

**FINAL STATEMENT OF REASONS
FOR
PROPOSED BUILDING STANDARDS
OF THE
DIVISION OF THE STATE ARCHITECT (DSA-AC)

REGARDING THE CALIFORNIA BUILDING CODE
CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 2

2013 CALIFORNIA BUILDING CODE
INTERVENING CODE CYCLE**

The Administrative Procedure Act requires that every agency shall maintain a file of each rulemaking that shall be deemed to be the record for that rulemaking proceeding. The rulemaking file shall include a final statement of reasons. The Final Statement of Reasons shall be available to the public upon request when rulemaking action is being undertaken. The following are the reasons for proposing this particular rulemaking action:

UPDATES TO THE INITIAL STATEMENT OF REASONS

The Division of the State Architect - Access Compliance (DSA-AC) is relying on the Initial Statement of Reasons regarding specific adoptions, amendments, or repeals to CCR, Title 24, Part 2.

DSA-AC made modifications or editorial corrections to the following items after the 45-day public comment period that ended on May 5, 2014: 11B.24, 11B.31, 11B.45. These changes and their rationale are reflected in the 15-day Express Terms and 15-day Statement of Reasons documents.

DSA-AC made nonsubstantive editorial corrections to the following items after the subsequent 15-day public comment period that ended on May 28, 2014: 11B.23, 11B.24, 11B.31. These corrections were made to conform to model code format and to correct minor drafting errors. These corrections are reflected in the Final Express Terms.

DSA-AC has withdrawn, at its discretion and for further study, the following items after the Code Advisory Committee review that occurred on February 26-27, 2014: 11B.08.3, 11B.08.4, 11B.10, 11B.22, 11B.32.2, 11B.35.

DSA-AC has withdrawn, at its discretion and for further study, the following items after the 45-day public comment period that ended on May 5, 2014: 11B.16.

DSA-AC has withdrawn, at its discretion and for further study, the following items after the 15-day public comment period that ended on May 28, 2014: 2.01, 2.01.1.

MANDATE ON LOCAL AGENCIES OR SCHOOL DISTRICTS

The DSA-AC has determined that the proposed regulatory action WOULD NOT impose a new mandate on local agencies or school districts.

OBJECTIONS OR RECOMMENDATIONS MADE REGARDING THE PROPOSED REGULATION(S).

Name: Eugene Lozano, Jr., California Council of the Blind

Item: 11B.01

Section: 11B-202.4, Exception 8, Item 3, Path of travel requirements in alterations, additions and structural repairs.

Comment on 45-Day Item: Recommends approval of this item.

DSA-AC Change to Accommodate: This is a comment in support of the proposed amendment. DSA-AC is proposing no further changes to this section in response to this comment.

Name: Eugene Lozano, Jr., California Council of the Blind

Item: 11B.02

Section: 11B-202.4, Exception 8, Item 6, Path of travel requirements in alterations, additions and structural repairs.

Comment on 45-Day Item: Recommends approval of this item.

DSA-AC Change to Accommodate: This is a comment in support of the proposed amendment. DSA-AC is proposing no further changes to this section in response to this comment.

Name: Martin Cooper, City of Foster City

Item: 11B.04

Section: 11B-206.4.1 Entrances and exterior ground floor exits. Exception 2

Comment on 45-Day Item: Recommends disapproval of this item. Removing the prescriptive language would deprive the user of necessary information regarding the location of accessible entrances and exits.

DSA-AC Change to Accommodate: DSA-AC is proposing to replace the language requiring a “warning sign” at specific types of inaccessible exits with a reference to Chapter 10, Section 1007.10. The existing language of Section 11B-206.4.1, Exception 2 does not require a “directional sign” directing disabled persons to accessible means of egress; it merely requires a “warning sign” stating that the exit is not accessible. Chapter 10, Section 1007.10 contains the requirement for a “directional sign” indicating the location of accessible exits when exit doors serving a required accessible space do not provide an approved accessible means of egress. The requirement to provide a “warning sign” in addition to the Chapter 10 requirement to provide a “directional sign” is redundant. DSA-AC is proposing no further changes to this section in response to this comment.

Name: Martin Cooper, City of Foster City

Item: 11B.05

Section: 11B-208.2.3.4 Requests for accessible parking spaces.

Comment on 45-Day Item: Recommends further amendment of this item to read:

11B-208.2.3.4 Requests for accessible parking spaces. *When assigned parking is provided, designated accessible parking for the adaptable residential dwelling units shall be provided ~~on request of residents with disabilities~~ on the same terms and with the full range of choices (e.g., off-street parking, carport or garage) for residents with disabilities that are available to other residents.*

Striking the language “request of residents with disabilities” will remove an unenforceable code provision, while providing clear direction for designing built-in parking elements for disabled persons.

DSA-AC Change to Accommodate: The parking requirements of Section 11B-208.2.3.1 are applicable to facilities with residential dwelling units required to provide mobility features complying with Sections 11B-809.2 through 11B-809.4. Additionally, Section 11B-208.2.3.4, applicable to facilities with residential dwelling units required to provide adaptable features only, contains operational procedures consistent with the Fair Housing Act Guidelines for parking. DSA-AC is proposing to retain the original language of this

section as a “note” to remind code users that operational procedures are often necessary to ensure the Americans with Disabilities Act accessibility requirements are met. DSA-AC is proposing no further changes to this section in response to this comment.

Name: Afshan Afshar, AIA, CASp, CID, LEED BD+C, Build-LACCD Access Analyst

Item: 11B.07

Section: 11B-213.3 Plumbing fixtures and accessories.

Comment on 45-Day Item: Address fractions in computing the required number of accessible compartments, urinals, lavatories and water closets. Round up or down?

DSA-AC Change to Accommodate: Section 11B-104.2 addresses the method for determining the required number of elements or facilities to be provided when a calculation of ratios or percentages results in remainders or fractions. DSA-AC is proposing no further changes to this section in response to the comment.

Name: Afshan Afshar, AIA, CASp, CID, LEED BD+C, Build-LACCD Access Analyst

Item: 11B.08

Section: 11B-215.1 (Fire Alarm Systems) General.

Comment on 45-Day Item: The exception to this section implies that if fire alarm system strobes are not provided, there is no requirement to provide them until the next system upgrade. The exception does not clarify if existing non-compliant fire alarm system strobes must be upgraded.

DSA-AC Change to Accommodate: DSA-AC is proposing an amendment to this section to address accessibility provisions applicable to visible alarm notification appliances for carbon monoxide detection systems in transient lodging facilities as required by the Carbon Monoxide Poisoning Prevention Act of 2010 (CA Health & Safety Code Section 13260-13262 and 17926). The proposed amendment to the exception is intended to clarify that the exception is applicable only to fire alarm systems and not to carbon monoxide systems. California Government Code §11346.45 requires that DSA-AC involve parties who would be subject to the proposed regulations in public discussions prior to publication of the notice. DSA-AC is concerned that a further change at this time would not have been adequately noticed, and will consider this proposal in the development of future rulemaking packages.

Name: Eugene Lozano, Jr., California Council of the Blind

Item: 11B.09

Section: 11B-216.5 (Signs) Parking spaces and 11B-216.5.2 (Signs) Parking facilities

Comment on 45-Day Item: Recommends approval of this item.

DSA-AC Change to Accommodate: This is a comment in support of the proposed amendment. DSA-AC is proposing no further changes to this section in response to this comment.

Name: Neal Casper, Casper Development Resources, Inc.

Item: 11B.16

Section: 11B-226.3 Dining surfaces exceeding 34 inches in height.

Comment on 45-Day Item: Revise the item to exclude the proposed clarification that this section “applies to counter dining surfaces where food or drink is consumed, and is not limited to counter dining surfaces where food or drink is served.” The proposed clarification that the accessible counter requirement applies to counters where food is “consumed” as opposed to applying to counters where food or drink is “served” is both unnecessary and will have an unreasonable cost on restaurants. This is not a clarification but is instead a change in the scoping that will have significant impact on the food service industry. The 2010 ADA Standards and the 2010 CBC do not require accessible dining surfaces to be 60” wide and few existing counters in “consumption areas” would meet the proposed requirement of a 60” minimum width. The proposed amendment would necessitate the modification of counters within most quick service food facilities.

DSA-AC Change to Accommodate: DSA-AC received multiple comments on this item during the 45-Day Comment Period. The DSA-AC 15-Day Express Terms contained a proposal to withdraw this item for further study by DSA-AC staff.

Name: Martin Cooper, City of Foster City

Item: 11B.16

Section: 11B-226.3 Dining surfaces exceeding 34 inches in height.

Comment on 45-Day Item: Recommends further amendment of this item to read:

***11B-226.3 Dining surfaces exceeding 34 inches in height.** Where ~~food or drink is served for consumption at a counter~~ dining surface exceeding 34 inches (864 mm) in height is provided for the consumption of food or drink, a portion of the main counter dining surface 60 inches (1525 mm) minimum in length shall be provided in compliance with Section ~~11B-902.3~~ 11B-902.*

Including the word “dining” to describe counter surfaces would exclude drinking establishments.

DSA-AC Change to Accommodate: DSA-AC received multiple comments on this item during the 45-Day Comment Period. The DSA-AC 15-Day Express Terms contained a proposal to withdraw this item for further study by DSA-AC staff.

Name: Afshan Afshar, AIA, CASp, CID, LEED BD+C, Build-LACCD Access Analyst

Item: 11B.17

Section: 11B-226.4 Baby changing tables.

Comment on 45-Day Item: Baby changing tables located in open areas in public men's restrooms may create unintended consequences. Please address if there is any “safe-harbor” available for existing baby changing tables located inside accessible toilet compartments.

DSA-AC Change to Accommodate: DSA-AC's proposed amendment restricts baby changing tables from being located within accessible toilet compartments or from being located so that they obstruct the required width of an accessible route. The proposed language was thoroughly discussed at the CAC meeting, and no exception was proposed for existing toilet facilities with baby changing tables located within accessible toilet compartments. Section 11B-202.4 permits existing accessible toilet compartments with baby changing tables to remain until an alteration or addition to the existing building or facility triggers path of travel requirement upgrades. DSA-AC is proposing no further changes to this section in response to the comment.

Name: Neal Casper, Casper Development Resources, Inc.

Item: 11B.17**Section:** 11B-226.4 Baby changing tables.

Comment on 45-Day Item: Revise the item to remove the prohibition that baby changing tables cannot be located within the accessible toilet compartment in a multi-accommodation restroom or be located in an area where when deployed would obstruct the accessible route. The proposed amendment is not in the public interest as the result would be the removal of baby changing tables from most public restrooms including restrooms in retail, grocery and restaurants where they are most needed by parents. Most public restrooms are not large enough to provide a location which could meet the proposed amendment.

DSA-AC Change to Accommodate: DSA-AC's proposed amendment to restrict baby changing tables from being located within accessible toilet compartments was thoroughly discussed at the CAC meeting and approved by Committee vote. Additionally, numerous comments were received during the DSA Advisory Board Access Committee stakeholder forums in support of the proposed amendment. When baby changing tables are located within accessible compartment stalls, they are often left in the deployed position by users and can significantly reduce access. DSA-AC is proposing no further changes to this section in response to this comment.

Name: Martin Cooper, City of Foster City**Item: 11B.24****Section:** 11B-308.4 Suggested reach ranges for children.

Comment on 45-Day Item: Recommends further amendment of this item to read:

11B-308.4 Suggested reach ranges for children. ~~Where building~~ Building elements such as coat hooks, lockers, or operable parts are designed for use primarily by children, the suggested dimensions of Table 11B-308.4 ~~may be used~~. These dimensions apply to either forward or side reaches.

Dimensions for children's water closets are currently mandated under Table 11B-604.9. Revisions to the proposed text would be consistent with requirements of the 2013 California Building Code.

DSA-AC Change to Accommodate: During the previous rulemaking cycle, a model code amendment was made to add Table 11B-604.9 Suggested Dimensions for Children's Use. DSA-AC is proposing a similar amendment in the current rulemaking cycle to add Table 11B-308.4 Suggested Dimensions for Children's Use. Both tables contain suggested, not required, dimensions for building components or elements used primarily by children. Requiring designers to use children's dimensions would be a significant change in access from previous 2010 CBC or current 2013 CBC levels. The DSA-AC 15-Day Express Terms contained a proposal to further clarify the amendment to this item by deleting the phrase "may be used" and replacing it with the phrase "shall be permitted" for consistency with model code format and terminology. This change will provide greater clarity and consistency for code users. See the full text of the resulting regulation (Final Express Terms) where the change is clearly indicated.

Name: Afshan Afshar, AIA, CASp, CID, LEED BD+C, Build-LACCD Access Analyst**Item: 11B.28****Section:** 11B-406.5.8 (Curb ramps, blended transitions and islands) Blended transitions.

Comment on 45-Day Item: The indication of "24 inches" does not make sense. Curb ramps are a component of accessible routes, and the maximum running slope at an accessible route at walks is 1:20.

DSA-AC Change to Accommodate: DSA-AC's proposed editorial amendment to this section is intended to coordinate the figure number with the section number only. DSA-AC will consider this proposal in the development of future rulemaking packages.

Name: Brian Black, NEII Code & Safety Director, National Elevator Industry, Inc.

Item: 11B.31

Section: 11B-411.1.1 (Destination-oriented elevators – General) Floor designations.

Comment on 45-Day Item: NEII recommends replacing the word “may” with the phrase “shall be permitted to” in the existing exception. Replacing the permissive language with mandatory language indicates there is no discretion in permitting this option.

DSA-AC Change to Accommodate: DSA-AC agrees that the proposed amendment would be consistent with model code format and terminology. The DSA-AC 15-Day Express Terms contained a proposal to replace the word “may” with the phrase “shall be permitted to”. This change will provide clarity and consistency for code users. See the full text of the resulting regulation (Final Express Terms) where the change is clearly indicated.

Name: Brian Black, NEII Code & Safety Director, National Elevator Industry, Inc.

Item: 11B.31

Section: 11B-411.1.1 (Destination-oriented elevators – General) Floor designations.

Comment on 45-Day Item: NEII recommends adding a second exception permitting non-successive floor numbering where a specific floor is not used (e.g. a hotel where floor thirteen is not used) or where a floor is not available for general occupant access (e.g. machinery and equipment floors).

DSA-AC Change to Accommodate: DSA-AC agrees that the requirement to provide successive flooring numbering, as prescribed in Section 11B-411.1.1, is not applicable in all facilities. The DSA-AC 15-Day Express Terms contained a proposal for a new exception addressing facilities in which non-successive floor numbering occurs. The proposed exception is applicable only to facilities where a specific floor number is omitted or where a floor is frequented only by service personnel for maintenance, repair or occasional monitoring of equipment. This change will provide clarity and consistency for code users. See the full text of the resulting regulation (Final Express Terms) where the change is clearly indicated.

Name: Brian Black, NEII Code & Safety Director, National Elevator Industry, Inc.

Item: 11B.31

Section: 11B-411.1.2 (Destination-oriented elevators – General) Car designations.

Comment on 45-Day Item: NEII recommends replacing the word “may” with the phrase “shall be permitted to” in the exception. Replacing the permissive language with mandatory language indicates there is no discretion in permitting this option. Also, NEII recommends deleting the example of an alpha-numeric designation (A1) to avoid the risk that it becomes an interpreted requirement.

DSA-AC Change to Accommodate: Inclusion of examples is intended to provide additional clarification of code requirements. DSA-AC does not agree that inclusion of an example of an alpha-numeric designation will be misinterpreted as a code requirement. However, DSA-AC agrees that the proposed amendment to replace the word “may” with the phrase “shall be permitted to” would be consistent with model code format and terminology. The DSA-AC 15-Day Express Terms contained a proposal to replace the word “may” with the phrase “shall be permitted to”. This change will provide clarity and consistency for

code users. See the full text of the resulting regulation (Final Express Terms) where the changes are clearly indicated.

Name: Brian Black, NEII Code & Safety Director, National Elevator Industry, Inc.

Item: 11B.31

Section: 11B-411.2.1.1 (Destination-oriented elevators – Hall call consoles) Location.

Comment on 45-Day Item: NEII recommends further discussion of the proposed requirement for each hoistway entrance, on floors with a building entry, to be located adjacent to a hall call console. NEII proposes an amendment to require a minimum of two hall call consoles on floors with a building entry, including parking and transfer levels.

The entry floor calculation does not take into account other means of access, such as security turnstiles, or remote entry systems. It also does not take into account building traffic patterns. The current wording does not seem to align with how conventional dispatching of elevators would allot hall call stations. The quantity of hall call stations will be more than half the amount of hoistway entrances. A figure should be provided to show opposed and in-line group layouts.

DSA-AC Change to Accommodate: When hall call consoles are utilized as part of a destination-oriented elevator system, and the accessibility function button is pressed, Section 11B-411.2.1.7.4 requires that “an elevator car immediately to the left or right of the hall call console be assigned”. Mr. Black’s proposal to require a minimum of two hall call consoles on floors with a building entry, including parking and transfer levels, could inequitably limit the number of elevators available for use by persons with disabilities. Additionally, Mr. Black’s comment does not take into account additional time that may be needed by persons with disabilities to orient themselves to and use the functions of a hall call console with which they may be unfamiliar. During this additional time, a hall call console located on a busy building entry floor would not be available for use by others. DSA-AC is proposing no further changes to this section in response to this comment.

Name: Brian Black, NEII Code & Safety Director, National Elevator Industry, Inc.

Item: 11B.31

Section: 11B-411.2.1.1 (Destination-oriented elevators – Hall call consoles) Location.

Comment on 45-Day Item: NEII recommends replacing the word “may” with the phrase “shall be permitted to” in the exception. Replacing the permissive language with mandatory language indicates there is no discretion in permitting this option.

DSA-AC Change to Accommodate: DSA-AC agrees that the proposed amendment would be consistent with model code format and terminology. The DSA-AC 15-Day Express Terms contained a proposal to replace the word “may” with the phrase “shall be permitted to”. This change will provide clarity and consistency for code users. See the full text of the resulting regulation (Final Express Terms) where the change is clearly indicated.

Name: Walter Park
Hollynn D’Lil

Item: 11B.31

Section: 11B-411.2.1.1 (Destination-oriented elevators – Hall call consoles) Location.

Comment on 15-Day Item: Recommend approval of this item. The proposed new language resolves some problems in the older AB-090 language.

DSA-AC Change to Accommodate: This is a comment in support of the proposed amendment. DSA-AC is proposing no further changes to this section in response to this comment.

Name: Brian Black, NEII Code & Safety Director, National Elevator Industry, Inc.

Item: 11B.31

Section: 11B-411.2.1.2 (Destination-oriented elevators – Hall call consoles) Required features.

Comment on 45-Day Item: NEII recommends deleting the unnecessary language “where provided”.

DSA-AC Change to Accommodate: DSA-AC agrees that the proposed amendment would be consistent with model code format and terminology. The DSA-AC 15-Day Express Terms contained a proposal to delete the phrase “where provided”. This change will provide clarity and consistency for code users. See the full text of the resulting regulation (Final Express Terms) where the change is clearly indicated.

Name: Brian Black, NEII Code & Safety Director, National Elevator Industry, Inc.

Item: 11B.31

Section: 11B-411.2.1.2.2 (Destination-oriented elevators – Hall call consoles) Touch screen.

Comment on 45-Day Item: NEII recommends deleting the second sentence. It is unnecessary to provide instructions on the general operation of a touch screen. Devices are intuitive in similar ways as keypad operation and are used without instruction in ATMs, cell phones, tablets, etc.

DSA-AC Change to Accommodate: DSA-AC does not agree that the use of a touch screen is intuitive for all persons thereby making general instructions on the operation of a touch screen unnecessary. What is “intuitive” for one person may cause confusion for another person with less experience or varying capabilities based on impairments. DSA-AC is proposing no further changes to this section in response to this comment.

Name: Brian Black, NEII Code & Safety Director, National Elevator Industry, Inc.

Item: 11B.31

Section: 11B-411.2.1.2.2 (Destination-oriented elevators – Hall call consoles) Touch screen.

Comment on 15-Day Item: NEII recommends further amending this section to read:

11B-411.2.1.2.2 Touch screen. Touch screen display shall comply with Section 11B-411.2.1.2.4. ~~The touch screen shall provide written or visual instruction on the screen as to its use.~~

NEII maintains that the information provided on a touch screen display is intuitively usable and needs no additional written or visual instruction. For example, floor numbers may be portrayed as buttons and instructions to touch the desired floor “button” would not be necessary.

No written or visual instructions are necessary on a destination-oriented hall call station with a conventional 12-key mechanical keypad, just as no instructions are needed in a conventional elevator to push the desired floor button on the car operating panel inside the elevator car. These systems are also intuitive in ATMs, cell phones, tablets, etc. Additional visual instructions on a console with a touch screen would only clutter the console with unnecessary verbiage.

Also, our proposal for 11B-411.2.1.2.4 revisions specifies that the required information will always be displayed and just as intuitive as other car call stations.

DSA-AC Change to Accommodate: DSA-AC does not agree that the use of a touch screen is intuitive for all persons thereby making general instructions on the operation of a touch screen unnecessary. What is “intuitive” for one person may cause confusion for another person with less experience or varying capabilities based on impairments. DSA-AC is proposing no further changes to this section in response to this comment.

Name: Brian Black, NEII Code & Safety Director, National Elevator Industry, Inc.

Item: 11B.31

Section: 11B-411.2.1.2.4 (Destination-oriented elevators – Hall call consoles) Display screen.

Comment on 45-Day Item: NEII recommends deleting the phrase “information including but not limited to”. This language implies some discretion on the part of the inspector or permitter to add additional requirements. NEII recommends adding an exception permitting additional information on the display screen beyond that required by 11B-411.2.1.2.4.

DSA-AC Change to Accommodate: DSA-AC agrees that the phrase “including but not limited to” is ambiguous. Deletion of this phrase does not lessen the requirement to provide accessibility. A new exception is not required because additional elements and features to enhance accessibility, beyond those required by the CBC, can be provided. The DSA-AC 15-Day Express Terms contained a proposal to delete the phrase “including but not limited to”. This change will provide clarity and consistency for code users. See the full text of the resulting regulation (Final Express Terms) where the change is clearly indicated.

Name: Brian Black, NEII Code & Safety Director, National Elevator Industry, Inc.

Item: 11B.31

Section: 11B-411.2.1.2.4 (Destination-oriented elevators – Hall call consoles) Display screen.

Comment on 15-Day Item: NEII recommends further amending this section to read:

11B-411.2.1.2.4 Display screen. ~~Upon activation of the accessibility function button, the~~ The display screen shall display information on the location and use of the (★) and (-) buttons, including but not limited to user input confirmation, elevator assignment characters, direction to the assigned elevator, and error messages. On touch screen displays the main egress floor shall be identified by a (*) and the floor below the egress floor identified by a (-) preceding the floor number displayed or with a (-) button. The display screen shall comply with 11B-411.2.1.2.4.

NEII proposed adding “Upon activation of the function button” in our first comments to be editorially consistent with another proposal we made. This was not appropriate, as 11B-411.2.1.2.4 essentially describes what a touch screen displays in its normal, 24/7 operation for persons with or without disabilities. The required information to be displayed is necessary for all users and should not require the activation of the accessibility function button. The main egress floor will be designated by a star, just as it is on car operating panels in traditional elevators. Negative floor numbers will be provided for all passengers who may need to access a floor below the main floor. The location of the (★) and (-) buttons will be readily visible for all users, and their use is self-evident, even as they are in conventional elevator car operating panels.

DSA-AC Change to Accommodate: DSA-AC does not agree that the location of the star (★) and minus sign (-) buttons will be readily apparent for all users and that their use will be self-evident. Persons unfamiliar with a destination-oriented keypad, especially persons with visual impairments, may not be aware of the keypad differences. Audio output for persons with visual impairments will not be provided until the accessibility button is activated. Additionally, what is self-evident to one person may cause confusion for another person with less experience or varying capabilities based on impairments. DSA-AC is proposing no further changes to this section in response to this comment.

Name: Eugene Lozano, Jr., California Council of the Blind

Item: 11B.31

Section: 11B-411.2.1.2.4 (Destination-oriented elevators – Hall call consoles) Display screen.

Comment on 45-Day Item: Recommends further amendment of this item to read:

11B-411.2.1.2.4 Display screen. *Upon activation of the accessibility function button, the display screen shall display information including but not limited to user input confirmation, elevator assignment characters, direction to the assigned elevator, the presence and use of the (★) and (-) symbols on the keypad, and error messages. The display screen shall comply with 11B-411.2.1.2.4.*

All 11B-411 does not require that instructions are given when the access button is pushed regarding the presence and use of the star and minus signs on the keypad. A typical telephone keypad would have at the lower right corner a (#) sign and not a (-) sign which could cause confusion to someone who is not familiar with destination-based elevator controls. It is important for the safe and effective use of the elevator that there are instructions regarding the (★) and (-) signs.

DSA-AC Change to Accommodate: DSA-AC agrees that this section requires further amendment to ensure instruction for use of all the display screen function buttons is provided. The DSA-AC 15-Day Express Terms contained a proposal to further amend the display screen information requirements to clearly indicate the location and use of the (★) and (-) buttons. These changes will provide clarity and consistency for code users. See the full text of the resulting regulation (Final Express Terms) where the change is clearly indicated.

Name: Eugene Lozano, Jr., California Council of the Blind

Item: 11B.31

Section: 11B-411.2.1.2.4.1 (Destination-oriented elevators – Hall call consoles, display screen) Contrast.

Comment on 45-Day Item: Recommends further amendment of this item to read:

11B-411.2.1.2.4.1 Contrast. *Display screens shall provide contrast with light characters and symbols on a ~~dark black background or dark characters and symbols on a light background~~. The background shall be solid and static.*

As the early 1970s, researchers have investigated the question of color combinations that are particularly suitable for letters and backgrounds of signs for persons who have low vision. One such study, "Information Transfer Problems of the Partially Sighted: Recent Results and Project Summary," the Rand Corporation, R-1770-HEW, June 1975, was conducted as part of a broad program on information transfer problems of persons who have low vision sponsored by the Rehabilitation Services Administration of the U.S. Department of Health, Education and Welfare. They found:

1. That more than 70 percent of the time persons with low vision prefer to view white symbols on a black background over black symbols on a white background. The reasons for this were (a) that light came to the pathological eye via the information carrying alphanumeric symbols rather than from the

matrix in which the symbols were imbedded and (b) that, in general, the alphanumeric symbols occupied a smaller portion of a sign than the matrix in which they were imbedded and hence produced less glare and less light scattering.

2. Through the use of a very sophisticated pseudo color generator that could produce more than 16.7 million two color combinations, it was found that persons who have low vision preferred very light colored alphanumeric symbols on very dark backgrounds. For example, they felt that they could see very clearly white or yellow characters on a black, dark red, dark brown, dark green, or dark blue background. They found red on blue, blue on red, blue on brown, brown on blue, green on blue and blue on green to be particularly difficult to distinguish.

Based on the above and other research, it would seem that there would be a greater degree of access for persons who have low vision by clearly specifying that floor destination indicators on the elevator door jambs have white characters on a black background.

The specification to have light on dark or dark on light is too general and will not provide the contrast needed by persons who have low vision. Hence, this was not supported by DSA's Disability Advisory Committee (December 2013) and the California Building Standard's Commission's Access Code Committee (February 2014). Both committees recommended to DSA staff white characters on a black background.

DSA-AC Change to Accommodate: During development of the new destination-oriented elevator provisions, it was DSA-AC's intent to establish clear requirements based on measurable testing standards. Electronic LCD display screens do not produce a "true white" or a "true black". Compliance with a provision requiring light characters and symbols on a black background would not be attainable. DSA-AC finds that Mr. Lozano's recommendation to delete the provision permitting "*dark characters and symbols on a light background*" may have merit. However, California Government Code §11346.45 requires that DSA-AC involve parties who would be subject to the proposed regulations in public discussions prior to publication of the notice. DSA-AC is concerned that a significant change at this time would not have been adequately noticed, and will consider this proposal in the development of future rulemaking packages.

Name: Walter Park
Hollynn D'Lil

Item: 11B.31

Section: 11B-411.2.1.2.4.1 (Destination-oriented elevators – Hall call consoles, display screen) Contrast.

Comment on 15-Day Item: Recommend further amendment of this section to include a requirement for a contrast ratio minimum of 300:1. Every two tones have "contrast". Early consoles still in use appear gray on gray. AB-090 required a contrast ratio minimum of 200:1, but current minimum, widely available, should be 300:1.

DSA-AC Change to Accommodate: During development of the new destination-oriented elevator provisions, it was DSA-AC's intent to establish clear requirements based on measurable field testing standards. Determining compliance with a provision requiring a minimum contrast ratio of 200:1 or 300:1 would not be possible outside of a controlled laboratory environment. DSA-AC is proposing no further changes to this section in response to the comment.

Name: Brian Black, NEII Code & Safety Director, National Elevator Industry, Inc.

Item: 11B.31

Section: 11B-411.2.1.2.5 (Destination-oriented elevators – Hall call consoles) Audio output.

Comment on 45-Day Item: NEII recommends deleting the phrase "including but not limited to". This language implies some discretion on the part of the inspector or permitter to add additional requirements.

NEII recommends adding an exception permitting additional verbal announcements beyond that required by 11B-411.2.1.2.5.

DSA-AC Change to Accommodate: DSA-AC agrees that the phrase “not limited to” is ambiguous. Deletion of this phrase does not lessen the requirement to provide accessibility. A new exception is not required because additional elements and features to enhance accessibility, beyond those required by the CBC, can be provided. The DSA-AC 15-Day Express Terms contained a proposal to delete the phrase “including but not limited to”. This change will provide clarity and consistency for code users. See the full text of the resulting regulation (Final Express Terms) where the change is clearly indicated.

Name: Brian Black, NEII Code & Safety Director, National Elevator Industry, Inc.

Item: 11B.31

Section: 11B-411.2.1.2.5 (Destination-oriented elevators – Hall call consoles) Audio output.

Comment on 15-Day Item: NEII recommends further amending this section to read:

11B-411.2.1.2.5 Audio output. Upon activation of the accessibility function button, the audio output shall provide verbal announcements, including but not limited to of operating instructions, location and use of the (★) and (-) buttons, user input confirmation, announcement of the elevator assignment characters, direction to the assigned elevator, and error messages. On touch screen displays, verbal announcements shall also identify where a floor is the main egress floor, designate floors below the main egress floor as “negative” or “minus” floor numbers, and when the (-) button icon (if provided) is touched. Audio output shall be recorded or digitized human speech, and shall be delivered through a loudspeaker. Auditory volume shall be at least 10 dB above ambient sound level, but shall not exceed 80 dB, measured 36 inches (915 mm) in front of the console. At hall call console locations where the ambient sound level varies, auditory volume shall be maintained at the required volume by an automatic gain control or shall be set at not less than 75 dB.

Rather than describing the location and use of the (★) and (-) buttons, the audio output has the ability to provide the information these symbols represent for persons who cannot see the symbols on a screen. For example, “Floor One, Main Egress Floor” conveys this better than “The star designation is located in the lower left quadrant of the screen and is used to choose the main egress floor level”. The word “minus” can be verbalized for floors below the main egress floor.

Where a (-) icon is used on the screen [See 11B-411.2.1.7.2 Exception 1] the word “minus” can be stated when that icon is touched by the user as they pass their finger over the keypad arrangement.

For mechanical 12-key keypads the (★) and (-) buttons are always in the same location and always have the same function. Providing additional verbal instructions is unnecessary, just as they would be for a visually disabled person using a public telephone.

DSA-AC Change to Accommodate: DSA-AC does not agree that the location of the star (★) and minus sign (-) buttons will be readily apparent for all users and that their use will be self-evident. Persons unfamiliar with a destination-oriented keypad, especially persons with visual impairments, may not be aware of the keypad differences. Additionally, what is self-evident to one person may cause confusion for another person with less experience or varying capabilities based on impairments. During development of the new destination-oriented elevator provisions, it was DSA-AC’s intent to establish clear requirements for what type of information must be provided, not to direct code users in how to provide the required information. DSA-AC is proposing no further changes to this section in response to this comment.

Name: Eugene Lozano, Jr., California Council of the Blind

Item: 11B.31

Section: 11B-411.2.1.2.5 (Destination-oriented elevators – Hall call consoles) Audio output.

Comment on 45-Day Item: Recommends further amendment of this item to read:

11B-411.2.1.2.5 Audio output. Upon activation of the accessibility function button, the audio output shall provide verbal announcements, including but not limited to operating instructions including the presence and purpose of the (*) and (-), user input confirmation, announcement of the elevator assignment characters, direction to the assigned elevator, and error messages. Audio output shall be recorded or digitized human speech, and shall be delivered through a loudspeaker. Auditory volume shall be at least 10 dB above ambient sound level, but shall not exceed 80 dB, measured 36 inches (915 mm) in front of the console. At hall call console locations where the ambient sound level varies, auditory volume shall be maintained at the required volume by an automatic gain control or shall be set at not less than 75 dB.

All 11B-411 does not require that instructions are given when the access button is pushed regarding the presence and use of the star and minus signs on the keypad. A typical telephone keypad would have at the lower right corner a (#) sign and not a (-) sign which could cause confusion to someone who is not familiar with destination-based elevator controls. It is important for the safe and effective use of the elevator that there are instructions regarding the (*) and (-) signs.

DSA-AC Change to Accommodate: DSA-AC agrees that this section requires further amendment to ensure instruction for use of all the display screen function buttons is provided. The DSA-AC 15-Day Express Terms contained a proposal to further amend the audio output operating instructions requirements to clearly indicate the location and use of the (★) and (-) buttons. These changes will provide clarity and consistency for code users. See the full text of the resulting regulation (Final Express Terms) where the change is clearly indicated.

Name: Brian Black, NEII Code & Safety Director, National Elevator Industry, Inc.

Item: 11B.31

Section: 11B-411.2.1.3.1 (Destination-oriented elevators – Hall call consoles) Keypad call console arrangement.

Comment on 45-Day Item: NEII recommends adding the phrase “Where keypads are provided” to provide clarity.

DSA-AC Change to Accommodate: DSA-AC agrees that the proposed amendment would be consistent with model code format and terminology. The DSA-AC 15-Day Express Terms contained a proposal to add the phrase “Where keypads are provided”. This change will provide clarity and consistency for code users. See the full text of the resulting regulation (Final Express Terms) where the change is clearly indicated.

Name: Brian Black, NEII Code & Safety Director, National Elevator Industry, Inc.

Item: 11B.31

Section: 11B-411.2.1.3.2 (Destination-oriented elevators – Hall call consoles) Touch screen call console arrangement.

Comment on 45-Day Item: NEII recommends adding the phrase “Where touch screens are provided” to provide clarity.

DSA-AC Change to Accommodate: DSA-AC agrees that the proposed amendment would be consistent with model code format and terminology. The DSA-AC 15-Day Express Terms contained a proposal to

add the phrase “Where touch screens are provided”. This change will provide clarity and consistency for code users. See the full text of the resulting regulation (Final Express Terms) where the change is clearly indicated.

Name: Brian Black, NEII Code & Safety Director, National Elevator Industry, Inc.

Item: 11B.31

Section: 11B-411.2.1.3.2 (Destination-oriented elevators – Hall call consoles) Touch screen call console arrangement.

Comment on 15-Day Item: NEII recommends further amending this section to read:

11B-411.2.1.3.2 Touch screen call console arrangement. Where touch screen call consoles are provided, the touch screen shall be located directly above the accessibility function button. The accessibility function button shall be located adjacent to the perimeter of the active touch screen at a height of 36" (915 mm) to 42" (1067 mm) above the finish floor.

The concept of “close proximity” was in the Division’s December 23, 2013 Draft Express Terms and should be retained in the final rules.

On touch screens, potential tactile overload of a mechanical keypad with many buttons for the keypad does not exist. Therefore the accessibility function button will stand out and can easily be located at the perimeter of the active display. Its location is further enhanced by the specified height of the button above the finish floor [see 11B-411.2.1.3.2], the International Symbol of Accessibility, and the three raised dots [see 11B-411.2.1.2.3].

DSA-AC Change to Accommodate: DSA-AC received numerous comments on this item during the initial public participation period prior to the Code Advisory Committee (CAC) meeting. Most commenters recommended that for ease of use the touch screen should be located in a consistent location directly above the accessibility function button. The proposed language was discussed extensively by the CAC members and approved with an amendment to require the touch screen be located directly above the accessibility function button. DSA-AC is proposing no further changes to this section in response to the comment.

Name: Brian Black, NEII Code & Safety Director, National Elevator Industry, Inc.

Item: 11B.31

Section: 11B-411.2.1.3.3 (Destination-oriented elevators – Hall call consoles) Proximity of required elements.

Comment on 45-Day Item: NEII expressed concerns that sloping the hall call console or display screen may provide a better level of visibility for low-vision individuals, but that a screen mounted with the highest “operable part” at 48 inches at an angle 15 to 25 degrees from the vertical plane may result in a glare that makes the screen unreadable for someone sitting in a wheelchair. Permitting a range of 7 to 25 degrees will allow the designer to adjust the angle to ensure readability for persons sitting in wheelchairs with an eye level lower than the top of the screen.

DSA-AC Change to Accommodate: DSA-AC agrees that the originally proposed language does not clearly state the requirements for the position and slope of the hall call console elements and that the language requires further amendment. The DSA-AC 15-Day Express Terms contained a proposal to delete the second sentence of Section 11B-411.2.1.3.3 and add a new Section 11B-411.2.1.3.4 clarifying the requirements for the position and slope of the hall call console elements. This change will provide

clarity and consistency for both manufacturers and code users. See the full text of the resulting regulation (Final Express Terms) where the change is clearly indicated.

Name: Brian Black, NEII Code & Safety Director, National Elevator Industry, Inc.

Item: 11B.31

Section: 11B-411.2.1.4.1 (Destination-oriented elevators – Hall call consoles) Hall call console additional buttons.

Comment on 45-Day Item: NEII recommends replacing the term “hall call console buttons” with the term “physical hall call console buttons” to differentiate physical buttons from the “buttons” on touch screens.

DSA-AC Change to Accommodate: The term “button” is used throughout the CBC to refer to both “physical” buttons, such as the buttons located on keypads, and “virtual” buttons, such as the buttons located on display screens. Further study is needed before making a significant change in terminology to either this proposed section or the entirety of Chapter 11B. California Government Code §11346.45 requires that DSA-AC involve parties who would be subject to the proposed regulations in public discussions prior to publication of the notice. DSA-AC is concerned that a significant change at this time would not have been adequately noticed, and will consider this proposal in the development of future rulemaking packages.

Name: Brian Black, NEII Code & Safety Director, National Elevator Industry, Inc.

Item: 11B.31

Section: 11B-411.2.1.4.1.1 (Destination-oriented elevators – Hall call consoles) Arrangement.

Comment on 45-Day Item: NEII recommends replacing the term “hall call console buttons” with the term “physical hall call console buttons” to differentiate physical buttons from the “buttons” on touch screens.

In addition, NEII is concerned that the requirements of this section could make additional, convenience buttons like “Banquet Level”, “Pool”, or “Parking” unworkable. Because the raised lettering/braille should not be on the buttons so as to prevent actuation when reading the words, the tactile lettering will have to be next to the buttons and could take 3+ inches of space.

DSA-AC Change to Accommodate: The term “button” is used throughout the CBC to refer to both “physical” buttons, such as the buttons located on keypads, and “virtual” buttons, such as the buttons located on display screens. Further study is needed before making a significant change in terminology to either this proposed section or the entirety of Chapter 11B. California Government Code §11346.45 requires that DSA-AC involve parties who would be subject to the proposed regulations in public discussions prior to publication of the notice. DSA-AC is concerned that a significant change at this time would not have been adequately noticed, and will consider both of NEII’s proposals in the development of future rulemaking packages.

Name: Brian Black, NEII Code & Safety Director, National Elevator Industry, Inc.

Item: 11B.31

Section: 11B-411.2.1.4.1.2 (Destination-oriented elevators – Hall call consoles) Identification.

Comment on 45-Day Item: NEII recommends replacing the term “hall call console buttons” with the term “physical hall call console buttons” to differentiate physical buttons from the “buttons” on touch screens.

DSA-AC Change to Accommodate: The term “button” is used throughout the CBC to refer to both “physical” buttons, such as the buttons located on keypads, and “virtual” buttons, such as the buttons located on display screens. Further study is needed before making a significant change in terminology to either this proposed section or the entirety of Chapter 11B. California Government Code §11346.45 requires that DSA-AC involve parties who would be subject to the proposed regulations in public discussions prior to publication of the notice. DSA-AC is concerned that a significant change at this time would not have been adequately noticed, and will consider this proposal in the development of future rulemaking packages.

Name: Eugene Lozano, Jr., California Council of the Blind

Item: 11B.31

Section: 11B-411.2.1.4.1.2 (Destination-oriented elevators – Hall call console) Identification.

Comment on 45-Day Item: Recommends further amendment of this item to read:

11B-411.2.1.4.1.2 Identification. *Buttons shall be identified by raised characters and symbols, white on a black background, complying with Section 11B-703.2, 11B-703.5, and Braille complying with 703.3. Identification shall be placed immediately to the left of the control button to which the designation applies.*

As written, Section 11B-411.2.1.4.1.2 does not have the full cross-references for permanent designation signs found in 11B-216.2:

11B-216.2 Designations. Interior and exterior signs identifying permanent rooms and spaces shall comply with Sections 11B-703.1, 11B-703.2, 11B-703.3 and 11B-703.5. Where pictograms are provided as designations of permanent rooms and spaces, the pictograms shall comply with Section 11B-703.6 and shall have text descriptors complying with Sections 11B-703.2 and 11B-703.5.

The California Council of the Blind's position is that the full citation for designation signs must be found in Section 11B-411.2.1.4.1.2 to ensure that there is full compliance with the sign provisions for permanent designation signs.

DSA-AC Change to Accommodate: Section 11B-411.2.1.4.1.2 contains proposed requirements for raised characters and symbols and corresponding Braille to identify any additional buttons which may be located on a hall call console. It does not contain requirements for designation signs for permanent rooms or spaces. The application of all the provisions of Section 11B-703.5 to hall call console button identification would create internal contradictions. Further study is needed before making a significant change to the requirements of this section. California Government Code §11346.45 requires that DSA-AC involve parties who would be subject to the proposed regulations in public discussions prior to publication of the notice. DSA-AC is concerned that a significant change at this time would not have been adequately noticed, and will consider this proposal in the development of future rulemaking packages.

Name: Brian Black, NEII Code & Safety Director, National Elevator Industry, Inc.

Item: 11B.31

Section: 11B-411.2.1.4.2 (Destination-oriented elevators – Hall call consoles) Security or access controls.

Comment on 45-Day Item: To provide clarity, NEII recommends adding the phrases “Where located in elevator lobbies,” and “associated with the elevator”. The amended section would read:

11B-411.2.1.4.2 Security or access controls. *Where located in elevator lobbies, Security or access control system card readers associated with the elevator shall be located in close proximity to each hall call console and in a consistent location throughout the facility.*

In some buildings, security card systems may be located elsewhere in the building (e.g. at a building entrance or turnstile). In these instances the controls cannot be located near the hall call consoles. The text should also clarify that it is only elevator-related controls being regulated.

DSA-AC Change to Accommodate: DSA-AC agrees that the originally proposed language does not clearly state the requirements for the adjacency and consistent placement of security and access controls relative to hall call consoles and that the language requires further amendment. The DSA-AC 15-Day Express Terms contained a proposal to amend the language of this section to clarify the requirements for security and access controls relative to hall call consoles. This change will provide clarity and consistency for both manufacturers and code users. See the full text of the resulting regulation (Final Express Terms) where the change is clearly indicated.

Name: Brian Black, NEII Code & Safety Director, National Elevator Industry, Inc.

Item: 11B.31

Section: 11B-411.2.1.5 (Destination-oriented elevators – Hall call consoles) Button requirements.

Comment on 45-Day Item: NEII recommends replacing the term “hall call console buttons” with the term “physical hall call console buttons” to differentiate physical buttons from the “buttons” on touch screens.

DSA-AC Change to Accommodate: The term “button” is used throughout the CBC to refer to both “physical” buttons, such as the buttons located on keypads, and “virtual” buttons, such as the buttons located on display screens. Further study is needed before making a significant change in terminology to either this proposed section or the entirety of Chapter 11B. California Government Code §11346.45 requires that DSA-AC involve parties who would be subject to the proposed regulations in public discussions prior to publication of the notice. DSA-AC is concerned that a significant change at this time would not have been adequately noticed, and will consider this proposal in the development of future rulemaking packages.

Name: Brian Black, NEII Code & Safety Director, National Elevator Industry, Inc.

Item: 11B.31

Section: 11B-411.2.1.5.1 (Destination-oriented elevators – Hall call consoles) Size.

Comment on 45-Day Item: NEII recommends replacing the term “buttons” with the term “physical buttons” to differentiate physical buttons from the “buttons” on touch screens.

DSA-AC Change to Accommodate: The term “button” is used throughout the CBC to refer to both “physical” buttons, such as the buttons located on keypads, and “virtual” buttons, such as the buttons located on display screens. Further study is needed before making a significant change in terminology to either this proposed section or the entirety of Chapter 11B. California Government Code §11346.45 requires that DSA-AC involve parties who would be subject to the proposed regulations in public discussions prior to publication of the notice. DSA-AC is concerned that a significant change at this time would not have been adequately noticed, and will consider this proposal in the development of future rulemaking packages.

Name: Walter Park
Hollynn D’Lil

Item: 11B.31

Section: 11B-411.2.1.5.1 (Destination-oriented elevators – Hall call consoles) Size.

Comment on 15-Day Item: Recommend further amendment of this section to include a requirement for the Function key to be located directly below the numeric keypad, and an additional requirement that the Function key be distinctly larger than number keys to designate that it is unique.

DSA-AC Change to Accommodate: Further study is needed before making a significant change to the proposed requirements of this section regarding the location and size of the accessibility function button on hall call consoles. California Government Code §11346.45 requires that DSA-AC involve parties who would be subject to the proposed regulations in public discussions prior to publication of the notice. DSA-AC is concerned that a significant change at this time would not have been adequately noticed, and will consider this proposal in the development of future rulemaking packages.

Name: Walter Park
Hollynn D'Lil

Item: 11B.31

Section: 11B-411.2.1.5.2 (Destination-oriented elevators – Hall call consoles) Color.

Comment on 15-Day Item: Recommend further amendment of this section to include a requirement for a non-glare surface. Current language permits a 'chrome' finish, common on many telephone-style keypads, but difficult to see for many persons with low vision. Add a requirement for a non-glare surface.

DSA-AC Change to Accommodate: Section 11B-411.2.1.5.2 does not permit a "chrome" finish on the hall call console buttons. It specifically requires characters and symbols on buttons to be white on a black background. DSA-AC does find that Mr. Park's and Ms. D'Lil's recommendation to add language requiring a non-glare finish to have merit. However, California Government Code §11346.45 requires that DSA-AC involve parties who would be subject to the proposed regulations in public discussions prior to publication of the notice. DSA-AC is concerned that a significant change at this time would not have been adequately noticed, and will consider this proposal in the development of future rulemaking packages.

Name: Brian Black, NEII Code & Safety Director, National Elevator Industry, Inc.

Item: 11B.31

Section: 11B-411.2.1.7 (Destination-oriented elevators – Hall call consoles) Elevator car assignment.

Comment on 45-Day Item: To provide clarity, NEII recommends relocating the duplicative phrase "When the accessibility function button is pressed," out of Sections 11B-411.2.1.7.1, 11B-411.2.1.7.2 and 11B-411.2.1.7.3, and placing it in a single location in Section 11B-411.2.1.7.

DSA-AC Change to Accommodate: DSA-AC agrees that the proposed amendment would be consistent with model code format and terminology. The DSA-AC 15-Day Express Terms contained proposals to add the phrase "When the accessibility function button is pressed" to Section 11B-411.2.1.7 and remove it from Sections 11B-411.2.1.7.1, 11B-411.2.1.7.2 and 11B-411.2.1.7.3. These changes will provide clarity and consistency for code users. See the full text of the resulting regulation (Final Express Terms) where the change is clearly indicated.

Name: Brian Black, NEII Code & Safety Director, National Elevator Industry, Inc.

Item: 11B.31

Section: 11B-411.2.1.7.1 (Destination-oriented elevators – Hall call consoles) Assignment by keypad hall call console.

Section: 11B-411.2.1.7.2 (Destination-oriented elevators – Hall call consoles) Assignment by touch screen hall call console.

Comment on 45-Day Item: NEII recommends restructuring these sections to more clearly state the requirement for a verbal announcement of the floors served by a specific elevator group in buildings with two or more elevator banks each serving a different group of floors. In a building with two or more elevator banks each serving a different group of floors, elevator grouping (e.g. low-rise, mid-rise, high-rise) occurs in the building entry level lobby where passengers need to choose which group to access depending on which floor they are traveling to. In a building with a single set of elevators, the elevators will serve all floors, so verbal announcements of the floors served would be unnecessary and confusing. The one exception to this is where a high rise may have a sky lobby where the elevator groups converge to permit transfers from one group to another.

DSA-AC Change to Accommodate: DSA-AC agrees that the originally proposed language of these sections does not clearly state the requirement for a verbal announcement of the floors served by a specific elevator group in buildings with two or more elevator banks each serving a different group of floors, and that the language in both sections requires further amendment. DSA-AC proposes relocating the requirement for a verbal announcement of the floors served into a more applicable section, Section 11B-411.2.1.6 Identification of Floors Served. This proposed change will provide for audio output only when needed in buildings with two or more elevator banks each serving a different group of floors. The DSA-AC 15-Day Express Terms contained a proposal to relocate the requirement for a verbal announcement into Section 11B-411.2.1.6, and proposed amendments to Sections 11B-411.2.1.7.1 and 11B-411.2.1.7.2 in coordination to remove duplicative language. These changes will provide clarity and consistency for both manufacturers and code users. See the full text of the resulting regulation (Final Express Terms) where the change is clearly indicated.

Name: Brian Black, NEII Code & Safety Director, National Elevator Industry, Inc.

Item: 11B.31

Section: 11B-411.2.1.7.2 (Destination-oriented elevators – Hall call consoles) Assignment by touch screen hall call console.

Comment on 45-Day Item: NEII recommends replacing the word “may” with the phrase “shall be permitted to” in the exception. Replacing the permissive language with mandatory language indicates there is no discretion in permitting this option.

DSA-AC Change to Accommodate: DSA-AC agrees that the proposed amendment would be consistent with model code format and terminology. The DSA-AC 15-Day Express Terms contained a proposal to replace the word “may” with the phrase “shall be permitted to”. This change will provide clarity and consistency for code users. See the full text of the resulting regulation (Final Express Terms) where the change is clearly indicated.

Name: Brian Black, NEII Code & Safety Director, National Elevator Industry, Inc.

Item: 11B.31

Section: 11B-411.2.1.7.3 (Destination-oriented elevators – Hall call consoles) Assignment by security credential.

Comment on 45-Day Item: NEII recommends adding the phrase “and security systems associated with the elevator are in effect” to cover when the elevator security system is not activated. Additionally, NEII

recommends removing the last three sentences of this section because the information is already required in Sections 11B-411.2.1.7.1 and 11B-411.2.1.7.2.

DSA-AC Change to Accommodate: Sections 11B-411.2.1.7.1, 11B-411.2.1.7.2 and 11B-411.2.1.7.3 follow the same format of providing requirements for locations where car assignment is made by keypad hall call console, touch screen hall call console or security credential. DSA-AC does not agree that the language in the last three sentences should be deleted. However, DSA-AC agrees that the proposed amendment to add the phrase “and security systems associated with the elevator are in effect” would be consistent with model code format and terminology. The DSA-AC 15-Day Express Terms contained a proposal to add the phrase “and security systems associated with the elevator are in effect”. This change will provide clarity and consistency for code users. See the full text of the resulting regulation (Final Express Terms) where the change is clearly indicated.

Name: Brian Black, NEII Code & Safety Director, National Elevator Industry, Inc.

Item: 11B.31

Section: 11B-411.2.1.7.3 (Destination-oriented elevators – Hall call consoles) Assignment by security credential.

Comment on 15-Day Item: NEII recommends further amending this section to read:

11B-411.2.1.7.3 Assignment by security credential. If a security system or other form of access control system is provided, when the accessibility function button is pressed, when the accessibility function button is pressed, and security systems controlling elevator access are in operation, the audio output shall provide a verbal announcement and direction to the location of the access control activation sensor, such as “present security credential at the sensor immediately to the left”. Upon presentation of security credential, the destination floor shall be confirmed by verbal announcement and on the display screen. The display screen shall indicate the elevator assignment characters and a verbal announcement shall be made of the assigned elevator responding to the call. Visual and verbal direction to the assigned elevator shall be provided.

Without specifying the activation of the function button to provide audio output, these systems will be providing verbal announcements all of the time the elevators are in operation (assuming the building owners do not deactivate the elevator security systems on a daily or hourly basis). This would result in elevator systems “talking” in an office building at midnight, even though no one is in the building. In hotels with executive floors requiring key-card access, “present security credential at the sensor immediately to the left” will be heard 24/7, even when no one is using the elevators at 3:00 in the morning.

“ . . . when the accessibility function button is pressed . . . ” was in the original proposal and should not be deleted in the final rules.

The deleted segment that begins, “Upon presentation of security credential . . . ” is already included in the requirements of 11B-411.2.1.7.1 and 11B-411.2.1.7.2, and there is no need to repeat. This solution assumes that the security credential is incorporated into the keypad or touch screen hall call console. If this solution does not assume that the security credential is incorporated into these devices then the rules will need to define the type of hall call console (for example, turnstiles or kiosks). The examples may have neither a touch screen nor a keypad.

DSA-AC Change to Accommodate: The DSA-AC 15-Day Express Terms contained proposals to add the phrase “When the accessibility function button is pressed” to Section 11B-411.2.1.7 and remove it from individual sub-Sections 11B-411.2.1.7.1, 11B-411.2.1.7.2 and 11B-411.2.1.7.3. Based on model code section hierarchy convention, locating the phrase within Section 11B-411.2.1.7 makes it applicable to sub-Sections 11B-411.2.1.7.1, 11B-411.2.1.7.2 and 11B-411.2.1.7.3.

The requirements of sub-Section 11B-411.2.1.7.3 differ from the requirements of sub-Sections 11B-411.2.1.7.1 and 11B-411.2.1.7.2, in that a security credential must be presented in order to access the elevator car assignment controls. Based on model code section hierarchy convention, language contained in individual sub-Sections 11B-411.2.1.7.1 and 11B-411.2.1.7.2 is also included in sub-Section 11B-411.2.1.7.3, making it applicable to each sub-section.

DSA-AC is proposing no further changes to this section in response to the comment.

Name: Brian Black, NEII Code & Safety Director, National Elevator Industry, Inc.

Item: 11B.31

Section: 11B-411.2.1.7.4 (Destination-oriented elevators – Hall call consoles) Adjacency assignment.

Comment on 45-Day Item: NEII recommends rewording this section as the text appears to be a definition rather than a requirement. Section should read:

11B-411.2.1.7.4 Adjacency assignment. When the accessibility function is pressed, the system shall assign the user to an elevator ~~The elevator car~~ immediately to the left or right of the hall call console shall be assigned.

DSA-AC Change to Accommodate: DSA-AC agrees that the originally proposed language does not clearly state the requirements for assignment of elevator cars relative to the location of the hall call console. The DSA-AC 15-Day Express Terms contained a proposal to amend this section to more clearly state the requirements. This change will provide clarity and consistency for both manufacturers and code users. See the full text of the resulting regulation (Final Express Terms) where the change is clearly indicated.

Name: Brian Black, NEII Code & Safety Director, National Elevator Industry, Inc.

Item: 11B.31

Section: 11B-411.2.2.1 (Destination-oriented elevators – Elevator car identification at elevator landings) Visible identification.

Comment on 45-Day Item: NEII recommends replacing the word “fixture” with the phrase “car designation character”. Measurement to the character itself is more critical than measurement to the fixture.

DSA-AC Change to Accommodate: As proposed, Section 11B-411.2.2.1 requires the bottom of the identification fixture to be 80 inches minimum above the finish floor in compliance with the provisions of Section 11B-307.4 for vertical clearance. Locating the car designation character at 80 inches minimum above the finish floor will not ensure the required vertical head clearance. The language as written establishes a minimum height for car designation fixture above the finish floor, which ensures the character will be more than 80 inches minimum above the finish floor. DSA-AC is proposing no further changes to this section in response to the comment.

Name: Brian Black, NEII Code & Safety Director, National Elevator Industry, Inc.

Item: 11B.31

Section: 11B-411.2.2.1 (Destination-oriented elevators – Elevator car identification at elevator landings) Visible identification.

Comment on 45-Day Item: NEII recommends replacing the word “may” with the phrase “shall be permitted to” in the exception. Replacing the permissive language with mandatory language indicates there is no discretion in permitting this option.

DSA-AC Change to Accommodate: DSA-AC agrees that the proposed amendment would be consistent with model code format and terminology. The DSA-AC 15-Day Express Terms contained a proposal to replace the word “may” with the phrase “shall be permitted to”. This change will provide clarity and consistency for code users. See the full text of the resulting regulation (Final Express Terms) where the change is clearly indicated.

Name: Brian Black, NEII Code & Safety Director, National Elevator Industry, Inc.

Item: 11B.31

Section: 11B-411.2.2.2 (Destination-oriented elevators – Elevator car identification at elevator landings) Verbal identification.

Comment on 45-Day Item: NEII recommends adding the phrase “When the accessibility function button has been pressed,” to clarify that the verbal announcement is a response to the use of the accessibility function button and that the elevator car entries do not need to speak 24/7.

DSA-AC Change to Accommodate: DSA-AC agrees that the proposed amendment would be consistent with model code format and terminology. The DSA-AC 15-Day Express Terms contained a proposal to add the phrase “When the accessibility function button has been pressed”. This change will provide clarity and consistency for code users. See the full text of the resulting regulation (Final Express Terms) where the change is clearly indicated.

Name: Eugene Lozano, Jr., California Council of the Blind

Item: 11B.31

Section: 11B-411.2.3.2 (Destination-oriented elevators) Car designation signs.

Comment on 45-Day Item: Recommend further amendment of this item to read:

11B-411.2.3.2 Car designation signs. Car designation signs complying with Sections 11B-703.2, and 11B-703.4.1, and 11B-703.5 shall be provided on both jambs of the hoistway immediately below the floor designation. Signs shall be provided in both raised characters and Braille. Raised characters shall be 2 inches (51 mm) high. Raised characters shall be white on a black background. Braille complying with Section 11B-703.3 shall be placed below the corresponding raised characters. Applied plates are acceptable if they are permanently fixed to the jamb.

As written, Section 11B-411.2.3.2 does not have the full cross-references for permanent designation signs found in 11B-216.2:

11B-216.2 Designations. Interior and exterior signs identifying permanent rooms and spaces shall comply with Sections 11B-703.1, 11B-703.2, 11B-703.3 and 11B-703.5. Where pictograms are provided as designations of permanent rooms and spaces, the pictograms shall comply with Section 11B-703.6 and shall have text descriptors complying with Sections 11B-703.2 and 11B-703.5.

The California Council of the Blind's position is that the full citation for designation signs must be found in Section 11B-411.2.3.2 to ensure that there is full compliance with the sign provisions for permanent designation signs.

DSA-AC Change to Accommodate: As proposed, Section 11B-411.2.3.2 is consistent with the existing requirements for floor designation signs on elevator hoistways in Sections 11B-411.2.3.1. The application of all the provisions of Section 11B-703.5 to car designation signs would create internal contradictions. Further study is needed before making a significant change to the requirements of this section. California Government Code §11346.45 requires that DSA-AC involve parties who would be subject to the proposed regulations in public discussions prior to publication of the notice. DSA-AC is concerned that a significant change at this time would not have been adequately noticed, and will consider this proposal in the development of future rulemaking packages.

Name: Eugene Lozano, Jr., California Council of the Blind

Item: 11B.31

Section: 11B-411.4.6.2 (Destination-oriented elevators – Elevator car controls) Buttons.

Comment on 45-Day Item: Recommends approval of this item.

DSA-AC Change to Accommodate: This is a comment in support of the proposed amendment. DSA-AC is proposing no further changes to this section in response to this comment.

Name: Eugene Lozano, Jr., California Council of the Blind

Item: 11B.31

Section: 11B-411.4.6.3 (Destination-oriented elevators – Elevator car controls) Emergency controls.

Comment on 45-Day Item: Recommends approval of this item.

DSA-AC Change to Accommodate: This is a comment in support of the proposed amendment. DSA-AC is proposing no further changes to this section in response to this comment.

Name: Eugene Lozano, Jr., California Council of the Blind

Item: 11B.31

Section: 11B-411.4.7.1 (Destination-oriented elevators – Designations and indicators of car control buttons) Type.

Comment on 45-Day Item: Recommends approval of this item.

DSA-AC Change to Accommodate: This is a comment in support of the proposed amendment. DSA-AC is proposing no further changes to this section in response to this comment.

Name: Eugene Lozano, Jr., California Council of the Blind

Item: 11B.31

Section: 11B-411.4.7.2 (Destination-oriented elevators – Designations and indicators of car control buttons) Location.

Comment on 45-Day Item: Recommends approval of this item.

DSA-AC Change to Accommodate: This is a comment in support of the proposed amendment. DSA-AC is proposing no further changes to this section in response to this comment.

Name: Eugene Lozano, Jr., California Council of the Blind

Item: 11B.31

Section: 11B-411.4.7.4 (Destination-oriented elevators – Designations and indicators of car control buttons) Button spacing.

Comment on 45-Day Item: Recommends approval of this item.

DSA-AC Change to Accommodate: This is a comment in support of the proposed amendment. DSA-AC is proposing no further changes to this section in response to this comment.

Name: Eugene Lozano, Jr., California Council of the Blind

Item: 11B.31

Section: 11B-411.4.8.1.1 (Destination-oriented elevators – Car position indicators) Size.

Comment on 45-Day Item: Recommend further amendment of this item to read:

11B-411.4.8.1.1 Size. Characters shall comply with ~~Section 11B-407.4.8.1.1~~ Sections 11B-703.5.2 through 11B-703.5.6, 11B-703.5.8 and 11B-703.5.9.

California Council of the Blind objects to Section 11B-411.4.8.1.1 because of its cross reference to 11B-407.4.8.1.1 because it requires the visual character to be a minimum of ½ inch high which is inadequate to be legible and readable to persons who have low vision. Visual characters must be much higher to be seen from a distance such as the area above the elevator car control or door.

DSA-AC Change to Accommodate: The requirements of Section 11B-411.4.8.1.1 for car position indicators at destination-oriented elevators are consistent with the requirements of Section 11B-407.4.8.1.1 for car position indicators at conventional elevators. DSA-AC finds that Mr. Lozano's recommendation to increase the character size of car position indicators at destination-oriented elevators to have merit. However, a comprehensive study and consistent change to both Sections 11B-407.4.8.1.1 and 11B-411.4.8.1.1 would be more appropriate. California Government Code §11346.45 requires that DSA-AC involve parties who would be subject to the proposed regulations in public discussions prior to publication of the notice. DSA-AC is concerned that a significant change at this time would not have been adequately noticed, and will consider this proposal in the development of future rulemaking packages.

Name: Eugene Lozano, Jr., California Council of the Blind

Item: 11B.31

Section: 11B-411.4.10 (Destination-oriented elevator) Support rail.

Comment on 45-Day Item: Recommend further amendment of this item to read:

11B-411.4.10 Support rail. Support rails complying with Section 11B-407.4.10 shall be provided on ~~at least one wall of the car~~ the back and sides of the car.

Three support rails provide a greater degree of access to someone who has an ambulatory disability with stability issues when riding an elevator and would allow them to stand and support themselves when the elevator is in motion, this reducing falls.

DSA-AC Change to Accommodate: The requirements of Section 11B-411.4.10 for support rails within destination-oriented elevators are consistent with the requirements of Section 11B-407.4.10 for support rails within conventional elevators. DSA-AC finds that Mr. Lozano's recommendation to increase the number of support rails required within destination-oriented elevators to have merit. However, a comprehensive study and consistent change to both Sections 11B-407.4.10 and 11B-411.4.10 would be more appropriate. California Government Code §11346.45 requires that DSA-AC involve parties who would be subject to the proposed regulations in public discussions prior to publication of the notice. DSA-AC is concerned that a significant change at this time would not have been adequately noticed, and will consider this proposal in the development of future rulemaking packages.

Name: Brian Black, NEII Code & Safety Director, National Elevator Industry, Inc.

Item: 11B.31

Section: 11B-411.4.11.1 (Destination-oriented elevators – Floor destination indicators) Height.

Comment on 45-Day Item: NEII recommends changing the floor destination character height from 1 inch to 5/8 inch consistent with DRAFT 2014 A117.1 and the Canadian Standards Association requirements. The 5/8 inch is larger than what is required by the 2010 ADA Standards for Accessible Design. Having a special size in California adds additional costs with no demonstrable increase in accessibility.

DSA-AC Change to Accommodate: During development of the new destination-oriented elevator provisions, it was DSA-AC's intent to keep dimensions consistent with existing Section 11B-407 provisions for standard elevators. Because floor destination indicators are not required on the elevator car door jambs of standard elevators, DSA-AC had to establish new dimensions for character height floor destination characters. DSA-AC received numerous, consistent comments on this item during the initial public participation period. Most commenters recommended that for ease of use the character height be increased, with some commenters recommending a character height of as much as 2 inches. The language submitted to the Code Advisory Committee contained a proposal for one inch high minimum floor destination characters. The proposed language was discussed extensively by the CAC members and approved without further amendment. DSA-AC is proposing no further changes to this section in response to the comment.

Name: Walter Park
Hollynn D'Lil

Item: 11B.31

Section: 11B-411.4.11.1 (Destination-oriented elevators – Floor destination indicators) Height.

Comment on 15-Day Item: Recommend further amendment of this section to include a change from 1 inch high minimum characters to 2 inch high minimum characters. One inch characters have proven in practice to be too small to be useful for many people trying to confirm the correct elevator. Even older elevators provide enough room on the jamb for two-inch high characters.

DSA-AC Change to Accommodate: During development of the new destination-oriented elevator provisions, it was DSA-AC's intent to keep dimensions consistent with existing Section 11B-407 provisions for standard elevators. Because floor destination indicators are not required on the elevator car door jambs of standard elevators, DSA-AC had to establish new dimensions for character height floor destination characters. DSA-AC received numerous, consistent comments on this item during the initial public participation period. Most commenters recommended that for ease of use the character height be increased, however, elevator manufacturers did express concern that a LCD display screen with overly large characters would require too much space and be difficult to read. The language submitted to the Code Advisory Committee contained a proposal for one inch high minimum floor destination characters.

The proposed language was discussed extensively by the CAC members and approved without further amendment. DSA-AC is proposing no further changes to this section in response to the comment.

Name: Eugene Lozano, Jr., California Council of the Blind

Item: 11B.31

Section: 11B-411.4.11.2 (Destination-oriented elevators – Floor destination indicators) Contrast.

Comment on 45-Day Item: Recommend further amendment to this item to read:

11B-411.4.11.2 Contrast. *Visual display shall provide contrast with light characters on a ~~dark~~ black background ~~or dark characters on a light background~~. The background shall be solid and static.*

As the early 1970s, researchers have investigated the question of color combinations that are particularly suitable for letters and backgrounds of signs for persons who have low vision. One such study, "Information Transfer Problems of the Partially Sighted: Recent Results and Project Summary," the Rand Corporation, R-1770-HEW, June 1975, was conducted as part of a broad program on information transfer problems of persons who have low vision sponsored by the Rehabilitation Services Administration of the U.S. Department of Health, Education and Welfare. They found:

1. That more than 70 percent of the time persons with low vision prefer to view white symbols on a black background over black symbols on a white background. The reasons for this were (a) that light came to the pathological eye via the information carrying alphanumeric symbols rather than from the matrix in which the symbols were imbedded and (b) that, in general, the alphanumeric symbols occupied a smaller portion of a sign than the matrix in which they were imbedded and hence produced less glare and less light scattering.
2. Through the use of a very sophisticated pseudo color generator that could produce more than 16.7 million two color combinations, it was found that persons who have low vision preferred very light colored alphanumeric symbols on very dark backgrounds. For example, they felt that they could see very clearly white or yellow characters on a black, dark red, dark brown, dark green, or dark blue background. They found red on blue, blue on red, blue on brown, brown on blue, green on blue and blue on green to be particularly difficult to distinguish.

Based on the above and other research, it would seem that there would be a greater degree of access for persons who have low vision by clearly specifying that floor destination indicators on the elevator door jambs have white characters on a black background.

The specification to have light on dark or dark on light is too general and will not provide the contrast needed by persons who have low vision. Hence, this was not supported by DSA's Disability Advisory Committee (December 2013) and the California Building Standard's Commission's Access Code Committee (February 2014). Both committees recommended to DSA staff white characters on a black background.

DSA-AC Change to Accommodate: During development of the new destination-oriented elevator provisions, it was DSA-AC's intent to establish clear requirements based on measurable testing standards. Electronic LCD display screens do not produce a "true white" or a "true black". Compliance with a provision requiring light characters and symbols on a black background would not be attainable. DSA-AC finds that Mr. Lozano's recommendation to delete the provision permitting "*dark characters and symbols on a light background*" may have merit. However, California Government Code §11346.45 requires that DSA-AC involve parties who would be subject to the proposed regulations in public discussions prior to publication of the notice. DSA-AC is concerned that a significant change at this time would not have been adequately noticed, and will consider this proposal in the development of future rulemaking packages.

Name: Brian Black, NEII Code & Safety Director, National Elevator Industry, Inc.

Item: 11B.31

Section: 11B-411.11.3 (Destination-oriented elevators – Floor destination indicators) Duration.

Comment on 45-Day Item: NEII recommends adding a new exception permitting floor designation characters on the car door jamb to extinguish during door closing operation if an additional floor designation character that complies with Section 11B-411.4.11 is provided elsewhere in the car. This exception provides equivalent access.

DSA-AC Change to Accommodate: Further study is needed to determine if the proposed new exception would be an equivalent alternative to the requirements of Section 11B-411.11.3. California Government Code §11346.45 requires that DSA-AC involve parties who would be subject to the proposed regulations in public discussions prior to publication of the notice. DSA-AC is concerned that a significant change at this time would not have been adequately noticed, and will consider this proposal in the development of future rulemaking packages.

Name: Martin Cooper, City of Foster City

Item: 11B.32

Section: 11B-504.2 Treads and risers, Exception

Comment on 45-Day Item: Recommends further amendment of this item to read:

~~**Exception:** Curved stairways with winder treads are permitted at stairs which are not part of a required means of egress. Winder treads shall have a minimum tread depth of 11 inches (279 mm) at the walkline per Section 1009.6, and a minimum tread depth of 10 inches (254 mm) within the clear width of the stair. Consistently shaped winder treads may be constructed in combination with rectangular treads within the same flight of stairs if the winder tread depth at the walkline is the same as the rectangular tread depth.~~

Winder treads, by definition, are not uniform in depth. The proposed exception does not identify how an individual with a sight impairment would identify where the walkline is located. Would all the steps need to be striped? Would an additional handrail or guard need to be installed?

DSA-AC Change to Accommodate: Mr. Cooper is referring to the Draft Express Terms item prepared for the CBSC Code Advisory Committee (CAC) members. The proposed exception was discussed extensively by the CAC members and per their recommendation only the first sentence of the proposed exception was included in the 45-Day Express Terms item. DSA-AC is proposing to allow curved stairways with winder treads only at stairs which are not part of a required means of egress. These types of stairs are beyond the scope of the 2010 ADA Standards which are applicable only to stairs which are a part of a required means of egress. DSA-AC is proposing no further changes to this section in response to this comment.

Name: Eugene Lozano, Jr., California Council of the Blind

Item: 11B.32

Section: 11B-504.2 Treads and risers, Exception

Comment on 45-Day Item: Recommend further amendment to this item to read:

11B-504.2 Treads and risers. All steps on a flight of stairs shall have uniform riser heights and uniform tread depths. Risers shall be 4 inches (102 mm) high minimum and 7 inches (178 mm) high maximum. Treads shall be 11 inches (279 mm) deep minimum.

~~**Exception:** Curved stairways with winder treads are permitted at stairs which are not part of a required means of egress.~~

The California Council of the Blind wishes to go on record opposing Item 11B.32 Section 11 Exception, because it contributes to unnecessary potential stair falls. It is difficult for a stair user with impaired vision to anticipate where to place their foot on a curved staircase. The individual expects to find the stair nosing the same distance from the tips of their feet rather than there being a difference of an inch or more. Safety on stairs makes no difference whether they are or are not a part of a required means of egress. What follows are some statistics on stair falls that need to be given serious consideration when introducing an exception which allows the introduction of a curved stairway that are more hazardous than those that do not have the curve.

"Falls are one of the leading causes of unintentional injuries in the United States, accounting for approximately 8.9 million visits to the emergency department annually (NSC Injury Facts 2011).

Adults 55 and older are more prone to becoming victims of falls, and the resulting injuries can diminish the ability to lead active, independent lives. The number of fall deaths among those 65 and older is four times the number of fall deaths among all other age groups."

http://www.nsc.org/safety_home/HomeandRecreationalSafety/Falls/Pages/Falls.aspx

The information is derived from the National Safety Council's data on accidents:

- Manner of injury: Fall on and from stairs and steps
- Total number of deaths nationwide due to the manner of injury for the year 2000: 1,307
- Odds of dying in one year due to the manner of injury: 210,640
- Odds of dying over the course of a lifetime due to the manner of injury: 2,739

http://danger.mongabay.com/injury_death.htm

DSA-AC Change to Accommodate: DSA-AC is proposing an exception which permits curved stairways with winder treads only at stairs which are not part of a required means of egress. These types of stairs are beyond the scope of the 2010 ADA Standards which are applicable only to stairs which are a part of a required means of egress. The proposed language is consistent with the requirements of Chapter 10, Section 1009.11. The proposed language was discussed extensively by the CAC members and approved without further amendment. While Mr. Lozano's cited references identify slip and fall hazards at stairs in general, neither reference addresses hazards at curved stairs specifically nor distinguishes between the hazards of curved stairs versus stairs in general. DSA-AC is proposing no further changes to this section in response to this comment.

Name: Martin Cooper, City of Foster City

Item: 11B.35

Section: 11B-603.4 Coat hooks, shelves and medicine cabinets.

Comment on 45-Day Item: Recommends further amendment of this item to read:

11B-603.4 Coat hooks, shelves and medicine cabinets. Coat hooks shall be located within one of the reach ranges specified in *Section 11B-308*. Shelves shall be located 40 inches (1016 mm) minimum and 48 inches (1219 mm) maximum above the finish floor. ~~Medicine cabinets shall be located with a usable shelf no higher than 44 inches (1118 mm) maximum above the finish floor~~ provide at least one usable shelf which complies with Section 11B-308.

DSA-AC Change to Accommodate: Mr. Cooper is referring to the Draft Express Terms item prepared for the CBSC Code Advisory Committee (CAC) members. The proposed exception was discussed extensively by the CAC members and per their recommendation was withdrawn from the 45-Day Express Terms. DSA-AC is proposing no further changes to this section in response to this comment.

Name: Afshan Afshar, AIA, CASp, CID, LEED BD+C, Build-LACCD Access Analyst

Item: 11B.38

Section: 11B-604.8.1.1 (Wheelchair accessible compartments) Size

Comment on 45-Day Item: Clarify if and under what conditions toilet paper and other dispensers or disposer elements may project from the wall into the required floor clearances of the water closet and compartment.

DSA-AC Change to Accommodate: DSA-AC is proposing a non-substantive amendment to this section intended to direct code users to the additional maneuvering space requirements located in Section 11B-604.8.1.1.1, 11B-604.8.1.1.2 and 11B-604.8.1.1.3 only. DSA-AC will consider this proposal in the development of future rulemaking packages.

Name: Martin Cooper, City of Foster City

Item: 11B.40

Section: 11B-606.7 Sink depth.

Comment on 45-Day Item: Recommends disapproval of this item. Current language provides clear and consistent maximum depth dimension for an accessible sink. A 6-1/2 inch deep sink with the rim at 34 inches above finished floor would provide a knee clearance of 27-1/2 inches. It would burden the end user with unnecessary cost if a sink with a depth of greater than 6-1/2 inches were installed at an accessible counter and the required knee space was not provided at final inspection.

DSA-AC Change to Accommodate: Section 11B-308 contains knee clearance requirements for sinks required to provide a forward approach. A sink deeper than 6-1/2 inches that does not encroach into the required knee clearance does not adversely impact accessibility and provides a greater range of options for sink types. DSA-AC is proposing no further changes to this section in response to this comment.

Name: Martin Cooper, City of Foster City

Item: 11B.42

Section: 11B-703.4.2 (Signs – Installation height and location) Location.

Comment on 45-Day Item: Recommends disapproval of this item. Current language contains requirements for the location of permanent identification signs and exit signs. While scoping for exit signage is within Chapter 10, elimination of the current code within Chapter 11B would eliminate provisions for room identification signs.

DSA-AC Change to Accommodate: We believe Mr. Cooper is referring to the Draft Express Terms item prepared for the CBSC Code Advisory Committee (CAC) members. The proposed amendment was discussed extensively by the CAC members and per their recommendation the last two sentences of the section describing the location of room identification/exit signs were retained in the 45-Day Express Terms item, with amendment. The language is being amended to read:

... ~~Where permanent identification signage is provided for rooms and spaces they shall be located on the approach side of the door as one enters the room or space. Signs that identify exits shall be located on the approach side of the door as one exits the room or space.~~ Where provided, signs identifying permanent rooms and spaces shall be located at the entrance to, and outside of the room or space. Where provided, signs identifying exits shall be located at the exit door when approached in the direction of egress travel.

The existing language requiring signs to be located “on the approach side of the door” creates confusion for code users when coupled with the proposed exception permitting signs to be located “on the push side of doors” in specific locations. DSA-AC is proposing no further changes to this section in response to this comment.

Name: Eugene Lozano, Jr., California Council of the Blind

Item: 11B.42

Section: 11B-703.4.2 (Signs) Location, Exception

Comment on 45-Day Item: Recommend further amendment to this item to read:

11B-703.4.2 Location. Where a tactile sign is provided at a door, the sign shall be located alongside the door at the latch side. Where a tactile sign is provided at double doors with one active leaf, the sign shall be located on the inactive leaf. Where a tactile sign is provided at double doors with two active leaves, the sign shall be located to the right of the right hand door. Where there is no wall space at the latch side of a single door or at the right side of double doors, signs shall be located on the nearest adjacent wall. Signs containing tactile characters shall be located so that a clear floor space of 18 inches (457 mm) minimum by 18 inches (457 mm) minimum, centered on the tactile characters, is provided beyond the arc of any door swing between the closed position and 45 degree open position. ~~Where permanent identification signage is provided for rooms and spaces they shall be located on the approach side of the door as one enters the room or space. Signs that identify exits shall be located on the approach side of the door as one exits the room or space. Where provided, signs identifying permanent rooms and spaces shall be located at the entrance to, and outside of the room or space. Where provided, signs identifying exits shall be located at the exit door when approached in the direction of egress travel.~~

Exception: ~~Reserved.~~ ~~In alterations where sign installation locations identified in Section 11B-703.4.2 are obstructed or otherwise unavailable for sign installation, signs with tactile characters shall be permitted on the corridor wall found outside of the recessed area or alcove. The tactile sign permitted in the corridor shall be on the latch-side of the door. If there are no corridor walls available, then the tactile sign is permitted on the push side of doors with closers and without hold-open devices.~~

DSA-AC Change to Accommodate: DSA-AC finds that Mr. Lozano's proposed recommended code change may have merit. However, California Government Code §11346.45 requires that DSA-AC involve parties who would be subject to the proposed regulations in public discussions prior to publication of the notice. DSA-AC is concerned that a significant change at this time would not have been adequately noticed, and will consider this proposal in the development of future rulemaking packages.

Name: Eugene Lozano, Jr., California Council of the Blind

Item: 11B.43

Section: 11B-703.7.2.1 International Symbol of Accessibility, Exception

Comment on 45-Day Item: Recommend further amendment to this item to read:

11B-703.7.2.1 International Symbol of Accessibility. The International Symbol of Accessibility shall comply with Figure 11B-703.7.2.1. ~~The symbol shall consist of a white figure on a blue background. The blue shall be Color No. 15090 in Federal Standard 595B. The color blue shall approximate FS 15090 in Federal Standard 595C.~~

~~**Exception:** The appropriate enforcement agency may approve other colors to complement décor or unique design. The symbol contrast shall be light on dark or dark on light, provided the symbol contrast is light on dark or dark on light.~~

The California Council of the Blind is opposed to Section 11B-703.7.2.1 Exception because it gives building officials the authority to come up with alternative colors based on aesthetics rather than accessibility for persons who have low vision as well as use mobility devices. Further we oppose the vagueness of “light on dark or dark on light” without requiring at least a 70% contrast and a list of acceptable colors. For example, a building official could require the characters to be a light cream on a medium beige background which would have no contrast detectability for someone with low vision.

We request the Exception in its entirety be deleted. Also, this was the consensus of members, including those who are building officials, of the DSA's Access Advisory Committee that met in December of 2013.

DSA-AC Change to Accommodate: DSA-AC is proposing an amendment to existing code language to clarify that symbol contrast must be light on dark or dark on light, consistent with other code sections. The proposed language was discussed extensively by the CAC members and approved without further amendment. DSA-AC will reconsider Mr. Lozano's proposal to delete the exception entirely in the development of future rulemaking packages.

Name: Douglas Robert, AIA, JHW Architects, Inc

Item: 11B.45

Section: 11B-705.1.1.3 (Detectable warnings) Color and contrast.

Comment on 15-Day Item:

1. The formula for determining “contrasting color” is not workable. The true LRV of paving is not known until the paving is on the ground and cured, and will likely vary greatly over time. Even concrete grey will vary widely from supplier to supplier, and changes over time with weather, dirt, mold, texture, site placement, etc. Similarly, AC paving starts out very black, but can fade. Under bright sunlight, the contrast of surfaces will be different than under nighttime lighting and light sources. If we are going to have a contrast requirement, the code should establish both the percent contrast number and list assumed LRV's for basic and common types of paving, perhaps in a small table, to make it achievable.
2. What is the point of such a high contrast (70%)? A sight-impaired person will walk over the detectable warning and feel the texture. Contrasting color should be used where there isn't anything else to establish edges, like signs or stair treads. A lower contrast might be appropriate here, if one is necessary.
3. We designer-types appreciate the effort to use a contrasting color to help us arrive at more aesthetically pleasing solutions, but the Express Terms mandate safety yellow essentially nearly everywhere detectable warnings are used. I'll agree yellow is in common use, but that's only because most designers have thrown up their hands in frustration and do the quickest, easiest thing. Do sight-impaired persons read yellow better than other color? If so, why allow anything else. If yellow is not about accessibility, then we should delete the yellow mandate and go back to simply having a contrast.
4. The Express Terms, delete the 1” black stripe for yellow panels, but it's still inconsistent. If yellow is OK in all situations with no contrast required, what about the most common use that doesn't have much of a contrast – yellow on light grey concrete?
5. Might a narrow contrasting stripe be seen by a sight-impaired person as an edge of a stair where there is none?
6. Sound on cane contact functionally mandates plastic panels, but is it really necessary? It's not in the ADA Standards. I cannot specify a precast concrete truncated dome panel set in concrete because I cannot rely on the sound on cane contact being sufficiently different. But there are lots of concrete and ceramic tile units out there providing adequate warning to the sight impaired.
7. Truncated domes dimensions should match the ADA Tolerances, not just overlap them, so we can share products with the rest of the country. Frankly, one bumpy pattern in the walk surface is pretty much like another, and if they're all the same, all the better.
8. Provide a definition for “hazardous vehicular area”.

9. Provide clarity on the proper location for installing truncated dome panels. I see them placed at the edge of broad walkways flush with parking lot driveways (e.g. Costco) with nothing to keep cars from crossing onto the walk – no curb, no bollards, etc. A blind person has an expectation of safety behind the truncated domes, but in many applications, there is no safe zone. The code should provide more guidance for designers and building officials. Many applications now make no sense. In the Costco example, they spent a lot of money applying truncated domes to hundreds of feet of flush walkway, and it serves no real benefit except to rattle one's grocery cart.

DSA-AC Change to Accommodate: DSA-AC finds that Mr. Robert's concerns regarding detectable warning color and contrast requirements may have merit. However, California Government Code §11346.45 requires that DSA-AC involve parties who would be subject to the proposed regulations in public discussions prior to publication of the notice. DSA-AC is concerned that significant changes at this time would not have been adequately noticed, and will consider these proposals in the development of future rulemaking packages.

Name: Janis Kent, AIA, CASp, Stepping Thru Accessibility

Item: 11B.45

Section: 11B-705.1.1.3 (Detectable warnings) Color and contrast.

Comment on 15-Day Item:

1. In order to use 11B-705.1.1.3.2, the area cannot be at a hazardous vehicular area and we are still left without a definition of what is hazardous. I think it is poor to provide an option and to not clarify the definition.
2. No one will use yellow detectable warning at reflecting pools – why not make reflecting pools with zero curbs illegal and be done with it.

DSA-AC Change to Accommodate: DSA-AC is not proposing any change to the code requirements for detectable warnings at either hazardous vehicular areas or reflecting pools in the current rulemaking cycle. California Government Code §11346.45 requires that DSA-AC involve parties who would be subject to the proposed regulations in public discussions prior to publication of the notice. DSA-AC is concerned that a significant change at this time would not have been adequately noticed, and will consider these proposals in the development of future rulemaking packages.

Name: Eugene Lozano, Jr., California Council of the Blind

Item: 11B.45

Section: 11B-705.1.1.3.2 (Detectable warnings – Color and contrast)

Comment on 45-Day Item: Recommend further amendment of this item to read:

11B-705.1.1.3.2 Detectable warning surfaces shall provide a 70 percent minimum visual contrast visually with adjacent walking surfaces ~~either light on dark, or dark on light. The material used to provide contrast shall be an integral part of the surface.~~ Contrast in percent shall be determined by:

*Contrast percent = [(B1-B2)/B1] x 100 percent where
B1 = light reflectance value (LRV) of the lighter area and
B2 = light reflectance value (LRV) of the darker area.*

Exception: ~~Where the detectable warning surface does not adequately contrast with provide a 70 percent minimum contrast with adjacent surfaces, a 1 inch (25 mm) wide minimum black strip shall separate yellow the detectable warning from adjacent surfaces. Where the detectable warning surface does not provide a 70 percent minimum contrast with adjacent surfaces, a 1 inch~~

(25 mm) wide minimum visually contrasting surface shall separate the detectable warning from adjacent surfaces either light-on-dark or dark-on-light.

During the February 2014 Access Code Committee meeting with a follow up phone conversation between the California Council of the Blind has had with DSA staff, it was agreed to propose in the 45 Day comment period the removal of the “1 inch black strip” and to replace it with “a minimum 1 inch visually contrasting surface which would contrast with both the adjacent surface and the detectable warning, either light-on-dark or dark-on-light.” The Exception does not reflect the verbal agreement as well as what is written in DSA’s 45-Day Initial Statement of Reasons for Proposed Building Standards which states:

“Additionally, in response to comments from the public and the California Building Standards Commission’s Code Advisory Committee, DSA-AC is proposing to clarify and amend the existing requirement for a black strip around detectable warnings which do not adequately contrast with adjacent surfaces. The term “strip” is being deleted and replaced with the term “visually contrasting surface.” Color requirements are being amended from black to a color that contrasts with both the adjacent surface and the detectable warning, either light-on-dark or dark-on-light. Width requirements are being amended from 1 inch absolute to 1 inch minimum.”

Please revise the exception to match up with what is stated in the 45-Day Initial Statement of Reasons for Proposed Building Standards.

DSA-AC Change to Accommodate: Due to a drafting error during the preparation of the 45-Day Express Terms, the proposed amendments in Item 45, Section 11B-705.1.1.3.2 Exception were inconsistent with the corresponding 45-Day Statement of Reasons for this item. The DSA-AC 15-Day Express Terms contained a proposal to further amend this item to incorporate the changes described in the 45-Day Statement of Reasons: “Additionally, in response to comments from the public and the California Building Standards Commission’s Code Advisory Committee, DSA-AC is proposing to clarify and amend the existing requirement for a black strip around detectable warnings which do not adequately contrast with adjacent surfaces. The term “strip” is being deleted and replaced with the term “visually contrasting surface.” Color requirements are being amended from black to a color that contrasts with both the adjacent surface and the detectable warning, either light-on-dark or dark-on-light. Width requirements are being amended from 1 inch absolute to 1 inch minimum.” These changes will provide clarity and consistency for code users. See the full text of the resulting regulation (Final Express Terms) where the change is clearly indicated.

Name: Eugene Lozano, Jr., California Council of the Blind

Item: 11B.45

Section: 11B-705.1.1.3.2 (Detectable warnings – Color and contrast)

Comment on 15-Day Item: Recommends approval of this item.

DSA-AC Change to Accommodate: This is a comment in support of the proposed amendment. DSA-AC is proposing no further changes to this section in response to this comment.

Name: Martin Cooper, City of Foster City

Item: 11B.48

Section: 11B-1009.2.1 Pool lift location.

Comment on 45-Day Item: Recommends disapproval of this item. The ISOR for this intervening code cycle item states that “Exception 3 was added to provide relief from the 36 inch minimum requirement when the water level of a pool is less than 36 inches.” This is incorrect: The ISOR dated October 24, 2012 for this item, stated “DSA-AC is amending the model code to carry forward and incorporate existing accessibility provisions of the 2010 California Building Code. Currently CBC 1104B.4.3, item 4.5 requires

pool lifts to place the operator into water that is at least 3 feet deep. A new exception is being added to clarify the requirement where the water depth of the entire swimming pool, wading pool or spa is less than 36 inches." If the proposed language is adopted, spas, exercise pools, Olympic pools, etc would not be useable by those utilizing a pool lift.

DSA-AC Change to Accommodate: The scoping provisions of Section 11B-242.2 require that at least two accessible means of entry be provided for swimming pools. Acceptable accessible means of entry include pool lifts, sloped entries, transfer walls, transfer systems and pool stairs. At least one accessible means of entry must be either a pool lift or a sloped entry. The technical requirements for accessible means of entry to pools are contained in Section 11B-1009; specifically, Section 11B-1009.2 contains the technical requirements for pool lifts, when used. DSA-AC is proposing a non-substantive amendment to Section 11B-1009.2.1 to merge Exceptions 1 and 3, providing a single provision clarifying lift requirements in pools where the entire water level is less than 36 inches or greater than 48 inches. This proposed amendment does not change the current level of accessibility required for pools. DSA-AC is proposing no further changes to this section in response to this comment.

Name: Afshan Afshar, AIA, CASp, CID, LEED BD+C, Build-LACCD Access Analyst

Item: N/A

Section: 11B-502.7.2 Wheel stops

Comment on 45-Day Item: A wheel stop is practical, but technically is in contradiction with requirements of Section 11B-502.4 Floor or Ground Surfaces. As another practical preventive element would you be able to also address overhang (over planter or wide sidewalk in front) in lieu of a wheel stop, and clarify the requirement for access aisle length when overhang is used.

DSA-AC Change to Accommodate: DSA-AC is not proposing an amendment to this section during this rulemaking cycle. DSA-AC will consider this proposal in the development of future rulemaking packages.

Name: Afshan Afshar, AIA, CASp, CID, LEED BD+C, Build-LACCD Access Analyst

Item: N/A

Section: 11B-603.2.3 Door swing.

Comment on 45-Day Item: Consider providing a new definition for PLUMBING FIXTURE. Clarify whether this section refers to plumbing fixtures, accessory fixtures or any fixture. This section makes sense for a single user toilet, but not for a multi-user toilet room where one can be hit by a door swing in front of accessories.

DSA-AC Change to Accommodate: DSA-AC is not proposing an amendment to this section during this rulemaking cycle. DSA-AC will consider this proposal in the development of future rulemaking packages.

DETERMINATION OF ALTERNATIVES CONSIDERED AND EFFECT ON PRIVATE PERSONS

The DSA-AC has determined that no reasonable alternative considered by DSA-AC or that has otherwise been identified and brought to the attention of DSA-AC would be more effective in carrying out the purpose for which the action is proposed, or would be as effective as and less burdensome to affected private persons than the proposed action, or would be more cost-effective to affected private persons and equally effective in implementing the statutory policy or other provisions of law.

In order to increase public participation and improve the quality of these regulations DSA-AC involved parties who would be subject to these proposed regulations in stakeholder forums. The purpose of the

public discussions was to receive reasonable alternatives to these regulations from the public. DSA Advisory Board Access Committee stakeholder forums were held as follows:

- Forum No. 1 – November 5, 2013 in Sacramento
- Forum No. 2 – December 3-4, 2013 in Sacramento

Interested parties were able to participate via teleconference. In addition, participation via video conference was available at the following locations:

Sacramento Regional Office
1102 Q Street, Suite 5100
Sacramento CA 95811

Oakland Regional Office
1515 Clay Street, Suite 1201
Oakland CA 94612

Los Angeles Regional Office
700 North Alameda Street, Suite 5-500
Los Angeles CA 90012

San Diego Regional Office
10920 Via Frontera, Suite 300
San Diego CA 92127

**REJECTED PROPOSED ALTERNATIVE THAT WOULD LESSEN THE ADVERSE ECONOMIC
IMPACT ON SMALL BUSINESSES**

The DSA-AC did not receive any reasonable proposals for alternatives that would lessen any adverse economic impact on small businesses. No adverse impact to small business due to these proposed changes is expected.