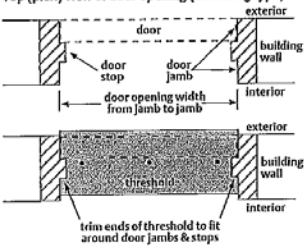
Category J gaskets for use with listed steel frames and/or classified steel covered composite, hollow metal doors rated up to and including 3 hours; wood and plastic covered composite doors rated up to and including 1-1/2 hours; and wood core doors rated for 20 minutes. (Thresholds may or may not contain gasketing material).

Tools Required:



Installation Instructions:

Top (plan) view of door opening (out-swing type)



1. Measure width of door opening from jamb to jamb and stop to stop and mark ends of threshold for trimming.
2. Trim ends of threshold to fit around door jambs and stops. Position threshold so that vinyl seal contacts face of door along entire width when door is closed (see above illustration).
3. Drill pilot holes in floor through pre-drilled holes in threshold.
4. Caulk ends of threshold, and under full length of legs (important for effective sealing and moisture control).
5. Secure threshold to floor with supplied screws. (When fastening to concrete, use anchors; anchors not included.)

www.pemko.com

© 2008 Pemko Manufacturing Co.
2005_T_W08BNS
Rev 1 - 04.01.08

1

3-6 – 12

304.3.1

Proposed Change as Submitted

Proponent: Gina Hilberry and David Collins, Co-Chairs Wheeled Mobility Task Group

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.

Reason: The Wheeled Mobility Task Group (WMTG) was created as a task group of the A117.1 Committee to analyze the results of the anthropometric study of a variety of mobility device users conducted by The Center for Inclusive Design and Environmental Access (IDeA) at the University at Buffalo, SUNY recently completed an anthropometric study of 500 wheeled manual and powered mobility device users. The study indicates that the technical provisions contained in the A117.1 standard do not address the needs of the full range of users of mobility devices. The work of the WMTG is ongoing, but it has submitted a series of proposed changes to the base building blocks of the A117.1 standard. If the changes to the building blocks are adopted by the Committee, then additional changes will need to be made in other portions of the standard.

This increase is as recommended by the IDeA Final Report and is expected to increase the percentage of manual and power wheelchair users accommodated from 80 to 95 % and almost double the percentage of scooters served.

Discussion:

The IDeA team provided very helpful diagrams illustrating the 5 different 180 turns used by the subjects in the IDeA report. The Spot and Pivot turning techniques appear to need a width just a few inches greater than the diagonal of the user's wmd. The Shuffle turn uses whatever space is available though repeated short back and forth shuffles while turning around incrementally. The Three Point turn is a T turn with upraised arms. It was the Full U turn where both wheels move forward but the outside wheel moves faster that required the most width. The Pivot and Three Point turns use a 'corner'. The subjects were allowed to choose their preferred method for turning, but the IDeA report does not identify who used which technique, so a question exists as to who needs the extra space to successfully turn or to avoid excessive energy expenditure and who could function with less space than they used.

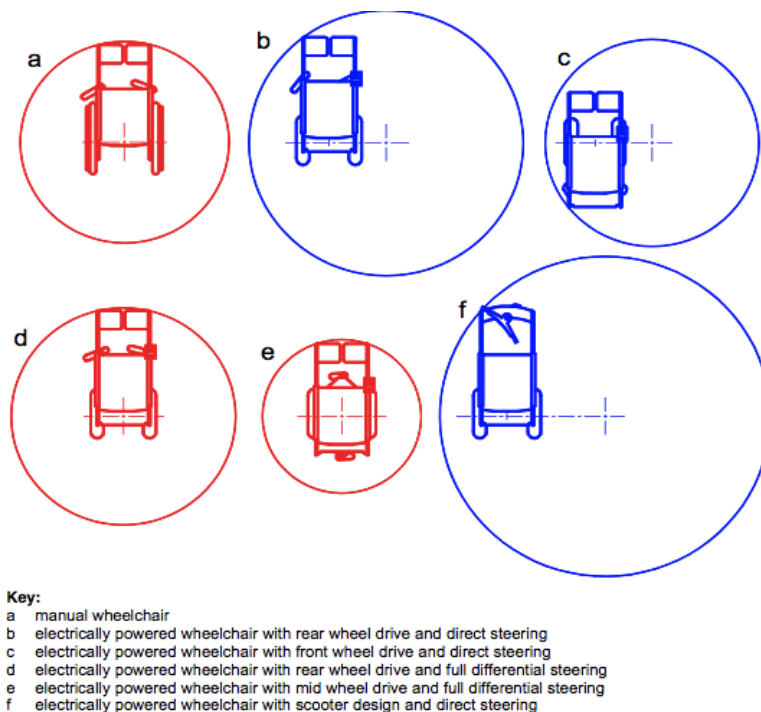


Figure 4 - Turning diameter (examples for various wheelchair types)

Further, we were informed that the best shape for a 180 turning space is a lozengen. The IDeA team recommended that the long dimension be 88 inches and the short dimension be 68 inches. Because the shape only works if a user enters the space

through one of the short ends, a turning space that could be entered from either the long or short sides would have to be 88 inches along both sides.

In examining what design features were driving the space to be so large it became apparent that lack of differential steering in scooters and some power chairs was a major factor. Differential steering, as found in manual wheelchairs and center wheel power wheelchairs, is the ability to drive one drive wheel forward while the other goes backward. Where both wheels are driven by a common motor or direct drive transmission both wheels must go in the same direction, hence the turning radia are much larger.

From The Working Area of Wheelchairs by Johann Ziegler

This observation raises the question – should the built environment be changed to accommodate poorly designed wmds or ought those choosing poorly designed wmds be informed that their vehicle may not be well accommodated? The analogy is the parking lot at the grocery store. If you choose to drive a stretch limo, RV, bus, or other vehicle that is bigger than a typical parking space you are welcome to shop, but don't expect a parking space near the entry. Ultimately this is a political and not a technical question.

304.3.1-
HILBERRY.doc

Committee Action

Approved

Committee Reason: The WMTG was able to bring forth 2 key proposals as a result of its review of the studies of persons using wheeled mobility devices. This is one of the proposals; the other found in 3-13-12 addresses the clear floor space. Many Committee members were unsure of approving either change without knowing the implications in the balance of the Standard. The WMTG a working decision on this proposal and 3-13-12 before considering the balance of the Standard and where additional correlating changes would be needed. Those changes developed between the August and January meetings are reflected in proposals 3-6A-12 through 3-6F-12 and 3-13A-12 through 3-13K-12.

A significant discussion was made regarding the impact a 67 inch turning circle would have on the design of dwelling units. The potential to develop exceptions for dwelling units either in this section or Chapter 10 were considered. No action as accepted by the Committee to amend 3-6-12 for dwelling units. It was pointed out in the discussion that the Type B standards do not include a turning space requirement.

The Committee discussed the growing use of powered chairs and scooters which are larger in size and have differing maneuvering capabilities. The Committee debated whether the Standard should be changed to accommodate changes in the technologies or wheeled mobility or whether the manufacturers of the devices needed to be designed equipment to work within the standard. Of concern is not just the current mix of equipment being used, but trying to anticipate what will be of use through the life of buildings being designed and built today.

The Committee recognized that increasing the base dimensions of the circular turning space and the clear floor space have space and therefore cost implications throughout a building design and the design of site features. Specifically mentioned during the debate were dwelling units, kitchens and single occupant toilet/bathrooms.

BALLOT COMMENTS

3-6.1

Commenter: Gene Boecker, Representing NATO

Ballot: Negative with comment:

Comment: This will have major impacts in typical small areas such as concession stands and arcade areas. In the responses I received from NATO, one individual who responded uses a wheelchair and stated that the 60" dimension is adequate for his use and it is not necessary to increase the turning space.

3-6.2

Commenter: M. Bradley Gaskins, Representing NACS

Ballot: Negative with comment:

Comment: There has been no evidence presented that this is a necessary change and will be a burden on the public due to a 25% increase in the area required for the circular turning space. The evidence presented only addresses the wide variety of mobility devices in service today. It does not address whether the problem is in the manufacture of these mobility devices that do not conform to the current 60" diameter requirement or whether the built-environment needs to change to accommodate mobility devices that need a larger diameter and cannot be designed and manufactured in such a way as to fit within the current 60" diameter space. We don't continue to let automobile manufacturers build wider and wider autos to go on our roads... they must be built to standards that allow them to work with our current road system.

3-6.3

Commenter: Gerald Gross, Representing AHLA

Ballot: Negative with comment:

Comment: The existing turning space standards have been in existence for over 50 years. Reportedly, the AHFA has never had a complaint regarding complaint turning spaces.

The new proposed 67" turning space by IDEA will increase turning area approximately 25%.

This increase as recommended by the IDEA Final Report is expected to increase the percentage of manual and power wheelchair users accommodated from 80 to 95% and almost double the percentage of scooter served. Of the existing 2.8 million wheelchair and scooter users this calculates to an approximate increase of 220,000 occupants.

Today's technology can accommodate all non-institutional wheelchair and scooter users.

Our current standards for the built environment now accommodate 99.998% of the US population. Ideally it would be wonderful to accommodate 100% of all people with mobility disabilities however; the proposed turning diameter area and construction cost increase would be prohibitive.

3-6.4

Commenter: Dominic Marinelli, Representing USA

Ballot: Negative with comment:

Comment: Landing size at ramp's change of direction should be increased to 67" by 67" to be consistent with other changes/increases.

3-6.5

Commenter: Ronald G. Nickson, Representing NMHC

Ballot: Negative with comment:

Comment: The committee is holding proponents of proposed changes to two different levels. For items they do not agree with (changing handrail requirements) the committee disapproves changes because the study has not had a peer review. In contrast, the committee is proposing major changes to the basic buildings blocks for clear floor space based on a single study that has had no peer review. In addition, the information and data from the single study does not address the entire population and the ability and options people have in making decisions on what type of mobility devices are available. It was clearly evident during the A117.1 meeting that mobility devices with great mobility are available. I understand the dilemma, in that the less expensive mobility devices, because of design, do not have some of the mobility features of the more expensive equipment. However, the basis of the A117.1 standard should not be based on people making the incorrect decision as to what they really need for mobility in their daily needs.

Increasing the building block dimensions for wheel chair clear floor space, turning circles and other accessibility features will have a dramatic impact on the design and construction of accessibility features and may have a negative impact on the entire disabled population because of the increased costs that in turn impact the ability of the design and construction industry to provide cost effective buildings. This is most evident in affordable housing. The changes approve by the committee will increase the cost of affordable housing and impact the design and livability of each individual dwelling unit. The increased area needed for kitchen, bathrooms, hallways and other features of the dwelling unit will have to come from other rooms in the dwelling unit resulting in smaller living rooms, dining rooms and bedrooms. One alternative is to make the dwelling unit larger which means fewer dwelling units in a given size building. The other is to increase the overall size of the building. In either case the cost per unit increases resulting in higher rents or increased subsidies. Net effect, fewer units available for the people that really need and depend on affordable housing.

3-6.6

Commenter: Steve Orlowski, Representing NAHB

Ballot: Negative with comment:

Comment: We do not agree with the committee actions to increase the building block and clear floor space as proposed in several proposed changes to the standard based upon the use of WhMD that are currently available on the market primarily designed for outside use. It is unclear as to which kind of scooters were represented in the 2010 Anthropometry Report along with manual and motorized chairs. Were they 'travel,' 'full-sized,' 'heavy duty,' or 'luxury' scooters? These are terms used by the manufacturers when selling their scooters, but since scooters can be any size—restricted only by market influences—they are important. Heavy duty and luxury scooters are marketed as primarily outdoor scooters, and their greater size and maneuverability requirements could skew the results of the Anthropometry Report significantly. NAHB disagrees with the argument that dwelling units need to accommodate mobility devices which are not designed for indoor use.

Secondly, the report does not tell us whether or not scooter owners used them inside buildings or their dwellings. If scooter use is limited to outdoors and not intended for use in public buildings, then this would suggest that dwellings should have dimensions that differ from other areas within the scope of the standard, being based on smaller WhMDs. These dimensions would include turning radius, clear floor spaces, reach ranges, etc. Making changes to the standard based on a percentage of all WhMDs tested in the report without regard as to how they are being used would be neither constructive nor responsible.

Furthermore, we are in danger of setting up a spiral of increasing dimensions.-At this time we do not know whether manufacturers of WhMDs are taking the current A117.1 Standard into consideration when designing devices for indoor use. As we

stated during the committee meeting, manufactures of these devices need to work within the current dimensional criteria established by the standard and not be the driver for increasing the dimensions for these poorly designed devices.

Similar to the last code cycle, the stair manufacturers brought studies trying to validate their proposed changes and were disapproved because their studies did not go out for peer review. Shouldn't this report be given the same scrutiny? These changes will significantly impact new and existing buildings that the codes require to be compliant with the referenced A117.1 standard, yet there has been no effort to correlate the findings of this report to determine how many people in the general public will be positively or negatively impacted by these increased dimensions. In addition, fair housing references the 1986 ANSI A117.1 standards as the baseline which would set up the argument that if the older reference standard is deemed a safe harbor, there will be no reason to continue maintaining this document or to reference any newer version in the building code.

Finally, the proposed increase for clear turning would dramatically decrease the usable floor space in a dwelling since you now have to increase the bathroom and kitchen spaces at the cost of other living areas. Based on the 2010 Census data more than 50% of the 2.1 million disabled persons in America are living in dwelling units that are less than 700 square feet, these increased dimensions will have a negative impact by reducing the usable space of the areas within the dwelling to accommodate for those areas that must meet the building block increases.

3-6.7

Commenter: Kimberly Paarlberg, Representing ICC

Ballot: Negative with comment:

Comment: The size increase in the building blocks and accessible routes proposed by the series of changes from the Wheeled Mobility Task Group will have significant impacts on the design of buildings and facilities as well as the cost of construction. There has not been adequate study of the impact of these changes. Proto-type designs should be prepared to determine the impact of these standards. The Appendix B of the ADA, which did a series of bathrooms to show the impact of new requirements, is a wonderful example of what the Committee really needs to see in order to understand the impact of these requirements on tight spaces like bathrooms, kitchens, dressing rooms, locker rooms, configurations with 36" wide corridors or aisles, doorways in alcoves, etc. What is the impact on an residential, such as apartments, dormitories, assisted living facilities – Accessible/Type A vs. Type B units?

The proposals are further incomplete because the impact on reach ranges, especially reaching over obstructions has not been fully explored. There were conversations that aimed at eliminating allowance for use of knee and toe clearances as part of these features. If such were to happen, what again is the impact on building design?

The standards eliminate the ability to have the intersection of 36 inch wide corridors without widening one corridor or 'chamfering' the corner. The 36" wide corridor and aisle is the minimum width established by the building codes in small business occupancies, within apartments, in restaurant and theater layouts, etc. The committee has not discussed the ramifications for aisles. In addition, what are the impacts on theaters and stadiums with the change in wheelchair space size on top of the line of site requirements?

The ICC A117.1 is a minimum standard for accessibility – not a best practice or universal design standard. We question whether these new dimensions still reflect the minimum needed for accessibility. We acknowledge that certain wheeled mobility devices have larger footprints and more limited turning capability, but are we comfortable that we know the true size of the population using such devices? What is the increase of population served? Perhaps a solution would be to move these scooter and reclining/power chair dimension into an appendix to the standard (something along the line of 'best practices') which could be selected by building designers, but not mandatory for all new buildings until this is fully understood. This might allow the industry to evaluate the impact before the requirements become mandatory. Or to allow for the options in scoping – an example being to ask for the larger spaces in the family use/assisted use bathrooms.

While there is nothing to say that the A117.1 can't require greater access than the ADA, what are the ramifications of having the base building blocks significantly different? Would it not be better for compliance with accessibility standards for the two predominant standards in the country to be in sync for the next few years?

Finally, the ramifications of these new base standards on the remodeling of existing buildings needs to be fully considered. Are we really wanting to say buildings built under the 2012 IBC and the 2009 A117.1 standard are no longer accessible? The committee already understands the impact of just the change in reach range from 48" to 54" (Section 308.3.1 Exception). How much greater the ramification to corridors, bathrooms, etc.?

3-6.8

Commenter: Ron Burton, representing BOMA

Ballot: Negative with comment:

The committee has proposed major changes to the basic buildings blocks for clear floor space based on a single study that, as far as we can tell, has had no peer review. The samples in the study were also not correlated to the general population. We don't believe it is prudent to use data from a single study, especially one the major shortcomings mentioned above, to propose such far-reaching changes that will have extremely significant impacts throughout the construction and real estate industries. During the A117.1 meetings, we were provided information that mobility devices with less impact to building design are in fact available. The A117.1 standard should not be based on a limited field of products on the market but we should look at the characteristics of all products and how that information might influence changes to the standard. In addition, it is unclear if the 2010 Anthropometry Report was based at least in part upon wheeled mobility devices that are intended only for outdoor use. If so, the greater size and maneuverability requirements of such products could skew the results of significantly. We do not believe that all interior spaces, and especially dwelling units, need to accommodate devices which are not designed for indoor use.

Increasing the building block dimensions for wheel chair clear floor space, turning radii, turning circles and other features clearly has a dramatic impact on the design and construction of accessibility elements. We do not believe the true costs of the proposed changes have been determined, but it is fair to say that it will have significant negative impact on building design and construction, and even on those with disabilities because of the impacts on affordable housing and accessible buildings.

Committee Review of Comments and Action – July 2013

Approved.

Committee Reason: The committee reconfirmed its original approval of the 67 inch turning circle. The committee debated a proposal to relocate the collection of changes related to the wheeled mobility study and efforts of the Wheeled Mobility Task Group to a ‘best practices’ appendix. Many on the committee are concerned that the studies justifying the changes to the fundamental dimensions of the A117.1 standard are not sufficient. There remains concerns that the full impact on the design of buildings hasn’t been sufficiently analyzed.

A majority of the committee are satisfied with the studies and the results of such studies which point to the clear need for greater minimums for turning circles and clear floor spaces. The appendix concept was rejected. Further the committee’s decision reflects the long history of the A117.1 standard being the leader in accessibility and it again should lead with new base (building block) dimensions based on the needs of the communities using a variety of mobility devices.

3-6B – 12

Table 407.4.1

Proposed Change as Submitted

Proponent: Gina Hilberry and David Collins, Co-Chairs Wheeled Mobility Task Group

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

¹A tolerance of minus $\frac{5}{8}$ inch (16 mm) is permitted.

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

Reason: The Wheeled Mobility Task Group (WMTG) was created as a task group of the A117.1 Committee to analyze the results of the anthropometric study of a variety of mobility device users conducted by The Center for Inclusive Design and Environmental Access (IDeA) at the University at Buffalo, SUNY recently completed an anthropometric study of 500 wheeled manual and powered mobility device users. The study indicates that the technical provisions contained in the A117.1 standard do not address the needs of the full range of users of mobility devices. The work of the WMTG is ongoing, but it has submitted a series of proposed changes

to the base building blocks of the A117.1 standard. If the changes to the building blocks are adopted by the Committee, then additional changes will need to be made in other portions of the standard.

Rationale for 3-6B: An elevator car that can provide a 60 inch diameter turning space with the doors closed is larger than the cars permitted by Table 407.4.1 and should still be permitted. Increasing the size to a 67 inch diameter would in all probability increase the elevator car capacity and thus increase the cost of the elevator system and related structural support of the building. There is no evidence that cars providing a 60 inch diameter are unusable to persons using larger wheeled mobility devices.

-HILBERRY.doc

Committee Action

Approved as Modified

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

Committee Reason: The intent is to clarify that the space within the elevator car is not specifically a turning space, but provides space to reach the controls.

BALLOT COMMENTS

3-6B.1

Commenter: Brian Black, Representing NEII

Ballot: Affirmative with comment:

Comment: The committee modification improved the proposed change as submitted.

It should be noted that the turning diameter allowance in footnote 2 is often used for non-rectangular observations elevators (see example), often installed in atria. Requiring a larger car to accommodate a 67 inch (1700 mm) turning diameter would have made these types of elevators either extremely expensive or impractical to install.



3-6B.2

Commenter: Kimberly Paarlberg, Representing ICC

Ballot: Affirmative with comment:

Comment: Why is the committee assuming the change in size to 67" will adversely affect elevator sizes? This should be an example the full ramifications should be investigated.

3-6B.3

Commenter: Gerald Gross, Representing AHLA

Ballot: Negative with comment:

Comment: The existing turning space standards have been in existence for over 50 years. Reportedly, the AHLA has never had a complaint regarding complaint turning spaces.

The new proposed 67" turning space by IDEA will increase turning areas approximately 25%. This increase as recommended by the IDEA Final Report is expected to increase the percentage of manual and power wheelchair users accommodated from 80 to 95% and almost double the percentage of scooter served. Of the existing 2.8 million wheelchair and scooter users this calculates to an approximate increase of 220,000 occupants.

Today's technology can accommodate all non-institutional wheelchair and scooter users. Our current standards for the built environment now accommodate 99.998% of the US population. Ideally it would be wonderful to accommodate 100% of all people with mobility disabilities however; the proposed turning diameter area and construction cost increase would be prohibitive.

Committee Review of Comments and Action – July 2013

Approval as Modified.

Committee Reason: Consistent with its action to sustain its decision on Item 3-6-12, the committee sustained the original action on this item.

3-6C – 12

502.4.2

Proposed Change as Submitted

Proponent: Gina Hilberry and David Collins, Co-Chairs Wheeled Mobility Task Group

Revise as follows:

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

Reason: The Wheeled Mobility Task Group (WMTG) was created as a task group of the A117.1 Committee to analyze the results of the anthropometric study of a variety of mobility device users conducted by The Center for Inclusive Design and Environmental Access (IDeA) at the University at Buffalo, SUNY recently completed an anthropometric study of 500 wheeled manual and powered mobility device users. The study indicates that the technical provisions contained in the A117.1 standard do not address the needs of the full range of users of mobility devices. The work of the WMTG is ongoing, but it has submitted a series of proposed changes to the base building blocks of the A117.1 standard. If the changes to the building blocks are adopted by the Committee, then additional changes will need to be made in other portions of the standard.

Rationale for 3-6C: This reflects our previous action changing the changing the size of a turning circle (Section 304) to 67 inches.

-HILBERRY.doc

Committee Action

Approved

Committee Reason: The increased size of a turning circle needs to be included in the access aisle for parking spaces. Turning around in such spaces is commonplace.

BALLOT COMMENTS

3-6C.1

Commenter: Rick Lupton, Representing WABO

Ballot: Affirmative with comment:

Comment: The exception to Section 502.2 for van stalls should be changed to reflect an access aisle width of 103 inches (96" + the additional 7" diameter of the turning space).

3-6C.2

Commenter: Gene Boecker, Representing NATO

Ballot: Negative with comment:

Comment: If the purpose of this is to address the 67 inch turning space, it is also important to note that the width of the accessible parking space and the width of the vehicles are not the same. The standard vehicle is generally quite a bit less than the required 96 inch parking space. There is no reason to increase the overall width of the access aisle when the adjoining space will not be obstructed to its full extent. The 67-inch dimension should still be available between vehicles without the need to increase the striping.

3-6C.3

Commenter: Ron Burton, Representing BOMA
Ballot: Negative with comment:

Comment: See reason on 3-6-12

3-6C.4

Commenter: M. Bradley Gaskins, Representing NACS
Ballot: Negative with comment:

Comment: There has been no evidence presented that this is a necessary change and will be a burden on the public due to an increase in the area required. The evidence presented only addresses the wide variety of mobility devices in service today. It does not address whether the problem is in the manufacture of these mobility devices that do not conform to the current requirement or whether the built-environment needs to change to accommodate mobility devices that need a larger space and cannot be designed and manufactured in such a way as to fit within the current space. We don't continue to let automobile manufacturers build wider and wider autos to go on our roads... they must be built to standards that allow them to work with our current road system.

3-6C.5

Commenter: Ronald G. Nickson, Representing NMHC
Ballot: Negative with comment:

Comment: See comment for Item 3-6-12.

3-6C.6

Commenter: Steve Orłowski, Representing NAHB
Ballot: Negative with comment:

Comment: See comment for Item 3-6-12.

3-6C.7

Commenter: Kimberly Paarlberg, Representing ICC
Ballot: Negative with comment:

Comment: See comment 3-6.

Committee Review of Comments and Action – July 2013

Approved.

Committee Reason: The committee thoroughly discussed the concepts raised by the comments, specifically that because access aisles are next to parking spaces, that there is space available because vehicles don't take up the whole width of a parking space. The committee concluded that its original action was correct and that extra space on the margins can't be assumed and larger maneuvering space in access aisles is appropriate.

Ballot Comments on July 2013 Committee Action Report

ICC – Kim Paarlberg**Negative: Ballot:**

Comment/reason: See comment for Proposal 3-6 – 12.

NACS – Bradley Gaskins**Negative: Ballot:**

Comment/reason: I repeat my original comments. There has been no evidence presented that this is a necessary change and the change will be a burden on the public due to an increase in the area required. The evidence presented only addresses the wide variety of mobility devices in service today. It does not address whether the problem is in the manufacture of these mobility devices that do not conform to the current requirement or whether the built-environment needs to change to accommodate mobility devices that need a larger space and cannot be designed and manufactured in such a way as to fit within the current space. We don't continue to let automobile manufacturers build wider and wider autos to go on our roads... they must be built to standards that allow them to work with our current road system. At best this change is premature based upon the evidence. Even the wheeled mobility task group states that their findings have not been validated. Further, the impact of the larger CFS has not been analyzed for any building types.

NAHB – Steven Orlowski**Negative: Ballot:**

Comment/reason: See comment for Proposal 3-6 – 12.

NMHC – Ron Nickson**Negative: Ballot:**

Comment/reason: See comment for Proposal 3-6 – 12.

AIA – Dave Collins**Negative Ballot**

Comment/reason: I agree with ICC-Kim Paarlberg's comment. Also see additional comment added to 3-6-12.

3-6D – 12**503.3.2****Proposed Change as Submitted**

Proponent: Gina Hilberry and David Collins, Co-Chairs Wheeled Mobility Task Group

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.

Reason: The Wheeled Mobility Task Group (WMTG) was created as a task group of the A117.1 Committee to analyze the results of the anthropometric study of a variety of mobility device users conducted by The Center for Inclusive Design and Environmental Access (IDeA) at the University at Buffalo, SUNY recently completed an anthropometric study of 500 wheeled manual and powered mobility device users. The study indicates that the technical provisions contained in the A117.1 standard do not address the needs of the full range of users of mobility devices. The work of the WMTG is ongoing, but it has submitted a series of proposed changes to the base building blocks of the A117.1 standard. If the changes to the building blocks are adopted by the Committee, then additional changes will need to be made in other portions of the standard.

Rationale for 3-6D: Accommodate 67 inch (1700) turning diameter.

-HILBERRY.doc

Committee Action

Approved

Committee Reason: Consistent with the action to approve proposal 3-6C-12.

BALLOT COMMENTS

3-6D.1

Commenter: Gene Boecker, Representing NATO
Ballot: Negative with comment:

Comment: Like the access aisle for parking, the passenger loading zone access aisle are defined by the location of the vehicle. Given the desired turning space, for consistency, this increase is not warranted. If it is necessary to increase this dimension, it should be based on another reason such as the loading platform extension from the vehicle.

3-6D.2

Commenter: Ron Burton, Representing BOMA
Ballot: Negative with comment:

Comment: See reason on 3-6-12

3-6D.3

Commenter: M. Bradley Gaskins, Representing NACS
Ballot: Negative with comment:

Comment: There has been no evidence presented that this is a necessary change and will be a burden on the public due to an increase in the area required. The evidence presented only addresses the wide variety of mobility devices in service today. It does not address whether the problem is in the manufacture of these mobility devices that do not conform to the current requirement or whether the built-environment needs to change to accommodate mobility devices that need a larger space and cannot be designed and manufactured in such a way as to fit within the current space. We don't continue to let automobile manufacturers build wider and wider autos to go on our roads... they must be built to standards that allow them to work with our current road system.

3-6D.4

Commenter: Gerald Gross, Representing AHLA
Ballot: Negative with comment:

Comment: The existing turning space standards have been in existence for over 50 years. Reportedly, the AHLA has never had a complaint regarding complaint turning spaces.

The new proposed 67" turning space by IDEA will increase turning areas approximately 25%. This increase as recommended by the IDEA Final Report is expected to increase the percentage of manual and power wheelchair users accommodated from 80 to 95% and almost double the percentage of scooter served. Of the existing 2.8 million wheelchair and scooter users this calculates to an approximate increase of 220,000 occupants.

Today's technology can accommodate all non-institutional wheelchair and scooter users. Our current standards for the built environment now accommodate 99.998% of the US population. Ideally it would be wonderful to accommodate 100% of all people with mobility disabilities however; the proposed turning diameter area and construction cost increase would be prohibitive.

3-6D.5

Commenter: Steve Orlowski, Representing NAHB
Ballot: Negative with comment:

Comment: See comment for 3-6-12.

3-6D.6

Commenter: Kim Paarlberg, Representing ICC

Ballot: Negative with comment:

Comment: Same comment as 3-6-12

3-6D.7

Commenter: Ron Nickson, Representing NMHC

Ballot: Negative with comment:

Comment: See reason for proposal 3-6-12.

Committee Review of Comments and Action – July 2013

Approved.

Committee Reason: Consistent with its action to sustain approval of Items 3-6-12 and 3-6C-12, the committee sustained its approval of 3-6D-12.

Ballot Comments on July 2013 Committee Action Report

ICC – Kim Paarlberg

Negative: Ballot:

Comment/reason: See comment for Proposal 3-6 – 12.

NACS – Bradley Gaskins

Negative: Ballot:

Comment/reason: I repeat my original comments. There has been no evidence presented that this is a necessary change and the change will be a burden on the public due to an increase in the area required. The evidence presented only addresses the wide variety of mobility devices in service today. It does not address whether the problem is in the manufacture of these mobility devices that do not conform to the current requirement or whether the built-environment needs to change to accommodate mobility devices that need a larger space and cannot be designed and manufactured in such a way as to fit within the current space. We don't continue to let automobile manufacturers build wider and wider autos to go on our roads... they must be built to standards that allow them to work with our current road system. At best this change is premature based upon the evidence. Even the wheeled mobility task group states that their findings have not been validated. Further, the impact of the larger CFS has not been analyzed for any building types.

NAHB – Steven Orlowski

Negative: Ballot:

Comment/reason: See comment for Proposal 3-6 – 12.

NMHC – Ron Nickson

Negative: Ballot:

Comment/reason: See comment for Proposal 3-6 – 12.

AIA – Dave Collins

Negative Ballot

Comment/reason: I agree with ICC-Kim Paarlberg's comment. Also see additional comment added to 3-6-12.

3-6E – 12

804.2.2

Proposed Change as Submitted

Proponent: Gina Hilberry and David Collins, Co-Chairs Wheeled Mobility Task Group

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.

Reason: The Wheeled Mobility Task Group (WMTG) was created as a task group of the A117.1 Committee to analyze the results of the anthropometric study of a variety of mobility device users conducted by The Center for Inclusive Design and Environmental Access (IDeA) at the University at Buffalo, SUNY recently completed an anthropometric study of 500 wheeled manual and powered mobility device users. The study indicates that the technical provisions contained in the A117.1 standard do not address the needs of the full range of users of mobility devices. The work of the WMTG is ongoing, but it has submitted a series of proposed changes to the base building blocks of the A117.1 standard. If the changes to the building blocks are adopted by the Committee, then additional changes will need to be made in other portions of the standard.

Rationale for 3-6E: Accommodate 67 inch (1700) turning diameter.

-HILBERRY.doc

Committee Action

Approved

Committee Reason: The provision applies many to kitchens other than those within a dwelling unit. There was concern over the space demands that this dimension would impose.

BALLOT COMMENTS

3-6E.1

Commenter: Rick Lupton, Representing WABO

Ballot: Affirmative with comment:

Comment: I would support a modification of the language to: Where a kitchen is enclosed on three contiguous sides, clearance between opposing base cabinets, counter tops, appliances, or walls within kitchen work areas shall be 40 inches minimum. A turning space complying with Section 304.3.1 shall be provided at the enclosed end. The modified language would result in the same configuration for square-shaped kitchens but would be comparable to pass-through kitchens for rectangular-shaped kitchens, allowing more flexibility. This also addresses the committee's concern over the space demands of the 67-inch clearance between opposing sides. This would be similar to proposal 8-8-12 (disapproved by the committee) but includes a turning space.

3-6E.2

Commenter: M. Bradley Gaskins, Representing NACS

Ballot: Negative with comment:

Comment: There has been no evidence presented that this is a necessary change and will be a burden on the public due to an increase in the area required. The evidence presented only addresses the wide variety of mobility devices in service today. It does not address whether the problem is in the manufacture of these mobility devices that do not conform to the current requirement or whether the built-environment needs to change to accommodate mobility devices that need a larger space and cannot be designed and manufactured in such a way as to fit within the current space. We don't continue to let automobile manufacturers build wider and wider autos to go on our roads... they must be built to standards that allow them to work with our current road system.

3-6E.3

Commenter: Gene Boecker, Representing NATO

Ballot: Negative with comment:

Comment: Although this does not affect the NATO design needs, consistent with my vote on 3-6, if I am hearing from people who use wheelchairs that the dimension is adequate, then there is no reason to change.

3-6E.4

Commenter: Ron Burton, Representing BOMA

Ballot: Negative with comment:

Comment: See reason on 3-6-12

3-6E.5

Commenter: Gerald Gross, Representing AHLA

Ballot: Negative with comment:

Comment: The existing turning space standards have been in existence for over 50 years. Reportedly, the AHLA has never had a complaint regarding complaint turning spaces.

The new proposed 67" turning space by IDEA will increase turning areas approximately 25%.

This increase as recommended by the IDEA Final Report is expected to increase the percentage of manual and power wheelchair users accommodated from 80 to 95% and almost double the percentage of scooter served. Of the existing 2.8 million wheelchair and scooter users this calculates to an approximate increase of 220,000 occupants.

Today's technology can accommodate all non-institutional wheelchair and scooter users.

Our current standards for the built environment now accommodate 99.998% of the US population. Ideally it would be wonderful to accommodate 100% of all people with mobility disabilities however; the proposed turning diameter area and construction cost increase would be prohibitive.

3-6E.6

Commenter: Ronald G. Nickson, Representing NMHC

Ballot: Negative with comment:

Comment: See comment for 3-6-12.

3-6E.7

Commenter: Steve Orlowski, Representing NAHB

Ballot: Negative with comment:

Comment: See comment for 3-6-12

3-6E.8

Commenter: Kim Paarlberg, Representing ICC

Ballot: Negative with comment:

Comment: Same comment as 3-6-12.

The turning space in a kitchen (U-shaped or galley) is under the sink or work surface. The 60" in the kitchen is based on the alcove provisions, which the committee decides not to change. This also goes against standard kitchen design of 15 step work triangle for all persons using the kitchen that are not in wheelchairs.

3-6E.9

Commenter: Edward Steinfeld, Representing RESNA

Ballot: Negative with comment:

Comment: There is no evidence presented that a circular turning space is needed in any U-shaped kitchen, whether residential or non-residential. A T-shaped turning space could be an acceptable alternative.

Committee Review of Comments and Action – July 2013

Approved.

Committee Reason: The committee considered the information and options provided in the comments, but concluded that for consistency with previous actions to establish the 67 inch turning circle and apply it to various elements, that the space available between cabinets in kitchens should have the same ease of maneuvering as they do now under the 60 inch minimum. There was concern that the option suggested in Comment 3-6E.1 would provide less accessibility in the A117.1 than is required in the ADA.

Ballot Comments on July 2013 Committee Action Report

ICC – Kim Paarlberg

Negative: Ballot:

Comment/reason: See comment for Proposal 3-6 – 12.

In addition, the turning space in a kitchen is already required under the sink and work surface. The access to three counters is based on maneuvering up to the counter in coordination with the alcove provisions. The committee decides to not change the alcove size, so the kitchen should remain consistent and not be changed. (Note that the committee also decided not to change the ramp landing size past 60", and that is even more of a confined area.)

NACS – Bradley Gaskins

Negative: Ballot:

Comment/reason: I repeat my original comments. There has been no evidence presented that this is a necessary change and the change will be a burden on the public due to an increase in the area required. The evidence presented only addresses the wide variety of mobility devices in service today. It does not address whether the problem is in the manufacture of these mobility devices that do not conform to the current requirement or whether the built-environment needs to change to accommodate mobility devices that need a larger space and cannot be designed and manufactured in such a way as to fit within the current space. We don't continue to let automobile manufacturers build wider and wider autos to go on our roads... they must be built to standards that allow them to work with our current road system. At best this change is premature based upon the evidence. Even the wheeled mobility task group states that their findings have not been validated. Further, the impact of the larger CFS has not been analyzed for any building types.

NAHB – Steven Orlowski

Negative: Ballot:

Comment/reason: See comment for Proposal 3-6 – 12.

AIA – Dave Collins

Negative Ballot

Comment/reason: I agree with ICC-Kim Paarlberg's comment. Also see additional comment added to 3-6-12.

NMHC – Ron Nickson

Negative: Ballot:

Comment/reason: See comment for proposal 3-6-12.

3-8 – 12**304.3.1****Proposed Change as Submitted**

Proponent: Kimberly Paarlberg, International Code Council

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 only on one side of the circle and not encompass more than 90 degrees of the arc of the circle.

Reason: The quantity of change proposals submitted by International Code Council is reflective of three elements of our work: 1. ICC is the Secretariat for the Standard and some changes reflect inconsistencies or improvements suggested by staff; 2. ICC develops and publishes a Commentary on the standard and writing the commentary illuminates issues of the text and figures; and 3. ICC provides an interpretation service for the standard which results in the observation of provisions the users find most confusing.

The T-turn limits you to one arm, so it seems appropriate to not allow for using knee and lot clearance on more than one side of the circle. The double underline is a choice if the committee would also like to limit the extent of 'one side.'

304.3.1-PAARLBERG.doc

Committee Action**Disapproved**

Committee Reason: While the intent of the proposal found favor among Committee members, the language of the proposal was found wanting. Questions were raised about whether the 90 degree limit worked, or how one had one side of a circle.

BALLOT COMMENTS**3-8.1**

Commenter: Rick Lupton, Representing WABO

Ballot: Affirmative with comment:

Comment: This would also be difficult to evaluate on plans submitted for permit.

3-8.2

Comment rescinded

3-8.3

Commenter: Marsha K. Mazz, Representing Access Board

Ballot: Negative with comment:

Comment: The committee disapproved this proposal because it was concerned that the proposed language was unclear and because they were not convinced that the turning circle would be usable with this change. Because we believe that the proponent was correct to want to limit the amount of space that elements can intrude into a turning space, even those with knee and toe space beneath, we propose two options for amending this proposal. Option #1 would allow on obstruction approximately 8.8" deep ($30 - (30 / 1.4142) = 8.8$) or, for a circle with a 67" diameter 9.9". Because a 90° arc will form an equilateral triangle, we divide the radius by the square root of 2, we get a segment of a 30" or 33 ½" long radius. That sum subtracted from the radius is the depth of the circle between the chord and the perimeter of the circle. Option #2 would simply not allow intrusions into the turning space.

Option #1:

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 overlapping the portion of the circle located outside a chord connecting the endpoints of a 90 degree arc of the circle.

Option #2:

Revise as follows:

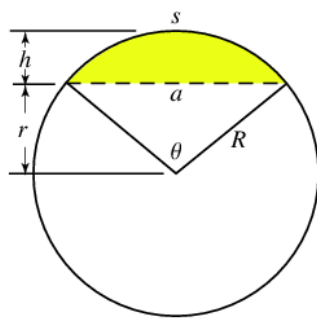
304.3.1 Circular Space. The turning space shall be a an unobstructed circular space with a 60-inch (1525 mm) minimum diameter. ~~The turning space shall be permitted to include knee and toe clearance complying with Section 306.~~

3-8.4

Commenter: Kim Paarlberg, Representing ICC

Ballot: Negative with comment:

Comment: The ICC A117.1 committee have spoken about disallowing any use of knee and toe clearance under counters and lavatories. The current language would allow a donut, so there should be a limit on the reliance with knee and toe clearance. However, even when a person cannot go totally under a counter, there is a portion that fits in the knee clearance. This proposal should be revised based on further discussion of allowances for what knee clearances can be used.



Assuming a 60" diameter circle (Section 304.3.1), and a maximum knee and toe clearance of 25" (Section 306.3.2 and (h)). The diameter is 188.5 inches. The chord (a) is 59" and the angle is 156 degrees.

The formula for the chord is $2\sqrt{R^2 - r^2} = 2\sqrt{(30^2 - 5^2)} = 2\sqrt{(900 - 25)} = 59"$

The formula for the angle is $\sin \text{angle}/2 = a/2R$; angle is 156 degrees

Given an angle of 90 degrees, the chord would be $2 \times 30 \sin(90/2) = 42.6"$ and the sagittal (h) is only 8.9"

The shaded area is called a circular segment.

Proponent Comment

3-8.5

Commenter: Kim Paarlberg, Representing ICC

Replace the proposal with the following:

304.3.1 Circular Space. The turning space shall be a circular space with a 67-inch (1525 mm) minimum diameter. The turning space shall be permitted to include knee and toe clearance complying with Section 306. Where a sink, lavatory, drinking fountain, counter, work surface or similar an obstruction overlaps the turning space, the circular segment of the overlap shall not form a chord more than 59 inches and the sagittal shall not exceed the depth of the knee and toe clearance.

Reason: See the graphic in the ballot statement. The current circle language would allow a 'doughnut' effect. This language would allow for the current 25" maximum knee and toe clearance under a straight counter along a turning space. If the committee desires less of an overlap, the length of the cord and the depth of the sagittal could be revised accordingly.

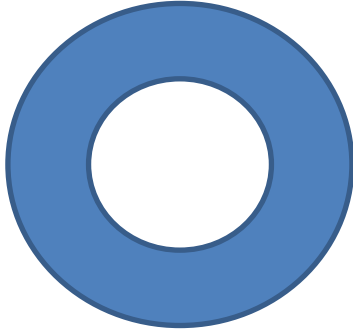
Committee Review of Comments and Action – July 2013

Approval as Modified based on Comments.

Committee Reason: The debated the geometry of intrusions allowed in the turning circle based on the current text. As there is no limit on the intrusion, the standard technically allows intrusions for the full circle which results in the donut shape seen below. The committee felt that the concept of the original proposal of limiting intrusions to a portion of the circle was appropriate, but struggled to find text and

figure which would be clear to users of the standard. The committee accepted the modified text and figure 304.3.1 as the best expression of the intrusion limit they find appropriate.

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.

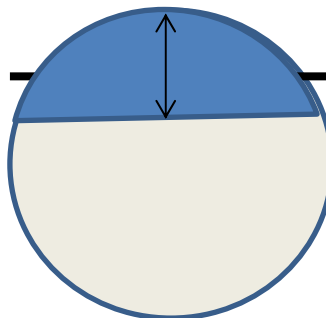


Replace the proposal with the following:

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, 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



Ballot Comments on July 2013 Committee Action Report

ICC – Kim Paarlberg

Negative: Ballot:

Comment/reason: See comment for Proposal 3-6 – 12.

While I agree that the permitted overlap should be addressed, I do not agree with the final modification to limit the overlap to 10" maximum. This is inconsistent with the T-turn allowance of 25 inches maximum overlap. The data from Dr. Steinfeld provided for a greater depth of 16" where knee and toe clearance were provided. If we want to make a change to the allowed depth, we should have justification and be consistent.

AIA – Dave Collins

Negative Ballot

Comment/reason: I agree with ICC-Kim Paarlberg's comment. Also see additional comment added to 3-6-12.

NMHC – Ron Nickson

Negative: Ballot:

Comment/reason: See comment for proposal 3-6-12.

UCP – Gina Hilberry

Affirmative with Comment Ballot

Comment: I understand that the '60-inch' text will change to 67-inch when that change is finalized and the editorial subcommittee works through the chapters. However – will this be plain to members of the public when this goes out for comment? Can we add a brief explanatory paragraph at the front end that would note this and hopefully forestall piles of comments 'correcting' these dimensions?

3-9 – 12

304.3.2

Proposed Change as Submitted

Proponent: Gina Hilberry and David Collins, Co-Chairs Wheeled Mobility Task Group

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 in depth by 68 inch (1730 mm) minimum in width space, with arms 40 inches (1015 mm) minimum in width and base 36 inches (915 mm) minimum in width. The space shall be entered and exited through the base. Each arm of the T shall be clear of obstructions ~~42-16~~ inches (~~305~~ 405 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.

EXCEPTION: Where the interior corners of the intersection where the base and arms meet are chamfered for 8 inches (205 mm) minimum along both walls; both legs of the arms shall be 36 inches (915 mm) minimum in width.

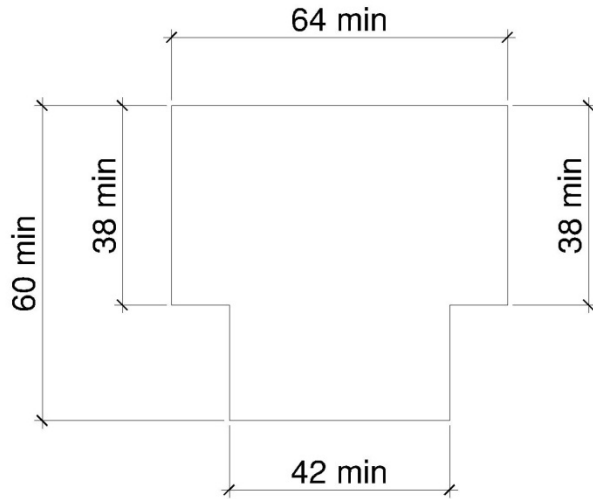
Reason: The Wheeled Mobility Task Group (WMTG) was created as a task group of the A117.1 Committee to analyze the results of the anthropometric study of a variety of mobility device users conducted by The Center for Inclusive Design and Environmental Access (IDeA) at the University at Buffalo, SUNY recently completed an anthropometric study of 500 wheeled manual and powered mobility device users. The study indicates that the technical provisions contained in the A117.1 standard do not address the needs of the full range of users of mobility devices. The work of the WMTG is ongoing, but it has submitted a series of proposed changes to the base building blocks of the A117.1 standard. If the changes to the building blocks are adopted by the Committee, then additional changes will need to be made in other portions of the standard.

304.3.2-HILBERRY.doc

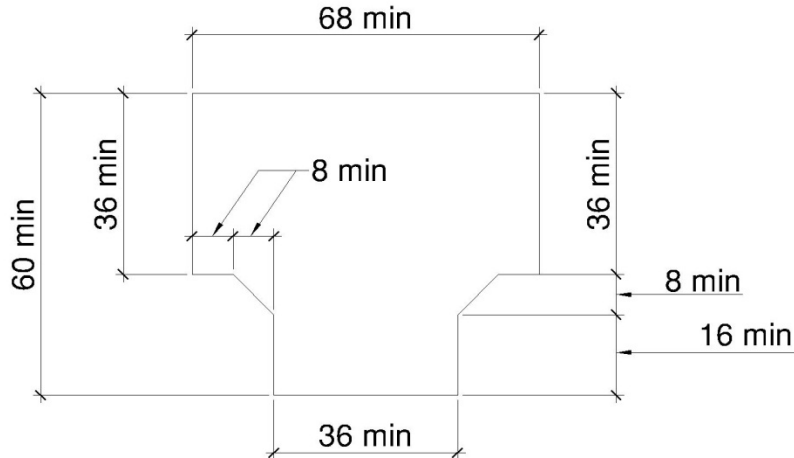
Committee Action

Approval as Modified

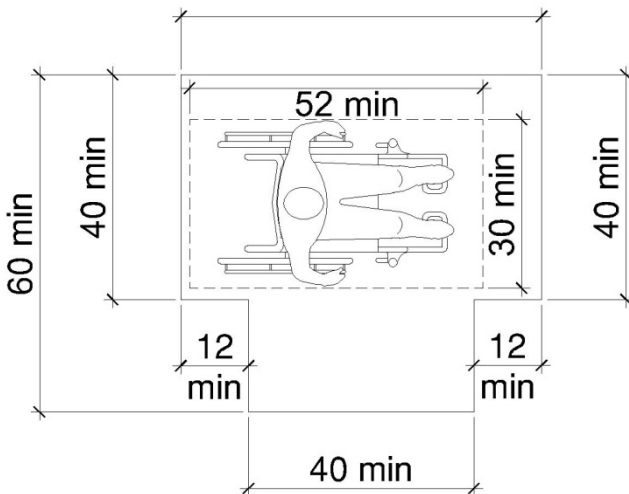
Modification *The diagrams were prepared and accepted, the text was not prepared.*



Proposal 3-9 Excpt. 2



Proposal 3-9 Excpt. 1



Proposal 3-9

Committee Reason: The Committee explored the various options and limitations for regarding making the T-shaped turn. While the dimensions shown in the figure labeled Proposal 3-9 were the base of the discussions, the Committee concluded that the 3 designs should be shown in the text (perhaps in a table) as 3 equal options for design the space. The Committee approved the figures; asked staff to develop text.

BALLOT COMMENTS

3-9.1

Commenter: M. Bradley Gaskins, Representing NACS

Ballot: Affirmative with comment:

Comment: There has been no evidence presented that this is a necessary change and will be a burden on the public due to an increase in the area required. The evidence presented only addresses the wide variety of mobility devices in service today. It does not address whether the problem is in the manufacture of these mobility devices that do not conform to the current requirement or

whether the built-environment needs to change to accommodate mobility devices that need a larger space and cannot be designed and manufactured in such a way as to fit within the current space. We don't continue to let automobile manufacturers build wider and wider autos to go on our roads... they must be built to standards that allow them to work with our current road system.

3-9.2

Commenter: Rick Lupton, Representing WABO

Ballot: Affirmative with comment:

Comment: The "base" entry should be shown in the diagrams as the intended entry point is not clear from the code language (nor can I think of a clearer way of stating the requirement!)

3-9.3

Commenter: Gene Boecker, Representing NATO

Ballot: Negative with comment:

Comment: According to the Committee reason, text must be prepared. Although the illustration is provided, without text, it is not possible for me to vote in favor of something I have not reviewed.

3-9.4

Commenter: Gerald Gross, Representing AHLA

Ballot: Negative with comment:

Comment: The existing turning space standards have been in existence for over 50 years. Reportedly, the AHLA has never had a complaint regarding complaint turning spaces.

The new proposed 67" turning space by IDEA will increase turning areas approximately 25%.

This increase as recommended by the IDEA Final Report is expected to increase the percentage of manual and power wheelchair users accommodated from 80 to 95% and almost double the percentage of scooter served. Of the existing 2.8 million wheelchair and scooter users this calculates to an approximate increase of 220,000 occupants.

Today's technology can accommodate all non-institutional wheelchair and scooter users.

Our current standards for the built environment now accommodate 99.998% of the US population. Ideally it would be wonderful to accommodate 100% of all people with mobility disabilities however; the proposed turning diameter area and construction cost increase would be prohibitive.

3-9.5

Commenter: Kim Paarlberg, Representing ICC

Ballot: Negative with comment:

Comment: Same comment as 3-6-12

3-9.6

Commenter: Edward Steinfeld, Representing RESNA

Ballot: Negative with comment:

Comment: We studied the impact of the required entry at the base on a series of apartment plans. We find that the requirement of entering at the base will add up to 12" to the depth of a typical apartment, but, if we allow entry from any arm it has little impact. Logically, there should be no difference where the entry to the T shaped area should be. I propose a modification of the original proposal to strike the language regarding entering and exiting through the base. Further, the entry and exit through the base restriction would be practically impossible, as there are many circumstances that would have multiple entry points, such as at a T-intersection of two hallways.

Committee Review of Comments and Action – July 2013

Approval with Modifications based on Comments.

Committee Reason: The original action by the committee after considerable discussion during the first 2 meetings was to accept the 3 diagrams shown above as describing three acceptable alternatives to the minimum design of T-turns. The committee accepted as a modification to the approved diagrams the

following text as the best descriptors of the accepted figures. The standard must include text for each provisions.

Modification:

Replace the original proposal as follows: The figures approved shall be included in the standard to provide interpretation of the following text. The text would replace the existing text in Section 304.3.2

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 wide and 60 inches deep, with two arms and one base that are all 36 inches minimum in width. Each arm shall extend 16 inches minimum from each side of the base located opposite the other, and the base shall extend 24 inches minimum from the arms. At the intersection of each arm and the base, the interior corners shall be chamfered for 8 inches minimum along both the arm and along the base.
2. A T-shaped space, clear of obstruction, that fits within an area 64 inches wide and 60 inches deep, with two arms 38 inches minimum in width and a base 42 inches minimum in width. Each arm shall extend 11 inches minimum from each side of the base, located opposite the other, and the base shall extend 22 inches minimum from each arm.
3. A T-shaped space, clear of obstruction, that fits within an area 64 inches wide and 60 inches deep, with two arms and one base 40 inches minimum in width. Each arm shall be 16 inches minimum in each direction from the base and the base shall extend 24 inches 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

(Notes to the Task Group and the Committee: the language for the chamfer in Option 1 is based on the 90 degree turn description found at 4-9-12, page 4-14. The dimensions of option 1 and 3 are the same as those for 403.5.2. The geometries of the 180 degree turn around an object less than 52 inches in width are found on page 4-12. A 180-degree turn requires a double L-turn that does not include "back and fill" and is not comparable with the 90 degree turn or the T-turn.)

Ballot Comments on July 2013 Committee Action Report

NATO Gene Boecker

Affirmative with comment: Ballot:

Comment: The blank cells in the column headed "Chamfer" should have some notation to indicate that there is no requirement for any type of chamfer for those other configurations. It could be filled in the "0" (zero) or "NR" (Not Required) or "NA" (Not Applicable) or even dashes – something so that the reader can't assume that the omission is a typo or some type with the assumption that the 8 inches applies to "all of the following."

ICC – Kim Paarlberg

Negative: Ballot:

Comment/reason: See comment for Proposal 3-6 – 12.

RESNA – Edward Steinfeld

Negative: Ballot:

Comment/reason: One more issue related to this proposal needs to be addressed – the requirement for specifying the location of the base of the T. See 3.9.6 from the last round of proposals. I was in the bathroom when action was taken on this proposal and did not get a chance to bring it up.

NMHC – Ron Nickson**Negative: Ballot:**

Comment/reason: See comment for proposal 3-6-12.

3-13 – 12

305.3, 305.7.2

Proposed Change as Submitted

Proponent: Gina Hilberry and David Collins, Co-Chairs Wheeled Mobility Task Group

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~~ 20 inches (~~640~~ 508 mm).

Staff Note: In previous publications of this proposal, the dimensions in Section 305.7.2 showed both the 24 and 20 inch depth crossed out. The intent has always been that the current standard's depth of 24 inches be replaced with a new depth threshold of 20 inches.

Reason: The Wheeled Mobility Task Group (WMTG) was created as a task group of the A117.1 Committee to analyze the results of the anthropometric study of a variety of mobility device users conducted by The Center for Inclusive Design and Environmental Access (IDeA) at the University at Buffalo, SUNY recently completed an anthropometric study of 500 wheeled manual and powered mobility device users. The study indicates that the technical provisions contained in the A117.1 standard do not address the needs of the full range of users of mobility devices. The work of the WMTG is ongoing, but it has submitted a series of proposed changes to the base building blocks of the A117.1 standard. If the changes to the building blocks are adopted by the Committee, then additional changes will need to be made in other portions of the standard.

For 305.3 While never explicitly stated in ANSI 1980, either ADAAG or our current standard, all four show the clear floor space as being wider and longer than the wmd itself. The IDEA report indicates this is not true for significant percentages of wmd users. 22% of occupied wmds are longer and 12% are wider than today's minima. However, when unoccupied wmds are considered the percentages drop to less than 12% for length and less than 4% for width. Based on these findings we have several options. One approach is to increase the width to accommodate 90% of unoccupied wmds and add 2 inches on either side for knuckles etc. An alternative approach would be to revise the concept of clear floor space width to represent the solid wmd solely and revise the forward approach alcove trigger condition. This proposal advocates the second approach as the inclusion of power chairs and scooters distorts the potential impact on manual wheelchair users (ie the group whose knuckles are at risk). Thus, no change to cfs width is proposed. Clear floor space length is a different matter as the percentages of those not served are higher and it can be imagined that the user has less ability to significantly change his/her length. Increasing the cfs to 52 inches will accommodate more than 95% of unoccupied and 89% of occupied wmds. All the scenarios described above also were studied to see what would happen if in the future power chair and scooter uses were to double at the expense of manual wheelchairs. Occupied width accommodation drops one percent to 87% and occupied length drops to 88%.

For 305.7.2 By defining a cfs width as representing the space taken up by an occupied wmd without allowance for additional space for knuckles and elbows, it becomes necessary to consider situations where such knuckle etc space are needed to successfully enter and exit an alcove. This proposal is largely driven by consideration of situations where access to the push rims of manual wheelchairs is required. From Figure 4-3 (page 92) of the IDEA Final Report we learn that the 25 centile manual wheelchair user's torso to toe dimension is about 22 inches. The report does not describe the length of corresponding wmd, but until such time as toe space depth is modified, underlap is restricted to 19 inches. The proposed dimension of 20 inches is a compromise of these two observations.

305.3-HILBERRY.doc

Committee Action

Approved

Committee Reason: The Committee debated the need to increase the clear floor space (CFS) by discussing proposals 3-13-12 and 3-14-12 at the same time. CFS is one of the key building blocks which, if changed, will have implications in the balance of the standard. Changes to its width and its length impact different provisions throughout the balance of the Standard.

The discussion focused on the size of wheeled mobility devices including powered chairs and scooters, the percentages of the target populations which are not served by the current standard because of the size of the devices.

The consensus was that wheeled mobility devices are getting larger. To accommodate a wider range of the devices the CFS needed to be increased. The Committee was not of a consensus on the size CFS needed to be increased to. This dimension was approved.

BALLOT COMMENTS

3-13.1

Commenter: Alan Gettelman
Ballot: Affirmative with comment:

Comment: In 305.7.2 text why is does proposed dimension of 20 inches have a strikeout through it "~~20~~"?

3-13.2

Commenter: Gene Boecker, Representing NATO
Ballot: Affirmative with comment:

Comment: Although there is recognition of a potential need to increase the size, it is not clear that 52 inches is the proper dimension. When soliciting NATO for input, one of the individuals responding was a person who uses a wheelchair and who indicated that the 48 inch dimension was more than adequate for his needs.

For the companion portion of this relative to the alcove depth there is no objection. Perhaps these can be divided for future discussion.

3-13.3

Commenter: Ron Burton, Representing BOMA
Ballot: Negative with comment:

Comment: See reason on 3-6-12

3-13.4

Commenter: David S. Collins, Representing AIA
Ballot: Negative with comment:

Comment: The work of the study group isn't finalized and the research that formed the basis for this change has not been validated.

3-13.5

Commenter: M. Bradley Gaskins, Representing NACS
Ballot: Negative with comment:

Comment: There has been no evidence presented that this is a necessary change and will be a burden on the public due to an increase in the area required. The evidence presented only addresses the wide variety of mobility devices in service today. It does not address whether the problem is in the manufacture of these mobility devices that do not conform to the current requirement or whether the built-environment needs to change to accommodate mobility devices that need a larger space and cannot be designed and manufactured in such a way as to fit within the current space. We don't continue to let automobile manufacturers build wider and wider autos to go on our roads... they must be built to standards that allow them to work with our current road system.

3-13.6

Commenter: Gerald Gross, Representing AHLA
Ballot: Negative with comment:

Comment: The existing turning space standards have been in existence for over 50 years. Reportedly, the AHLA has never had a complaint regarding maneuvering spaces.

The new proposed 52" length increase will increase the clear floor area approximately 8.3%.

This increase as recommended by the IDEA Final Report is expected to increase the percentage of manual and power wheelchair users accommodated from 80 to 95% and almost double the percentage of scooter served. Of the existing 2.8 million wheelchair and scooter users this calculates to an approximate increase of 220,000 occupants.

Today's technology can accommodate all non-institutional wheelchair and scooter users.

Our current standards for the built environment now accommodate 99.998% of the US population. Ideally it would be wonderful to accommodate 100% of all people with mobility disabilities however; the proposed turning diameter area and construction cost increase would be prohibitive.

3-13.7

Comment rescinded

3-13.8

Commenter: Ronald G. Nickson, Representing NMHC
Ballot: Negative with comment:

Comment: See comment for 3-6-12

3-13.9

Commenter: Steve Orlowski, Representing NAHB
Ballot: Negative with comment:

Comment: See comment for 3-6-12

3-13.10

Commenter: Kim Paarlberg, Representing ICC
Ballot: Negative with comment:

Comment: Same comment as 3-6-12

Committee Review of Comments and Action – July 2013

Approved.

Committee Reason: The committee sustained its original approval of the increased minimum footprint of a clear floor space. See also the committee reason for Item 3-6-12. The proposal doesn't increase the width of clear floor space, but it should be assumed with larger wheeled mobility devices that the user and their device will occupy more of the space, leaving little room for movement within the space. Therefore the need to have the alcove provisions triggered at a shallower depth – which in turns give the users more space in an alcove.

Ballot Comments on July 2013 Committee Action Report

NMGCD – Hope Reed

Affirmative with Comment: Ballot:

Comment: With the variety of clear floor areas NMGCD recommends adding Definitions and amending section titles to indicate use and differences. People need to get a basic understanding of these differences throughout the standard. Perhaps this section could have two subtitles and there could be two Definitions:

106 Definitions – Add two definitions:

STATIONARY Clear Floor Space. A clear floor space for one wheelchair occupied by one person.

MANEUVERING Clear Floor Space. A clear floor space for one wheelchair occupied by one person when maneuvering to approach and use an accessible element.

ICC – Kim Paarlberg

Negative: Ballot:

Comment/reason: See comment for Proposal 3-6 – 12.

NACS – Bradley Gaskins

Negative: Ballot:

Comment/reason: While it may be true that wheeled mobility devices are getting larger, is there a basis or need for them to become larger? This is a bigger question that should be answered before increasing the CFS size. Size of the units should be dictated, where possible, to have a minimal impact on the size of buildings. I am not convinced that the units cannot be designed and manufactured within the current space limitations dictated and still serve those who need wheeled mobility devices. At best this change is premature based upon the evidence. Even the wheeled mobility task group states that their findings have not been validated. Further, the impact of the larger CFS has not been analyzed for any building types.

NAHB – Steven Orlowski

Negative: Ballot:

Comment/reason: See comment for Proposal 3-6 – 12.

NMHC – Ron Nickson

Negative: Ballot:

Comment/reason: See comment for Proposal 3-6 – 12.

AIA – Dave Collins

Negative Ballot

Comment/reason: I agree with NACS-Bradley Gaskins' comment. Also see additional comment added to 3-6-12.

UCP – Gina Hilberry

Affirmative with Comment Ballot

Comment: This relates to my comment on 3-6-12. I would like the reasons to clearly state that the WM Study has been validated and that the need for the increased floor space is based on real evidence.

3-13B – 12

409.4.1

Proposed Change as Submitted

Proponent: Gina Hilberry and David Collins, Co-Chairs Wheeled Mobility Task Group

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 (~~4220~~ 1322 mm) minimum in depth.

Reason: The Wheeled Mobility Task Group (WMTG) was created as a task group of the A117.1 Committee to analyze the results of the anthropometric study of a variety of mobility device users conducted by The Center for Inclusive Design and Environmental Access (IDeA) at the University at Buffalo, SUNY recently completed an anthropometric study of 500 wheeled manual and powered mobility device users. The study indicates that the technical provisions contained in the A117.1 standard do not address the needs of the full range of users of mobility devices. The work of the WMTG is ongoing, but it has submitted a series of proposed changes to the base building blocks of the A117.1 standard. If the changes to the building blocks are adopted by the Committee, then additional changes will need to be made in other portions of the standard.

Rationale for 3-13B: Update requirement to coordinate with proposed changes to 305.3 Size (Clear Floor Space).

-HILBERRY.doc

Committee Action

Approved

Committee Reason: Consistent with the action on Proposal 3-13-12 to increase the clear floor space.

BALLOT COMMENTS

3-13B.1

Commenter: M. Bradley Gaskins, Representing NACS

Ballot: Affirmative with comment:

Comment: There has been no evidence presented that this is a necessary change and will be a burden on the public due to an increase in the area required. The evidence presented only addresses the wide variety of mobility devices in service today. It does not address whether the problem is in the manufacture of these mobility devices that do not conform to the current requirement or whether the built-environment needs to change to accommodate mobility devices that need a larger space and cannot be designed and manufactured in such a way as to fit within the current space. We don't continue to let automobile manufacturers build wider and wider autos to go on our roads... they must be built to standards that allow them to work with our current road system.

3-13B.2

Commenter: Gene Boecker, Representing NATO

Ballot: Negative with comment:

Comment: This should only be added to the next edition if the increase in wheelchair length in 3-13 is approved. Otherwise the standard will be disjointed and inconsistent.

3-13B.3

Commenter: Ron Burton, Representing BOMA

Ballot: Negative with comment:

Comment: See reason on 3-6-12

3-13B.4

Commenter: David Collins Representing AIA

Ballot: Negative with comment:

Comment: The work of the study group isn't finalized and the research that formed the basis for this change has not been validated.

3-13B.5

Commenter: Gerald Gross, Representing AHLA

Ballot: Negative with comment:

Comment: We not accept the results of a single anthropometric study conducted by the Center for Inclusive Design and Environmental Access. It is understood that the work of the Wheelchair Mobility Task Group is ongoing and has submitted a series of proposal changes to the base building blocks of A117.1 Standard. At this time we believe that the proposed changes to the building blocks are unacceptable and should not be adopted by the Committee; therefore no additional changes are required in this portion of the standard with reference to the building block changes.

3-13B.6

Comment rescinded

3-13B.7

Commenter: Ronald G. Nickson, Representing NMHC
Ballot: Negative with comment:

Comment: See comment for 3-6-12

3-13B.8

Commenter: Steve Orlowski, Representing NAHB
Ballot: Negative with comment:
Comment: See comment for 3-6-12

3-13B.9

Commenter: Kim Paarlberg, Representing ICC
Ballot: Negative with comment:

Comment: Same comment as 3-6-12

Committee Review of Comments and Action – July 2013

Approved.

Committee Reason: The committee discussed whether increasing the standard dimension for private residence elevators would be in conflict with the elevator standard and possible eliminate the use of a certain class of elevators. The committee maintained its decision to approve this change after assurances from the industry representative that the size was still within the private residence elevator category.

Ballot Comments on July 2013 Committee Action Report

AEMA – Kevin Brinkman

Affirmative with Comment: Ballot:

Comment: This change is consistent with the proposed change in 3-13, but it should only proceed if the proposed change in 3-13 remains approved.

ICC – Kim Paarlberg

Negative: Ballot:

Comment/reason: See comment for Proposal 3-6 – 12.

NACS – Bradley Gaskins

Negative: Ballot:

Comment/reason: While it may be true that wheeled mobility devices are getting larger is there a basis or need for them to become larger? This is a bigger question that should be answered before increasing the CFS size. Size of the units should be dictated, where possible, to have a minimal impact on the size of buildings. I am not convinced that the units cannot be designed and manufactured within the current space limitations dictated and still serve those who need wheeled mobility devices. At best this change is premature based upon the evidence. Even the wheeled mobility task group states that their findings have not been validated. Further, the impact of the larger CFS has not been analyzed for any building types.

NAHB – Steven Orlowski

Negative: Ballot:

Comment/reason: See comment for Proposal 3-6 – 12.

NMHC – Ron Nickson

Negative: Ballot:

Comment/reason: See comment for Proposal 3-6 – 12.

AIA – Dave Collins

Negative Ballot

Comment/reason: I agree with NACS-Bradley Gaskins' comment. Also see additional comment added to 3-6-12.

3-13C – 12

410.5, 410.5.1

Proposed Change as Submitted

Proponent: Gina Hilberry and David Collins, Co-Chairs Wheeled Mobility Task Group

Revise as follows:

410.5 Clear Floor Space. Clear floor space of platform lifts in new construction shall comply with Section 410.5.

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 (~~4220~~ 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.

Reason: The Wheeled Mobility Task Group (WMTG) was created as a task group of the A117.1 Committee to analyze the results of the anthropometric study of a variety of mobility device users conducted by The Center for Inclusive Design and Environmental Access (IDeA) at the University at Buffalo, SUNY recently completed an anthropometric study of 500 wheeled manual and powered mobility device users. The study indicates that the technical provisions contained in the A117.1 standard do not address the needs of the full range of users of mobility devices. The work of the WMTG is ongoing, but it has submitted a series of proposed changes to the base building blocks of the A117.1 standard. If the changes to the building blocks are adopted by the Committee, then additional changes will need to be made in other portions of the standard.

Rationale for 3-13C: Update the basic requirement to coordinate with proposed changes to 305.3 Size (Clear Floor Space). The exception was added to deal with the special circumstances involving inclined platform lifts with passenger restraining arms. Because inclined platform lifts are typically installed on existing staircases, any increase in size may result in the inability to install the lift which would actually reduce the accessibility of the building. Also, inclined platform lifts with passenger restraining arms consist of a platform with ramps that typically angle up at approximately 45 degrees and passenger restraining arms around the perimeter at a height of 38 inches. Since the area in between in open and the ramps angle out, the wheeled mobility device can overhang the platform (over the ramps) allowing a larger device to fit onto a 36 x 48 platform.

-HILBERRY.doc

Committee Action

Approved

Committee Reason: The Committee discussed briefly that the wheelbase of the device would be important, but as platform lifts with enclosing doors need to accommodate the whole device, the longer length is essential. There was a request that an exception for existing buildings be developed.

BALLOT COMMENTS

3-13C.1

Commenter: Ron Burton, Representing BOMA
Ballot: Negative with comment:

Comment: See reason on 3-6-12

3-13C.2

Commenter: M. Bradley Gaskins, Representing NACS
Ballot: Negative with comment:

Comment: There has been no evidence presented that this is a necessary change and will be a burden on the public due to an increase in the area required. The evidence presented only addresses the wide variety of mobility devices in service today. It does not address whether the problem is in the manufacture of these mobility devices that do not conform to the current requirement or whether the built-environment needs to change to accommodate mobility devices that need a larger space and cannot be designed and manufactured in such a way as to fit within the current space. We don't continue to let automobile manufacturers build wider and wider autos to go on our roads... they must be built to standards that allow them to work with our current road system.

3-13C.3

Commenter: Gerald Gross, Representing AHLA
Ballot: Negative with comment:

Comment: We not accept the results of a single anthropometric study conducted by the Center for Inclusive Design and Environmental Access. It is understood that the work of the Wheelchair Mobility Task Group is ongoing and has submitted a series of proposal changes to the base building blocks of A117.1 Standard. At this time we believe that the proposed changes to the building blocks are unacceptable and should not be adopted by the Committee; therefore no additional changes are required in this portion of the standard with reference to the building block changes

3-13C.4

Commenter: Ronald G. Nickson, Representing NMHC
Ballot: Negative with comment:

Comment: See comment for 3-6-12

3-13C.5

Commenter: Steve Orlowski, Representing NAHB
Ballot: Negative with comment:

Comment: See comment for 3-6-12

3-13C.6

Commenter: Kim Paarlberg, Representing ICC
Ballot: Negative with comment:

Comment: Same comment as 3-6-12

There was no study done on if such platform lifts are available, or if the size would work with the allowed rise/run angle of stairways for inclined lifts.

3-13C.7

Commenter: Gene Boecker, representing NATO
Ballot: Negative with comment:

Comment: This should only be added to the next edition if the increase in wheelchair length is approved. Otherwise the standard will be disjointed and inconsistent.

Committee Review of Comments and Action – July 2013

Approved.

Committee Reason: After discussing the ‘geometry’ concerns raised in the public comments and with input from the representative of the industry, the committee reaffirmed its decision to approve this change in the minimum requirement.

Ballot Comments on July 2013 Committee Action Report

AEMA – Kevin Brinkman

Affirmative with Comment: Ballot:

Comment: This change is consistent with the proposed change in 3-13, but it should only proceed if the proposed change in 3-13 remains approved.

ICC – Kim Paarlberg

Negative: Ballot:

Comment/reason: See comment for Proposal 3-6 – 12.

NACS – Bradley Gaskins

Negative: Ballot:

Comment/reason: While it may be true that wheeled mobility devices are getting larger is there a basis or need for them to become larger? This is a bigger question that should be answered before increasing the CFS size. Size of the units should be dictated, where possible, to have a minimal impact on the size of buildings. I am not convinced that the units cannot be designed and manufactured within the current space limitations dictated and still serve those who need wheeled mobility devices. At best this change is premature based upon the evidence. Even the wheeled mobility task group states that their findings have not been validated. Further, the impact of the larger CFS has not been analyzed for any building types.

NAHB – Steven Orlowski

Negative: Ballot:

Comment/reason: See comment for Proposal 3-6 – 12.

NMHC – Ron Nickson

Negative: Ballot:

Comment/reason: See comment for Proposal 3-6 – 12.

AIA – Dave Collins

Negative Ballot

Comment/reason: I agree with NACS-Bradley Gaskins’ comment. Also see additional comment added to 3-6-12.

3-13D – 12

802.5.1

Proposed Change as Submitted

Proponent: Gina Hilberry and David Collins, Co-Chairs Wheeled Mobility Task Group

Revise as follows:

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

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

Reason: The Wheeled Mobility Task Group (WMTG) was created as a task group of the A117.1 Committee to analyze the results of the anthropometric study of a variety of mobility device users conducted by The Center for Inclusive Design and Environmental Access (IDeA) at the University at Buffalo, SUNY recently completed an anthropometric study of 500 wheeled manual and powered mobility device users. The study indicates that the technical provisions contained in the A117.1 standard do not address the needs of the full range of users of mobility devices. The work of the WMTG is ongoing, but it has submitted a series of proposed changes to the base building blocks of the A117.1 standard. If the changes to the building blocks are adopted by the Committee, then additional changes will need to be made in other portions of the standard.

Rationale for 3-6D: Accommodate 67 inch (1700) turning diameter.

-HILBERRY.doc

Committee Action

Approval as Modified

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 aisle a maximum of 4 inches (100 mm).

Committee Reason: The Committee had considerable discussion regarding allowing the wheelchair space to overlap the aisle. There is concern that such would cause people to view persons in wheelchairs and other mobility devices as obstructions in the operation of a theater. Without considering the overlap, site line requirements would cause substantial redesign of theaters and stadiums. The proposal was amended to clarify that it would be the length of the clear floor space allowed to overlap.

BALLOT COMMENTS

3-13D.1

Commenter: Rick Lupton, Representing WABO

Ballot: Affirmative with comment:

Comment: I realize this overlap is intended to provide some maneuvering space but a drawing would be helpful as it's not entirely clear where the overlap is permitted to occur.

3-13D.2

Commenter: Gerald Gross, Representing AHLA

Ballot: Negative with comment:

Comment: We not accept the results of a single anthropometric study conducted by the Center for Inclusive Design and Environmental Access. It is understood that the work of the Wheelchair Mobility Task Group is ongoing and has submitted a series of proposal changes to the base building blocks of A117.1 Standard. At this time we believe that the proposed changes to the building blocks are unacceptable and should not be adopted by the Committee; therefore no additional changes are required in this portion of the standard with reference to the building block changes.

3-13D.3

Commenter: Kim Paarlberg, Representing ICC

Ballot: Negative with comment:

Comment: Same comment as 3-6-12

It is not clear if this allowance would address the changes for line of sight requirements with the new wheelchair space size.

3-13D.4

Commenter: Laurel Wright, Representing NCOSFM

Ballot: Negative with comment:

Comment: This is in direct conflict with the model building code which states (in the 2012 IBC – Section 1003.6 Means of Egress Continuity) *The path of egress travel along a means of egress shall not be interrupted by any building element other than a means of egress component as specified in this chapter. Obstructions shall not be placed in the required width of a means of egress except projections permitted by this chapter. The required capacity of a means of egress system shall not be diminished along the path of egress travel.* This language is in both the International Building and Fire Code.

The original exception complies with both the International Building and Fire Codes.

Committee Review of Comments and Action – July 2013

Approval with Modifications based on Comments.

Committee Reason: The committee discussed the need to preserve and clarify the exception, otherwise the greater clear floor space would require reconsideration of basic sight lines in stadiums, theaters and similar spaces. Even with the clarification, there is concern that fire marshals will object to any such protrusion in aisles. The fact that many aisles are larger than the minimum required should lessen the impact of this exception.

Modification:

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

Ballot Comment on July 2013 Committee Action Report

ICC – Kim Paarlberg

Negative: Ballot:

Comment/reason: See comment for Proposal 3-6 – 12.

NMHC – Ron Nickson

Negative: Ballot:

Comment/reason: See comment for proposal 3-6-12.

3-13E – 12

802.7.2

Proposed Change as Submitted

Proponent: Gina Hilberry and David Collins, Co-Chairs Wheeled Mobility Task Group

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 ~~42~~ 16 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.

Reason: The Wheeled Mobility Task Group (WMTG) was created as a task group of the A117.1 Committee to analyze the results of the anthropometric study of a variety of mobility device users conducted by The Center for Inclusive Design and Environmental Access (IDeA) at the University at Buffalo, SUNY recently completed an anthropometric study of 500 wheeled manual and powered

mobility device users. The study indicates that the technical provisions contained in the A117.1 standard do not address the needs of the full range of users of mobility devices. The work of the WMTG is ongoing, but it has submitted a series of proposed changes to the base building blocks of the A117.1 standard. If the changes to the building blocks are adopted by the Committee, then additional changes will need to be made in other portions of the standard.

Rationale for 3-13E: To accommodate longer clear floor space.

-HILBERRY.doc

Committee Action

Approved

Committee Reason: The added length accommodates that longer clear floor space and adjusts the measurement to align the shoulders of the person in the mobility device and those in the companion seat.

BALLOT COMMENTS

3-13E.1

Commenter: Gene Boecker, Representing NATO
Ballot: Negative with comment:

Comment: This should only be added to the next edition if the increase in wheelchair length is approved. Otherwise the standard will be disjointed and inconsistent. In the proposal, the “???” metric dimension for 16 inches should be 405 mm to be consistent with its measure elsewhere in the standard.

3-13E.2

Commenter: Gerald Gross, Representing AHLA
Ballot: Negative with comment:

Comment: We not accept the results of a single anthropometric study conducted by the Center for Inclusive Design and Environmental Access. It is understood that the work of the Wheelchair Mobility Task Group is ongoing and has submitted a series of proposal changes to the base building blocks of A117.1 Standard. At this time we believe that the proposed changes to the building blocks are unacceptable and should not be adopted by the Committee; therefore no additional changes are required in this portion of the standard with reference to the building block changes.

3-13E.3

Commenter: Kim Paarlberg, Representing ICC
Ballot: Negative with comment:

Comment: Same comment as 3-6-12

It is not clear if this allowance would address the changes for line of sight requirements with the new wheelchair space size.

Committee Review of Comments and Action – July 2013

Approved.

Committee Reason: The committee considered the information provided by the comments and decided to take no action to change its original approval.

Ballot Comments on July 2013 Committee Action Report

ICC – Kim Paarlberg

Negative: Ballot:

Comment/reason: See comment for Proposal 3-6 – 12.

While this modification does address the additional clear floor space and shoulder alignment for a rear approach seat and side approach, it has not addressed the shoulder alignment for a back in seat location (common in theaters and movies). If the intent of the original modification is to address the new clear floor space, it needs to address all seating options.

NACS – Bradley Gaskins

Negative: Ballot:

Comment/reason: This change is predicated on the assumption that a larger CFS is required. While it may be true that wheeled mobility devices are getting larger is there a basis or need for them to become larger? This is a bigger question that should be answered before increasing the CFS size. Size of the units should be dictated, where possible, to have a minimal impact on the size of buildings. I am not convinced that the units cannot be designed and manufactured within the current space limitations dictated and still serve those who need wheeled mobility devices. At best this change is premature based upon the evidence. Even the wheeled mobility task group states that their findings have not been validated. Further, the impact of the larger CFS has not been analyzed for any building types.

NMHC – Ron Nickson

Negative: Ballot:

Comment/reason: See comment for proposal 3-6-12.

3-13F – 12

805.2.2

Proposed Change as Submitted

Proponent: Gina Hilberry and David Collins, Co-Chairs Wheeled Mobility Task Group

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.

Reason: The Wheeled Mobility Task Group (WMTG) was created as a task group of the A117.1 Committee to analyze the results of the anthropometric study of a variety of mobility device users conducted by The Center for Inclusive Design and Environmental Access (IDeA) at the University at Buffalo, SUNY recently completed an anthropometric study of 500 wheeled manual and powered mobility device users. The study indicates that the technical provisions contained in the A117.1 standard do not address the needs of the full range of users of mobility devices. The work of the WMTG is ongoing, but it has submitted a series of proposed changes to the base building blocks of the A117.1 standard. If the changes to the building blocks are adopted by the Committee, then additional changes will need to be made in other portions of the standard.

Rationale for 3-13F: Add 4 inches (100 mm) to alighting area to reflect increase in Clear floor space.

-HILBERRY.doc

Committee Action

Approved

Committee Reason: With a 4 inch longer clear floor space, the 4 inches needs to be added to the area designed to allow people to negotiate around the equipment. This isn't assuming a larger apparatus on the bus, but the need for space for larger mobility equipment.

BALLOT COMMENTS

3-13F.1

Commenter: Gene Boecker, Representing NATO

Ballot: Negative with comment:

Comment: This should only be added to the next edition if the increase in wheelchair length is approved. Otherwise the standard will be disjointed and inconsistent.

3-13F.2

Commenter: David Collins, Representing AIA

Ballot: Negative with comment:

Comment: The work of the study group isn't finalized and the research that formed the basis for this change has not been validated.

3-13F.3

Commenter: M. Bradley Gaskins, Representing NACS

Ballot: Negative with comment:

Comment: There has been no evidence presented that this is a necessary change and will be a burden on the public due to an increase in the area required. The evidence presented only addresses the wide variety of mobility devices in service today. It does not address whether the problem is in the manufacture of these mobility devices that do not conform to the current requirement or whether the built-environment needs to change to accommodate mobility devices that need a larger space and cannot be designed and manufactured in such a way as to fit within the current space. We don't continue to let automobile manufacturers build wider and wider autos to go on our roads... they must be built to standards that allow them to work with our current road system.

3-13F.4

Commenter: Kim Paarlberg, Representing ICC

Ballot: Negative with comment:

Comment: Same comment as 3-6-12

Committee Review of Comments and Action – July 2013

Approved.

Committee Reason: The committee discussed the geometric and maneuvering issues of such bus stops and wheeled mobility devices of larger sizes and concluded, once again that the larger space approved the committee in 3-14F-12 was still an appropriate change.

Ballot Comments on July 2013 Committee Action Report

ICC – Kim Paarlberg

Negative: Ballot:

Comment/reason: See comment for Proposal 3-6 – 12.

A bus stop pad is not directly related to the wheelchair space, but is a combination of ramp and over run. The additional size is not justified appropriately

NACS – Bradley Gaskins

Negative: Ballot:

Comment/reason: This change is predicated on the assumption that a larger CFS is required. While it may be true that wheeled mobility devices are getting larger is there a basis or need for them to become larger? This is a bigger question that should be answered before increasing the CFS size. Size of the units should be dictated, where possible, to have a minimal impact on the size of buildings. I am not convinced that the units cannot be designed and manufactured within the current space limitations dictated and still serve those who need wheeled mobility devices. At best this change is premature based

upon the evidence. Even the wheeled mobility task group states that their findings have not been validated. Further, the impact of the larger CFS has not been analyzed for any building types.

AIA – Dave Collins

Negative Ballot

Comment/reason: I agree with NACS-Bradley Gaskins' comment. Also see additional comment added to 3-6-12.

NMHC – Ron Nickson

Negative: Ballot:

Comment/reason: See comment for proposal 3-6-12.

3-13H – 12

1107.3.2

Proposed Change as Submitted

Proponent: Gina Hilberry and David Collins, Co-Chairs Wheeled Mobility Task Group

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.

Reason: The Wheeled Mobility Task Group (WMTG) was created as a task group of the A117.1 Committee to analyze the results of the anthropometric study of a variety of mobility device users conducted by The Center for Inclusive Design and Environmental Access (IDeA) at the University at Buffalo, SUNY recently completed an anthropometric study of 500 wheeled manual and powered mobility device users. The study indicates that the technical provisions contained in the A117.1 standard do not address the needs of the full range of users of mobility devices. The work of the WMTG is ongoing, but it has submitted a series of proposed changes to the base building blocks of the A117.1 standard. If the changes to the building blocks are adopted by the Committee, then additional changes will need to be made in other portions of the standard.

Rationale for 3-13H: References 52 inch (1320) long Clear floor space.

-HILBERRY.doc

Committee Action

Approved

Committee Reason: The provision is a clear floor space requirement which, for consistency with other actions, was approved to the new 52 inch length.

BALLOT COMMENTS

3-13H.1

Commenter: Gene Boecker, Representing NATO

Ballot: Negative with comment:

Comment: This should only be added to the next edition if the increase in wheelchair length is approved. Otherwise the standard will be disjointed and inconsistent.

3-13H.2

Commenter: David Collins, Representing AIA

Ballot: Negative with comment:

Comment: The work of the study group isn't finalized and the research that formed the basis for this change has not been validated.

3-13H.3

Commenter: M. Bradley Gaskins, Representing NACS

Ballot: Negative with comment:

Comment: There has been no evidence presented that this is a necessary change and will be a burden on the public due to an increase in the area required. The evidence presented only addresses the wide variety of mobility devices in service today. It does not address whether the problem is in the manufacture of these mobility devices that do not conform to the current requirement or whether the built-environment needs to change to accommodate mobility devices that need a larger space and cannot be designed and manufactured in such a way as to fit within the current space. We don't continue to let automobile manufacturers build wider and wider autos to go on our roads... they must be built to standards that allow them to work with our current road system.

3-13H.4

Commenter: Gerald Gross, Representing AHLA

Ballot: Negative with comment:

Comment: We not accept the results of a single anthropometric study conducted by the Center for Inclusive Design and Environmental Access. It is understood that the work of the Wheelchair Mobility Task Group is ongoing and has submitted a series of proposal changes to the base building blocks of A117.1 Standard. At this time we believe that the proposed changes to the building blocks are unacceptable and should not be adopted by the Committee; therefore no additional changes are required in this portion of the standard with reference to the building block changes.

3-13H.5

Commenter: Kim Paarlberg, Representing ICC

Ballot: Negative with comment:

Comment: Same comment as 3-6-12

This section is for the miniature golf provisions. No input was received from the industry on effects of this change.

Committee Review of Comments and Action – July 2013

Approved.

Committee Reason: The committee considered the information provided by the comments and decided to take no action to change its original approval of this proposal.

Ballot Comments on July 2013 Committee Action Report

ICC – Kim Paarlberg

Negative: Ballot:

Comment/reason: See comment for Proposal 3-6 – 12.

NACS – Bradley Gaskins

Negative: Ballot:

Comment/reason: This change is predicated on the assumption that a larger CFS is required. While it may be true that wheeled mobility devices are getting larger is there a basis or need for them to become larger? This is a bigger question that should be answered before increasing the CFS size. Size of the units should be dictated, where possible, to have a minimal impact on the size of buildings. I am not convinced that the units cannot be designed and manufactured within the current space limitations

dictated and still serve those who need wheeled mobility devices. At best this change is premature based upon the evidence. Even the wheeled mobility task group states that their findings have not been validated. Further, the impact of the larger CFS has not been analyzed for any building types.

AIA – Dave Collins

Negative Ballot

Comment/reason: I agree with ICC-Kim Paarlberg’s comment. Also see additional comment added to 3-6-12.

NMHC – Ron Nickson

Negative: Ballot:

Comment/reason: See comment for proposal 3-6-12.

3-13K – 12

1109.2.3

Proposed Change as Submitted

Proponent: Gina Hilberry and David Collins, Co-Chairs Wheeled Mobility Task Group

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.

Reason: The Wheeled Mobility Task Group (WMTG) was created as a task group of the A117.1 Committee to analyze the results of the anthropometric study of a variety of mobility device users conducted by The Center for Inclusive Design and Environmental Access (IDeA) at the University at Buffalo, SUNY recently completed an anthropometric study of 500 wheeled manual and powered mobility device users. The study indicates that the technical provisions contained in the A117.1 standard do not address the needs of the full range of users of mobility devices. The work of the WMTG is ongoing, but it has submitted a series of proposed changes to the base building blocks of the A117.1 standard. If the changes to the building blocks are adopted by the Committee, then additional changes will need to be made in other portions of the standard.

Rationale for 3-13K: Add 4 inches (100 mm) to alighting area to reflect increase in Clear floor space.

-HILBERRY.doc

Committee Action

Approved

Committee Reason: This is a clear floor space adjacent to a pool transfer. It should be large enough to accommodate all mobility devices.

BALLOT COMMENTS

3-13K.1

Commenter: Gene Boecker, Representing NATO

Ballot: Negative with comment:

Comment: This should only be added to the next edition if the increase in wheelchair length is approved. Otherwise the standard will be disjointed and inconsistent.

3-13K.2

Commenter: David Collins, Representing AIA

Ballot: Negative with comment:

Comment: The work of the study group isn't finalized and the research that formed the basis for this change has not been validated.

3-13K.3

Commenter: M. Bradley Gaskins, Representing NACS

Ballot: Negative with comment:

Comment: There has been no evidence presented that this is a necessary change and will be a burden on the public due to an increase in the area required. The evidence presented only addresses the wide variety of mobility devices in service today. It does not address whether the problem is in the manufacture of these mobility devices that do not conform to the current requirement or whether the built-environment needs to change to accommodate mobility devices that need a larger space and cannot be designed and manufactured in such a way as to fit within the current space. We don't continue to let automobile manufacturers build wider and wider autos to go on our roads... they must be built to standards that allow them to work with our current road system.

3-13K.4

Commenter: Gerald Gross, Representing AHLA

Ballot: Negative with comment:

Comment: We not accept the results of a single anthropometric study conducted by the Center for Inclusive Design and Environmental Access. It is understood that the work of the Wheelchair Mobility Task Group is ongoing and has submitted a series of proposal changes to the base building blocks of A117.1 Standard. At this time we believe that the proposed changes to the building blocks are unacceptable and should not be adopted by the Committee; therefore no additional changes are required in this portion of the standard with reference to the building block changes.

3-13K.5

Commenter: Kim Paarlberg, Representing ICC

Ballot: Negative with comment:

Comment: Same comment as 3-6-12

This section is for the swimming pool provision for space next to the lift.

Committee Review of Comments and Action – July 2013

Approved.

Committee Reason: The committee considered the issues raised by the existence of a wide variety of pools which are used for a wide variety of purposes. Representatives of pools and spa industry stated their belief that the larger space is appropriate at recreation facilities. The committee wasn't to make sure that there wasn't an assumption that this space wouldn't be appropriate at facilities used for therapy. Besides exercise isn't always therapy. The committee sustained its previous approval of this item.

Ballot Comments on July 2013 Committee Action Report

ICC – Kim Paarlberg

Negative: Ballot:

Comment/reason: See comment for Proposal 3-6 – 12.

NACS – Bradley Gaskins

Negative: Ballot:

Comment/reason: This change is predicated on the assumption that a larger CFS is required. While it may be true that wheeled mobility devices are getting larger is there a basis or need for them to become larger? This is a bigger question that should be answered before increasing the CFS size. Size of the units should be dictated, where possible, to have a minimal impact on the size of buildings. I am not convinced that the units cannot be designed and manufactured within the current space limitations dictated and still serve those who need wheeled mobility devices. At best this change is premature based upon the evidence. Even the wheeled mobility task group states that their findings have not been validated. Further, the impact of the larger CFS has not been analyzed for any building types.

AIA – Dave Collins

Negative Ballot

Comment/reason: I agree with ICC-Kim Paarlberg's comment. Also see additional comment added to 3-6-12.

3-13L – 12

1004.3.3, 1004.9, 1004.10.1, 1004.11.2, 1004.11.2.1, 1004.11.3.1.1, 1004.12.2

Proposed Change as Submitted

Proponent: Gina Hilberry and David Collins, Co-Chairs Wheeled Mobility Task Group

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.

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~~.

Reason: The Wheeled Mobility Task Group (WMTG) was created as a task group of the A117.1 Committee to analyze the results of the anthropometric study of a variety of mobility device users conducted by The Center for Inclusive Design and Environmental Access (IDeA) at the University at Buffalo, SUNY recently completed an anthropometric study of 500 wheeled manual and powered mobility device users. The study indicates that the technical provisions contained in the A117.1 standard do not address the needs of the full range of users of mobility devices. The work of the WMTG is ongoing, but it has submitted a series of proposed changes to the base building blocks of the A117.1 standard. If the changes to the building blocks are adopted by the Committee, then additional changes will need to be made in other portions of the standard.

Rationale for 3-13L: This proposal establishes a distinct clear floor space for Type B dwelling units. The larger clear floor space established under proposal 3-13-12.

-HILBERRY.doc

Committee Action

Approved

Committee Reason: The proposal retains the existing clear floor space for Type B dwelling units. The impact of the larger CFS has yet to be fully analyzed with respect to dwelling units.

BALLOT COMMENTS

3-13L.1

Commenter: Steve Orlowski, Representing NAHB

Ballot: Affirmative with comment:

Comment: We agree with the committee that the changes proposed to the CFS increases need to be fully researched and studied before any change is approved, for type B units and all existing buildings.

3-13L.2

Commenter: Gerald Gross, Representing AHLA

Ballot: Negative with comment:

Comment: We not accept the results of a single anthropometric study conducted by the Center for Inclusive Design and Environmental Access. It is understood that the work of the Wheelchair Mobility Task Group is ongoing and has submitted a series of proposal changes to the base building blocks of A117.1 Standard. At this time we believe that the proposed changes to the building blocks are unacceptable and should not be adopted by the Committee; therefore no additional changes are required in this portion of the standard with reference to the building block changes.

3-13L.3

Commenter: Dominic Marinelli, Representing USA

Ballot: Negative with comment:

Comment: As many jurisdictions do not require Type A units from scoping additional (the new) clear floor space may be more important for Type B units.

3-13L.4

Commenter: Kim Paarlberg, Representing ICC

Ballot: Negative with comment:

Comment: Same comment as 3-6-12. While this appears to be a break for Type B units, this is another 'concession' without a complete investigation of the impacts.

Committee Review of Comments and Action – July 2013

Approved.

Committee Reason: The committee considered the information provided by the comments and decided to take no action to change its original approval of this proposal.

Ballot Comments on July 2013 Committee Action Report

ICC – Kim Paarlberg

Affirmative with Comment: Ballot:

Comment: See comment for Proposal 3-6 – 12.

This modification for Type B units is incomplete. The increases in the code could still affect the maneuvering clearance at the front door – inside and out. The height of elements will be affected by the changes to front reach ranges. The total of revised requirements still apply to common spaces (mail rooms, laundry, rental office, community room and kitchen, work out room), parking, etc. If you want to give Type B units a break for the new sizes, it should be throughout the unit, or throughout the building – not a just one piece. See 10-26-12

NACS – Bradley Gaskins

Negative: Ballot:

Comment/reason: It is interesting to note that the committee chose to approve this item based upon the fact that the impact of larger CFS has not been fully analyzed with respect to dwelling units. This is a correct and wise decision. It is, however, disturbing to note that the impact of a larger CFS for any building type has yet to be analyzed at all and that the committee has chosen to ignore this fact on all other decisions concerning CFS and turning requirements.

AIA – Dave Collins

Negative Ballot

Comment/reason: I agree with ICC-Kim Paarlberg's comment. Also see additional comment added to 3-6-12.

NMHC – Ron Nickson

Negative: Ballot:

Comment/reason: See comment for proposal 3-6-12.

3-20 – 12

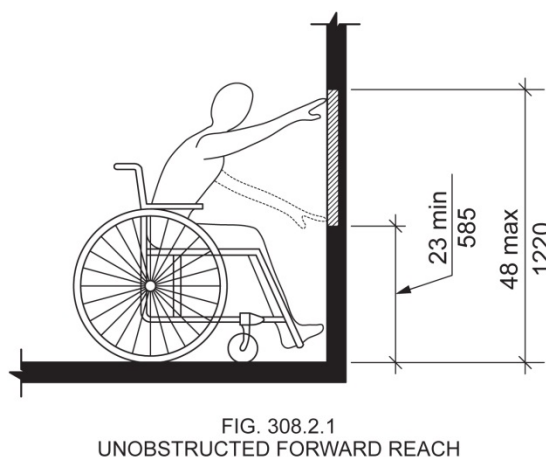
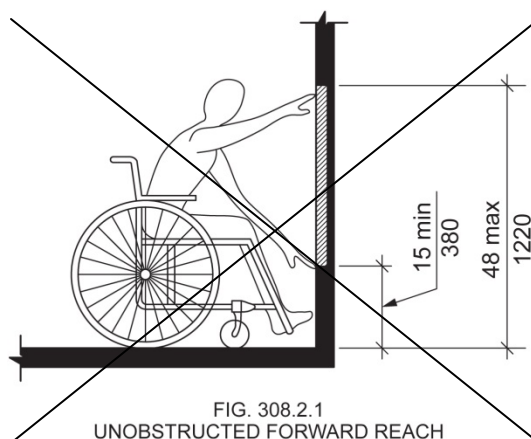
308.2.1, Figure 308.2.1

Proposed Change as Submitted

Proponent: Edward Steinfeld, IDEA Center, School of Architecture and Planning, University at Buffalo, State University of New York

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 45 23 inches (~~380~~ 585 mm) minimum above the floor.



Reason: Many of the technical requirements of the ICC/ANSI A117.1 (2009) Accessible and Usable Buildings and Facilities (ICC/ANSI) designed to accommodate wheeled mobility users are based on research completed from 1974 to 1978 using a research sample that included about 60 individuals who used manual wheelchairs (Steinfeld et al., 1979).

The Center for Inclusive Design and Environmental Access (IDeA) at the University at Buffalo, SUNY recently completed an anthropometric study of 500 wheeled manual and powered mobility device users (Steinfeld, et al., 2010). Measurements of body and device size were captured in three dimensions. The functional anthropometric measurements required measuring reaching ability, grip strength and the minimum space needed for turning. It is the most extensive anthropometric study of wheeled mobility device users in the United States. Additional information about the study can be found at <http://www.udeworld.com/ansi-standards-review>. The proposed revisions are based on new anthropometric information that was generated from the database of anthropometric measurements developed as part of the study.

Analysis

In order to compare our measurements of maximum forward reach to the reach ranges in the ICC/ANSI A117.1 Standard, we analyzed our data on maximum forward reach using the forward-most point on the occupied wheeled mobility device as the reference point. This provides us an estimate of the percentage of wheeled mobility users that would be able to reach to or beyond the forward-most point, simulating an unobstructed forward reach. The analysis found that:

- 1) A substantial number of wheeled mobility users (about 15% of manual chair users and 42% of power chair users) did not possess any functional reach capability (defined as reaching and placing an empty canister above shoulder height), and
- 2) Of the remaining wheeled mobility users in our study that could perform the reach tests a large percentage could not reach beyond the most forward point of their device or foot. These percentages vary at different heights from the floor, and are also different for manual and power chair users. Figure 3-15 (pg. 68) in the Anthropometry of Wheeled Mobility (AWM) report (Steinfeld et al., 2010) summarizes these findings.

One finding of major concern is that in a functional reach task that involved object (canister) placement, none of the wheeled mobility users in our study that had reach capability could safely reach to the lower reach limit of 15" prescribed

in the ICC/ANSI A117.1 Standard. To get a better understanding of reach capability at low reaches, we re-analyzed this data at 1-inch increments from the floor (in contrast to the 4 inch increments used in the AWM report). A sub-set of the data at lower reach heights is provided in Table 1 and forms the basis of our recommendation for identifying an alternate lower reach limit. The upper reach limit accommodated most wheeled mobility users that have reach capability, and thus did not require any change.

Table 1: Percentage of manual and power chair users capable of reaching to the forward-most point on the occupied device between the heights of 11"-28" from the floor

Height from the floor	% capable of forward unobstructed reach	
	Manual (n=236)	Power (n=110)
27" - 28"	74	52
26" - 27"	68	47
25" - 26"	68	46
24" - 25"	67	45
23" - 24"	51	36
22" - 23"	28	15
21" - 22"	28	14
20" - 21"	26	13
19" - 20"	15	3
18" - 19"	1	0
17" - 18"	1	0
16" - 17"	0	0
15" - 16"	0	0
14" - 15"	0	0
13" - 14"	0	0
12" - 13"	0	0
11" - 12"	0	0

The proportion of manual chair users able to reach to the forward-most point increases dramatically at heights above 23 inches (highlighted in yellow). Power chair users show a smaller but noticeable increase at this height. Hence, **we recommend raising the lower limit for the forward reach range from 15 inches to 23 inches.** Reaching to heights lower than the recommended are less accommodating and potentially unsafe to wheeled mobility users many of whom have poor postural and trunk control.

The proposed change would help accommodate a substantial number of manual chair users (51%) and a sub-set of power chair users (36%) that possess reach capability to accomplish a forward unobstructed reach at lower heights. Raising the lower reach limit would undoubtedly also benefit standing individuals and more so individuals that have trouble bending or kneeling (e.g. the elderly). Further, there are no constraints or requirements in building construction that require operable parts (e.g. electrical outlets) to be placed as low as 15 inches but not at 23 inches.

NOTE 1: This proposed change is also consistent with our recommendation for raising the lower reach limit for unobstructed side reach included in a separate proposal.

NOTE 2: This change necessitates a revision to Fig. 308.2.1 to ensure consistency. A revised figure is attached.

References (See <http://www.udeworld.com/ansi-standards-review>)

Steinfeld, E., Paquet, V., D'Souza, C., Joseph, C., and Maisel, J. (2010). *Final Report: Anthropometry of Wheeled Mobility Project*. Washington, DC: U.S. Access Board.

Steinfeld, E. Schroeder, S. and Bishop, M. (1979). *Accessible buildings for people with walking and reaching limitations*. Washington, DC: U.S. Department of Housing and Urban Development.

308.2.1-STEINFELD.doc

Committee Action

Approved

Committee Reason: In contrast to the side reach proposal which the Committee did not accept, change to forward reach was accepted at the Committee meeting. The case made by the proponent and others is that the forward reach is very restricted, especially when considering the range of mobility devices used. Some members remained concerned that this change would significantly reduce access to electrical outlets, shelving, other equipment and would force redesign of rooms and spaces to accommodate a parallel approach.

BALLOT COMMENTS

3-20.1

Commenter: Ron Burton, Representing BOMA

Ballot: Negative with comment:

Comment: Raising the lower reach range dimension would eliminate many common elements in the building such as kitchen drawers, casement window hardware, bathtub handles, storage units, mailbox locations, kitchen cabinets and other items that are located below the approved 23". It's clear that the current reach range creates issues for some as determined in the 2010 Anthropometry Report. However, as discussed in our comments to 3-6-12, this study has major flaws and the Committee should not base such a far-reaching change on this study alone.

3-20.2

Commenter: David Collins, Representing AIA

Ballot: Negative with comment:

Comment: The work of the study group isn't finalized and the research that formed the basis for this change has not been validated.

3-20.3

Commenter: Gerald Gross, Representing AHLA

Ballot: Negative with comment:

Comment: We not accept the results of a single anthropometric study conducted by the Center for Inclusive Design and Environmental Access. It is understood that the work of the Wheelchair Mobility Task Group is ongoing and has submitted a series of proposal changes to the base building blocks of A117.1 Standard. At this time we believe that the proposed changes to the building blocks are unacceptable and should not be adopted by the Committee; therefore no additional changes are required in this portion of the standard with reference to the building block changes.

3-20.4

Commenter: Ronald G. Nickson, Representing NMHC

Ballot: Negative with comment:

Comment: Raising the lower reach range creates a situation in which a lot of common elements in the building are no longer allowed. I agree that the current reach range creates issues for some as determined in the study. However, we need to take into consideration the needs of others also, and expect people to address and be responsible for individual activities and limitations. This change would have a major impact on storage units, mailbox locations, kitchen cabinets and other items that are normally located below the approved 23".

3-20.5

Commenter: Steve Orlowski, Representing NAHB

Ballot: Negative with comment:

Comment: There are several features within dwelling unit (kitchen drawers, casement window hardware, bath tub handles and hardware) that would be eliminated should the forward reach range be altered. Most electricians do not mount outlets more than 18 inches above the finished floor. Not to mention storage space and work stations in business areas, retail and mercantile. Again these changes, which are based on a single study, should be researched further before such changes occur in the standard.

3-20.6

Commenter: Kim Paarlberg, Representing ICC

Ballot: Negative with comment:

Comment: Same comment as 3-6-12.

This has a large implication on anything with a low reach – especially outlets and below window HVAC units.

Committee Review of Comments and Action – July 2013

Approved.

Committee Reason: The committee considered the information provided by the comments and decided to take no action to change its original approval of this proposal.

Ballot Comments on July 2013 Committee Action Report

ICC – Kim Paarlberg**Negative: Ballot:**

Comment/reason: This change will result in many storage features (i.e. drawers and cabinet shelves), electrical outlets and control devices (i.e., bathtub faucets) now using the forward approach to be out of compliance. Raising the lower reach range dimension will force designers into providing access to features by a side approach or the elimination of the features altogether. The impact needs to be fully investigated.

NACS – Bradley Gaskins**Negative: Ballot:**

Comment/reason: This change is premature based upon the evidence. The wheeled mobility task group states that their findings have not been validated.

NAHB – Steven Orlowski**Negative: Ballot:**

Comment/reason: There are several features within buildings and accessible dwelling units (kitchen drawers, casement window hardware, bath tub handles and hardware) that will be greatly impacted and possibly eliminated should the forward reach range be altered. NAHB continues to be concerned that this change will significantly reduce access to accessible storage features, outlets and control devices using the forward approach. Increasing the lower reach range dimension will force designers into providing access to features solely by a side approach or the elimination of the features altogether. Keep in mind that this will affect storage spaces and work stations in business areas, retail and mercantile.

NMHC – Ron Nickson**Negative: Ballot:**

Comment/reason: See comment for Proposal 3-6 – 12.

3-21 – 12**308.2.1, 308.2.2**

Proposed Change as Submitted

Proponent: Kim Paarlberg, International Code Council

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 inches (380 mm) minimum above the floor. For the purpose of this section an unobstructed high reach is permitted over an obstruction where all of the following conditions are met:

1. The clear floor space complying with Section 305 shall extend beneath the element for a distance not less than the required reach depth over the obstruction, and
2. The reach depth over the obstruction is 20 inches (510mm) maximum.

Where the reach depth exceeds 20 inches (510 mm), the high forward reach shall be considered as obstructed and shall comply with Section 308.2.2.

308.2.2 Obstructed High Reach. Where a high forward reach is over an obstruction, the clear floor space complying with Section 305 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 is 20 inches (510mm) maximum.~~ Where the reach depth over the obstruction exceeds 20 inches (510 mm), 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.

Reason: The quantity of change proposals submitted by International Code Council is reflective of three elements of our work: 1. ICC is the Secretariat for the Standard and some changes reflect inconsistencies or improvements suggested by staff; 2. ICC develops and publishes a Commentary on the standard and writing the commentary illuminates issues of the text and figures; and 3. ICC provides an interpretation service for the standard which results in the observation of provisions the users find most confusing.

The resultant text from this proposal will be as follows:

308.2 Forward Reach.

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 inches (380 mm) minimum above the floor. For the purpose of this section an unobstructed high reach is permitted over an obstruction where all of the following conditions are met:

1. The clear floor space complying with Section 305 shall extend beneath the element for a distance not less than the required reach depth over the obstruction, and
2. The reach depth over the obstruction is 20 inches (510mm) maximum.

Where the reach depth exceeds 20 inches (510 mm), the high forward reach shall be considered as obstructed and shall comply with Section 308.2.2.

308.2.2 Obstructed High Reach. Where a high forward reach is over an obstruction, the clear floor space complying with Section 305 shall extend beneath the element for a distance not less than the required reach depth over the obstruction. Where the reach depth over the obstruction exceeds 20 inches (510 mm), 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.

The intent of this proposal is to provide a clear distinction for when the forward reach is allowed a 48 inch reach height and when the reach height must be lowered to 44 inches. Format wise this also correlates with the side reach provisions of Section 308.3 by addressing an unobstructed reach over a limited depth obstruction and an obstructed reach when the depth of the obstruction exceeds that depth.

One portion of the proposal that the committee or an editorial task group may want to look at is the wording in the second sentence of the proposed Section 308.2.1. That sentence is currently proposed as being "For the purpose of this section an unobstructed high reach is permitted over an obstruction where all of the following conditions are met:". It may be that the word "obstruction" should be revised to "element" so the sentence would read as "For the purpose of this section an unobstructed high reach is permitted over an element where all of the following conditions are met:".

If the committee is uncertain of this revised format, another option would be to revise the text to create three separate sections that would address Unobstructed (the normal 15 to 48 inch height) Limited Obstruction (the 20 inch reach depth and its requirements) and then the Obstructed High Reach (with the 44 inch height and the 20 to 25 inch depth for the obstruction). I would be happy to provide that alternate if the committee indicates they are interested in reviewing that option during this development cycle.

308.2.2-Paarlberg.doc

Committee Action

Disapproved

Committee Reason: The Committee was not convinced that the revised text provided clarity over the existing provisions. It was unclear regarding obstructions below a counter.

BALLOT COMMENTS

3-21.1

Commenter: Gene Boecker, Representing NATO

Ballot: Affirmative with comment:

Comment: While the text of the proposal was not clear, this issue needs to be addressed with better clarity. The text and figures shows an unobstructed and obstructed reaches over an object, nothing is mentioned about reaches below. It is not clear how one should design for access to electrical outlets on the wall below a shelf/counter. If the projection is an inch it will likely have no effect on the lower reach range. Similarly, for a 24 inch counter, it can be assumed that access below is not possible. It is unclear where the break point is and whether various combinations are possible. It may be possible to investigate and solve this from the available anthropometric data but it is not included in that standard.

3-21.2

Comment rescinded

3-21.3

Commenter: Kim Paarlberg, Representing ICC

Ballot: Negative with comment:

Comment: There is an overlap in the current text for obstructed and unobstructed reach range.

A modification will be developed for this proposal.

3-21.4

Commenter: Hope Reed, Representing NMGCD

Ballot: Negative with comment:

Comment: Reach ranges are provided as a minimum in ANSI. The NMGCD hears of frequent concerns about reach ranges. This section needs further details to improve understanding and enforcement.

Proponent Comment

3-21.5

Commenter: Kim Paarlberg, Representing ICC

Replace the proposal with the following:

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 inches (380 mm) minimum above the floor.

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 (510mm) 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.

Reason: The intent is two fold. To talk about this as a three dimensional shape rather than a two dimensional floor space and a wall height. The language also clarifies that you do not reach past your toes, both unobstructed or obstructed reach.

Committee Review of Comments and Action – July 2013

Approval with Modifications based on Comments.

Committee Reason: Based on comment 3-21.5, the committee felt that the revised proposal more clearly expressed the intent of these existing provisions. The new text is to a great extent is an editorial revision of the existing text without any change to the substance of the provision.

Modification:

Replace the proposal with the following:

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 inches (380 mm) minimum above the floor.

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 (510mm) 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.

Ballot Comments on July 2013 Committee Action Report

NATO Gene Boecker

Affirmative with comment: Ballot:

Comment: Now that toe clearance is specifically mentioned, the question arises what should be done about baseboards. It is generally assumed that baseboards are not considered (i.e. ignored) when considering the wheelchair space. However, they can have serious ramifications if they have any significant thickness. In some cases, baseboard designs attempt to replicate Victorian designs and can be up to 1-1/4 inches thick and 10-1/2 inches high. This can impact what the “real” toe clearance is under the counter/obstruction. A vinyl base is only about a 1/8 inch thick and doesn’t affect the actual location of the wheelchair space. Since the standard is increasing the size of the space, something should be done to address this often overlooked issue since it can affect the way in which the clearances are measured in the field. Either a clarification should be provided in the text or some explanation should be included in the Commentary.

3-23 – 12

308.3.1

Proposed Change as Submitted

Proponent: Kim Paarlberg, International Code Council

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. Operable parts on fuel dispensers installed on an existing curbs shall be permitted at 54 inches (1370 mm) maximum above the floor.

Reason: The quantity of change proposals submitted by International Code Council is reflective of three elements of our work: 1. ICC is the Secretariat for the Standard and some changes reflect inconsistencies or improvements suggested by staff; 2. ICC develops and publishes a Commentary on the standard and writing the commentary illuminates issues of the text and figures; and 3. ICC provides an interpretation service for the standard which results in the observation of provisions the users find most confusing.

The proposal is consistent with allowances for gas pumps on existing curbs found in ADA. The amount of work to take out the curb and connections is extensive.

308.3.1 #1(REVISED)-PAARLBERG.doc

Committee Action

Approved

Committee Reason: Provides consistency with the ADA 2010.

BALLOT COMMENTS

3-23.1

Commenter: Gerald Gross , Representing AHLA

Ballot: Negative with comment:

Comment: The AHLA does not accept the singular results of the anthropometric study conducted by the Center for Inclusive Design and Environmental Access. It is understood that the work of the Wheelchair Mobility Task Group is ongoing and has submitted a series of proposal changes to the base building blocks of A117.1 Standard. At this time we believe that the proposed changes to the building blocks are unacceptable and should not be adopted by the Committee; therefore no additional changes are required in this portion of the standard with reference to the building block changes.

Committee Review of Comments and Action – July 2013

Approved.

Committee Reason: The committee considered the information provided by the comments and decided to take no action to change its original approval of this proposal.

3-24 – 12

308.3.1

Proposed Change as Submitted

Proponent: Kim Paarlberg, International Code Council

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 shall be permitted at 54 inches (1370 mm) maximum above the floor.

Reason: The quantity of change proposals submitted by International Code Council is reflective of three elements of our work: 1. ICC is the Secretariat for the Standard and some changes reflect inconsistencies or improvements suggested by staff; 2. ICC develops and publishes a Commentary on the standard and writing the commentary illuminates issues of the text and figures; and 3. ICC provides an interpretation service for the standard which results in the observation of provisions the users find most confusing.

There is a code change to the IBC that is adding specific criteria for mailbox scoping. The current proposal is for 50% of the mailboxes required accessible, plus an addition 5% accessible. There has been concern from the post office about providing mailboxes below 29 inches so that the mailmen don't have to bend over too far. Therefore, in facilities with a large number of mailboxes, the additional reach on the high side is needed.



308.3#2(REVISED)-PAARLBERG.doc

Committee Action

Disapproved

Committee Reason: The Committee was concerned that if this exception is included, it could be abused. It could result in few if any Type B dwelling unit mailboxes being accessible to people who are challenged by reach over 48 inches. The Committee was not convinced that the 'flexibility' resulting from allowing certain mailboxes to be up to 54 is needed.

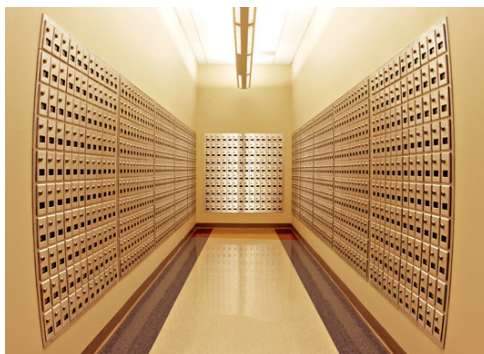
BALLOT COMMENTS

3-24.1

Commenter: Kim Paarlberg, Representing ICC

Ballot: Negative with comment:

Comment: HUD and the U.S. Post Office continue to debate over the percentage of mailboxes that must be within reach range. The limited reach range (which is less than permitted by HUD) has significant impact on large mailrooms in highrise apartment buildings and dormitories. This is magnified by the post office not wanted boxes below 26 inches for their mail delivery persons.



Proponent Comment

3-24.2

Commenter: Kim Paarlberg, Representing ICC

Requests the proposal be Approved as Submitted:

Reason: The Post office and HUD are still arguing about the scoping for mailboxes. Currently HUD is saying 100%. FHA allows for a maximum reach of 54". In large facilities, the additional 6" in height can be a significant. This could allow 2 additional rows of mailboxes. This proposed language would coordinate with FHA and not reduce the amount of mailboxes that currently are within the reach range for Accessible and Type A units. A significant number of mailboxes serving Type B units would still be within the lower reach.

Committee Review of Comments and Action – July 2013

Approval with Modifications based on Comments.

Committee Reason: Based on information presented with the public comments, the Committee believes an exception for mailboxes associated with Type B dwelling units should be included in the standard. Since the Fair Housing Standard still allows an upper reach range of 54 inches, allowing associated mailboxes within that range is appropriate. It is anticipated that public comment will suggest relocating this proposal to Chapter 10 of the standard.

Modification

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-
-

Ballot Comments on July 2013 Committee Action Report

ICC – Kim Paarlberg

Affirmative with Comment: Ballot:

Comment: This allowance may need to be coordinated with 10-2 which addressed scoping for mailboxes.

ATBCB – Marsha Mazz

Negative: Ballot:

Comment/reason: Motion to further modify the text as follows:

2. Mailboxes serving Type B dwelling units and complying with Section 1001.2 shall be permitted an unobstructed high side 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.

USA – Dominic Marinelli

Negative: Ballot:

Revise as follows:

2. Mailboxes serving Type B dwelling units and complying with Section 1001.2 shall be permitted an unobstructed high side 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.

UCP – Gina Hilberry

Negative Ballot

Comment/reason: I find the ATBCB-Marsha Mazz and USA-Dominic Marinelli comments to be persuasive and the proposed addition of the word ‘side’ is very important.

3-27 – 12

309.1, 309.4, 309.5 (New), 309.5.1 (New), 309.5.2 (New), 309.5.3 (New), 309.5.4 (New)

Proposed Change as Submitted

Proponent: Kim Paarlberg, International Code Council

Revise as follows:

309.1 General. Operable parts required to be accessible shall comply with Section 309.

EXCEPTIONS:

1. Receptacle outlets serving a dedicated use.
2. In kitchens, kitchenettes, toilet and bathing facilities, receptacle outlets and switches shall comply with Section 309.5.
3. Floor receptacle outlets.
4. HVAC diffusers.
5. Controls mounted on ceiling fans.
6. 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.
7. Reset buttons and shut-offs serving appliances, piping and plumbing fixtures.
8. Gas pump nozzles shall not be required to provide operable parts that have an activating force of 5.0 pounds (22.2 N) maximum in accordance with Section 309.4.
9. Equipment for emergency responders.

309.4 Operation. Operable parts shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist. The force required to activate operable parts shall be 5.0 pounds (22.2 N) maximum.

~~**EXCEPTION:** Gas pump nozzles shall not be required to provide operable parts that have an activating force of 5.0 pounds (22.2 N) maximum.~~

309.5 Receptacle outlets and switches in kitchens, kitchenettes and toilet and bathing facilities.

Receptacle outlets and switches in toilet and bathing facilities complying with Section 603 and kitchens shall be provided as specified in Sections 309.5.1 through 309.5.4. Outlets and switches in toilet and bathing facilities not complying with Section 603 and kitchenettes shall be provided as specified in Sections 309.5.3 and 309.5.4.

309.5.1 Receptacle outlets required in kitchens. In kitchens, receptacle outlets must be provided at the following locations:

1. A receptacle outlet must be provided over the accessible work surface and comply with Section 308.2.2 (forward obstructed reach range).
2. A receptacle outlet must be provided on one side of the accessible sink less than 12 inches horizontally from the inside face of the sink bowl and 44 inches maximum above the floor level. Receptacle outlets are permitted to be located over adjacent counters or cabinets that are 36 inches (915 mm) maximum.

309.5.2 Receptacle outlets required in toilet and bathing facilities. In toilet and bathing facilities complying with Section 603, an outlet shall be provided on one side of the accessible lavatory less than 12 inches horizontally from the inside face of the lavatory bowl.

309.5.3 Other receptacle outlets. In kitchens, kitchenettes and toilet and bathing facilities, receptacle outlets shall be provided in accordance with the electrical code. Where outlets are provided over counter tops 18 inches or greater in length, at least one outlet per counter length shall be located a minimum of 12 inches horizontally from a cabinet return, perpendicular wall or refrigerator. 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.

Exception: Receptacle outlets within 36 inches horizontally from an inside corner at intersecting counter top runs are not required to comply with this section.

309.5.4 Switches. In kitchens, kitchenettes, and bathing and toilet facilities switches shall comply with the following as applicable:

1. Light switches are permitted to be located over cabinets or counter tops 36 inches (915 mm) maximum in height where the reach depth is 10 inches or less.
2. Switches for lights and for control of garbage disposals are permitted to be located in the same area as the receptacle outlets in Section 309.5.1 Item 2.
3. Redundant controls for range hoods shall be provided over the accessible work surface adjacent to the range, or adjacent to cooktops provide with front approach at a location where access to controls does not require reaching across burners.

Reason: The quantity of change proposals submitted by International Code Council is reflective of three elements of our work: 1. ICC is the Secretariat for the Standard and some changes reflect inconsistencies or improvements suggested by staff; 2. ICC develops and publishes a Commentary on the standard and writing the commentary illuminates issues of the text and figures; and 3. ICC provides an interpretation service for the standard which results in the observation of provisions the users find most confusing.

The intent of this proposal is to pick up on the same idea for outlets and switches in public kitchens and bathrooms as what is found in the dwelling unit. Literally these areas are sent back to the general operable parts provisions in Section 309.

There is also the idea of providing the same logical exceptions for general spaces as found in dwelling units. The circuit breaker box is not included since this is currently located in areas accessed only by service personnel (which is exempted). There is an added exception for emergency equipment such as call and Knox boxes, fire hoses, hood extinguishers, etc.

Regarding the outlets and switches:

Kitchens, 804.5.2 and 1003.12.4.1 deals with appliance controls, but not the outlets or wall switches. The decision was rather than to go through an extensive exception list, the better approach would be where do we want outlets so they can be reached. There are four plans attached with examples.

The intent is to work with the electrical code, and at the same time place outlets where they would be the most accessible. In Accessible and Type A kitchens, an outlet would be required at the work surface and immediately adjacent to the sink. The immediately adjacent is so that the electrical cord would not fall into the water and cause a safety hazard. Switches for lights over the sink and the garbage disposal are permitted in the same area.

In Accessible and Type A bathrooms, an outlet would be required adjacent to the accessible lavatory.

For all kitchens, kitchenettes and bathrooms (Accessible, Type A and Type B), an outlet would be located so that they would fall in the best reach area. In order to allow this, you do not ask for compliance with outlets over less than 18" lengths of counter or in dead corners. See the attached graphics for application.

For Accessible and Type A units, switches are permitted

- 1) on the side wall over a standard counter if the reach was less than 10 inches
- 2) next to the sink
- 3) over the accessible work surface

In Type B units, the switch can be over a standard counter. Since switches tend to be next to doors or the sink where it might be confined, it was decided not to ask for distance from obstructions.

Is there an interest in allowing for outlets or switches to be provided under the upper cabinets? This would typically be 54 inches high and 15-18 inches deep.

309.1 (NEW)-PAARLBERG.doc

Committee Action

Disapproved

Committee Reason: Consistent with the action to disapproved proposal 10-7-12

BALLOT COMMENTS

3-27.1

Commenter: Kim Paarlberg, Representing ICC

Ballot: Negative with comment:

Comment: There are two reasons this proposal needs to be revisited.

The exceptions for operable parts listed in dwelling units are just as relevant in other locations, so they should be located in Section 309.

Reach range for outlets over counters needs to be addressed. Current language does not allow for outlets over any standard kitchen counter heights. The height of standard appliances and cabinets force many parts of the counter to be at 36" heights unless custom and expensive options are chosen. The electrical codes set where outlets are required.

Replace the proposal as follows:

309.1 General. Operable parts required to be accessible shall comply with Section 309.

EXCEPTIONS:

1. Receptacle outlets serving a dedicated use.
2. Receptacle outlets located over counters in kitchens, other than those required by Section 309.5.
3. Receptacle outlets located over counters in kitchenettes, toilet and bathing facilities.
4. Floor receptacle outlets.
5. HVAC diffusers.
6. Controls mounted on ceiling fans.
7. 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.
8. Reset buttons and shut-offs serving appliances, piping and plumbing fixtures.

309.5 Receptacle outlets in kitchens. At least one receptacle outlet shall be provided over the accessible work surface and the receptacle outlet shall comply with Section 308.2.2 (forward obstructed reach range).

Proponent Comment

3-27.2

Commenter: Kim Paarlberg, Representing ICC

Revise the proposal as follows:

Change 1 -

309.1 General. Operable parts required to be accessible shall comply with Section 309.

EXCEPTIONS:

1. Receptacle outlets serving a dedicated use.
2. 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, one receptacle outlet shall not be required to comply with 309.
3. Floor receptacle outlets.
4. HVAC diffusers.
5. Controls mounted on ceiling fans.
6. 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.
7. Reset buttons and shut-offs serving appliances, piping and plumbing fixtures.

Change 2 -

309.1 General. Operable parts required to be accessible shall comply with Section 309.

EXCEPTIONS:

1. Receptacle outlets serving a dedicated use.
2. Receptacle outlets located over counters in kitchens and kitchenettes, other than those required by Section 309.5.
3. Receptacle outlets located over counters in toilet and bathing facilities.
4. Floor receptacle outlets.
5. HVAC diffusers.
6. Controls mounted on ceiling fans.
7. 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.
8. Reset buttons and shut-offs serving appliances, piping and plumbing fixtures.

309.5 Receptacle outlets in kitchens. At least one receptacle outlet shall be provided over the accessible work surface and the receptacle outlet shall comply with Section 309.

Change 3 –

309.1 General. Operable parts required to be accessible shall comply with Section 309.

EXCEPTION: Operable parts on equipment for emergency responders is not required to comply with Section 309.

Reason: There are three reasons this proposal needs to be revisited.

Change 1 - The exceptions for operable parts listed in dwelling units are just as relevant in other locations, so they should be located in Section 309.

Change 2 – Difference is dealing with outlets. Reach range for outlets over counters needs to be addressed. Current language does not allow for outlets over any standard kitchen counter heights. The height of standard appliances and cabinets force many parts of the counter to be at 36” heights unless custom and expensive options are chosen. The electrical codes set where outlets are required.

Change 3 – If Change 1 or 2 are accepted, this item would be an added exception. This can be stand alone. Emergency responders are not employees, so the exception in the IBC would not address this issue. Items such as knox boxes, connections on stand pipes, equipment within the fire command stations, should not have to comply with clear floor space, reach range and force. The exception located here would not exempt the provisions from the protruding object requirements in Section 307.

Committee Review of Comments and Action – July 2013

Approval with Modifications based on Comments

Committee Reason: The committee accepted the change indicated by Change 1 in Comment 3-27.2. It reflects exceptions already in the standard but which are located in other provisions. Duplicating them here eliminates the debate that one section is more stringent than the other.

Modification

Replace the original proposal as follows:

309.1 General. Operable parts required to be accessible shall comply with Section 309.

EXCEPTIONS:

1. Receptacle outlets serving a dedicated use.
2. 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, one receptacle outlet shall not be required to comply with 309.
3. Floor receptacle outlets.
4. HVAC diffusers.
5. Controls mounted on ceiling fans.
6. 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.
7. Reset buttons and shut-offs serving appliances, piping and plumbing fixtures.

Ballot Comments on July 2013 Committee Action Report

RESNA – Edward Steinfeld**Affirmative with Comment Ballot:**

Comment: There is a typo that alters the intent of this proposal. Delete “not” in item #6. Also, it would be clearer to refer to “element” rather than “space” in #6.
