

| ADAAG-1991                                                | BOCA-1993                                                              | COMMENTS                                                                                                                                                                                                                                                                                               |
|-----------------------------------------------------------|------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4.17.4 Water closets; Toe clearances                      |                                                                        | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                  |
| 4.17.5 Water closets; Doors                               |                                                                        | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                  |
| 4.17.6 Grab bars                                          | P-1205.2.1.1 Grab Bars<br>P-1205.2.2.1 Grab Bars<br>P-1205.8 Grab Bars | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                              |
| 4.18 Urinals                                              | 1103.2 Standard<br>1108.2 Toilet and Bathing Facilities                | Scoping for urinals is equivalent (see ADAAG 4.22.5 and 4.23.5). BOCA requires an accessible urinal if urinals are provided. BOCA references CABO/ANSI A117.1 for details of accessible urinal type. Comparison beyond the scoping in BOCA 1108.2 is not included herein.                              |
| 4.18.1 Urinals; General                                   |                                                                        | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                  |
| 4.18.2 Urinals; Height                                    |                                                                        | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                  |
| 4.18.3 Urinals; Clear floor space                         |                                                                        | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                  |
| 4.18.4 Urinals; Flush controls                            |                                                                        | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                  |
| 4.19.1 Lavatories and mirrors; General                    | P-1205.4 Lavatory and Kitchen Sink                                     | ADAAG is charging text only; no substantive comparison.                                                                                                                                                                                                                                                |
| 4.19.2 Lavatories and mirrors; Height and clearances      | P-1205.4 Lavatory and Kitchen Sink<br>P-1205.4.1 Clearances            | No substantive difference. The provisions are equivalent. BOCA permits the top of a bathroom lavatory to be 35 inches above the floor. ADAAG requires 34 inches maximum to the counter surface. The one inch difference accounts for the distance between the counter and the top of the lavatory rim. |
| 4.19.3 Lavatories and mirrors; Clear floor space          | P-1205.4 Lavatory and Kitchen Sink                                     | No substantive difference. The provisions are equivalent. BOCA requires a clear floor space of 30 inches by 30 inches in front of the lavatory. The required clearances under the lavatory provide the additional clear floor space required by ADAAG.                                                 |
| 4.19.4 Lavatories and mirrors; Exposed pipes and surfaces | P-1205.4.2 Piping                                                      | No substantive difference. The provisions are equivalent with respect to pipe insulation. Abrasive surfaces are covered in CABO/ANSI A117.1.                                                                                                                                                           |
| 4.19.5 Lavatories and mirrors; Faucets                    | P-1205.5 Faucets                                                       | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                              |
| 4.19.6 Lavatories and mirrors; Mirrors                    | 1103.2 Standard<br>1108.2 Toilet and Bathing Facilities                | Scoping for mirrors is equivalent (see ADAAG 4.22.6 and 4.23.6). BOCA requires an accessible mirror if mirrors are provided. BOCA references CABO/ANSI A117.1 for details of accessible mirrors. Comparison beyond the scoping in BOCA 1108.2 is not included.                                         |
| 4.20.1 Bathtubs; General                                  | P-1205.7 Bathtub and Shower<br>1108.2 Toilet and Bathing Facilities    | ADAAG is charging text only; no substantive comparison.                                                                                                                                                                                                                                                |

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| 4.20.2 Bathtubs; Floor space              | P-1205.7 Bathtub and Shower                                                                                                                                | No substantive difference. The provisions are equivalent. ADAAG's dimensions include the presence of a lavatory in the clear floor space. BOCA's dimensions do not include any element within the clear floor space and therefore provides equivalent accessibility.                                                                                                                                       |
| 4.20.3 Bathtubs; Seat                     | P-1205.7.1 Bathtub Enclosure                                                                                                                               | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                                                                                                                  |
| 4.20.4 Bathtubs; Grab bars                | P-1205.7.1 Bathtub Enclosure<br>P-1205.8 Grab Bars                                                                                                         | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                                                                                                                  |
| 4.20.5. Bathtubs; Controls                | P-1205.7.1 Bathtub Enclosure                                                                                                                               | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                                                                                                                  |
| 4.20.6 Bathtubs; Shower unit              | P-1205.7.4 Faucet                                                                                                                                          | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                                                                                                                  |
| 4.20.7 Bathtubs; Bathtub enclosures       |                                                                                                                                                            | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                                                                                      |
| 4.21.1 Shower stalls; General             | P-1205.7 Bathtub and Shower                                                                                                                                | ADAAG is charging text only; no substantive comparison.                                                                                                                                                                                                                                                                                                                                                    |
| 4.21.2 Shower stalls; Size and clearances | P-1205.7 Bathtub and Shower<br>P-1205.7.2 Wide Shower Enclosure<br>P-1205.7.3 Square Shower Enclosure<br>1103.2 Standard<br>1107.4.1 Accessible Guestrooms | No substantive difference. The provisions are equivalent. BOCA does not require a different roll-in shower design for hotels. The ADAAG design can be approved as an acceptable alternative in accordance with BOCA 106.4.                                                                                                                                                                                 |
| 4.21.3 Shower stalls; Seat                | P-1205.7.3 Square Shower Enclosure                                                                                                                         | No substantive difference. The provisions are equivalent. BOCA does not specify an L-shaped seat. The intent of ADAAG's requirement that a seat, where provided in the large compartment, be of the folding type is achieved by BOCA's requirement that the shower be designed to permit the wheelchair to enter the enclosure. Structural strength requirements for seats is covered in CABO/ANSI A117.1. |
| 4.21.4 Shower stalls; Grab bars           | P-1205.7.2 Wide Shower Enclosure<br>P-1205.7.3 Square Shower Enclosure<br>P-1205.8 Grab Bars                                                               | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                                                                                                                  |
| 4.21.5 Shower stalls; Controls            | P-1205.7.2 Wide Shower Enclosure<br>P-1205.7.3 Square Shower Enclosure                                                                                     | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                                                                                                                  |
| 4.21.6 Shower stalls; Shower unit         | P-1205.7.4 Faucet                                                                                                                                          | No substantive difference. The provisions are equivalent. BOCA does not provide for an exception comparable to ADAAG's.                                                                                                                                                                                                                                                                                    |
| 4.21.7 Shower stalls; Curbs               | P-1205.7.2 Wide Shower Enclosure                                                                                                                           | No substantive difference. The provisions are equivalent regarding prohibiting a curb or threshold for the 30" x 60" shower stall. BOCA is silent on the maximum height of a curb in the 36" x 36" shower stall.                                                                                                                                                                                           |
| 4.21.8 Shower stalls; Shower enclosures   |                                                                                                                                                            | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                                                                                      |



| ADAAG-1991                                              | BOCA-1993                                                                                    | COMMENTS                                                                                                                                              |
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| 4.13.12 Doors; Automatic doors and power-assisted doors | 1017.4.3 Power-Operated Doors<br>1017.4.4 Horizontal Sliding Doors                           | No substantive difference. The provisions are equivalent. BOCA does not specifically reference BHMA standards. BOCA permits a 15 pound maximum force. |
| 4.14.1 Minimum number                                   | 1104.1 Where Required<br>1104.2 Connected spaces                                             | No substantive difference. The provisions are equivalent.                                                                                             |
| 4.14.2 Service entrances                                | 1106.1 Required                                                                              | The provisions are equivalent. Service entrances are not required to be accessible only when not less than one other entrance is accessible.          |
| 4.15.1 Drinking fountains; Minimum number               | 1108.4 Drinking Fountains<br>P-1205.1 Where Required                                         | ADAAG is charging text only; no meaningful comparison.                                                                                                |
| 4.15.2 Drinking fountains; Spout height                 | P-1205.6 Drinking Fountain                                                                   | No substantive difference. The provisions are equivalent.                                                                                             |
| 4.15.3 Drinking fountains; Spout location               | P-1205.6 Drinking Fountain                                                                   | No substantive difference. The provisions are equivalent.                                                                                             |
| 4.15.4 Drinking fountains; Controls                     | P-1205.6 Drinking Fountain                                                                   | No substantive difference. The provisions are equivalent.                                                                                             |
| 4.15.5(1) Clearances; Cantilevered units                | P-1205.6.1 Clear Space                                                                       | No substantive difference. The provisions are equivalent.                                                                                             |
| 4.15.5(2) Clearances; Free-standing and built-in units  | P-1205.6.1 Clear Space                                                                       | No substantive difference. The provisions are equivalent.                                                                                             |
| 4.16.1 Water closets; General                           | P-1205.3 Water Closets                                                                       | ADAAG is charging text only; no meaningful comparison.                                                                                                |
| 4.16.2 Water closets; Clear floor space                 |                                                                                              | See CABO/ANSI A117.1.                                                                                                                                 |
| 4.16.3 Water closets; Height                            | P-1205.3 Water closet                                                                        | No substantive difference. The provisions are equivalent. BOCA permits height range of 16" to 20".                                                    |
| 4.16.4 Grab bars                                        | P-1205.8 Grab Bars                                                                           | See ADAAG 4.26 for substantive comparison.                                                                                                            |
| 4.16.5 Flush controls                                   |                                                                                              | See CABO/ANSI A117.1.                                                                                                                                 |
| 4.16.6 Dispensers                                       |                                                                                              | See CABO/ANSI A117.1.                                                                                                                                 |
| 4.17.1 Location                                         | P-1205.1 Where Required<br>1104.2 Connected Spaces<br>1108.2 Toilet and Bathing Facilities   | No substantive difference. The provisions are equivalent.                                                                                             |
| 4.17.2 Water closets                                    | P-1205.2 Water Closet Compartment<br>1108.2.1 Water Closet Compartment                       | Cross reference only. See ADAAG 4.16.3 for comparison of the only provision in 4.16 that is common to BOCA and ADAAG.                                 |
| 4.17.3 Water closets; Size and arrangement              | P-1205.2.1 Wheelchair-accessible Compartment<br>P-1205.2.1.1 Grab bars<br>1110.2 Alterations | No substantive difference. The provisions are equivalent.                                                                                             |

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| 4.12 Windows                                   |                                                                                                                       | No text to compare. See CABO/ANSI A117.1.                                                                                                                                                                             |
| 4.12.1 Windows; General (Reserved)             |                                                                                                                       | No text to compare.                                                                                                                                                                                                   |
| 4.12.2 Windows; Window hardware (Reserved)     |                                                                                                                       | No text to compare.                                                                                                                                                                                                   |
| 4.13.1 Doors; General                          | 1017.1 General                                                                                                        | ADAAG is charging text only; no meaningful comparison.                                                                                                                                                                |
| 4.13.2 Doors; Revolving doors and turnstiles   | 1018.5 Adjacent Area                                                                                                  | No substantive difference. The provisions are equivalent. The exception in BOCA 1018.5 is means of egress related. Accessibility requirements would govern if said elevator lobby was a required accessible entrance. |
| 4.13.3 Doors; Gates                            |                                                                                                                       | See CABO/ANSI A117.1.                                                                                                                                                                                                 |
| 4.13.4 Doors; Double-leaf doorways             | 1017.3 Size of Doors                                                                                                  | No substantive difference. The provisions are equivalent.                                                                                                                                                             |
| 4.13.5 Doors; Clear width                      | 1014.8.1 Width (Stairways)<br>1017.3 Size of Doors                                                                    | No substantive difference. The provisions are equivalent. BOCA's various exceptions do not affect equivalency.                                                                                                        |
| 4.13.6 Doors; Maneuvering clearances at doors  |                                                                                                                       | See CABO/ANSI A117.1.                                                                                                                                                                                                 |
| 4.13.7 Doors; Two doors in series              | 1017.2.3 Door Arrangement                                                                                             | No substantive difference. The provisions are equivalent.                                                                                                                                                             |
| 4.13.8 Doors; Thresholds at doorways           | 1017.1.1 Floor Surface                                                                                                | No substantive difference. The provisions are equivalent.                                                                                                                                                             |
| 4.13.9 Doors; Door hardware                    | 1017.4 Door Hardware                                                                                                  | No substantive difference. The provisions are equivalent.                                                                                                                                                             |
| 4.13.10 Doors; Door closers                    |                                                                                                                       | See CABO/ANSI A117.1.                                                                                                                                                                                                 |
| 4.13.11 Doors; Door opening force              | 1017.4 Door Hardware<br>1017.4.2 Panic Hardware<br>1017.4.3 Power Operated Doors<br>1017.4.4 Horizontal Sliding Doors | The provisions are equivalent with respect to interior side-swinging doors. BOCA is silent on folding doors and BOCA allows higher forces for sliding doors.                                                          |
| 4.13.11(1) Fire doors                          | 716.5 Door Closing                                                                                                    | No substantive difference. The provisions are equivalent. ADAAG defers to local codes.                                                                                                                                |
| 4.13.11(2)(a) Exterior hinged doors (Reserved) |                                                                                                                       | No text to compare.                                                                                                                                                                                                   |
| 4.13.11(2)(b) Interior hinged doors            | 1017.4 Door Hardware                                                                                                  | No substantive difference. The provisions are equivalent.                                                                                                                                                             |
| 4.13.11(2)(c) Sliding or folding doors         | 1017.4 Door Hardware<br>1017.4.2 Panic Hardware<br>1017.4.3 Power Operated Doors<br>1017.4.4 Horizontal Sliding Doors | BOCA permits higher forces for sliding doors and is silent on folding doors.                                                                                                                                          |

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| 4.10.4(2) Size of elements                                            |                                            | See CABO/ANSI A117.1.                                                                                                                                                                                             |
| 4.10.4(3) Location                                                    |                                            | See CABO/ANSI A117.1.                                                                                                                                                                                             |
| 4.10.5 Elevators; Raised and braille characters on hoistway entrances |                                            | See CABO/ANSI A117.1.                                                                                                                                                                                             |
| 4.10.6 Elevators; Door protective and reopening device                |                                            | See CABO/ANSI A117.1.                                                                                                                                                                                             |
| 4.10.7 Elevators; Door and signal timing for hall calls               |                                            | See CABO/ANSI A117.1.                                                                                                                                                                                             |
| 4.10.8 Elevators; Door delay for car calls                            |                                            | See CABO/ANSI A117.1.                                                                                                                                                                                             |
| 4.10.9 Elevators; Floor plan of elevator cars                         | 403.8 Elevators                            | See CABO/ANSI A117.1. Additionally, in high rise buildings, BOCA requires elevator(s) for fire department service that must be of a size, including door configuration, to accommodate a 24" x 76" ambulance cot. |
| 4.10.10 Elevators; Floor surfaces                                     |                                            | See CABO/ANSI A117.1.                                                                                                                                                                                             |
| 4.10.11 Elevators; Illumination levels                                |                                            | See CABO/ANSI A117.1.                                                                                                                                                                                             |
| 4.10.12 Elevators; Car controls                                       |                                            | See CABO/ANSI A117.1.                                                                                                                                                                                             |
| 4.10.12(1) Buttons                                                    |                                            | See CABO/ANSI A117.1.                                                                                                                                                                                             |
| 4.10.12(2) Tactile, braille and visual control indicators             |                                            | See CABO/ANSI A117.1.                                                                                                                                                                                             |
| 4.10.12(3) Height                                                     |                                            | See CABO/ANSI A117.1.                                                                                                                                                                                             |
| 4.10.12(4) Location                                                   |                                            | See CABO/ANSI A117.1.                                                                                                                                                                                             |
| 4.10.13 Elevators; Car position indicators                            |                                            | See CABO/ANSI A117.1.                                                                                                                                                                                             |
| 4.10.14 Elevators; Emergency communications                           | 403.6 Fire Department Communication System | See CABO/ANSI A117.1. Additionally, in high rise buildings, BOCA requires a two-way fire department communication system serving every elevator and elevator lobby.                                               |
| 4.11.1 Platform Lifts; Location                                       | 1108.3 Elevators and Lifts                 | No substantive difference. The provisions are equivalent. BOCA does not permit platform lifts as part of a required accessible route in new construction.                                                         |
| 4.11.2 Platform Lifts; Other requirements                             | 3001.2 Referenced Standards                | No substantive difference. The provisions are equivalent.                                                                                                                                                         |
| 4.11.3 Platform Lifts; Entrance                                       | 3001.2 Referenced Standards                | No substantive difference. The provisions are equivalent.                                                                                                                                                         |

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| 4.9.3 Stairs; Nosings                                  | 1014.6.1 Profile                                                                         | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                            |
| 4.9.4 Stairs; Handrails                                | 1014.7 Stairway Guards and Handrails                                                     | No substantive difference. The provisions are equivalent. BOCA contains exceptions for number of handrails for stairs in dwelling units. See ADAAG 4.26 for additional comparison.                                                                                                   |
| 4.9.4(1) Continuous                                    | 1022.2 Handrail Details                                                                  | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                            |
| 4.9.4(2) Not continuous                                | 1022.2.4 Handrail Ends                                                                   | No substantive difference. The provisions are equivalent. BOCA contains exceptions for handrail extensions within a dwelling unit.                                                                                                                                                   |
| 4.9.4(3) Clear space                                   | 1022.2 Handrail Details                                                                  | ADAAG requires 1 1/2" spacing, absolute; BOCA requires 1 1/2" minimum. An absolute spacing requirement is appropriate for grab bars. The intended function of handrails is different than grab bars. An absolute spacing for handrails has not been shown to be necessary.           |
| 4.9.4(4) Gripping surface                              | 1022.2 Handrail Details                                                                  | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                            |
| 4.9.4(5) Handrail height                               | 1022.2.2 Height                                                                          | BOCA permits the handrail to be as high as 42" where the handrail forms part of a guard. BOCA permits the handrail to be as low as 30" within dwelling units. These differences do not affect equivalence since the height ranges in BOCA are all within the allowable reach ranges. |
| 4.9.4(6) Handrail ends                                 | 1022.2.4 Handrail Ends                                                                   | No substantive difference. The provisions are equivalent. BOCA requires all handrails to be returned to a wall or post.                                                                                                                                                              |
| 4.9.4(7) Mounting                                      | 1022.1 General<br>1604.1 Safe Support Required<br>1615.8 Guards and Handrails            | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                            |
| 4.9.5 Stairs; Detectable warnings at stairs (Reserved) |                                                                                          | No text to compare.                                                                                                                                                                                                                                                                  |
| 4.9.6 Stairs; Outdoor conditions                       | 1014.12 Exterior Stairways                                                               | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                            |
| 4.10.1 Elevators; General                              | 1108.3 Elevators and Lifts<br>3001.2 Referenced Standards<br>3006.3 Accessible Elevators | No substantive difference. The provisions are equivalent. BOCA requires all passenger elevators to comply with ASME A17.1-1990 and CABO/ANSI A117.1.                                                                                                                                 |
| 4.10.2 Elevators; Automatic operation                  |                                                                                          | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                |
| 4.10.3 Elevators; Hall call buttons                    |                                                                                          | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                |
| 4.10.4 Elevators; Hall lanterns                        |                                                                                          | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                |
| 4.10.4(1) Height                                       |                                                                                          | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                |

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| 4.8.5 Ramps; Handrails                | 1012.5 Handrails<br>1016.5 Guards and Handrails                                 | No substantive difference. ADAAG's dual criteria effectively requires handrails on a 1:20 ramp run with a rise greater than 3.6 inches. BOCA does not require handrails where the rise is less than 6 inches. The difference is inconsequential and does not affect equivalency.                                                                |
| 4.8.5(1) Where required, continuous   | 1016.5 Guards and Handrails<br>1022.2 Handrail Details                          | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                                                       |
| 4.8.5(2) Extension                    | 1022.2.4 Handrail Ends                                                          | No substantive difference. The provisions are equivalent. BOCA has an exception for the 12-inch extension within a dwelling unit.                                                                                                                                                                                                               |
| 4.8.5(3) Clearance                    | 1022.2 Handrail Details                                                         | No substantive difference. The provisions are equivalent. ADAAG requires 1 1/2" spacing, absolute; BOCA requires 1 1/2" minimum. An absolute spacing requirement is appropriate for grab bars. The intended function of handrails is different than grab bars. An absolute spacing for handrails has not been shown to be necessary.            |
| 4.8.5(4) Gripping surface             | 1022.2 Handrail Details                                                         | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                                                       |
| 4.8.5(5) Height                       | 1022.2.2 Height                                                                 | No substantive difference. The provisions are equivalent. BOCA permits the handrail to be as high as 42" where the handrail forms part of a guard. BOCA permits the handrail to be as low as 30" within a dwelling unit. These differences do not affect equivalence since the height ranges in BOCA are all within the allowable reach ranges. |
| 4.8.5(6) Ends                         | 1022.2.4 Handrail Ends                                                          | No substantive difference. The provisions are equivalent. BOCA requires all handrails to return to a wall or post.                                                                                                                                                                                                                              |
| 4.8.5(7) Mounting                     | 1022.1 General<br>1604.1 Safe Support Required<br>1615.8 Guards and Handrails   | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                                                       |
| 4.8.6 Ramps; Cross slope and surfaces | 1016.3 Maximum Slope<br>1016.4 Landings<br>1016.6.1 Surface                     | No substantive difference. The provisions are equivalent. BOCA requires a maximum slope of 1:48. The difference between 1:48 and 1:50 is not substantive.                                                                                                                                                                                       |
| 4.8.7 Ramps; Edge protection          | 1016.5 Guards<br>1016.5.1 Drop-offs                                             | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                                                       |
| 4.8.8 Ramps; Outdoor conditions       | 1016.6.2 Exterior Ramps                                                         | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                                                       |
| 4.9.1 Stairs; Minimum number          | 1014.1 General                                                                  | ADAAG is charging text only; no meaningful comparison.                                                                                                                                                                                                                                                                                          |
| 4.9.2 Stairs; Treads and risers       | 1014.6 Treads and Risers<br>1014.6.1 Profile<br>1014.6.2 Dimensional uniformity | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                                                       |

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| 4.7.4 Surface                      |                                                                    | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                           |
| 4.7.5 Sides of curb ramps          |                                                                    | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                           |
| 4.7.6 Built-up curb ramps          |                                                                    | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                           |
| 4.7.7 Detectable warnings          | 1109.1 Detectable Warnings                                         | BOCA scopes detectable warnings only for passenger transit platforms, other than bus stops.                                                                                                                                                                                                                                                     |
| 4.7.8 Obstructions                 |                                                                    | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                           |
| 4.7.9 Location at marked crossings |                                                                    | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                           |
| 4.7.10 Diagonal curb ramps         |                                                                    | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                           |
| 4.7.11 Islands                     |                                                                    | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                           |
| 4.8.1 Ramps; General               | 1016.3 Maximum Slope                                               | BOCA does not define a ramp based on slope. The intent of BOCA is that all slopes in excess of 1:48 are ramps. BOCA's requirements for ramps, many of which are applicable based on ramp slopes of greater than 1:20, are equivalent to ADAAG.                                                                                                  |
| 4.8.2 Ramps; Slope and rise        | 1012.4 Walking Surfaces<br>1016.3 Maximum Slope<br>1016.4 Landings | No substantive difference. The provisions are equivalent. BOCA permits the limited rise/steeper slope arrangements in both new and existing construction. There is no justification to distinguish between the two. The language in CABO/ANSI A117.1 on least possible slope supports the intent to preclude unnecessary use of steeper slopes. |
| 4.8.3 Ramps; Clear width           | 1011.3 Width<br>1012.2.6 Minimum Width of Aisles<br>1016.2.1 Width | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                                                       |
| 4.8.4 Ramps; Landings              | 1016.4 Landings                                                    | BOCA requires landings when the slope is 1:12 or steeper. BOCA permits the length of a landing to be 48 inches when travel to the next ramp is a straight run. BOCA does not require an enlarged landing at changes of direction.                                                                                                               |
| 4.8.4(1) Width                     | 1016.4 Landings                                                    | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                                                       |
| 4.8.4(2) Length                    | 1016.4 Landings                                                    | BOCA requires the length to be not less than the ramp width. BOCA permits the length of a landing to be 48 inches maximum when travel to the next ramp is a straight run. This is judged to be functionally adequate and therefore does not affect equivalence.                                                                                 |
| 4.8.4(3) Change of direction       | 1016.4 Landings                                                    | BOCA does not require an enlarged landing at changes of direction.                                                                                                                                                                                                                                                                              |
| 4.8.4(4) Doorways                  |                                                                    | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                           |

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| ADAAG-1991                                        | BOCA-1993                                                                                                                            | COMMENTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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| 4.4.2 Protruding objects; Head room               | 1005.3 Protruding Objects<br>1014.4 Headroom<br>1016.2.2 Headroom<br>1017.3 Size of Doors                                            | No substantive difference. The provisions are equivalent. BOCA reduces the required headroom of doors within a dwelling unit to 78 inches for door stops and door closers which would otherwise have the effect of prohibiting the widespread conventional use of the common 6'-8" door. Also, in a dwelling unit, an exterior door that is not the required exit door is required to be not less than 76 inches in height in order to accommodate standard sizes of sliding patio doors and replacement units for such door openings. |
| 4.5.1 Ground and floor surfaces; General          | 1005.4 Floor Surfaces<br>1012.4 Walking Surfaces<br>1014.9 Stairway Construction<br>1016.6.1 Surface<br>1604.1 Safe Support Required | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 4.5.2 Ground and floor surfaces; Changes in level | 1005.6 Elevation Change<br>1017.1.1 Floor Surface                                                                                    | The provisions are equivalent. BOCA requires all changes in elevation less than 12 inches to be accomplished by a ramp.                                                                                                                                                                                                                                                                                                                                                                                                                |
| 4.5.3 Ground and floor surfaces; Carpet           | 804.1 Attachment                                                                                                                     | No substantive difference. The provisions are equivalent. BOCA does not contain the same degree of specificity as ADAAG.                                                                                                                                                                                                                                                                                                                                                                                                               |
| 4.5.4 Gratings                                    |                                                                                                                                      | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 4.6.1 Parking; Minimum number                     | 1105.0 Parking Facilities                                                                                                            | ADAAG is charging text only. See the referenced sections for substantive comparison.                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 4.6.2 Location                                    | 1105.5 Location                                                                                                                      | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 4.6.3 Parking spaces                              |                                                                                                                                      | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 4.6.4 Signage                                     | 1109.2 Signs                                                                                                                         | BOCA does not require the space to be designated as reserved where the number of total spaces is five or fewer. With such a small number of total spaces, adequate parking for all others persons is unreasonably disrupted when one space is reserved, especially in the event of only one total parking space. The net effect is to require more total spaces and these are usually cases wherein available space for parking is limited. BOCA does not address the additional signage for van-accessible parking spaces.            |
| 4.6.5 Vertical clearance                          |                                                                                                                                      | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 4.6.6 Passenger loading zones                     |                                                                                                                                      | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 4.7.1 Location                                    |                                                                                                                                      | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 4.7.2 Slope                                       |                                                                                                                                      | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 4.7.3 Width                                       |                                                                                                                                      | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

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| ADAAG-1991                                                 | BOCA-1993                                                                                                                                   | COMMENTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4.3.11.1(6) Areas of rescue assistance; Smoke barriers     | 712.0 Smoke Barriers<br>716.5 Door Closing<br>1007.5 Areas of Refuge<br>1007.5.2 Separation                                                 | No substantive difference. The provisions are equivalent. ADAAG requires the room or area to have the same fireresistive construction as the adjacent exit enclosure when the exit enclosure is required to be of more than one-hour fireresistive construction. BOCA does not contain such a condition. The same room or area could be classified as a vestibule or a corridor [ADAAG 4.3.11.1(3) or (4)] and be subject to less stringent corridor construction requirements (one-hour maximum, no specific smoke performance). To require a higher fireresistance rating of a separation that provides initially a higher degree of protection than permitted in 4.3.11.1(3) or (4) is inconsistent. BOCA is judged to be equivalent on the basis of providing a greater degree of protection than is permissible according to ADAAG 4.3.11.1(3) and (4). |
| 4.3.11.1(7) Areas of rescue assistance; Elevator lobby     | 1007.3 Elevators<br>1007.5 Areas of Refuge<br>1015.0 Smokeproof Enclosures                                                                  | No substantive difference. The provisions are equivalent. BOCA does not require the elevator to be in a smokeproof enclosure where the area of refuge served by the elevator is created by a smoke barrier; or by a horizontal exit, consistent with ADAAG 4.1.3(9). This provides for equal treatment of stairways and elevators when smoke barriers are utilized to create an area of refuge adjacent to the stairway or elevator. The technology for hoistway pressurization is not sufficiently evolved nor has sufficient experience been gained in the actual use and performance of such systems to justify sole reliance on them as an area of refuge.                                                                                                                                                                                               |
| 4.3.11.2 Areas of rescue assistance; Size                  | 1007.5.1 Size                                                                                                                               | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 4.3.11.3 Areas of rescue assistance; Stairway width        | 1007.2 Exit Stairways                                                                                                                       | No substantive difference. The provisions are equivalent. The exception for horizontal exits is consistent with ADAAG 4.1.3(9).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 4.3.11.4 Areas of rescue assistance; Two-way communication | 1007.5.3 Communication System                                                                                                               | BOCA exempts buildings four stories and less based on a lack of demonstrated value or need in low-rise buildings. BOCA does not specifically require the use of both visible and audible signals, although it is unclear as to what type visible signals are intended and what they are to communicate.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 4.3.11.5 Areas of rescue assistance; Identification        | 1007.5.4 Identification<br>1007.6 Signage                                                                                                   | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 4.4.1 Protruding objects; General                          | 1005.3 Protruding Objects<br>1014.4 Headroom<br>1011.1.3 Restrictions<br>1016.2.2 Headroom<br>1016.2.3 Restrictions<br>1017.3 Size of Doors | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

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| ADAAG-1991                                                       | BOCA-1993                                                                      | COMMENTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|------------------------------------------------------------------|--------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4.3.9 Doors                                                      | 1017.0 Means of Egress Doorways                                                | No substantive difference. The ADAAG provision is a cross-reference only. See ADAAG 4.13 for substantive comparison.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 4.3.10 Egress                                                    | 1007.1 General                                                                 | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 4.3.11.1 Areas of rescue assistance; Location and construction   | 1007.1 General                                                                 | The provisions are equivalent. The elements permitted in ADAAG to serve as an area of rescue assistance are also addressed in BOCA, except with respect to corridors [see ADAAG 4.3.11.1(3)] in which case BOCA provides for greater protection.                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 4.3.11.1(1) Areas of rescue assistance; Smokeproof enclosure     | 1007.2 Exit Stairways<br>1007.5 Areas of Refuge                                | No substantive difference. The provisions are equivalent. BOCA does not specifically refer to smokeproof enclosures. Any complying exit stairway, including a stairway in a smokeproof enclosure, is considered to provide adequate safety for all persons, including those with mobility impairments.                                                                                                                                                                                                                                                                                                                                                                                           |
| 4.3.11.1(2) Areas of rescue assistance; Exterior balcony         | 1007.2 Exit Stairways<br>1014.12.2 Protection                                  | No substantive difference. The provisions are equivalent except in regard to the differences described herein. BOCA's reference to exit stairways includes both exterior and interior stairways. The required wheelchair spaces would be considered as the enlarged landing of the stairway. BOCA requires exposure protection for a distance of 10 feet from this area, whereas ADAAG requires protection for a distance of 20 feet. Virtually all model codes have determined 10 feet to provide adequate protection for all occupants, including the mobility impaired. BOCA provides for exceptions to the requirement for separation from the interior which are not provided for in ADAAG. |
| 4.3.11.1(3) Areas of rescue assistance; Fire-resistance corridor | 1007.2 Exit Stairways<br>1007.5.2 Separation<br>1011.4 Enclosure               | BOCA is more restrictive in that BOCA does not permit a space that is enclosed by corridor construction to serve as an area of refuge. Spaces adjacent to an exit stairway that does not have an enlarged landing are required to comply with Section 1007.5.2 for areas of refuge. By deferring to local requirements for corridor construction and enclosure, ADAAG establishes less stringent provisions than BOCA allows for any area of refuge.                                                                                                                                                                                                                                             |
| 4.3.11.1(4) Areas of rescue assistance; Vestibule                | 1007.2 Exit Stairways<br>1007.5.2 Separation<br>1011.4 Enclosure               | BOCA is more restrictive in that BOCA does not permit a space that is enclosed by corridor construction to serve as an area of refuge. Spaces adjacent to an exit stairway that does not have an enlarged landing are required to comply with Section 1007.5.2 for areas of refuge. By deferring to local requirements for corridor construction and enclosure, ADAAG establishes less stringent provisions than BOCA allows for any area of refuge.                                                                                                                                                                                                                                             |
| 4.3.11.1(5) Areas of rescue assistance; Vented stair landing     | 1007.2 Exit Stairways<br>Table 716.1 Opening Protection Fire Protection Rating | BOCA does not specifically require the stairway to be vented to the exterior. Vented stairways do not provide a measurable increase in safety and may be detrimental due to increased stack effect.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

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| ADAAG-1991                                   | BOCA-1993                                                                                            | COMMENTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|----------------------------------------------|------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4.3.1 Accessible route; General              | 1102.0 Definitions (Accessible route)<br>1104.0 Accessible Route                                     | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 4.3.2(1) Accessible route to an entrance     | 1104.1 Where required                                                                                | No substantive difference. The provisions are equivalent. ADAAG's requirement that the route coincide with the route for the general public is subjective due to the qualifier "to the maximum extent feasible". In new construction, traffic patterns in many circumstances are speculative prior to construction. After a period of on-going use of a building, new or different actual traffic patterns evolve. Enforceability of this concept in many such cases is questionable. In most, if not all cases, providing an accessible route provides another route for use by the public. On this basis, BOCA is judged to be equivalent. |
| 4.3.2(2) Accessible route; Between buildings | 1104.2 Connected Spaces                                                                              | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 4.3.2(3) Accessible route; Within a building | 1104.2 Connected Spaces                                                                              | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 4.3.2(4) Accessible route; Dwelling units    | 1104.2 Connected Spaces                                                                              | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 4.3.3 Width                                  |                                                                                                      | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 4.3.4 Passing space                          |                                                                                                      | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 4.3.5 Head room                              | 1005.3 Protruding objects                                                                            | No substantive difference. The ADAAG provisions is a cross-reference only. See ADAAG 4.4.2 for substantive comparison.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 4.3.6 Surface textures                       | 1005.4 Floor Surfaces<br>1012.4 Walking Surfaces<br>1016.6.1 Surface<br>1014.9 Stairway Construction | No substantive difference. The ADAAG provisions is a cross-reference only. See ADAAG 4.5 for substantive comparison.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 4.3.7 Slope                                  | 1016.3 Maximum Slope                                                                                 | No substantive difference. The provisions are equivalent. BOCA does not define a ramp based on slope. However, the requirements applicable to ramps are equivalent. The difference between ADAAG's cross slope limitation of 1:50 and BOCA's 1:48 are judged to be equivalent based on ADAAG's provision (3.2) for dimensional tolerances.                                                                                                                                                                                                                                                                                                   |
| 4.3.8 Changes in levels                      | 1005.6 Elevation Change<br>1017.1.1 Floor Surface<br>1102.1 Definitions (Accessible route)           | No substantive difference. The provisions are equivalent. The key BOCA requirement that encompasses the specifics contained in ADAAG is the performance requirement that an accessible route must be useable by a person in a wheelchair. For example, that would preclude changes in elevation between 1/2" and 12" from occurring without a ramp. BOCA does not permit platform lifts as part of a required accessible route in new construction.                                                                                                                                                                                          |

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| ADAAG-1991                                                            | BOCA-1993                                               | COMMENTS                                                                                                                         |
|-----------------------------------------------------------------------|---------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| 4.1.7(2)(b) Buildings and facilities not subject to Section 106       | 1110.4 Historic Buildings<br>3406.0 Historic Structures | Same comments as for 4.1.7.<br>This provision is advisory only and is therefore not enforceable and does not affect equivalence. |
| 4.1.7(2)(c) Consultation with interested persons                      | 1110.4 Historic Buildings<br>3406.0 Historic Structures | Same comments as for 4.1.7.<br>This provision is advisory only and is therefore not enforceable and does not affect equivalence. |
| 4.1.7(2)(d) Certified local government historic preservation programs | 1110.4 Historic Buildings<br>3406.0 Historic Structures | Same comments as for 4.1.7.<br>This provision is advisory only and is therefore not enforceable and does not affect equivalence. |
| 4.1.7(3) Historic preservation: Minimum requirements                  | 1110.4 Historic Buildings<br>3406.0 Historic Structures | Same comments as for 4.1.7.                                                                                                      |
| 4.1.7(3)(a) Accessible route                                          | 1110.4 Historic Buildings<br>3406.0 Historic Structures | Same comments as for 4.1.7.                                                                                                      |
| 4.1.7(3)(b) Entrances                                                 | 1110.4 Historic Buildings<br>3406.0 Historic Structures | Same comments as for 4.1.7.                                                                                                      |
| 4.1.7(3)(c) Toilet facilities                                         | 1110.4 Historic Buildings<br>3406.0 Historic Structures | Same comments as for 4.1.7.                                                                                                      |
| 4.1.7(3)(d) Public spaces                                             | 1110.4 Historic Buildings<br>3406.0 Historic Structures | Same comments as for 4.1.7.                                                                                                      |
| 4.1.7(3)(e) Displays                                                  | 1110.4 Historic Buildings<br>3406.0 Historic Structures | Same comments as for 4.1.7.<br>This provision is advisory only and is therefore not enforceable and does not affect equivalence. |
| 4.2.1 Wheelchair passage width                                        |                                                         | See CABO/ANSI A117.1.                                                                                                            |
| 4.2.2 Width for wheelchair passing                                    |                                                         | See CABO/ANSI A117.1.                                                                                                            |
| 4.2.3 Wheelchair turning space                                        |                                                         | See CABO/ANSI A117.1.                                                                                                            |
| 4.2.4.1 Size and approach                                             |                                                         | See CABO/ANSI A117.1.                                                                                                            |
| 4.2.4.2 Relationship of maneuvering clearance to wheelchair spaces    |                                                         | See CABO/ANSI A117.1.                                                                                                            |
| 4.2.4.3 Surfaces for wheelchair spaces                                | See ADAAG 4.5                                           | Cross reference only. See ADAAG 4.5 for substantive comparison.                                                                  |
| 4.2.5 Forward reach                                                   |                                                         | See CABO/ANSI A117.1.                                                                                                            |
| 4.2.6 Side reach                                                      |                                                         | See CABO/ANSI A117.1.                                                                                                            |

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| ADAAG-1991                                                         | BOCA-1993                                               | COMMENTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|--------------------------------------------------------------------|---------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>4.1.7 Accessible Buildings: Historic preservation</b>           | 1110.4 Historic Buildings<br>3406.0 Historic Structures | BOCA treats alterations and changes of occupancy in historic structures the same as all other buildings by applying the provisions of Section 1110.0, unless technically infeasible. If the historic character of the building is adversely affected by the alteration or change of occupancy, BOCA provides for consideration of alternatives through Section 3406.0. Section 3406.0 treats historic buildings and structures broadly and generally with the concept that all code requirements, including accessibility related requirements, are not mandatory and are subject to modification with the approval of the code official. As with alterations to non-historic buildings, the decision making process starts with the requirements for new construction as a baseline, including any specific provisions for alterations permitted in Section 1110.0, and modifications or alternatives to those requirements are evaluated and approved as judged necessary and appropriate.<br>This general concept therefore encompasses the full spectrum of ADAAG's detailed provisions for historic buildings and is judged to be equivalent. |
| <b>4.1.7(1) Applicability</b>                                      | 1110.4 Historic Buildings<br>3406.0 Historic Structures | Same comments as for 4.1.7.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>4.1.7(1)(a) General rule</b>                                    | 1110.4 Historic Buildings<br>3406.0 Historic Structures | Same comments as for 4.1.7.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>4.1.7(1)(b) Definition</b>                                      | 1110.4 Historic Buildings<br>3406.0 Historic Structures | Same comments as for 4.1.7.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>4.1.7(2) Procedures</b>                                         | 1110.4 Historic Buildings<br>3406.0 Historic Structures | Same comments as for 4.1.7.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>4.1.7(2)(a) Buildings and facilities subject to Section 106</b> | 1110.4 Historic Buildings<br>3406.0 Historic Structures | Same comments as for 4.1.7.<br>These provisions relate specifically to projects that are under the jurisdiction of Federal Agencies and therefore are presumed to not be subject to State or local code enforcement.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>4.1.7(2)(a)(i) Section 106 Process</b>                          | 1110.4 Historic Buildings<br>3406.0 Historic Structures | Same comments as for 4.1.7.<br>These provisions relate specifically to projects that are under the jurisdiction of Federal Agencies and therefore are presumed to not be subject to State or local code enforcement.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>4.1.7(2)(a)(ii) ADA Application</b>                             | 1110.4 Historic Buildings<br>3406.0 Historic Structures | Same comments as for 4.1.7.<br>These provisions relate specifically to projects that are under the jurisdiction of Federal Agencies and therefore are presumed to not be subject to State or local code enforcement.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |



| ADAAG-1991                                                          | BOCA-1993                                                          | COMMENTS                                                                                                                                                                                                             |
|---------------------------------------------------------------------|--------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4.1.6(3)(a)(ii) Slope limit; 3 inch rise                            | 1016.3 Maximum Slope<br>1110.2 Alterations<br>3404.2 Requirements  | No substantive difference. The provisions are equivalent.                                                                                                                                                            |
| 4.1.6(3)(b) Alterations; Special provisions; Stairs                 | 106.2 Modifications<br>3404.2 Requirements                         | BOCA does not specifically exempt this accessibility requirement and is therefore at least equivalent to ADAAG. Practical difficulties and/or structural impracticality can only be addressed through Section 106.2. |
| 4.1.6(3)(c)(i) Alterations; Elevator reopening devices not required | 3013.1 Referenced Standard                                         | BOCA does not provide for any specific alternatives to the comparable requirement to ADAAG 4.10.6.                                                                                                                   |
| 4.1.6(3)(c)(ii) Alterations; Inside car area                        | 106.2 Modifications<br>1110.2 Alterations                          | No substantive difference. The provisions are equivalent. BOCA does not prescribe any specific acceptable alternative.                                                                                               |
| 4.1.6(3)(c)(iii) Alterations; Alternative sizes                     | 106.4 Alternative Materials and Equipment<br>1110.2 Alterations    | No substantive difference. The provisions are equivalent. BOCA does not prescribe any specific acceptable alternative.                                                                                               |
| 4.1.6(3)(d)(i) Alterations; Doors; Permitted projection             | 106.2 Modifications<br>1110.2 Alterations                          | No substantive difference. The provisions are equivalent. BOCA does not prescribe any specific acceptable alternative.                                                                                               |
| 4.1.6(3)(d)(ii) Alterations; Existing thresholds                    | 106.2 Modifications<br>1110.2 Alterations                          | No substantive difference. The provisions are equivalent. BOCA does not prescribe any specific acceptable alternative.                                                                                               |
| 4.1.6(3)(e)(i) Alterations; Unisex toilet rooms                     | 1110.2.2(1) Scoping for Alterations                                | No substantive difference. The provisions are equivalent.                                                                                                                                                            |
| 4.1.6(3)(e)(ii) Alterations; Alternate toilet stall                 | P-107.2 Modifications<br>106.2 Modifications<br>1110.2 Alterations | No substantive difference. The provisions are equivalent. BOCA does not prescribe any specific acceptable alternative.                                                                                               |
| 4.1.6(3)(e)(iii) Alterations; Signage                               | 1110.2.2(2) Scoping for Alterations                                | No substantive difference. The provisions are equivalent.                                                                                                                                                            |
| 4.1.6(3)(f)(i) Alterations; Assembly areas; Dispersion of seating   | 1110.2.2(3) Scoping for Alterations                                | No substantive difference. The provisions are equivalent.                                                                                                                                                            |
| 4.1.6(3)(f)(ii) Alterations; Accessible routes for performing areas | 1110.2.2(4) Scoping for Alterations                                | No substantive difference. The provisions are equivalent.                                                                                                                                                            |
| 4.1.6(3)(g) Platform lifts (Wheelchair lifts)                       | 1110.2.2(5) Scoping for Alterations                                | No substantive difference. The provisions are equivalent.                                                                                                                                                            |
| 4.1.6(3)(h) Dressing rooms                                          | 1110.2.2(6) Scoping for Alterations                                | No substantive difference. The provisions are equivalent.                                                                                                                                                            |



| ADAAG-1991                                                    | BOCA-1993                                                                                            | COMMENTS                                                                                                                                                                                                                                         |
|---------------------------------------------------------------|------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4.1.6(1)(e) Alterations; Interior text telephone required     |                                                                                                      | See ADAAG 4.1.3(17)(a).                                                                                                                                                                                                                          |
| 4.1.6(1)(e)(i) Alterations; Less than four                    |                                                                                                      | See ADAAG 4.1.3(17)(a).                                                                                                                                                                                                                          |
| 4.1.6(1)(e)(ii) Alterations; Four or more                     |                                                                                                      | See ADAAG 4.1.3(17)(a).                                                                                                                                                                                                                          |
| 4.1.6(1)(f) Alterations; Vertical access                      | 1110.2 Alterations<br>3404.2 Requirements                                                            | BOCA is more inclusive than ADAAG and is therefore more than equivalent. Installation of an escalator or stair would constitute an alteration of the space. BOCA requires full conformance regardless of the extent of structural modifications. |
| 4.1.6(1)(g) Alterations; Exemptions                           | 1110.2.2(8) Scoping for alterations                                                                  | No substantive difference. BOCA provides the same exemption.                                                                                                                                                                                     |
| 4.1.6(1)(h) Alterations; Entrances                            | 1102.2 Alterations<br>3404.2 Requirements                                                            | BOCA is more inclusive than ADAAG and is therefore more than equivalent. Alterations are required to fully comply unless structurally impractical.                                                                                               |
| 4.1.6(1)(i) Alterations only to systems                       | 1110.2.1 Alterations Affecting An Area containing A Primary Function, Exception 3                    | No substantive difference. BOCA provides the same exemption.                                                                                                                                                                                     |
| 4.1.6(1)(j) Alterations; Exception                            | 106.2 Modifications<br>1110.2 Alterations<br>1110.3 Change of Occupancy<br>1110.4 Historic Buildings | No substantive difference. The provisions are equivalent. BOCA qualifies various provisions with the "technical infeasibility" clause.                                                                                                           |
| 4.1.6(1)Technically infeasible                                | 1102.0 Definitions (Technically Infeasible)                                                          | No substantive difference. The definitions are equivalent.                                                                                                                                                                                       |
| 4.1.6(1)(k)(i) Alterations; Elevator exception                | 1104.2 Connected Spaces, Exception 2<br>3404.2 Requirements                                          | BOCA treats alterations the same as new construction, except where technically infeasible and is therefore at least equivalent to ADAAG. Beyond that, the comparison for ADAAG 4.1.3 (5) is applicable to this provision.                        |
| 4.1.6(1)(k)(ii) Alterations; Other requirements still apply   | 1110.2 Alterations                                                                                   | No substantive difference. The provisions are equivalent.                                                                                                                                                                                        |
| 4.1.6(2) Alterations to an area containing a primary function | 1110.2.1 Alteration Affecting An Area Containing A Primary Function                                  | No substantive difference. The provisions are equivalent.                                                                                                                                                                                        |
| 4.1.6(3)(a) Alterations; Special provisions; Ramps            | 1016.3 Maximum Slope<br>1110.2 Alterations<br>3404.2 Requirements                                    | No substantive difference. The provisions are equivalent. BOCA permits these limited rise slopes for new construction and thus allows them for alterations.                                                                                      |
| 4.1.6(3)(a)(i) Slope limit; 6 inch rise                       | 1016.3 Maximum Slope<br>1110.2 Alterations<br>3404.2 Requirements                                    | No substantive difference. The provisions are equivalent.                                                                                                                                                                                        |

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# Council of American Building Officials

5203 LEESBURG PIKE • FALLS CHURCH, VA 22041  
(703) 931-4533

RICHARD P. KUCHNICKI  
PRESIDENT

July 3, 1990

Ms. Irene Bowen, Attorney  
Dept. of Justice, Coordination and  
Review Section, Civil Rights Division  
320 1st St. NW, Rm. 838  
Washington, D.C. 20001

Dear Ms. Bowen:

The Council of American Building Officials (CABO) is the Secretariat for the A117 American National Standards Institute (ANSI) Accredited Standards Committee on Architectural Features and Site Design of Public Buildings and Residential Structures for Persons with Handicaps. The Committee is responsible for the development and maintenance of the A117.1 ANSI Standard, Providing Accessibility and Usability for Physically Handicapped People. CABO, who represents the three model building code organizations of the United States - Building Officials and Code Administrators International (BOCA), International Conference of Building Officials (ICBO), and Southern Building Code Congress International (SBCCI), is a national organization which was established for the purpose of enhancing the efforts of the nation's three building officials' organizations at the national level in their continuing endeavors in the interest of the public health, safety and general welfare.

The 1990 Americans with Disabilities Act (ADA) requires the U.S. Architectural and Transportation Compliance Board (ATBCB) to develop supplemental guidelines to augment the Minimum Guidelines and Requirements for Accessible Design (MGRAD) which references the 1986 ANSI A117.1 Standard.

CABO's Board for the Coordination of Model Codes (BCMC) has overseen the development of a comprehensive scoping document for the uniform application of ANSI A117.1 Standard in all of the nationally recognized model building codes and related standards which are the basis for most state and local building code requirements in the U.S. The reason why CABO has developed these scoping provisions is that, as accessibility has become an integral



**Council of  
American  
Building  
Officials**

Letter to Ms. Bowen  
July 3, 1990  
Page 2

part of the building process, the ANSI A117 Committee agreed that scoping provisions should be determined by persons familiar with building codes and other regulations governing buildings and facilities.

CABO therefore requests that the United States Department of Justice convene a committee of professionals who have actively participated in the BCMC deliberations and represent the broad spectrum of interested parties to assist ATBCB in developing supplemental guidelines (scoping) for the MGRAD/ANSI A117.1 Standards, so that uniform scoping provisions can be included in all building regulations.

CABO is available to discuss this matter further if you wish. We truly appreciate your consideration of this request.

Sincerely,

*Richard P. Kuchnicki*

Richard P. Kuchnicki  
President

RPK:kh

cc: Paul J. Imhoff, CABO Chairman  
William E. Schlecht, CABO Vice Chairman  
Charles M. Decker, President, BOCA  
Brent Snyder, President, ICBO  
William R. Stone, President, SBCCI  
Clarence R. Bechtel, BOCA  
James E. Bihr, ICBO  
William J. Tangye, SBCCI  
A117.1 Committee  
BCMC Committee





National Conference of States on Building Codes and Standards, Inc.  
505 Huntmar Park Drive, Suite 210, Herndon, Virginia 22070  
(703) 437-0100 FAX (703) 481-3596

3 b

MEMORANDUM

TO: Tim Masanz, Committee Director  
NGA EDTI Committee

FROM: Robert E. Wible, Executive Director

DATE: October 3, 1990

SUBJECT: Americans With Disabilities Act Forum, September 26, 1990

On August 23, 1990, representatives from the following organizations met to discuss the need for cooperation among the federal, state, and local governments in the development and implementation of rules, regulations, and procedures for the Americans with Disabilities Act (ADA), PL101-336:

- NCSBCS;
- National Institute of Building Sciences (NIBS);
- nation's model building code organizations;
- Architectural and Transportation Barriers Compliance Board (ATBCB); and
- Department of Justice.

Several actions took place at this meeting. First, ATBCB agreed to comment on the Board for the Coordination of the Model Codes' (BCMC) draft scoping provisions for accessible buildings and facilities. This draft document was modeled from the scoping provisions developed by the NCSBCS State Accessibility Officers Committee. Upon completion, BCMC's scoping provisions will be presented to the nation's model building code organizations for adoption.

Additionally, ATBCB and the Justice agreed to NCSBCS' suggestion that a national forum be held to provide state and local governments and the building community with information on the ADA. The forum would also allow discussion on ways ATBCB and the Justice could make maximum use of the nation's existing building regulatory system in implementing the ADA. NIBS hosted that forum on September 26, 1990.



**MEMORANDUM**  
**Tim Masanz, NGA**  
**September 3, 1990**  
**Page Two**

Attached is a summary of the forum and relevant background materials. If you desire further information, I can provide you with a copy of ATBCB's Minimum Guidelines and Requirements for Accessible Design (MGRAD), the August 31, 1990 Advanced Notice of Proposed Rule Making, and the ADA. The Justice will be providing the forum attendees with copies of several key House and Senate reports on the ADA.

Twelve states were represented at the forum; California, Connecticut, Delaware, Maryland, Michigan, North Carolina, New Jersey, New York, Ohio, Rhode Island, South Carolina, and Virginia. Limited state travel budgets and the short lead time to notify our delegates accounted for the low turnout.

I have attached a list of recommendations for NGA to consider. If you have any questions, please contact me.

RCW:dtb  
Enclosures



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# Council of American Building Officials

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RICHARD P. KUCHNICKI  
PRESIDENT

February 7, 1991

## MEMORANDUM

To: Paul Imhoff, Dick Kuchnicki  
Clarence Bechtel, Paul Heilstedt ✓  
Jim Bihr, Jon Traw  
Bill Tangye, Rick Vognild

From: Bob Spangler *BobS*

At the recent National Easter Seal Society meeting, Irene Bowen and Ed Matthei (former chairman, A117 Committee) had a discussion on the possibility of resolving potential differences between the Standard and the Guidelines to be issued by ATBCB.

At our request, NIBS contacted the Department of Justice (DOJ) and arranged a meeting to exchange views on what might be done to resolve differences between the ANSI A117.1 Standard and the proposed ATBCB Guidelines issued January 22, 1991. The meeting was held February 6, 1991 (agenda by Dave Harris attached) and was attended by:

Irene Bowen, Department of Justice  
Merrily Friedlander, Department of Justice  
Janet Blizard, Department of Justice  
Dave Bullen, American Institute of Architects  
Bill Connolly, State of New Jersey  
Bob Spangler, CABO  
Dave Harris, NIBS  
Bruce Vogelsinger, NIBS

The discussion was concerned primarily with the effects of two standards existing and what approach might be taken to resolve any differences between the standards. After exploring several possible actions, it was generally agreed that the ATBCB should be approached to determine whether it would consider setting a policy that it would adopt the ANSI Standard if the ANSI Standard were to be made technically equivalent to the ATBCB Guidelines. The approach to ATBCB would be by DOJ. It is expected that ATBCB would continue with the development of criteria for areas not presently covered by the ANSI Standard.



February 7, 1991  
Page 2

Conversely, it is expected that ATBCB will be seeking something in return. It was suggested that this might be an agreement by the Model Code Organizations and the ANSI Committee to give consideration to accepting the ATBCB scoping requirements.

The meeting produced a very healthy discussion and an increased understanding and appreciation of possibilities and limitations under federal law and the local and state code enforcement systems.

A more detailed report will be forthcoming from NIBS.

RWS:kh



## NIBS/DOJ MEETING ON THE ADA AGENDA

February 6, 1991

### A. Issues and Problems:

1. Need effective method to disseminate federal regulations, standards with which to implement the ADA.
2. Need effective and efficient method to ensure enforcement of the law and associated regulations and standards.
3. Unless adequate solutions to these needs are found, the cost to the nation and the disabled community will be enormous.

### B. Alternative Solutions:

1. Improving the compatibility between the federal criteria and state and local codes and regulations (including model codes and voluntary standards).

How can the existing building regulatory process incorporate ADA standards, thus permitting state and local governmental enforcement?

- a. Standards/regulations compatible for adoption by model codes. Consolidate in one document (ANSI A-117.1) scoping provisions, technical requirements, and the MGRAD.

Develop and implement a proactive approach to incorporate MGRAD provisions into the ANSI Standard during the current update process.

2. Meeting the intent of the ADA by finding an efficient way to certify state/local building codes.

- a. Certifying the ANSI Standard and the BCMC Scoping Provisions. Automatically certifying state and local building codes which adopt the above without technical change.
- b. Certifying the model building codes which include the BCMC scoping provisions and adopt the ANSI standard by reference, and automatically certifying local codes adopting by reference the unamended ANSI standard and scoping provisions.



21/15/91 Copies to: CMDecker, JBer  
GGarofalow, EWakely, PKH

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RICHARD P. KUCHNICKI  
PRESIDENT

FEB 14 1991  
BOCA INT'L, INC.

February 12, 1991

MEMORANDUM

TO: Clarence R. Bechtel, James E. Bihr, William J. Tangye

FROM: Richard P. <sup>Dick</sup>Kuchnicki

The attached correspondence from NIBS proposes a concept for obtaining compatibility between ADA accessibility standards and the model codes.

Do you have any comments on this proposal?

RPK:kh  
enclosure





National Institute of  
BUILDING SCIENCES

1201 L Street, N.W., Suite 400  
Washington, D.C. 20005  
(202) 289-7800  
FAX (202) 289-1092

FEB 12 1991

February 11, 1991

MEMORANDUM TO FILE

FROM: Bruce E. Vogelsinger

SUBJECT: Report on February 6 meeting with DOJ

Present at the meeting were: Irene Bowen, Merrily Friedlander, and Janet Blizard from DOJ; William Connolly, Dave Bullen, Robert Spangler, Dave Harris, and Bruce Vogelsinger.

The subject of how to obtain compatibility between the ADA accessibility standards and the model codes in order to use the existing building regulatory process for implementing the ADA was the basic purpose of the meeting.

Out of the discussion came a proposed concept for accomplishing compatibility or uniformity. This concept is set forth on the attached.

Some consideration was given to scheduling meetings between the various parties involved, however, it was decided that the concept should be first discussed and reviewed internally within the respective organizations. Informal discussions should take place to garner support for the concept.

NIBS will be the point of contact to keep the meeting participants appraised of the status of the informal efforts to reach agreement on the concept.

Attachment

cc: William Connolly  
Robert Spangler ✓  
David Bullen  
David Harris  
Irene Bowen



2/11/91

Concept  
for  
Compatibility/Uniformity of Accessibility Standards  
for ADA and Model Codes

Problem: Develop a mechanism or process for incorporating the ADA accessibility standards into the nation's existing building regulatory process.

Situation:

- o The ADA law identifies the current MGRAD as the minimum accessibility standards and requires the Access Board to supplement these in carrying out the ADA. The Access Board is required to publish the supplemental standards by April 26, 1991.
- o On January 22, the Access Board published proposed accessibility standards for buildings and facilities. To the maximum extent feasible, the proposed standards incorporate the existing ANSI accessibility standards and the proposed changes to ANSI being considered for the 1991 edition.
- o The revised ANSI standards is nearing completion and is expected to be published in late 1991 or early 1992.
- o The model code organizations have a policy of adopting only those standards that have been developed through the consensus process.

Proposed Action:

- o Extend the comment period for the ANSI standard until after publication of the final standards by the Access Board/DOJ.
- o Incorporate in the ANSI 1991 edition all of the technical provisions published by the Access Board/DOJ. The ANSI standard would then meet the requirements of the ADA law for accessibility standards at the time it is published.
- o Upon publication of the ANSI standard, the Access Board/DOJ would adopt the ANSI standard by reference. Future changes to the accessibility standards generated by the Access Board/DOJ would be submitted to ANSI and processed through the normal procedure. The Access Board/DOJ would in turn publish a notice in the Federal Register of their intent to adopt the approved change to the ANSI standard.

- o The three model code organizations would adopt the new ANSI standard by reference in their codes.
- o The ANSI standard would deal only with technical provisions. The scoping provisions would be developed and published by the Access Board/DOJ. The scoping provisions could be referenced or incorporated in the model codes as a statement of the requirements of federal law.
- o The DOJ procedure for certifying state and local building codes would then be a relatively simple procedure for the majority of state and local governments who routinely adopt one of the three model codes.

\* \* \* \* \*



February 28, 1992

**TO:** Chuck Decker  
Bob Fowler  
Jon Traw  
Rick Vognild

**FROM:** Paul K. Heistedt

**SUBJECT:** March 5, 1992 Meeting with Department of Justice

Further to my memo of February 18, 1992, apparently we will get together the evening of March 4th to discuss our agenda for the next day's meeting with the Department of Justice.

Evidently, Rick will be the last to arrive (at approximately 6:30 p.m.) so we will plan on having a dinner meeting on his arrival. If necessary, we can meet in the morning of the 5th as well.

To give each of you an idea of where BOCA is, I am enclosing a copy of BOCA's anticipated submittal to the Department of Justice. I am also enclosing a copy of the following:

- Results of a BCMC Public Hearing (January 22, 1992)
- BCMC Public Hearing document (May 6, 1992)
- Vognild's draft incorporating ADA, Fair Housing Guidelines and the new ANSI A117.1-1992 into the BCMC Public Hearing document (May 6, 1992)

I look forward to seeing each of you next week. If you have any questions, please feel free to contact me.

PKH/dls

Enclosures

*cc to K. F. H. N. E. R.*



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March 9, 1992

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*Chief Executive Officer*  
**CLARENCE R. BECHTEL**

*Executive Director*  
**PAUL K. HEILSTEDT, P.E.**

**Ms. Irene Bowen, Attorney**  
Department of Justice, Coordination  
and Review Section, Civil Rights Division  
320 1st Street, N.W., Room 838  
Washington, D.C. 20001

Dear Irene:

We appreciated the opportunity to meet with you and your colleagues at the Department of Justice on March 5th. I felt that the meeting was productive, particularly in that we were able to gain your views on the potential role of the model code organizations relative to the development of accessibility provisions and how we might be able to obtain technical assistance in moving towards national model code uniformity and code certification.

At our meeting we briefly discussed the opportunity for you to prepare a piece for the magazine or bulletin dealing with some of the more fundamental issues of concern to code officials and others. Such a piece would be very effective in dealing with the prevailing anxieties and misconceptions regarding ADA implementation. I am enclosing a copy of our most recent BOCA Magazine and BOCA Bulletin. Both publications are bi-monthly with the next magazine appearing on April 5th and the next Bulletin appearing on May 5th. The closing date for our publications is generally 30 days prior to issuance but we would be extremely pleased to work with you on timing and substance.

On departing your offices, members of our group asked that I transcribe my notes reflecting my understanding of the process and the approximate time frame for the development of the CABO Accessibility Provisions. My notes reflected the following:

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March 9, 1992  
Ms. Irene Bowen  
Page 2

| SEQUENCE | ACTION                                                                                                                                                              | DATE       |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| 1.       | Prepare preliminary draft of codified ADAAG                                                                                                                         | March 16   |
| 2.       | Circulate draft to interested parties for written comment                                                                                                           | March 20   |
| 3.       | Deadline for receipt of comments on draft                                                                                                                           | April 13   |
| 4.       | Review comments, revise draft and distribute                                                                                                                        | April 20   |
| 5.       | Informal public discussion on draft                                                                                                                                 | May 4      |
| 6.       | Present draft to BCMC for discussion and formal action.                                                                                                             | May 6      |
| 7.       | Distribute resulting Report to BCMC meeting attendees and interested parties.                                                                                       | May 15     |
| 8.       | BCMC Public Hearing on Report                                                                                                                                       | June 8     |
| 9.       | Report to CABO Board of Directors the results of hearing for approval                                                                                               | June 15    |
| 10.      | Submit BCMC Report to Department of Justice with ANSI A117.1-92                                                                                                     | June 30    |
| 11.      | Prepare report on technical issues in the BCMC Report that are different from ADAAG, and those issues that should be reviewed by appropriate agencies (rule-making) | July 30    |
| 12.      | Model code organizations incorporate BCMC report into code development activities                                                                                   | continuous |
| 13.      | Incorporation into model codes/available for adoption                                                                                                               | 1/4/93     |

In some respects I think the scheduling is optimistic but, certainly in concept, the milestones can be accomplished. Most importantly, we welcome your offer to provide technical assistance throughout the process. We will be forwarding a copy of the drafts, notices and reports as they are generated. Please consider this an open invitation to attend the above indicated meetings and communicate your views on whatever you wish to comment.



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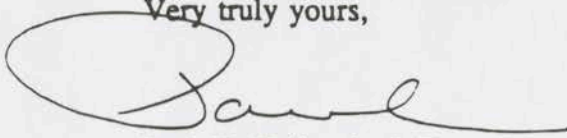
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March 9, 1992  
Ms. Irene Bowen  
Page 3

The purpose of our meeting was to explore the opportunity of cooperation. I am very confident that the effort outlined previously will be a significant step in not only bringing code officials back into the mainstream of implementing the enforcement of accessibility regulations but serving our common goal of efficiently obtaining accessible buildings and facilities.

Thank you again for your generous offer to assist us. If I, or any of us can assist you, please feel free to call on us. In the meantime if you have any questions or comments, please feel free to contact me.

Very truly yours,



Paul K. Heilstedt, P.E.  
Executive Director

PKH/dls

cc: CBechtel  
JBertoni  
JBuhr  
JBlizard  
CDecker  
BFowler  
RKuchnicki  
RSpangler  
WTangye  
JTraw  
RVognild

Enclosures



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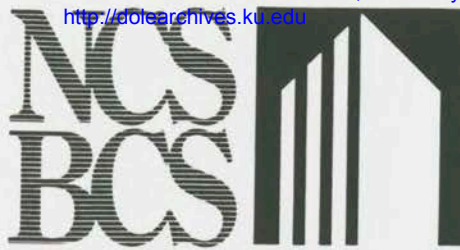
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National Conference of States on Building Codes & Standards

July 1, 1992

Mr. Paul Heilstedt, P.E.  
Executive Director  
Building Officials and Code  
Administrators International, Inc.  
4051 West Flossmoor Road  
Country Club Hills, Illinois 60478-5795

Dear Mr. Heilstedt:

Congratulations on the successful completion of the update of the Board for the Coordination of the Model Codes (BCMC) Scoping Standard for the American National Standards Institutes (ANSI) A117.1 Standard for Accessible and Usable Building and Facilities. It was a pleasure for the National Conference of States on Building Codes and Standards (NCSBCS) to be a participant in this important process.

As you are aware, the BCMC and ANSI A117.1 Standards have incorporated revisions that vastly improve the existing standard, which was the basis for the Americans with Disabilities Act Accessibility Guidelines (ADAAG). It is my hope, that the new standards will now be given serious consideration by the U.S. Architectural and Transportation Barriers Compliance Board (ATBCB) and Department of Justice (DOJ) for incorporation into the ADAAG.

In order to hopefully start this process, I have invited representatives of the ATBCB and DOJ to meet with members of the national model codes organizations and other interested parties, in order to explore options for moving forward with this important task.

It is my hope that you will be able to attend this meeting which is scheduled for July 16, 1992 at the Stouffer Riviere Hotel in Chicago, from 2:00 p.m. to 4:00 p.m. An agenda, as well as a list of invitees, is attached. In addition, I have enclosed a registration form for the NCSBCS National Code Certification Seminar which is scheduled for the following day.

Mr. Paul Heilstedt  
July 1, 1992  
Page Two

If you have any questions about the meeting, please contact me at (916) 323-6363 or Ann Holland at (703) 481-2028. Thank you for your consideration.

Sincerely,

*Richard T. Conrad/ce*

Richard T. Conrad  
President



## FOR YOUR INFORMATION



Civil Rights Division

Public Access Section

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OCT 26 1992

E.O.C.A.

P.O. Box 66738

Washington, D.C. 20035-6738

OCT 21 1992

Mr. Richard P. Kuchnicki  
President  
Council of American Building Officials  
5203 Leesburg Pike  
Falls Church, VA 22041

Dear Mr. Kuchnicki:

I am responding to your recent memorandum asking about the status of the Department of Justice's review of the ANSI A117.1 Final Draft, dated June 15, 1992, and the companion CABO/BCMC scoping recommendations.

We received your supplemental request for technical assistance with respect to these documents in late August. My staff is now reviewing your submission. When we have completed our review, we will provide you with a written response. If, after reviewing our comments, you want discuss them, we will be glad to arrange a meeting at that time.

Thank you for your continuing interest in the Americans with Disabilities Act.

Sincerely,

L. Irene Bowen  
Deputy Chief  
Public Access Section

Enclosures (2)

PHIL GRAMM  
TEXAS

TO: CAROL  
ECMC  
KCHAC  
KS  
3 i.

**United States Senate**

WASHINGTON, D. C. 20510-4302

August 11, 1993

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AUG 23 1993

**BOCA INT'L, INC.**

Mr. Jim W. Sealy  
1340 Prudential Drive  
Dallas, Texas 75235

Dear Mr. Sealy:

Enclosed is the reply I received from the Department of Justice in response to my inquiry on your behalf. I hope this will be useful to you.

I appreciate having the opportunity to represent you in the United States Senate. If I can be of further assistance to you, please do not hesitate to contact me.

Yours respectfully,



PHIL GRAMM  
United States Senator

PG:frw

Enclosure





U.S. Department of Justice

Civil Rights Division

Office of the Assistant Attorney General

Washington, D.C. 20035

AUG 9 1993

The Honorable Phil Gramm  
United States Senate  
370 Russell Senate Office Building  
Washington, D.C. 20510-4302

Dear Senator Gramm:

This is in response to your recent inquiry on behalf of your constituent, Jim W. Sealy, who has raised questions about the enforcement provisions of the Americans with Disabilities Act (ADA). Specifically, Mr. Sealy asserts that the ADA is not being implemented because "design professionals cannot deal with the [ADA] interpretation process and the local governing authorities are prohibited from helping."

Although Mr. Sealy expresses a general concern that the ADA is not being implemented adequately by the Federal government, his remarks, in fact, are focused on only one aspect of the ADA: the Federal mandate for accessible building design. In fact, the ADA is much more than that. Through the ADA, Congress intended to "provide a clear and comprehensive national mandate for the elimination of discrimination against individuals with disabilities." 42 U.S.C. § 12101(b)(1). Title III of the ADA prohibits discrimination on the basis of disability by public accommodations; it requires new construction of (and alterations to) places of public accommodation and commercial facilities to comply with the ADA Standards for Accessible Design; and it requires certain examinations and courses to be offered in an accessible place and manner. In addition to complying with the ADA Standards for Accessible Design in new construction and alterations, public accommodations must comply with a range of title III requirements, including nondiscriminatory eligibility criteria; reasonable modifications in policies, practices, and procedures; provision of auxiliary aids; and removal of barriers in existing facilities. I have enclosed a status report highlighting the Department's recent efforts at enforcing title III of the ADA.

The ADA is intended to provide strong and consistent Federal standards addressing discrimination against individuals with disabilities, 42 U.S.C. § 12101(b)(2), and to ensure that the Federal Government plays a central role in enforcing these



-2-

standards, 42 U.S.C. § 12101(b)(3). Therefore, the ADA requires the Attorney General to issue regulations implementing title III, and makes the Department of Justice primarily responsible for enforcing title III through compliance reviews, complaint investigations, and litigation. (Title III may also be enforced through lawsuits initiated by private parties.)

With respect to design and construction of buildings and facilities that are subject to title III, Mr. Sealy is correct that there is no ADA enforcement mechanism that is analogous to the traditional State building code enforcement process. No Federal agency is authorized by the ADA to act as a "building department" to review plans, issue building permits or occupancy certificates, or provide the type of interpretations of design standards usually provided by local code officials. The ADA, like other Federal civil rights statutes, requires each covered entity to use its best professional judgment to comply with the statute and the implementing regulations.

State and local government officials are neither required nor authorized to enforce title III of the ADA. However, they are not, as Mr. Sealy asserts, "prohibited from helping" in the process of ADA implementation. Nothing in the ADA or the title III regulation prevents State or local code officials from offering advice or assistance to individuals who are seeking to implement the ADA's requirements.

The ADA Standards recognize that there are times when judgment must be exercised in the application of the Standards. Where permitted by their local laws, code officials who are familiar with the ADA Standards may be able to assist covered entities in applying the title III requirements to specific projects. However, State or local code officials may not issue binding interpretations of the ADA Standards or take any action that purports to relieve a public accommodation or commercial facility of its obligation to comply fully with the ADA.

Title III of the ADA formally recognizes the important role of building code officials in the design of accessible buildings by authorizing the Attorney General to certify that State laws, local building codes, or similar ordinances meet or exceed the title III standards for new construction and alterations. In ADA enforcement litigation, compliance with a certified code may be offered as evidence of compliance with title III.

Although certification facilitates consistency between the ADA Standards and the building process at the State and local level, it does not change the authority of State or local code officials with respect to the ADA. Code officials implementing a certified code are authorized to enforce only the building regulations in force in their jurisdiction; they are not authorized to enforce title III.



-3-

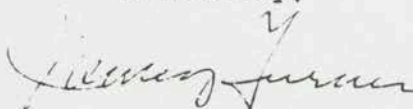
Mr. Sealy states that private sector entities involved in the design and construction industry have prepared a model code document, which has been submitted to this Department for review, but has not yet been certified. He asserts that, through this submission, the code community has "complied with the provisions of the law that apply to equivalency certification," but that the Department "seems to be stalling" this effort to comply.

Mr. Sealy apparently misunderstands the certification process. Model codes or standards prepared by private sector organizations are not eligible for certification. The ADA permits the Department to certify only codes that have been adopted and submitted for certification by State or local governments; it does not permit the certification of model codes or standards. However, because the Department recognizes that many State and local codes rely on models, the title III regulation provides that the Department may review submitted model codes or standards and provide guidance as to whether the submitted document is consistent with the title III requirements. The Department is not required to review models, and review does not constitute certification of a model.

We believe that the document that Mr. Sealy referred to is the American National Standards Institute's (ANSI) consensus accessibility standard, which was published in January 1993 by the Council of American Building Officials (CABO) as the CABO/ANSI A117.1-1992: American National Standard for Accessible and Usable Buildings and Facilities. At the request of CABO, this Division's Public Access Section is reviewing the CABO/ANSI A117.1-1992 standard to determine if it is equivalent to the ADA Standards. The Section intends to complete its review as soon as possible. However, the Section's current workload is heavy and its staff resources are limited. These resource constraints necessarily limit the extent to which the Section is able to undertake discretionary activities such as the review of model codes.

I hope that this information is helpful to you in responding to Mr. Sealy.

Sincerely,



James P. Turner  
Acting Assistant Attorney General  
Civil Rights Division

Enclosure

2 a.

BUILDING OFFICIALS AND CODE  
ADMINISTRATORS INTERNATIONAL, Inc.

SOUTHERN BUILDING CODE  
CONGRESS INTERNATIONAL, Inc.

INTERNATIONAL CONFERENCE OF  
BUILDING OFFICIALS



# Council of American Building Officials

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(703) 931-4533

RICHARD P. KUCHNICKI  
PRESIDENT

July 3, 1990

Ms. Irene Bowen, Attorney  
Dept. of Justice, Coordination and  
Review Section, Civil Rights Division  
320 1st St. NW, Rm. 838  
Washington, D.C. 20001

Dear Ms. Bowen:

The Council of American Building Officials (CABO) is the Secretariat for the A117 American National Standards Institute (ANSI) Accredited Standards Committee on Architectural Features and Site Design of Public Buildings and Residential Structures for Persons with Handicaps. The Committee is responsible for the development and maintenance of the A117.1 ANSI Standard, Providing Accessibility and Usability for Physically Handicapped People. CABO, who represents the three model building code organizations of the United States - Building Officials and Code Administrators International (BOCA), International Conference of Building Officials (ICBO), and Southern Building Code Congress International (SBCCI), is a national organization which was established for the purpose of enhancing the efforts of the nation's three building officials' organizations at the national level in their continuing endeavors in the interest of the public health, safety and general welfare.

The 1990 Americans with Disabilities Act (ADA) requires the U.S. Architectural and Transportation Compliance Board (ATBCB) to develop supplemental guidelines to augment the Minimum Guidelines and Requirements for Accessible Design (MGRAD) which references the 1986 ANSI A117.1 Standard.

CABO's Board for the Coordination of Model Codes (BCMC) has overseen the development of a comprehensive scoping document for the uniform application of ANSI A117.1 Standard in all of the nationally recognized model building codes and related standards which are the basis for most state and local building code requirements in the U.S. The reason why CABO has developed these scoping provisions is that, as accessibility has become an integral



**Council of  
American  
Building  
Officials**

Letter to Ms. Bowen  
July 3, 1990  
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part of the building process, the ANSI A117 Committee agreed that scoping provisions should be determined by persons familiar with building codes and other regulations governing buildings and facilities.

CABO therefore requests that the United States Department of Justice convene a committee of professionals who have actively participated in the BCMC deliberations and represent the broad spectrum of interested parties to assist ATBCB in developing supplemental guidelines (scoping) for the MGRAD/ANSI A117.1 Standards, so that uniform scoping provisions can be included in all building regulations.

CABO is available to discuss this matter further if you wish. We truly appreciate your consideration of this request.

Sincerely,

*Richard P. Kuchnicki*

Richard P. Kuchnicki  
President

RPK:kh

cc: Paul J. Imhoff, CABO Chairman  
William E. Schlecht, CABO Vice Chairman  
Charles M. Decker, President, BOCA  
Brent Snyder, President, ICBO  
William R. Stone, President, SBCCI  
Clarence R. Bechtel, BOCA  
James E. Bihr, ICBO  
William J. Tangye, SBCCI  
A117.1 Committee  
BCMC Committee



Setting the  
Standard for  
America's  
Model Codes

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B. O. C. A.

September 27, 1990

Office of the General Counsel  
Architectural and Transportation  
Barriers Compliance Board  
1111 18th Street, N.W., Suite 501  
Washington, DC 20036

RE: Comments Concerning Format of Supplemental MGRAD  
Docket No. 90-1

The Board has asked for comments concerning format of the supplemental Minimum Guidelines and Requirements for Accessible Design (MGRAD) required by the Americans With Disabilities Act of 1990 (ADA). Specifically, the Board solicits comments on three proposed format options, with a listing of advantages and disadvantages for each option.

The following comments are made on each of the proposed options, plus recommendations on other options that should be considered. Comments are based on the major increase in scope of MGRAD to include almost all nonresidential buildings.

#### Option 1

The stated advantage of Option 1 in using ANSI format to match the ANSI A117.1 standard is valid for better understanding by the construction industry. However, there are practical disadvantages to the Federal government attempting to publish and distribute a combination code and standard for general use.

Newly affected buildings are now regulated by a network of model codes Accessibility is just one part of total building design. All parts of building design involving public health, safety and general welfare, including accessibility, are covered by related building code documents that builders, designers and code officials are used to working with.

Changing the source of a general code provision is disruptive to normal construction practices. Federal preemption of existing codes and standards compounds the disruption.

The bottom line is that there is no need for the Federal government to publish and distribute documents that are already published by the private sector. Such action has been demonstrated to promote inefficiency and waste.

#### Option 2

This is the most acceptable of the three options presented. Referencing ANSI A117.1, as is done now in MGRAD, demonstrates cooperation by the Federal government to recognize and use private sector consensus standards.

*Handwritten signature* 2 b.  
**Southern  
Building  
Code  
Congress  
International  
Inc.**

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Chairman of  
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Chief Building Inspector  
Robeson County,  
North Carolina

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Office of the General Counsel  
Page 2  
September 27, 1990

Board comments on this option describe the negative possibility of having to review four documents to achieve compliance with ADA. That seems to be a self-imposed handicap. If the supplemental MGRAD contains scoping and the ANSI A117.1 standard, there is no need for UFAS for construction. Non-construction parts of ADA should be in a separate document, since they involve separate issues that are usually addressed outside the building construction industry.

ADA contains a reasonably clear separation between transportation accessibility and building accessibility. The common link is transportation buildings which are now covered by building codes. Transfer of these buildings from Title II to Title III of ADA seems appropriate.

**Option 3**

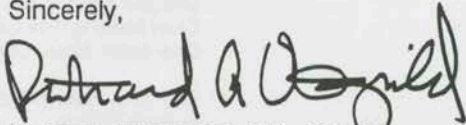
This option is the least acceptable, for reasons noted under Options 1 and 2.

**Recommended Option 4**

Section 504 of the ADA directs ATBCB to issue a supplemental MGRAD for Titles II and III of the Act. That should be done for Title III using current BCMC scoping with reference to ANSI A117.1 for technical details.

Since ATBCB has participated in recent BCMC public hearings, we realize there are some differences between BCMC scoping and UFAS which ATBCB might feel obligated to include in a new MGRAD. CABO and ATBCB should work together on these differences and establish an expanded consensus for what we hope to be national scoping provisions for accessibility.

Sincerely,



Richard A. Vognild, P.E., C.B.C.  
Manager/Codes

RAV/bc

cc: William Tangye, SBCCI  
James Bihr, ICBO  
Clarence Bechtel, BOCA  
Richard Kuchnicki, CABO



## BUILDING OFFICIALS & CODE ADMINISTRATORS INTERNATIONAL, INC.

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**PAUL K. HEILSTEDT, P.E.**

October 1, 1990

Office of the General Counsel  
Architectural and Transportation Barriers  
Compliance Board  
1111 18th Street N.W.  
Suite 501  
Washington, DC 20036

RE: Docket No. 90-1 - Minimum Guidelines and Requirements  
For Accessible Design

Dear Sirs:

Enclosed are comments on the above referenced publication in the Federal  
Register of Friday, August 31, 1990.

Very truly yours,

Kenneth M. Schoonover, PE  
Manager, Technical Services

KMS/dv

### REGIONAL OFFICES

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**DOCKET NO. 90-1 - MINIMUM GUIDELINES AND  
REQUIREMENTS FOR ACCESSIBLE DESIGN  
COMMENTS FROM BUILDING OFFICIALS & CODE ADMINISTRATORS INTERNATIONAL, INC.**

● **FORMAT OF SUPPLEMENTAL MGRAD**

One of the stated goals of the Board is to "promote greater consistency and uniformity in accessibility requirements and eliminate duplicative layers of technical specifications". To this end, the use of private sector standards, in this case ANSI A117.1, contributes to reaching that goal. However, none of the options offered would make use of ANSI A117.1 as effectively as possible.

Option #1 proposes to reprint the text and illustrations from ANSI A117.1 on the basis of providing a self-contained document that is easy to use and easy to compare to State and local codes that adopt ANSI A117.1.

Reprinting ANSI text will undermine the private sector efforts to maintain ANSI A117.1. This practice could seriously threaten the ability of the private sector to continue to apply the resources necessary to maintain and update the standard. We also believe that the inconvenience and perceived problems associated with not having a self-contained document are overstated. Construction regulation in the private sector has been operating in the "adoption by reference" mode with satisfactory results. Further, reprinting of ANSI text will not facilitate comparison with State and local codes. One would still be burdened with a text comparison since text will occur in both documents, the code and the supplemental MGRAD.

Option #2 is the least objectionable of the three options since it attempts to utilize ANSI A117.1 through references. However, the Federal Register format and numbering is inefficient and will not be as familiar to the construction industry as current codes are today. This format also does lend itself to a ready comparison with State and local codes.

Option #3 is the most objectionable option. This option combines the disadvantages as we discussed in both Options 1 and 2 since it would include the full text and illustrations from ANSI A117.1 as well as the Federal Register format and numbering system.

All three of these options involve a degree of duplicative presentation of technical requirements, and/or inconsistency of format that is unnecessary and does not accomplish the use of existing standards to the maximum extent possible.

We would recommend that supplemental MGRAD use a format that contains three essential components or sections as follows:

- a. adoption by reference of ANSI A117.1

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October 1, 1990  
Docket No. 90-1  
Page 2

- b. Comprehensive scoping provisions set forth in a clear manner not commingled with technical requirements, and
- c. A separate section that, in the same format as ANSI A117.1, sets forth any additions to ANSI text.

With regard to modifications of ANSI A117.1, it is our view that the MGRAD should not modify the technical requirements of ANSI A117.1. This effort must rely on the collective expertise of the ANSI development process as the authoritative appropriate forum for establishing technical requirements. Technical revisions to and the reprinting of existing private sector standards is inherently inconsistent with OMB A-119 and should be discouraged. The ATBCB should pursue revisions to the standard through the ANSI process and thus minimize duplicative standards and requirements.

This proposed format will better accomplish the state goal of the Board by using an existing private sector standard in a manner that will not undermine or threaten the continued existence of the standard. It will also maximize consistency with current State, local and model codes and thus be more familiar and less confusing to designers, buildings and code enforcement officials. Further, it will more fully facilitate the evaluation and comparison of State and local codes.

The success of ADA will ultimately be measured by the extent to which buildings will be constructed in compliance with the accessibility requirements. The greater the effort made to rely upon and coordinate with existing code enforcement systems, the greater the chances for success of the ADA.

- **FUTURE OF THE UNIFORM FEDERAL ACCESSIBILITY STANDARDS (UFAS)**

UFAS is a classic example of duplicative standards. If the supplemental MGRAD is developed in the manner we recommend, there should be no further need for UFAS. Those provisions currently covered by UFAS and not by ANSI can be incorporated in the supplemental MGRAD as additions to the adoption of ANSI by reference. Those differences should also be submitted to the ANSI process for consideration of incorporating them into the ANSI Standard. As ANSI covers such provisions, they can be eliminated from MGRAD as additions to ANSI. Reliance on the private sector is necessary for the ADA to be truly meaningful and accomplish its purpose. The ANSI Standard can and should be relied upon for this purpose. It is reasonable and appropriate to phase-out UFAS which would only otherwise be a duplicative and unnecessary component.

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- **ENFORCEMENT ISSUES**

Several enforcement issues were discussed at the NIBS forum that was held in Washington, DC on September 26, 1990.

It is clear that the success of ADA is dependent on the existing State and local construction regulation system. It is essential that the ATBCB, Department of Justice and others involved in the ADA work with and support the code enforcement community. It should also be clear that the code enforcement community stands ready to be a cooperative participant in the area of accessibility. The fact that CABO has volunteered to assume the secretariat role for future development of ANSI A117.1 and the fact that State, local and model codes have for many years included accessibility in their regulations should attest to this fact. State and local code enforcement is not perfect or without faults, but it works and it will work in this case.

It was therefore disturbing to hear one ATBCB Board member express the view at the NIBS forum that a jurisdiction which does not see to it that building are built in compliance with the ADA is doing the public a disservice. Such a view does not foster a cooperative spirit or inspire confidence that there will be interest in a truly meaningful joint effort. For if the ADA effort fails to adequately work with and adapt to the State and local code enforcement system, it will not be State and local code enforcement that will have done the public a disservice. We hope that this one view is not representative of the views shared by the ATBCB as a whole.

Some of those enforcement issues that must be addressed include the following:

- a. Clarification of subjective and interpretive provisions. Criteria for what constitutes a "readily achievable" modification to a structure should be as specific as reasonably possible.

While I cannot offer a solution to this item, I would offer the concern that basing it in part on the relative dollar value is arbitrary and is difficult to enforce consistently. It may not be possible to establish a single, universal criteria for this purpose.

- b. Certification of codes from the standpoint of technical equivalency is relatively straightforward. However, the entire code enforcement system must also be considered in such certification. It must be recognized that the appeal process provided for in State and local codes also encompasses accessibility. The appeal process is not intended to enable one to set aside requirements, but rather to

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Page 4

facilitate decisions on equivalent compliance or interpretation. This can be viewed as a problem (potential variability and inconsistency of decisions) or as an opportunity (a good forum for acceptance of alternative solutions that will contribute to the goal of greater accessibility).

When establishing certification guidelines, the process must recognize and take into consideration that the local appeals process is an opportunity that can ultimately aid the effort. State and local officials must know where their appeal process stands in relation to the ADA.

- **PARTICIPATION IN CODES AND STANDARDS DEVELOPMENT**

The ATBCB, Department of Justice and others involved with the ADA can maximize the cooperative effort through active and direct participation in both the ANSI Standard and the model code development processes. The manner in which codes and standards can best contribute to the success of the ADA will be enhanced through the efforts of the various Federal agencies to commit to active participation.

In particular, representatives of the appropriate agencies should attend the BCMC and model code hearings and directly contribute their views and desires. By example, the CPSC has successfully done so in the furtherance of their safety glazing activities and is currently active relative to swimming pool safety. A truly cooperative effort stands the greatest chance for success and this level of participation is an essential ingredient in a joint effort.



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# Council of American Building Officials

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RICHARD P. KUHNICKI  
PRESIDENT

October 1, 1990

Office of the General Counsel  
Architectural & Transportation Barriers  
Compliance Board  
1111 - 18th Street, NW, #501  
Washington, DC 20036

Reference Docket No. 90-1

Gentlemen:

In the advanced notice of proposed rulemaking (ANPR) published in the August 31, 1990 issue of the Federal Register you are seeking comment on the three options offered for the format you would use in preparing supplemental Minimum Guidelines and Requirements for Accessible Design (MGRAD) as required by Public Law 101-336. Using any of the three options proposed in the ANPR creates confusion and complicates, rather than, facilitates compliance with ADA.

If it is necessary to adopt one of the three options that are offered we would consider Option 2 the most acceptable because referencing ANSI A117.1, as is done now in MGRAD, demonstrates an attempt by the federal government to use private-sector consensus standards in accordance with OMB Circular A119. However, this option has the disadvantage, as explained in the ANPR, of having to review four documents to determine compliance with ADA. This will certainly result in confusion and result in great difficulty for users of the guidelines in achieving compliance.

If other options can be considered, we recommend another approach that we believe will minimize confusion and any increase in associated costs:

Adopt the entire ANSI Standard A117.1 and scoping requirements developed by the CABO Board for the Coordination of the Model Codes by reference and publish amendments that will clearly show any necessary differences. The amendments could be published and distributed with the Standard.

Many tens of thousands of persons with disabilities and their advocates, code enforcement officials, design professionals,



Letter to ATBCB  
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builder/developers, manufacturers and the like are very familiar with the Standard because of its widespread adoption and use in the private sector. We continue to receive calls from individuals who must occasionally use the Uniform Federal Accessibility Standards (UFAS) wanting to know why it exists, how to use it, what are the differences, etc. Obviously, these individuals have another learning curve just to become familiar with that format and many have expressed their distaste for the format as well as having to "waste time" to seek out those differences that exist. By using any one of the three proposed options, the Architectural and Transportation Barriers Compliance Board (ATBCB) will be requiring all of these people to use time unnecessarily to become familiar with the format and to seek out differences. The cost of that time is passed directly to persons with disabilities--the primary constituency of ATBCB--as well as to others.

The ANPR suggests that supplemental MGRAD for different building types/occupancies will be published in individual documents. Such an approach would necessitate repeating the Standard in each document which does not appear to serve any useful purpose. The current MGRAD appears to contain the adoption of most sections of the Standard plus a scoping statement and exceptions. There are a few instances where criteria are included to cover items that are not presently in the Standard or where the criteria have been modified from that in the Standard. Publishing the supplemental MGRAD in a similar manner for different building types creates the opportunity for differences in wording from one document to another that could lead to differences in interpretation. Such an approach would impose a further burden on all of the users in their attempts to insure that they are understanding the requirements. This would lead to an even greater effort by the users to communicate in great numbers and repeatedly with someone who could assure them that they are reading the documents correctly.

Basic criteria for designing almost all parts of any building or facility to provide accessibility and usability by adult persons with disabilities are set forth in the Standard. The criterion for, say, the width of a passage way or aisle does not change from one building type to another if the need is to accommodate only one wheelchair. Similarly, the criteria for bathrooms, table top or countertop heights, floor space for wheelchairs and the like do not change from one building type to another.

We believe the option we recommend would require less effort by users to become familiar with the supplemental MGRAD, require less time for putting into effect by ATBCB, offer greater convenience at less cost to most users, maintain a viable consensus process for a standards setting activity fully accessible to both the private and public sectors, and be accomplished in minimal time. It would



Letter to ATBCB  
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Page 3

also mesh well with the building code system existing and known in the nation today.

Based on the foregoing we recommend the following in the belief that it will enable ATBCB to meet fully the requirements of Public Law 101-336 and to continue serving its primary constituency, persons with physical disabilities.

1. Adopt the Standard (ANSI A117.1) into MGRAD by reference and publish a separate listing of any essential amendments. This is the method used by jurisdictions that regulate building construction and so is familiar to the building community; therefore, most users would not have a learning curve because the amendments would be few, if any, and easily noted. Any amendments could be distributed with the Standard without charge. (This would be similar to your treatment of criteria for children in Recommendations for Accessibility to Serve Physically Handicapped Children in Elementary schools.)
2. Adopt the scoping requirements developed by the CABO Board for the Coordination of the Model Codes and publish a separate listing of any essential amendments. These scoping requirements have been developed over the last three years with assistance of a broad-based advisory committee that included substantial representation of persons with disabilities and their advocates, and they have been the subject of three public hearings.
3. Set temporary criteria for items that are not presently covered by the Standard such as the height for van parking spaces and criteria to serve children with disabilities. Announce such criteria as temporary and subject to review and revision through the ANSI consensus process. These criteria could be published with the other amendments and distributed with the Standard also.
4. Submit the temporary criteria to the American National Standards Institute for processing through the consensus process to be incorporated in the Standard or, if absolutely necessary, for incorporation into a new standard.
5. Identify areas in which criteria should be established.
6. Continue conducting research needed to substantiate existing or developing new criteria.
7. Continue participation in the private-sector consensus process for setting standards.

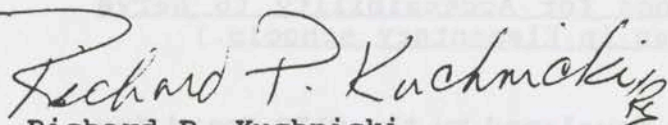
Letter to ATBCB  
October 1, 1990  
Page 4

8. Encourage continuation of private/public partnership and the promulgation of a single set of criteria.

We firmly believe ATBCB will best serve the interests of persons with disabilities by following this approach because it will be more effective and efficient in bringing about progress in advancing the development of appropriate criteria. It will also have a best fit with the existing building regulatory system which will be less costly and thereby of greater benefit to the community of people with disabilities.

The Council of American Building Officials appreciates the opportunity to comment. We are prepared to work with the ATBCB to bring these recommendations to fruition.

Sincerely,



Richard P. Kuchnicki  
President

RPK:kh

cc: Paul J. Imhoff, CABO Chairman  
William E. Schlecht, CABO Vice-Chairman  
Clarence R. Bechtel, Chief Executive Officer, BOCA  
James E. Bihr, PE, President, BOCA  
William J. Tangye, PE, Chief Executive Officer, SBCCI  
BCMC Committee  
ANSI A117 Committee



KS  
2 e.

BUILDING OFFICIALS AND CODE  
ADMINISTRATORS INTERNATIONAL, Inc.

SOUTHERN BUILDING CODE  
CONGRESS INTERNATIONAL, Inc.

INTERNATIONAL CONFERENCE OF  
BUILDING OFFICIALS



# Council of American Building Officials

5203 LEESBURG PIKE • FALLS CHURCH, VA 22041  
(703) 931-4533

RICHARD P. KUCHNICKI  
PRESIDENT

RECEIVED

March 6, 1991

MAR 11 1991

B.O.C.A.

Office of the General Counsel  
Architectural & Transportation Barriers  
Compliance Board  
1111 - 18th Street, NW, #501  
Washington, DC 20036

Reference Docket No. 90-1

Gentlemen:

On October 1, 1990, the Council of American Building Officials (CABO) responded (copy attached) to the advanced notice of proposed rulemaking in the August 31, 1990 Federal Register by the Architectural and Transportation Barriers Compliance Board (ATBCB).

In the second paragraph we stated our preference for Option 2 by saying "If it is necessary to adopt one of the three options...." and proceeded to note why. We also expressed our agreement with ATBCB that it is **not** the format of first choice and explained why.

In the third paragraph we offered a fourth option and followed with a supporting rationale.

Upon reading the January 22, 1991 notice of proposed rulemaking by ATBCB, we were surprised and dismayed to see our four-page response characterized as if there was no effort to read beyond the second sentence of paragraph two.

**Council of  
American  
Building  
Officials**

Letter to ATBCB  
March 6, 1991  
Page 2

We would appreciate learning why most of our letter was seemingly ignored because our reading of the ANPR did not state or suggest that we were limited to selecting only one of the three options presented by ATBCB.

Sincerely,

*Richard P. Kuchnicki*  
Richard P. Kuchnicki  
President

RPK:kh  
enclosure

cc: Paul J. Imhoff  
William E. Schlecht  
Clarence R. Bechtel  
James E. Bihr  
William J. Tangye  
BCMC Committee  
ANSI A117 Committee





Hughes Associates, Inc.

RECEIVED

2730 University Blvd. West, Suite 902, Wheaton, MD 20902 (301) 949-0505 FAX (301) 942-2298

2 f.

March 18, 1991

MAR 21 1991

To:

BOCA INT'L, INC.

Paul Heilstedt & Ken Schoonover, BOCA ✓  
Ann Holland, NCSBCS  
Dick Hudnut, Ch. ANSI A117  
Jon Traw & Rick Okawa, ICBO  
Dick Kuchnicki & Bob Spangler, CABO  
Rick Vognild, SBCCI

The attached is by way of update to the ATBCB  
ADA Guidelines hearing remarks I sent to you  
on March 11th. I testified at the Department of  
Justice hearings in Washington, D.C. on March  
15th and provided the attached with the  
presentation. My presentation spurred an  
unusually long response, including some questions,  
from Irene Bowen of the Department of Justice.  
I am getting a sense that DOJ is taking note of  
these concerns which paralleled some presented  
at the hearing by the National Retail Federation,  
Dick Kuchnicki, Jack Proctor and John Salmen.

*Jake*

Jake Pauls  
Life Safety Specialist

*JS  
Probably  
best move on  
the subject yet  
Paul*

**NOTES FOR JAKE PAULS' REMARKS AT DEPARTMENT OF  
JUSTICE HEARING ON ADA TITLE III REGULATIONS**  
Washington, D.C., March 15, 1991

Good morning. My name is Jake Pauls. I work for Hughes Associates, Inc., a consulting firm in Wheaton, Maryland.

My remarks address both procedural and technical issues. I have been sitting through most of the last two days of hearings here, some of which warrants comment. I spent much of yesterday afternoon at the Architectural and Transportation Barriers Compliance Board speaking with staff and going through comments on the Board's proposed ADA Guidelines which are referred to in the proposed Title III regulations. I testified last week in New York at one of the Access Board's field hearings on the proposed Guidelines. I have many pages of comments on the Guidelines and will generate detailed comments on the Title III proposals also. I am disturbed by what I am learning in this exercise. I believe that the ADA will not live up to its promise unless the Department of Justice finds a way of altering both the timescale and the content of proposed facility requirements for public accommodations.

[I do not want to repeat my previous testimony but I want to make sure that the Department of Justice is made aware of it. Therefore I am attaching to the submitted written version of today's remarks the three pages of remarks made last week and submitted to the Access Board.]

These earlier remarks address the failure of the Access Board to adequately consider the many improved technical provisions and improved, enforceable format proposed for the 1991 ANSI Accessibility Standard, A117.1. Furthermore, the Access Board and the Department of Justice appear to be rejecting much valuable work, by the Board for the Coordination of the Model Codes, on scoping provisions for the ANSI technical provisions. The Access Board's apparent rejection of such efforts by others further endangers the effective achievement of the worthwhile goals of the ADA. None of us can afford the confusion that will occur if these failings are not corrected, and here I specifically see the Department of Justice as taking the lead role in sorting out the situation for the sake of public accommodations.

Now it might sound incongruous for a consultant, whose job it is to help clients deal with individual problems, to argue for so broad a solution that the clients' problems are so greatly diminished that consultants are not needed. To promote selfish commercial interests, I should be encouraging you to carry on as if nothing were going wrong, for example, with Title III of the ADA.

A brief review of my background might help explain my broader motivations. Before becoming a consultant with Hughes Associates, Inc., I was with the National Research Council of Canada for 20 years where I was responsible for studies of people movement and



technology transfer on building use and safety, including funding and supervising research on life safety for people with disabilities. This work involved many field studies in public accommodations with a special emphasis on public assembly facilities. During this time I became involved with the development of safety standards and model building codes in the U.S. Upon moving to the U.S. in 1987 I directed the research on evacuation technology under a contract with the Access Board in 1987 and 1988. Similar work was done three years ago for Public Works Canada which is the sponsor for Canada's new national standard on barrier-free design.

Internationally, I am a well known participant in the development of national standards and model building codes and am the cofounder of the Building Use and Safety Institute. I have served on subcommittees of the National Fire Protection Association Committee on Safety to Life and, with Edwina Juillet, am responsible for proposals on life safety for people with disabilities. Since 1982 I have participated regularly in the Board for the Coordination of the Model Codes (known as BCMC). This included extensive participation in BCMC's recent development of recommended scoping provisions for the ANSI accessibility standard. I work with many members of the code enforcement community -- the people best able to implement the building requirements of the Americans with Disabilities Act. I am an active participant in meetings of the Committee responsible for the proposed 1991 ANSI standard and serve on the editorial subcommittee for this standard. As well as helping to edit the proposed new ANSI standard, I am the lead author of a forthcoming book on people movement in buildings and public places.

While one of the 43 million Americans purported to have disabilities, I also bring a unique technical and procedural perspective to this process of developing and implementing standards, guidelines and regulations for the ADA. I am critical of the ADA rule-making process that has occurred and will continue in the next few months. I am also pessimistic about implementation. It appears that we are not getting nationally acceptable, technically credible, reasonable and enforceable requirements. Moreover, there is little evidence of federal financial support for, and competence in, the huge educational task needed to actually implement the ADA in new and existing public accommodations. Implementing Title III of the ADA will require many case-by-case applications of judgement, based on real-world appreciation of building design, construction, retrofit, usage and management. The limited experience and capability of this type that does exist in the Department of Justice and the Access Board apparently cannot even handle the load of implementation of the long-standing Rehabilitation Act. Moreover, with their backlogs and time-consuming, expensive procedures, the courts cannot be counted on to implement the ADA either. A major mechanism for implementing facility-related requirements -- the mechanism of the private-sector codes and standards organizations and the state or local building regulatory community -- appears to be ignored, or even snubbed, especially by the Access Board. If we want to implement title III

of the ADA, we cannot afford this current situation. The outcome will be an immense setback for all who need accessible and usable public accommodations.

Rather than accepting these generalities, you will need specifics. Here are but a but few of those I am identifying in comments going to the Access Board and to the Department of Justice.

The Access Board's proposed ADA Guidelines depart significantly -- and to the detriment of accessibility, usability, and safety -- with regard to areas of refuge. There are at least four specific, significant defects in the Access Board's departure from what is being done by BCMC, NFPA, and others. (These relate to definitions, ramps, elevators, communications, and standpipes.) The Board staff even rejected, without any technical justification, the recommendations my team presented in our research project for the Board on evacuation technologies. The Board's proposals add fuel to the fire that is unfortunately being promoted by the Building Owners and Managers Association, as represented in the first hearing testimony here on Wednesday afternoon and in a few written comments on the Access Board's proposed Guidelines.

Another example of the Board's proposed Guidelines reducing usability and safety is its continued use of outdated, unjustified requirements for handrail height, spacing, shape, and size. Instead of using the research-based requirements adopted in recent years by NFPA Life Safety Code, ANSI/NFPA 101, the three model codes, and the proposed 1991 ANSI A117.1 the Board chose to stay with requirements that do more harm than good.

Here some background on procedural defects is in order. Prior to 1987 the ANSI standard was run by a different secretariat dominated in part some federal agencies. It was not open and fair in the way that it is now with the Council of American Building Officials serving as secretariat. In 1985 I sent research findings on handrails to the Access Board and to the then ANSI secretariat requesting a change to ANSI A117.1. Nothing happened. Recently, after getting the requested changes through the more-open NFPA and model code processes, I submitted them to the new ANSI process. They were accepted over Access Board objections in some notable cases. They are now out for public review and are expected to proceed to final approval. Meanwhile, in my opinion, the Access Board staff had the option -- even the duty -- of bringing these much needed improvements into the proposed MGRAD revisions as part of its supplementing process. Doing this would improve facility accessibility, usability and safety while reducing confusion due to conflicting requirements. But to me it seems that the Board staff -- having failed to prevail within the open ANSI process on this and some other topics -- are using the cover of the ADA to maintain unjustified requirements. (They are also using the ADA to introduce inadequately discussed new requirements; the Board staff should properly have introduced these first into the ANSI revision process.)



Why do I highlight the topic of handrails. In the U.S., falls are the largest cause of injuries, exceeding even those from motor vehicles. Falls, or the fear of falls, are the leading cause of nursing home admissions. Conservatively estimated, falls occurring in 1991 will cost some 60 billion dollars in the U.S. Many falls result in permanent disabilities; even if permanent disability does not result, there are commonly changed perceptions of personal security and increased needs for facility features such as functional handrails. Inadequate handrails cause injuries and disabilities conservatively estimated to cost on the order of one billion dollars in 1991 in the U.S. What is the point of national accessibility requirements for handrails actually increasing the number of disabilities while failing to serve adequately the large numbers of people with and without mobility difficulties?

I understand that the Board's efforts are somewhat constrained by the ADA legislation. The Board is subject to the directive, in Section 504 of the Act: the "Board shall issue minimum guidelines that shall supplement the existing Minimum Guidelines and Requirements for Accessible Design." The Board and the Department of Justice are also working with a difficult time scale that was set up in law without taking into account the almost completed work on the new ANSI standard and BCMC's scoping provisions for that new standard. I detect concern on the part of some of you in the Department of Justice. What can you do either to instruct the Access Board to come up with better Guidelines or to defer accepting the currently proposed Board Guidelines for the ADA. Can something be done about the time scale for adopting a better set of Guidelines? Imposing a flawed set of new requirements will bring immense confusion, compounded further if better requirements replace them in a year or so. I personally favor Department of Justice acceptance of the completed 1991 ANSI technical standards with the companion BCMC-based scoping requirements as the best solution. They might not be as ambitious as what the Access Board and many advocates might like, but at least they are reasonable, enforceable and acceptable to the established community of state and local building officials and their organizations that are also so well equipped to carry out the huge educational task needed to improve building accessibility and usability. As part of a process to improve even further the ANSI standard and the related scoping, this will -- in my view -- be seen by many -- even consumer groups -- as the best way to go with what must be remembered are minimum legal requirements or "modest measures" as opposed to wish lists.

Finally, on the matter of procedure, at the conclusion of last week's hearing by the Access Board in New York, I asked the Board Chairman a question. He had earlier commented after my remarks that the Access Board, like ANSI, is also concerned about open procedures as evidenced by the field hearings. I asked if the Board's deliberations for the final Guidelines would be open; that is subject to the "sunshine law." Board General Counsel James Raggio took a long time to say "no." By comparison, the BCMC and ANSI processes are open all the way through. Given what we have seen

to date from the Access Board, I find unresponsive the Board's "trust me" reply to my concern for development of effective, reasonable, enforceable Guidelines. What can you and the Department of Justice offer?

Thank you.

Other topics (besides 36.406) to address if time permits:

Number of wheelchair spaces in assembly facilities. The current figure in MGRAD/UFAS is out of line with demographics by a factor of at least two.

Dispersion of wheelchair spaces in assembly facilities. Some of the arguments against dispersion are questionable, being based on invalid models of human behavior in emergencies. I object to the pattern of discussion where people in wheelchairs are spoken of as life safety hazards to themselves and others (a matter discussed in the Title III preamble in relation to "unfounded fear.") (Pauls was approached by NATO to do a study of this, but apparently on detecting his openness to various dispersion possibilities, NATO decided not to retain him.)

Use of accessible 1-in-8 slope aisles in assembly, when necessary, to achieve a second means of egress.

Generally invalid concerns about human behavior in emergencies including evacuation situations (an area where Pauls is the internationally recognized technical authority).

Vagueness in the ADA, the proposed regulations and in existing standards about the whole matter of equipment, furnishings, displays -- their height and location -- in existing places of public accommodation (e.g. retail stores and drinking/dining establishments). (Ref. 36.211 and 36.309)

Interpretation of terms such as "readily achievable," "undue hardship," "convenient access" and "good faith standard" in light of some less-than-reasonable proposed requirements.

Impact on alterations (36.402, 36.403)

Subpart E: Enforcement especially the use of court mechanisms.

Unnecessarily complex procedure for certification of local codes (Subpart F)

Demographics of people with mobility difficulties.

Jake L. Pauls  
*Life Safety Specialist*



BUILDING OFFICIALS AND CODE  
ADMINISTRATORS INTERNATIONAL, Inc

SOUTHERN BUILDING CODE  
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# Council of American Building Officials

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(703) 931-4533

RICHARD P. KUCHNICKI  
PRESIDENT

March 20, 1991

Office of General Counsel  
Architectural and Transportation Barriers  
Compliance Board  
1111 18th Street, NW, #501  
Washington, DC 20036

Gentlemen:

The Council of American Building Officials (CABO) has reviewed and appreciates the opportunity to comment on the proposed Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities (ADA Guidelines) printed in the January 22, 1991 Federal Register. CABO strongly supports the goals of the Americans With Disabilities Act of 1990 because they are the same goals shared by CABO, which is to insure that all buildings and structures, including their associated sites and facilities, shall be accessible with corresponding accessible means of emergency exit for people with physical disabilities.

CABO is composed of the three model code organizations--Building Officials and Code Administrators International (BOCA), International Conference of Building Officials (ICBO), and Southern Building Code Congress International (SBCCI). This reflects a combined membership in excess of 10,000 local and state governments responsible for enforcement of building construction regulations. BOCA, ICBO and SBCCI are owned and controlled by their governmental members and each organization promulgates model building codes that are adopted and enforced by such government members.

Because the model codes are adopted into law and enforced by local and state governments, it is essential that they be written in appropriate language. Thus requirements must be reflected in statements that are clear, concise and consistent with terms and concepts used in codes and the construction industry. The model code requirements are adopted after being processed through a democratic, consensus process that is open to the public at large, including all consumers regardless of ability or disability, regulators at all levels of government, building designers and contractors, and all facets of the building industry.

Preemption of local and state building and construction regulations with guidelines or poorly drafted regulations usually results in local and state jurisdictions being unable to apply them. A classic situation previously ensued when the Consumer Products Safety Commission (CPSC) preempted local and state building regulations for architectural glazing. Because CPSC reserved the



Letter to ATBCB  
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interpretation of its rule to itself and restricted the actions for the locally constituted Boards of Appeal, the code enforcement officials determined that they could not participate in the enforcement of the CPSC rule. CPSC found itself in the untenable situation of being unable to enforce its own regulations. Subsequently, the CPSC worked with the model codes to draft definitive and enforceable regulations which were then adopted by the model codes. CPSC also rescinded a portion of its rule to allow local and state jurisdictions to interpret and enforce architectural glazing regulations.

Typically, guidelines can not be enforced by local and state Building Officials because of the uncertainties involved and the resulting liability. This then relegates responsibility for compliance to the building contractor or building design professional. However, the contractor or designer may be very reluctant to certify compliance to guidelines because of the liability that is assumed in doing so.

As accessibility requirements within building codes have evolved over the past twenty-five years, the exclusions on accessible design requirements have continued to decrease. Responding to this trend, CABO assumed the Secretariat of the American National Standard for Buildings and Facilities--Providing Accessibility and Usability for Physically Handicapped People in 1987. Also, CABO assigned its Board for the Coordination of the Model Codes (BCMC) the task of developing uniform scoping provisions for the model codes that would make all buildings accessible, without compromising safe and accessible means of emergency exit. BCMC is also identifying requirements in the Standard for mainstreaming into the building code system for the benefit of all the public. It is CABO's desire to continue these efforts in partnership with the federal government as mandated by ADA-1990. We offer our comments against this background.

A principal purpose of ADA-90 is "...to provide clear, strong, consistent, enforceable standards...." Section 2(b)(2). The ADA Guidelines are permissive, indefinite and contain inconsistencies. As such, they are unenforceable and fail to conform to the purpose.

The ADA Guidelines "...technical specifications 4.2 through 4.34 ... are the same as those of the American National Standards Institute's document A117.1-1980, except as noted ...." (See 1. Purpose, second paragraph, first sentence, page 2327, 1-22-91 FR.) The ANSI A117 Committee put considerable effort into revising the 1980 edition to arrive at the 1986 edition of A117.1 which still contains much scoping and informational language. Use of ANSI A117.1-1980 with the scoping added by ATBCB plus the conflict of information presented in the appendix to the ADA Guidelines with the technical requirements of the text presents a confusing picture that will discourage local and state building code enforcing jurisdictions from adopting and enforcing the ADA Guidelines so as to avoid liability. And, that will not serve the interests of either the community of persons with physical disabilities or the remainder of the community which wants to assure accessibility.



Letter to ATBCB  
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Page 3

To efficiently maximize the effectiveness of the ADA Guidelines, they should be enforced in buildings at the design and construction stages. Enforcement at these points is most easily accomplished by utilization of the system of local and state building code enforcement jurisdictions. The extent to which those jurisdictions will adopt and attempt to enforce the ADA Guidelines is unclear at this time. The lack of enforceability suggests that very few local and state governments are likely to adopt and enforce the ADA Guidelines. Enforcement, then, will be after the fact by the judicial system.

The American National Standards Institute A117 Committee has just completed an intensive editorial effort by an appointed subcommittee directed toward restating ANSI Standard A117.1-1986 in enforceable language. The technical criteria have been separated from scoping requirements and gratuitous, informational statements which, when woven into the technical criteria, tend to obfuscate requirements. A copy of the draft Standard showing proposed changes is attached.

Those scoping requirements removed from the Standard were submitted to the CABO Board for the Coordination of the Model Codes (BCMC) for inclusion in the scoping provisions it has developed over more than three years and which were the subject of three hearings. BCMC is maintaining the subjects of scoping and egress on its agenda so as to be responsive to any federal developments in regard to the Fair Housing Amendments Act, the Americans with Disabilities Act and future changes in ANSI A117.1. (The BCMC Scoping Provisions have been modified to reflect the draft Standard and are included therein as Appendix B.) Additional revisions were proposed to the existing BCMC Scoping Provisions at the January 1991 BCMC meeting; they will be subjected to a hearing on May 7, 1991 at the Washington Dulles Marriott Hotel.

The recent efforts to edit ANSI A117.1 to remove scoping and informational statements and to develop scoping requirements through BCMC have been conducted in a democratic consensus process in which all interested parties have the opportunity to provide meaningful comment over time. The efforts have resulted in two documents containing clearly stated, enforceable requirements. If used they would serve all of society in an efficient, economical manner.

CABO believes local and state governments will adopt and enforce ANSI A117.1 and the BCMC Scoping Provisions because they will have requirements that can be enforced without exposure to increased liability. This will enable those governments to serve their disabled citizens, as they want to do, in a rational fashion. While this approach may not achieve all that ATBCB appears to be trying to accomplish, it will accomplish more because reasonable consensus requirements will be in place at the time of construction when it is easier and less costly to meet such requirements. This is considered possible because the CABO assessment of ANSI A117.1 and BCMC Scoping in relation to the ADA Guidelines finds there is, as stated by ATBCB in the 1-22-91 Federal Register announcement, a general consistency of the requirements.



Letter to ATBCB  
March 20, 1991  
Page 4

To summarize, in the interest of serving people with physical disabilities and in keeping with the spirit and requirements of OMB Circular No. A-119, the Council of American Building Officials strongly recommends ATBCB:

1. Adopt ANSI A117.1 by reference
2. Adopt BCMC Scoping Provisions by reference
3. Publish separately any necessary exceptions and additions to the above and submit such changes to the democratic, consensus processes established to effect change
4. Adopt a policy of submitting changes needed to the above through the established democratic, consensus processes
5. Adopt a policy of actively supporting and participating in those processes established to effect changes

If state and local government regulatory agencies are to effectively contribute to providing accessible and usable buildings and facilities, and they would like to do so, enforceable building construction regulations must be available which will not place code enforcement officials or their jurisdiction in jeopardy for interpreting and enforcing the regulations. CABO would be willing to work with ATBCB in developing consistent, mandatory requirements and a means by which the code official and the current code enforcement system can be utilized in the best interests of all of our society.

We appreciate the opportunity to comment. Please let us know if we may be of assistance.

Sincerely,

*Richard P. Kuchnicki*  
Richard P. Kuchnicki  
President

RPK:kh  
enclosure

cc: BOCA  
ICBO  
SBCCI  
Department of Justice  
ANSI A117 Committee  
BCMC Members  
BCMC Staff Liaisons



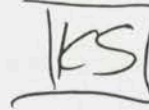


Setting the  
Standard for  
America's  
Model Codes

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MAR 28 1991

BOCA INT'L, INC.



Southern  
Building  
Code  
Congress  
International  
Inc.

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March 22, 1991

VIA FEDERAL EXPRESS

Office of the General Counsel  
Architectural and Transportation Barriers  
Compliance Board  
1111 18th Street, N.W., Suite 501  
Washington, DC 20036

RE: Docket No. 90-2  
ADA Accessibility Guidelines  
for Buildings and Facilities  
Public Comment on Proposed Rules

Gentlemen:

My name is Richard A. Vognild. I am manager of the codes department for Southern Building Code Congress International (SBCCI), a member of the ANSI A117 Committee, and SBCCI staff representative to the CABO Board for the Coordination of the Model Codes (BCMC). My comments will address concerns with the proposed rule in three principal areas — scoping, technical requirements and enforceability.

It is truly unfortunate that ATBCB, CABO and the ANSI A117 committee could not find some way to have a meeting of the minds before the proposed ruling was published. Now it will appear that the private sector is fighting with the Federal government in some sort of turf war. I refuse to believe the door is closed on needed dialog.

The following comments illustrate the clear need to correct text that is misleading and traditionally unenforceable. Section numbers refer to those used in the proposed ADA Guidelines.

An unofficial comparison of ADA Guidelines and BCMC scoping provisions is included, along with the BCMC occupancy classifications. These are intended to help you understand the following comments.

### SCOPING

#### 1. Purpose

The second paragraph carefully cites the source of much of the document as ANSI A117.1-1980. It then goes on to note other parts of the document are from other sources. If this paragraph is meant to remain as part of the Purpose, then the other text sources should be named.

#### President and Chairman of the Board

William R. Stone  
Chief Building Inspector  
Robeson County,  
North Carolina

#### Vice President

J. Lee Hauser, P.E., C.B.O.  
Deputy Commissioner  
N.C. Department  
of Insurance  
Raleigh, North Carolina

#### Board of Directors

Larry Bell  
Director of Inspections  
Starkville, Mississippi

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Building Official  
Palm Beach County, Florida

Jimmy T. Pollard, C.B.O.  
Building Official  
Opelika, Alabama

Douglas Smits, C.B.O.  
Chief Building/Fire Official  
Charleston, South Carolina

George E. Walker, C.B.O.  
Building Official  
Waco, Texas

#### Immediate Past President

Don F. Fox  
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ADA Guidelines Comments  
Page 2  
March 22, 1991

It is obvious that some of the added material is not from any A117.1 edition. Some is from the proposed A117.1, still in the comment period, and some is from other sources entirely. Since MGRAD was revised to reference ANSI A117.1-1986, one would expect to find those technical provisions.

Neither the second or third paragraph relates to the purpose of the document.

### 3.5 Definitions

**Area of Refuge:** The definition will preclude the use of elevators for egress, unless combined with a horizontal exit. Is this intentional? It seems to conflict with the definition for accessible means of egress.

**Egress, Means of:** Escalators are not considered part of the means of egress. The last sentence refers to evacuation elevators; must they have direct access to an exit stair?

**Entrance:** There is no reason to include anything other than the first sentence when defining entrance. Other elements in the proposed definition are governed as parts of the accessible route. Tying principal entrance to a "significant number" of people will only cause disputes. 4.1.3(8) adequately describes the number of entrances to be accessible.

**Facility:** Applying the term to personal property needs explanation. Does this apply to some type of equipment?

**Ground Floor:** A building or facility does not always have a ground floor. Floodplain buildings are built on piles with no occupiable floor at ground level.

**Occupiable:** The definition excludes habitable spaces found in hotels and hospitals, for instance. That affects the definition of Story.

**Multifamily Dwelling:** Since the guidelines don't cover this use, the definition should be deleted.

**Transient Lodging:** The definition includes single and multifamily dwellings in addition to the examples listed, although the document does not scope these occupancies.

4.1.1(3): As stated, the guidelines don't require all employee work stations to be accessible. Nor do the guidelines contain any hint of how much or how many should be accessible.

4.1.1(5)(a): "Structurally impracticable" is used here to label unique terrain characteristics associated with new construction. "Technically infeasible," as defined, relates to loadbearing members and site constraints for alterations of existing construction. Are the terms different to distinguish between new and existing construction?

Structural impracticability allows partial fulfillment of the requirements. Is the intent to require full accessibility within a building even though site conditions don't allow an accessible entrance?

Paragraph (b) consists of a list of spaces not required to be accessible. It is preferable to describe the reason the space need not be accessible, as BCMC has done in 1.2, Exception 1.



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This section is a good place to specify that single and multifamily dwellings are not covered by the guidelines.

4.1.2(5)(a): The exception seems to say that accessible parking spaces should be distributed among parking lots when a building has multiple accessible entrances. If that is the intent, it should use the direct wording.

4.1.2(5)(c): It is obvious that a 96-inch access aisle satisfies the 60-inch minimum access aisle width, so this section can be deleted.

4.1.2(5)(d): Paragraph (i) can be interpreted rationally to require 5% accessible parking to match the number of sleeping rooms for mobility impaired, or literally to require 10% accessible parking to include the additional 5% for hearing impaired. If 5% is meant, it is easy to specify 5%.

Paragraph (ii) adds a 2% requirement for visitor parking. Most hotels/motels do not provide special parking for visitors, but this provision could start a trend. Hotels with large meeting facilities can have a higher percentage demand for visitor parking than for guest parking.

Neither paragraph reflects the probability that the demand percentage will reduce as the number of units increases, as shown in the base table.

4.1.2(7): This section has to be reduced in scope so that it applies to signs necessary to accessibility. There is no need for all signs to comply with the standards. Refer to 20.0 SIGNAGE in the BCNC scoping package for guidance.

4.1.3(5): The first exception requires elevators in two-story buildings and one-story buildings with mezzanines for any type of facility determined by the Attorney General. Are there criteria for these other facilities that can be used to plan ahead?

The second and third sentence of the first exception require full accessibility on the second story (could be a basement) even though that story cannot be reached by a person in a wheelchair. What purpose does that serve?

The second exception is out of place. It says elevator pits and penthouses don't require an elevator. These items are covered in 4.1.1(5)(b).

4.1.3(8): The last sentence belongs in a commentary.

4.1.3(9): This section is difficult to interpret because it separates areas of refuge from compartments created by horizontal exits. Actually, a horizontal exit creates an area of refuge that is safer than an enclosed elevator lobby, enlarged exit stair landing, or an enclosed room immediately adjacent to an exit stair.

The section offers no details on what a horizontal exit is or where it should go. The last sentence may require areas of refuge per 4.3.11, regardless of provided horizontal exits.

4.1.3(16): See comments to 4.1.2(7). The exception can be interpreted to require compliance with 4.30.6 for "temporary" information, even though 4.30.4 is waived.

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4.1.3(18): The 5% requirement in this section conflicts with the next section (19), which specifies wheelchair locations from 6% to 1% of total fixed seats. Applicable assembly uses need to be specified.

4.1.3(19)(b): Requires a room of any size used regularly for meetings/conferences to have a permanently installed assistive listening system. The guidelines should consider at least a minimum size, in square feet or number of occupants.

4.1.6(2): Please define "an area containing a primary function."

4.1.6(3)(d): This section allows a technically infeasible exception, but adds a cap so the clear width of door openings can be reduced only 5/8 inch. That minimal allowance isn't worth the trouble of printing an exception.

### 5. Restaurants and Cafeterias

5.1: Distribution of smoking and nonsmoking areas varies with time. This proposal will lead to noncompliance of accessibility regulations caused by changing public opinion on smokers rights.

5.2: The "same decorative character" is far too judgmental to interpret consistently.

5.4: Establishing a minimum clear width is appropriate. Adding a preferred clear width is not.

5.7: Speaker/head table platforms are typically modular for different configurations. Many times there is not adequate room to provide a complying ramp. When there is room, the requirement for handrails on both sides will lead to the same result: no raised platform.

### 7. Business and Mercantile

7.4: Current codes prohibit security areas for shopping carts from encroaching on the means of egress.

### 8. Libraries

8.4, 8.5: Clarification is needed for the difference between "reference stacks" and "stacks." The first are limited in height, while the second are not.

### 9. Accessible Transient Lodging

9.1: By requiring all rooms to be on an accessible route, the last sentence mandates elevators in two-story hotels and motels, previously excluded in 4.1.3(5).

## TECHNICAL REQUIREMENTS

My understanding of the ADA legislation is that ATBCB was charged with developing guidelines that would be no less stringent than MGRAD, which currently references ANSI A117.1-1986. Instead, the Board has elected to use the 1980 edition of A117.1, with selected embellishments from the 1986 edition and proposed changes for the 1991 edition.

The Board preceded this action with an advanced notice of proposed rule making to receive comments on format options. Picking one of the three presented options was a formidable task, since none was that attractive. The model codes preferred option 2 because it would reference ANSI A117.1, a document



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known to the building community and developed through an established consensus process. That aspect of option 2 is still preferred.

The present format mixes the ANSI standard format with ATBCB scoping provisions in an ungainly fashion, with scoping provisions forced into the middle and at the end of the document.

#### ENFORCEABILITY

The model codes are particularly sensitive to the enforceability of code provisions. Ambiguous regulations usually are worse than no regulations at all, because they promote a lack of confidence in the particular program being regulated.

ADA regulations are particularly vulnerable to criticism from a construction industry faced with a multitude of regulations purported to be necessary for health and safety. Emergence of ADA and the Fair Housing Amendments Act, both presented as civil rights needs, predictably get a cool reception from those charged to build in the desired features. This reaction is magnified when the regulations themselves are hazy.

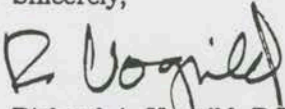
Much of the scoping comments made here are based on indefinite or ambiguous provisions. Any time "a portion of" something is required to be different, some measurable amount is needed, especially when the threat of a Federal lawsuit is involved.

Section 5 on restaurants and cafeterias contains prime examples of unenforceable language. Fixed tables can't be apportioned to smoking/nonsmoking areas that change regularly. Decorative character is far too subjective to measure consistently. Raised platforms are changed daily, are seldom needed for accessibility, and cannot practically conform to the proposed requirements.

Another unenforceable item is the inclusion of "preferred" dimensions. When a preferred dimension is not used, even though it could have been used, what is the "standard of care" liability for the designer, builder and enforcer?

Although the proposed rule is published as guidelines, the provisions are in mandatory language and we assume they are meant to be mandatory. Since the Board itself has asked more than 50 questions on the proposed rule, perhaps the guidelines are only advisory. That remains a point to be clarified.

Sincerely,



Richard A. Vogtild, P.E., C.B.O.  
Manager/Codes

RAV/bc



## National Fire Protection Association

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March 22, 1991

Office of General Counsel

Architectural and Transportation Barriers Compliance Board

1111 18th Street, NW

Suite 501

Washington, D.C. 20036

Subject: Federal Register January 22, 1991 (Vol 56 No. 14)  
ATBCB 36 CFR Part 1191  
ADA Accessibility Guidelines for Buildings and Facilities

NFPA supports the ATBCB in adopting the American National Standards Institute (ANSI) consensus standard-ANSI A117.1 as the basis for the proposed accessibility guidelines for buildings and facilities. This is in keeping with the OMB Circular A-119 "Federal Participation in the Development and Use of Voluntary Standards," October 26, 1982. However, we do have concern with the method of adopting ANSI A117.1, with the lack of reference to ANSI/NFPA 101 *Life Safety Code*® and the failure to use the recommended scoping for ANSI A117.1 developed by the Board for the Coordination of Model Codes (BCMC). We feel that in adopting the material as currently proposed, the ATBCB has made certain substantive changes to the standards that may inadvertently compromise fire safety in buildings. We therefore urge the ATBCB to review our comments set forth herein in this light.

We believe that both ANSI A117.1 and ANSI/NFPA 101 (1991 edition) are appropriate documents that should be utilized by the ATBCB in the rule making. Both of these standards are developed using a balanced consensus approach with all interested parties involved. In addition, the Board for the Coordination of Model Codes has prepared an excellent scoping document for the use of ANSI A117.1 and, therefore, the package of ANSI A117.1 and ANSI/NFPA 101 and the BCMC scoping document are well coordinated and would require very little effort by ATBCB to implement the rule making.

Publishers of the National Fire Codes<sup>®</sup> and National Electrical Code<sup>®</sup>

A non-profit membership organization dedicated to promoting safety from fire, electricity, and related hazards through research, codes and standards, technical advisory services, and public education since 1896.



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We are enclosing, for your information, a copy of Section 5-2.12 of the 1991 edition of ANSI/NFPA 101. This section describes how to provide areas of refuge when desired. It is our recommendation that these provisions be referenced directly by ATBCB rather than creating its own provisions for areas of refuge. This would prevent onerous conflicts in code enforcement activities. NFPA and the model building code groups have worked diligently to eliminate conflicts in the model building codes ANSI A117.1 and the *Life Safety Code*. A different set of requirements from ATBCB will just complicate this issue within the construction industry. As indicated, 5-2.12 describes how to build areas of refuge. ATBCB could mandate areas of refuge when desirable and then utilize the *Life Safety Code* for guidance on these areas of refuge.

We are also enclosing is a copy of the BCMC recommendations for scoping ANSI A117.1.

NFPA strongly recommends that the ATBCB and the Department of Justice implement mechanisms to periodically update the regulations through the adoption and use of **future editions of the referred ANSI standards** in order to keep the regulations up to the latest "state-of-the-art." It should be noted that the rule making is already out-of-date-as it is based on the 1980 rather than 1986 edition of ANSI A117.1 and the 1991 edition will be available soon. The random changes made to A117.1 in the rule making further demonstrates the problem with the system of reprinting the standard rather than referencing the standard. Experience with other rule making within the Federal Government shows that without a well thought out and formal mechanism for updating the regulations by adopting subsequent editions of the national consensus standards will result in the regulations being "frozen in the state-of-the-art" of the original standard adopted. We would bring to the Board's attention the adoption of the 1976 edition of ANSI/NFPA 501B "Standard for Mobile Homes" by the Department of Housing and Urban Development under the "Mobile Home Construction and Safety Act". This standard has yet to be updated to modern technology in the past 15 years since it was first adopted. It has been "frozen in the state of the art" of the mid 1970's. We would strongly urge the ATBCB to avoid this problem in their rule making.

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Following is a detailed list of our technical concerns with the document. We are concerned with several technical provisions of the proposed rule. Although in some cases we are suggesting revisions to the document, this does **not** imply that we concur with the present method of writing the guidelines. Our strong feeling is that the guidelines should say how and when to use A117.1 and ANSI/NFPA 101 rather than transcribing the text within the guidelines.

### 3.5 "Area of Refuge" (pages 2328-29)

#### ATBCB definition:

"An area, which has direct access to an exit stairway, where people who are unable to use stairs may remain safely to await further instructions or assistance during emergency evacuation."

This definition has two major problems.

- 1.) It conflicts with an approved ANSI definition (ANSI/NFPA 101-1991) which reads:

"Area of Refuge. An area of refuge is a space protected from the effects of fire, either by means of separation from other spaces in the same building or by virtue of location in an adjacent building, thereby permitting a delay in egress travel from any level."

ALSO -

"Accessible Area of Refuge. An accessible area of refuge is an area of refuge that complies with the accessible route requirements of ANSI A117.1..."

These definitions are clearer, less ambiguous and by being two separate definitions, provide for greater flexibility. By using these ANSI/NFPA definitions, conflict in the field can be avoided.

- 2.) The definition contains a requirement that the area must have direct access to an exit stairway which also conflicts with ANSI/NFPA 101-1991 as well as BCMA recommendations, both of which allow access to an elevator with "fire fighter service." We know of no justification for this major restriction.



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### 3.5 "Egress, Means of" (page 2329)

ATBCB definition:

"Egress, Means of. A continuous and unobstructed way of exit travel from any point in a building or facility to a public way. A means of egress comprises vertical and horizontal travel and may include intervening room spaces, doorways, hallways corridors, passageways, balconies, ramps, stairs, enclosures, lobbies, escalators, horizontal exits, courts and yards. An accessible means of egress is one that complies with these guidelines and does not include stairs, steps, or escalators. An area of refuge or evacuation elevators may be included as part of an accessible means of egress."

Of concern are the following:

- 1.) Escalators are not accepted as a means of egress component by ANSI/NFPA 101 or any of the model building codes for new construction.
- 2.) The definition's first two sentences are a modification of the definition in ANSI/NFPA 101 and would appear to meet the intent of ANSI/NFPA 101. We would, however, recommend that the last two sentences be removed and a new definition be added. This definition, from ANSI/NFPA 101 (1991), to read:

"Accessible Means of Egress. Accessible means of egress is a path of travel that is usable by a person with a severe mobility impairment and that leads to a public way or an area of refuge."

As presently written the ATBCB definition could be interpreted as being too lenient. For example, it says it may include any elevator but does not say that the elevator needs special protection especially considering your definition of area of refuge. To make this work, all definitions need to be revised as indicated above.

As with the definition of Area of Refuge and accessible area of refuge, the use of these ANSI/NFPA definitions will prevent confusion in the field and the separation of the definitions into two will provide greater flexibility in writing the guidelines.

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3.5 There is no definition of "Approved" and there are problems with the definitions of "Entrance", "Facility" and "Transient Lodging" that need to be resolved.

4.1.3(5) Exception (Page 2333). The first sentence of this exception is very confusing and needs to be rewritten.

4.1.3 (9) (page 2333) The paragraph states "approved fire and smoke partitions that create horizontal exits." We feel that this creates confusion as to intent as all codes presently have requirements for horizontal exits which do not use this terminology. We would recommend this be rewritten to use ANSI/NFPA terminology which reads "...approved fire barriers that create horizontal exits...". This will clarify and prevent conflicts.

4.3.10 Egress (page 2344) This section requires that all accessible routes shall serve as a means of egress or connect to an area of refuge. This will require that all floors above grade have an area of refuge, regardless of the fire protection provided. For example, there is no credit given for automatic sprinkler systems or smoke control systems. Certainly such built-in fire protection features provide some equivalent safety to that of an area of refuge. In the *Life Safety Code*, areas of refuge are exempted in buildings protected throughout by an approved supervised automatic sprinkler system. The life safety record of automatic sprinkler systems is so clearly documented that the need for these additional areas of refuge are not justified in these buildings. It is recommended that an exception be included as follows:

"Exception: Buildings equipped with an approved supervised automatic sprinkler system in accordance with NFPA 13, *Standard for the Installation of Sprinkler Systems* or 13R, *Standard for the Installation of Sprinkler Systems in Residential Occupancies up to Four Stories in Height*, do not require areas of refuge."

4.3.11 Area of Refuge (page 2344) We see several major problems with this section.

1.) "Every area of refuge shall have a one-hour minimum fire resistive separation."



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There are three problems with this one sentence. First, it does not clarify what the opening protective requirements are with regard to doors and HVAC openings. Second, it is not clear what this separation is from and third, both ANSI/NFPA 101 as well as BCMC permit the fire rating to be reduced to zero fire resistance in fully sprinklered buildings. We recommend that this sentence be revised to read as follows:

"Every area of refuge shall be separated from adjoining building spaces by fire barriers having a fire resistance rating of at least one hour. Such barriers and any openings in them shall be designed and installed to minimize air leakage and retard the passage of smoke. Opening protectives shall have a minimum fire protection rating of one hour and shall be self closing or automatic closing upon detection of smoke. "

"Exception: In buildings protection throughout by an approved supervised automatic sprinkler system installed in accordance with ANSI/NFPA 13 or ANSI/NFPA 13R no fire resistance rating is required for the barriers and no fire protection rating is required for the openings but the barriers and openings shall resist the passage of smoke and openings shall be self-closing or automatic closing upon detection of smoke."

2.) "Every area of refuge above or below the level of exit discharge (the ground floor level) shall have direct access to an exit stairway and, in addition, may have access to an egress elevator where such elevator is designed and constructed in compliance with other regulations as being suitable for emergency evacuation when operated by trained emergency service personnel."

Both NFPA and BCMC recognize an elevator as an acceptable way out of an accessible area of refuge, this does not. A firefighter service-operated elevator is vastly superior for moving mobility impaired people than down many flights of stairs. Absolutely no justification has been provided for prohibiting the use of fire service elevators for this purpose. We recommend that this be revised to read:

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"Every area of refuge shall provide access to an exit enclosure or to a firefighter service elevator. Such access shall not require returning to the building space from which egress was begun."

- 3.) "Doors to the area of refuge shall be in compliance with all requirements of 4.13, shall swing in the direction of exit travel, and shall not prevent reentry from the egress side."

This will require swinging doors and will prohibit the "won door"® type of door which has been seen by most as a good tool for forming areas of refuge. Additionally, it will require doors to swing the direction of exit travel under all conditions which may not be necessary nor in some cases desirable. We would recommend that this be revised to read:

"Doors to areas of refuge shall be in compliance in all requirements of 4.13 and shall not prevent reentry from the egress side."

- 4.) "Travel in two directions to an area of refuge shall be possible from any point on the level served by the area of refuge."  
A literal interpretation of this provision would eliminate the use of dead-end corridors, common paths of travel and will require that every room have two doors out to the corridor. This is a major change in code philosophy. All three model building codes and the *Life Safety Code*® permit dead-end corridors ranging from 20 ft to 50 ft depending on the occupancy and permit small rooms to have a single egress door. This provision needs to be changed to allow dead-ends, common paths of travel, and small rooms with a single egress door in accordance with the applicable building code or the *Life Safety Code*.

- 5.) "A two-way communication system, with both visible and audible signals, shall be provided between an area of refuge and a central emergency management control point."

This could be very burdensome on small to mid-size buildings especially if confused with the central control stations required by the building codes for high-rise buildings.

- 6.) "A landing in an exit stair which does not contain a standpipe may be used as an area of refuge - - -."



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Standpipe systems are required for most buildings over three stories by building codes and fire prevention codes. Standpipes are located in the stairs to allow firefighters a safe area to connect their hoses and set up for their fire fighting operations. This provision, therefore, eliminates, for practical purposes, the use of egress stairs for an area of refuge. The reasons for this exclusion of stairs with standpipes is unclear. If the standpipe is installed outside the stair, then to fight any significant fire, the fire fighters will have to hook up to the standpipe one story below and block open two doors to stretch the hose up the stair and onto the fire floor so now two doors are open instead of one. The prohibition will not solve the perceived problem. Stairs, even stairs with standpipes, should be permitted to be used as an area of refuge.

4.8.5 (3) (page 2352) (also 4.9.4 (3) (page 2353)) These provisions establish the clearance between walls and handrails on stairs and ramps. As written it is an exact measurement and should be revised to clarify this is a minimum dimension. ANSI/NFPA 101 clearly sets this out as a minimum. Transfer rails (e.g. in bathrooms) should not exceed 1-1/2 inches but handrails are an entirely separate subject. This is an item which we believe is being addressed in the next edition of ANSI A117.1.

4.8.5 (4) (page 2352) (also 4.9.4 (5) (page 2353)) These require handrails to be 30 to 34 inches in height. ANSI/NFPA 101 requires handrails to be 34 to 38 inches in height as do most of the model building codes. This will create a situation where the rails must be at exactly 34 inches. Research has clearly shown 30 to 34 inches to be incorrect.

4.13.5 (page 2359) We do not understand why this is requiring that the measurement of door width be made at 90° if the door opens further than 90°. This appears to be needlessly restrictive. Also if a door does not open to 90° it may be too lenient.

4.28.1 (page 2372) This is going to require an extensive number of visual signal appliances. The power demand could easily be such as to make battery back-up power unfeasible, forcing generator installations for fire alarm power back-up.

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4.28.2 (page 2374) The proposed rule does not specify the weighted scale to use. The "A" weighted scale corresponds to human hearing and is recommended in the appendix of ANSI/NFPA 72 *Standard for the Installation, Maintenance, and Use of Protective Signaling Systems*. The rules should refer to the decibel rating in terms of the "A" weighted scale. For instance, 15 dBA. The duration of "30 seconds" for the maximum sound duration is in conflict with ANSI/NFPA 72, which recommends a "60 second" duration. The maximum sound level for an audible appliance is 130 dBA as recommended by ANSI/NFPA 72G *Guide for the Installation, Maintenance and Use of Notification Appliances for Protective Signaling Systems*. This is in conflict with the ADA recommendation of 120 dBA.

4.28.3 (page 2374 and 2375) The terms "single station audible alarm" and "single station visual alarm signals" are not defined. The term "single station" as used by the industry and public refers to smoke detectors. We believe the intent of the requirement is to require visual indicating alarm appliances in the occupancies where audible appliances are required.

4.28.3(1) The proposed rule is limiting the lamp to a xenon strobe type which may be restraint of trade. It should provide performance requirements and how those requirements are achieved is up to the industry. There may be other technologies such as a revolving beacon which could meet the performance criteria.

4.28.3(2) The proposal requires a clear (i.e., unfiltered or clear filtered white light) and the ANSI/NFPA 72G recommends a nominal white light. Essentially, this is the same.

4.28.3(3) The proposed rules state the light intensity as candela-sec. The ANSI/NFPA 72G states light intensity as candela, which is candela-sec divided by the pulse width. The ADA requirements do not specify the pulse width which means a light source of any pulse duration is allowed. ANSI/NFPA 72G has limited the the pulse width to a maximum of 0.2 seconds.



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Presently, the Technical Committee on Notification Appliances is waiting for the Underwriters Laboratories (UL) report to be released regarding requirements for the hearing impaired. Therefore the recommendations in ANSI/NFPA 72G may change for the next revision based on the UL project. The requirements set a light source of a specific rating (75 candela-seconds) and ignore the ambient light conditions. In a dark room, you don't need a bright light for the signaling appliance and in a well lit room, you need a bright light for the signaling appliance. ANSI/NFPA 72G recommends various light intensities for the signaling appliance with various ambient light conditions. (See 3-2.4.1.1 through 3-2.4.1.3 of ANSI/NFPA 72G)

4.28.3(4) The proposed flash rate for the visible signaling appliance is different from the ANSI/NFPA 72G recommendation. The recommendations are as follows:

ADA  
1-3 Hz

NFPA 72G  
0.33-3 Hz

4.28.3 (5) The location of the visual appliances are similar to the NFPA requirements except we recommend "A minimum of 80 in. above the floor or 6 in. below the ceiling" for a direct visible appliance and the ADA only requires a minimum of 80 in. above the highest floor level.

4.28.3 (6 & 7) The proposal states "no place in any room shall be more than 50 feet from the signal (in the horizontal plane)". This may be extremely difficult, if not impossible, in large area buildings such as stadiums, gymnasiums, large ballrooms, large open manufacturing areas and similar spaces. Item 7 requires that any location in the corridor be no more than 50 feet from the visual signal. This appears very restrictive. Exit signs are generally required to be visible within 100 feet of all areas in corridors and hallways. We are unaware of any research which supports the 50 feet distance for visual signals.

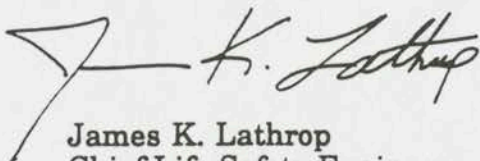
Both of these items are prescriptive rather than performance oriented. It is suggested that these two items be revised as follows:

- (6) Visual alarms shall be readily visible from all normally occupied areas.
- (7) Visual alarms shall be located in corridors so that they are readily visible to building occupants, but in no case shall any point in the corridor or hallway be more than 100 feet (measured horizontally) from the nearest visual alarm.

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In summary, we feel there are several technical flaws that would be almost impossible to implement, therefore, resulting in enforcement problems, confusion, and unnecessary litigation. We feel that the best way to correct these technical flaws is to use the technical documents already provided in the public sector for this purpose, more specifically, ANSI A117.1 and ANSI/NFPA 101 in conjunction with the BCMC scoping provisions previously presented to the ATBCB. If we can be of any further service or if you have any questions, please do not hesitate to contact us.

Very truly yours,



James K. Lathrop  
Chief Life Safety Engineer

JKL/pm

Enclosures:      Section 5-2.12 of 1991 Code  
                         BCMC Recommendations





2 j.

RECEIVED

MAR 28 1991

BOCA INT'L, INC

**MEMORANDUM**

**TO:** Office of the General Counsel, ATBCB

**FROM:** Richard Conrad, Chairman, NCSBCS ADA/Fair Housing Task Force

**DATE:** March 25, 1991

**SUBJECT:** NCSBCS Comments on the U.S. Architectural Transportation Barriers Compliance Board's Proposed Accessibility Guidelines for Building and Facilities As Published in the Federal Register of January 22, 1991

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In coordination with the Board of Directors and governor-appointed delegate members of the National Conference of States on Building Codes and Standards, Inc. (NCSBCS), I am pleased to offer the attached formal comments concerning the "Proposed Accessibility Guidelines for Buildings and Facilities." In preparing these comments, NCSBCS solicited comments from the building regulatory agencies of each of the fifty states and several territories. A number of states will submit comments to the ATBCB. NCSBCS, under its Executive Branch Agreement with the National Governors' Association (NGA), has worked closely with NGA staff to obtain state input in this public comment period.

Our comments on the Federal Register notice are divided into: General and Specific responses to a number of the questions raised by the ATBCB in its January 22nd Federal Register notice.

Should anyone at the ATBCB have any questions concerning the attached NCSBCS comments, please contact me at 916-323-6363. NCSBCS Executive Director Robert Wible at 703-481-2035 or NCSBCS Membership Services Director Ann Holland at 703-481-2028 will also be pleased to answer questions. Thank you.

RC:lc  
Enclosures

cc: NCSBCS Members  
Lydia Conrad, NGA  
Ben Jones, CSG  
Jim Rowe, CSG  
John Sidor, COSCDA

**The Public Comments of the  
National Conference of States on Building Codes and Standards, Inc. (NCSBCS)**

In the matter of: The U.S. Architectural and Transportation Barriers Compliance Board's Americans with Disabilities Act Proposed "Accessibility Guidelines for Buildings and Facilities" as contained in the Federal Register notice of January 22, 1991

In regards to the above call for public comments, NCSBCS wishes to share with the U.S. ATBCB the following:

A. General Comments

1. As a matter of public policy, NCSBCS continues to support the federal government's use of the nation's voluntary consensus-based standards to regulate construction in this country (the OMB Circular A-119). In that regard, NCSBCS urges the ATBCB to work cooperatively with the ANSI A-117.1 Committee to incorporate the Uniform Federal Accessibility Standard into the A-117.1 Standard and then recognize the ANSI A117.1 Standard as the technical and scoping provisions governing the Americans with Disabilities Act. Such an action would significantly reduce the perceived confusion, contradiction, and overlap which will otherwise occur between a separate federal standard and the ANSI accessibility standard. Currently the A117.1 is enforced in 18 states. It has been NCSBCS' experience over its 24 years of existence that more effective and efficient compliance with federal law is achieved when federal agencies participate in and rely upon the nation's voluntary consensus-based standards-generating process.
2. The public comment period on the January 22 Federal Register notice should be extended beyond the March 25 closing date.

NCSBCS recognizes and appreciates the limitations imposed upon the ATBCB by the provisions of the 1990 Americans With Disabilities Act. In spite of those statutory restrictions, however, NCSBCS urges the ATBCB to extend the public comment period beyond the March 25, 1991 deadline to enable state governments and other interested and affected parties adequate time to prepare and transmit their public comments on this complex and important matter.

For the record, it should be noted that it has been extremely difficult to get state governments to devote adequate technical and administrative staff time to conduct and coordinate the detailed and thorough review which the proposed ATBCB Guidelines deserve. Severe state budgetary restraints further have affected both the staff resources and travel funds to attend ATBCB's 14 public hearings and any coordinating meetings which the states, through NCSBCS, might have wished to hold on this matter. These time and



financial restraints have severely limited the ability of NCSBCS and the states to provide more detailed comment in these proposed provisions, especially where the comments necessitated research or consultation with multiple state agencies.

3. NCSBCS shares its concern over the interpretive application of the guidelines as stated in the Building Officials and Code Administrator's March 7 letter. We will be commenting on this to the Department of Justice as well. We are especially concerned about who (and at what level of government) can provide building owners (which includes federal, state, and local governments) interpretations and advice on compliance with the law.

NCSBCS and its member states have urged in recent ATBCB public hearings and here reaffirms its recommendation to the ATBCB and the Department of Justice that the entire enforcement system (and not just the code) in a state or locality must be included in the certification process provided for in the ADA. Furthermore, a mechanism must also be established by DOJ and ATBCB to assure that interpretations offered and provided in this program are uniform and made known to all certified states and localities.

4. The definitions used by ATBCB for certain building types and features should be the same as those used in the nation's model building codes. Where such definitions differ, ATBCB should provide all code jurisdictions in this country (over 44,000) with a clear description of how and where the definitions differ or are the same. This will avoid costly confusion later on in this program.

#### B. Specific Comments

In addition to the specific responses which the states have already provided to ATBCB on its 60 questions, NCSBCS wishes to add the following comments on behalf of the states.

**Question 1:** NCSBCS will continue to encourage state and local governments to forward to ATBCB their regulations governing accessibility for children.

**Question 9:** NCSBCS supports the requirement for all elevators, mandated or not, to meet accessibility standards when installed in buildings.

**Question 10:** NCSBCS supports the requirement for prohibiting platform lifts in new construction except for very limited circumstances. NCSBCS will encourage state and local governments to submit data supporting the type of conditions that would qualify for the "limited circumstances" category.

**Question 19:** NCSBCS questions what mechanism the ATBCB is going to put into place to assure uniformity in decisions made by these state boards and local commissions. We recommend state and local government appeals processing systems be used for all areas of the ADA in a fashion similar to these provisions for historic preservation.

**Question 26:** The 1:12 ramp slope requirement should not be changed. This is a well-recognized international standard and appears to be functional for the majority of persons in wheelchairs.

**Question 27:** NCSBCS supports the requirement for handrails in elevator cars. They should comply with the technical specifications for handrails.

**Question 42:** NCSBCS supports the requirement for 2 percentage of counter areas such as teller stations, ticketing areas, etc. to be accessible.

**Question 51:** NCSBCS will continue to encourage state and local governments to forward information regarding existing standards and technologies with respect to recreation facilities.

**Question 54:** NCSBCS supports the requirement for accessible dressing and fitting rooms in ADA.

#### **State and Local Government Buildings**

**Question 55:** NCSBCS concurs with the requirement for elevators in all federal, state, and local government buildings. However, as a matter of principle, we support the position of all buildings, whether private or governmental, be treated as equal.

**Question 56:** NCSBCS supports the requirement for all areas of the courtroom to be accessible.

**Question 58:** NCSBCS is concerned that the concept of a higher standard for state and local government buildings is too open-ended to accept without specifically knowing what areas these standards would cover.

The higher standard of accessibility is not defined. However, as a matter of principle, all government buildings should be prepared to do more than meet these minimums. Since many buildings are of mixed use (government agency sharing facility with private non-governmental bodies) the potential of having conflicting technical and scoping provisions governing that structure would become an administrative, financial, as well as a legal problem.

**Question 59:** NCSBCS favorably supports alteration requirements in Title III be applicable to state and local government buildings.



**Question 60:** NCSBCS questions the validity of the 1% or less figure for added construction costs. We feel this will be higher based on figures developed during the early 80s.

Furthermore, as regards the ATBCB comment on page 2320, the states believe that the net effect of this law is to preempt state and local regulations for construction, especially since they mandate changes in state and local codes for lifts, areas of refuge, etc. and govern totally preemptive construction regulations for state-owned facilities. NCSBCS believes that ATBCB therefore should file a federalism assessment.



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March 25, 1991

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**RE: Comments on Proposed ADA Accessibility Guidelines for Buildings and  
Facilities (36CFR Part 1191; FR. Vol. 56, No. 14, 1/22/91)**

Dear Sirs:

Attached are Building Officials & Code Administrators (BOCA) comments on the above referenced proposed guidelines. Please note that we had submitted preliminary comments in the form of a letter dated March 7, 1991 at the hearing in Chicago. This submittal reflects our total comments and includes those from our previous submittal.

Thank you for the opportunity to comment.

Very truly yours,

Kenneth M. Schoonover, PE  
Manager, Code Development Services

KMS/dcv

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March 25, 1991

## **BUILDING OFFICIALS & CODE ADMINISTRATORS (BOCA) COMMENTS ON THE ATBCB PROPOSED ADA ACCESSIBILITY GUIDELINES FOR BUILDING AND FACILITIES**

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### **GENERAL COMMENTS**

Clearly, the nation's building code enforcement system that is currently in place throughout states and local communities is the most efficient and effective vehicle through which buildings will be made to comply with accessibility requirements on a widespread basis. The model codes have contained, and state and local governments have been enforcing, accessibility requirements for many years. The BOCA National Building Code, for example, has included such requirements since 1975. BOCA, as well as the other model codes have consistently utilized ANSI A117.1 as the basis for technical accessibility requirements and are currently working to make the codes and standards more reflective of contemporary research and design practices. The extent to which this vast network of resources for regulation of building construction can contribute to the ADA and the accomplishment of its goals will depend on the consistency of the proposed guidelines with ordinary construction terms, traditional code concepts and enforcement techniques and the cooperation effort between all levels of government including Federal agencies.

Consistency must be forged in two areas, both of which must be carefully considered. One, consistency of the **technical** provisions, including both scoping requirements and technical criteria such as required dimensions, numbers of fixtures and elements, etc. Two, consistency of the basic terms, definitions and **interpretive** latitude that will be permitted by the guidelines as needed by the current building code enforcement system.

Lack of consistency in these areas can create confusion and can be sources of misinterpretation and misapplication of the guidelines by designers, builders and code enforcement officials. It can further complicate the process through which building codes will be certified if these subtle inconsistencies are overlooked. A code might be judged equivalent to the guidelines when it really is not equivalent or vice versa.

The established system of building code enforcement is the only effective vehicle through which implementation of the ADA can be achieved with any realistic degree of success. The concept of certification of building codes is a logical step in that direction. The discussion we have heard to date on code certification has been very broad and very conceptual. We are concerned that the view being taken is one of "certification of codes will work and we don't think we'll encounter any major problems". We would strongly caution you not to underestimate the potential problems that lie ahead and the effect they may have in your vision of how this effort will take shape.

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1. Interpretive application of the guidelines: One of these potential problem areas is the interpretive nature of the guidelines and the flexibility that is built in to allow judgement to be exercised in complying with the guidelines. For example, Section 2.2 of the guidelines permit alternative methods provided that "substantially equivalent or greater access" is achieved. The determination of something that is "technically infeasible" or "structurally impracticable" requires judgement. Section 4.1.6 contains specific provisions that utilize these concepts. We are not suggesting that flexibility, judgement and equivalency concepts should be eliminated. The potential difficulty lies in where the authority to interpret the provisions and make the judgements exists. This authority is clearly not given to State or local code enforcement entities. Even if a particular state or local building code is certified, how can the code official enforce those interpretive aspects with any confidence that his interpretations and judgements are consistent with the intent of the ADA? If a building code matter is taken to a local board of appeals, how can that board act on interpretive questions with similar confidence? What jeopardy is a community exposed to if, through DOJ's enforcement authority, a feature that the well-meaning local community approved is subsequently found by DOJ to be a violation? What protection is afforded to a community with a certified code against nuisance suits brought on by building owners and designers or any aggrieved party that are found by the DOJ to be in violation of the ADA?

These circumstances make it clear that the entire code enforcement system in a state or local community, not just the code, must be considered in the certification process. Failure to do so could result in a disincentive for code enforcement to include accessibility requirements that accomplish the goals of the ADA.

While this worst case scenario may not be as likely to occur in areas that currently have strong accessibility enforcement activities, there are many areas wherein State level activity does not exist and accessibility is not a forefront issue locally perhaps because of a lack of resources. It would be more likely that these unresolved issues could cause such communities to wash their hands completely of the accessibility portion of the their codes. We would not like to see that happen. However, if these real possibilities are lightly dismissed and adequate attention is not given to these matters, the responsible Federal agencies will have done a great disservice to everyone involved. While we see these potential problems as a significant and real concern, we are confident that they can be avoided with proper effort and cooperation which will benefit all concerned.

2. Terminology: Certain terms defined in Section 3.5 of the guidelines are also used and defined in building codes. Consistency of basic terminology will be critical for consistent understanding and application of the proposed guidelines. More importantly, if the planned certification process of local codes moves forward, the lack of identity of basic terms may yield inconsistent results if the differences are not resolved in the documents themselves or in the certification process.

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3. Long term objective: The model codes and the ANSI A117.1 development processes has diligently worked to develop consistent, comprehensive and adequate codes and standards. The Board for the Coordination of the Model Code's (BCMC) development of scoping provisions for the model building codes and the Council of American Building Official's (CABO) efforts in the development of the 1991 version of ANSI A117.1 are evidence of the ability of the private sector to respond to identified needs. Their efforts have been real and productive. We are confident that one will be able to look at our processes and conclude that the need for the federal sector to promulgate duplicative and redundant guidelines and specifications is not necessary. If that day has not arrived, we hope that when that day does arrive, the appropriate agencies will have the courage and foresight to go back to Congress with the necessary legislative revisions that will make use of private sector documents and resources consistent with OMB Circular A119.
4. Format: The Advanced Notice of Proposed Rulemaking discussed the format of the guidelines and proposed three possible options. The Notice of Proposed Rulemaking summarized the comments that were received and reported the decision to use option 1. Unfortunately, the summary of BOCA's response on the format question (56FR 2298, footnote 7) did not accurately portray BOCA's submitted comments. We therefore, reiterate our views as expressed in our letter of October 1, 1990 that the best approach that should be taken in forming the guidelines would be as follows:
  - a. Adoption of comprehensive scoping provisions based on the work of the Board for Coordination of the Model Codes (BCMC), and,
  - b. Adoption of ANSI A117.1 by reference.

This approach is apparently considered inconvenient by many because it results in having two documents to contend with if amendments or additions to these references are included, but it will facilitate future integration of the ADA with the private sector standards (ANSI A117.1) and codes (the obvious enforcement vehicle for this effort) to the ultimate benefit of all.

## SCOPING

### 1. PURPOSE

The purpose is stated with reference to "individuals with disabilities". Refer to our comments in 3.5 on the definitions of "Individual With a Disability".

### 3.5 DEFINITIONS

**ACCESSIBLE:** The definition should end at the words ". . . individuals with disabilities". The remaining text is redundant. If this wording is retained, it should be revised to reflect the changes, if any, that are made to the term "Individual with a Disability". Refer to our comments on the definition of "Individual with a Disability".

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**ADDITION:** The term "addition" is expressed in terms of an increase in gross floor area. The term "gross floor area" is not defined. The model building codes defines gross floor area and the definition does not mean the "total area of all stories or floor levels in the building". Thus, one may mistakenly conclude that, according to the guidelines, an increase in the height of a building by adding a story is not an addition. The word "gross" should be deleted and the words "or height" should be added after "floor area".

**AREA OF REFUGE:** This definition and the provisions of Section 4.3.11 should be deleted altogether. The model building codes are addressing the subject of accessible means of egress and will be adequately providing for this life safety issue. The inclusion of these provisions in accessibility standards is duplicative and will be a source of conflicts. For example, requiring areas of refuge to have access to an exit stairway contradicts current thinking that a properly constructed elevator can be utilized as an alternative form of access to and egress from the required area of refuge.

New concepts typically experience adjustments and "fine tuning" in the early stages of implementation as new information and experience is gathered. It is unlikely that these guidelines will be able to be sufficiently responsive to this emerging life safety concept. Building codes can and will adequately deal with this issue. Refer also to our comments on Section 4.3.11 and the definition of "Means of Egress".

**ASSEMBLY AREA:** The proposed definition is too narrow as the scope is limited to the examples given. For example, it does not encompass churches (religious purposes) or other spaces such as transportation stations which are classified by building codes as assembly uses. We recommend the definition be revised to read, "... a group of individuals for purposes such as religious, educational, political, social or amusement functions, or for awaiting transportation, or for the consumption of food or drink."

**CIRCULATION PATH:** This definition would include any walking surface. Text describing the intended areas are contained in 4.4 and if brought forward would clarify the definition.

**DWELLING UNIT:** The statements in the definition after the first sentence are unnecessary. While they may intend to offer clarification of intent, they may raise more questions than they answer. What is "transient"? The statement that this is not intended to imply that a dwelling unit is used as a residence is unclear as to meaning. The language "... dwelling units are to be found in such housing types as ..." is awkward and sounds like a requirement rather than a definition. We recommend deleting all text that follows the first sentence.

**MEANS OF EGRESS:** The term "means of egress" is defined as a "... way of exit travel. ...". In many building codes the term "exit" has a unique meaning comprising only one portion of the overall means of egress, and is separate and distinct from "exit access" and "exit discharge".

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### MEANS OF EGRESS (contd.)

This will create confusion in understanding the intent of the guidelines since the definition conflicts with the ordinary building code definitions. Further, escalators are not acceptable by many building codes as an element of a required means of egress.

The last sentence in the definition of "means of egress" indicates that an area of refuge or egress elevators may be included as part of an accessible means of egress. Yet, the definition of "area of refuge" requires direct access to exit stairway. An area of refuge would not be acceptable if it only had direct access to an egress elevator. Current proposed changes to building codes would permit such an arrangement. An area of refuge that has access to a properly protected elevator can provide an adequate level of safety for this purpose and the requirement then for a stairway in addition is unreasonable.

The proposed definition also encompasses the subject of "accessible means of egress" and indicates that an accessible means of egress does not include stairs. Yet, an area of refuge is required to have access to an exit stairway. This is confusing and contradictory. Further, current thinking in the building code community is based on the acknowledgement that stairways can be an acceptable component of an accessible means of egress under the appropriate conditions.

We recommend that all references to means of egress be deleted since the proposed guidelines overlap and conflict with building codes.

**ENTRANCE:** The last sentence is vague and unenforceable. What is a significant number? Will that number necessarily relate to the intent of a principal entrance? For example, a service entrance to a mercantile building may be used by a "significant" number of delivery people and would therefore be considered a principal entrance. Is this the intent? Preferable wording would be, "A principal entrance is one that is intended to be used by the residents or users to enter or leave the building or facility".

**FACILITY:** The inclusion of terms such as "site improvements", "complexes" and "real or personal property" is confusing and leaves question as to the intent of guidelines. Site improvements include such things as underground water, sewer and fire hydrant piping, landscaping and similar grading that may have no immediate relationship with accessibility. The term "complex" is an abstract concept that adds no value to the definition. Use of the term "personal property" may include items, such as automobiles, that are not intended to be included. This appears to be beyond the scope of the regulations. The current ANSI definition is adequate and clear in its intent.

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**GROUND FLOOR:** Use of the term "occupiable" inappropriately limits the scope of the term due to a defective definition of the term "occupiable". Refer to our comments on that definition.

**INDIVIDUAL WITH A DISABILITY:** Inclusion of "cognitive" impairments is too broad and goes beyond the range of disabilities that are addressed by the specific requirements of the guidelines. These guidelines, as well as ANSI A117.1 evolved based on responding to access needs for mobility, sensory and speaking impairments. Significantly more research would be needed to realistically determine the types of building features, if any, that would be appropriate to the broad range of cognitive impairments. It would be misleading and inaccurate to encompass cognitive impairments in this definition.

**MEZZANINE:** The definition of "mezzanine" is not consistent with most building code definitions. Building codes limit the size of a mezzanine, beyond which it is considered another story of the building. The additional caveat in this proposed definition that a mezzanine has "occupiable" space above and below its floor is needlessly self-limiting. By definition, an occupiable space would not include a space such as a hotel guest room. Literally, a floor area that looks like a mezzanine would not be a mezzanine, according to these guidelines, if the space below does not fit the definition of "occupiable space". Whatever the guidelines intended to accomplish by attempting to describe the use of space above and below the mezzanine floor is not clearly established. We recommend deletion of the definition without substitution.

**OCCUPIABLE:** The definition of "occupiable" paraphrases the common building code definition of "occupiable spaces", however it appears that the term is used throughout the guidelines in a different context than building codes use of the term. Examples of this become obvious in the definitions of "Ground Floor" and "Mezzanine" previously discussed. Lifting a definition such as this from building codes and using it in a different context will create confusion and will result in misinterpretation and misapplication of the guidelines. It would be advisable to use a term other than "occupiable". If the phrase, "space intended for human occupancy" were used in lieu of "occupiable space" in the guidelines, there would be no need for a definition.

**STORY:** Refer to our comments on the definition of "occupiable". That definition is defective and therefore the use of that term in this definition creates an inconsistency and a conflict with building codes. It further may unintentionally narrow the scope of the guidelines below that which is intended.

**TRANSIENT LODGING:** The primary text which defines this term, that being the first sentence, does not in any way set forth the parameters that establish what is "transient" and thus does not adequately allow one to distinguish between what is intended to be considered transient and what is not intended to be considered transient. Literally, a long term lease apartment building is "a building. . .that contains one or more dwelling units". The second sentence only gives examples that are included but cannot be relied upon to convey the full meaning of "transient".

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#### 4.1 MINIMUM REQUIREMENTS

##### 4.1.1 Application

4.1.1(5)(b): The meaning of the term "lookout galleries" is unclear. Further definition or description will be necessary in order to convey a better understanding of what this is intended to include. The dictionary definition of the term gallery is so broad that this would literally encompass all mezzanines in a theater, the observation floors in tall buildings such as the World Trade Center and Sears Tower and many other similar circumstances. Also, the characteristic or feature that is to be used as a basis for allowing areas to not be accessible should be identified or the list will likely be considered to preclude other areas such as boiler rooms, electrical vaults, etc.

##### 4.1.2 Accessible Sites and Exterior Facilities: New Construction

4.1.2(5)(a): Section 4.1.2(7)(a) requires parking spaces to be identified by the International Symbol for Accessibility, thus, rendering them reserved for the disabled. At the low end of numbers of parking spaces, i.e., between 1 and 5 spaces, reserving one for exclusive use may result in functional problem of not having sufficient general parking. If a facility functionally requires 4 parking spaces, but one ends up being reserved, in effect, one additional space will have to be provided. If a facility has one parking space, it is reserved and therefore unusable by others. This is less of a problem when larger numbers of spaces are involved. To minimize this impact, it is recommended that the table be revised to reflect that for a total number of provided parking spaces from 1 to 5, the one required accessible space be provided but need not be designated as reserved for individuals with disabilities.

The exception is worded in a manner that is unclear as to intent. What constitutes greater "accessibility", proximity to accessible entrances? Is it anticipated that a greater number of accessible spaces will be provided? The following provisions would better address the appropriate dispersion and location of accessible parking spaces: "Accessible parking spaces shall be located on the shortest accessible route of travel from adjacent parking to an accessible building entrance. In parking facilities that do not serve a particular building, accessible parking spaces shall be located on the shortest route to an accessible pedestrian entrance of the parking facility. In buildings with multiple accessible entrances with adjacent parking, accessible parking spaces shall be dispersed and located near the accessible entrances".

4.1.2(5)(c): The value of this statement is questionable. A van space will be at least as large as an accessible space, therefore this statement is redundant.

4.1.2(5)(d)(i): This would require parking spaces (each of which would be equipped with signs) for every accessible unit in the transient facility event if more than the required number of accessible units are provided (either intentionally or unintentionally). This would, in effect, be subtle penalty for extending accessibility beyond the minimums.

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4.1.2(5)(d)(ii): This, in addition to the text in section (5)(d)(i), could push the number of accessible parking spaces to over 100% of parking spaces.

4.1.2(6): The exception only applies to single user portable facilities. A building may have a non-required single user toilet room; that is, a toilet room which is provided over and above other minimum required facilities. An additional exception should be added as follows: "Non-required toilet rooms with a single water closet are not required to be accessible".

4.1.2(7): It is not realistic to require all signs to comply. There is little value in requiring roof-top signs identifying a building to comply.

4.1.2(7)(a): Refer to our comments on Section 4.1.2 (5)(a) regarding 1 to 5 parking spaces.

4.1.2(7)(e): A new sub-paragraph (e) should be added to require identification of areas of refuge.

#### 4.1.3 Accessible Buildings: New Construction

4.1.3(4): All stairs should be required to meet accessibility requirements. Building codes are mainstreaming stairways and will be requiring all stairs to meet these requirements.

4.1.3(5): First exception: The elevator exception is unclear. It is not clear whether the second and third stories in a three story building, for example, are still required to be accessible, such as via a ramp, as the second sentence of the exception suggests.

The reference to other facilities as determined by the Attorney General is unclear. No guidance or criteria is given to suggest what is intended. Building owners, building designers and code enforcement officials have no way of knowing before the fact whether or not a particular facility is included. The phrase should either be replaced with specific criteria that clearly indicates the intended applicability or it should be deleted.

Third exception: Platform lifts should not be permitted as part of a required accessible route in new construction. The provision that allows their use "if no other alternative is feasible" is not valid for new construction. Such conditions realistically are only a valid problem in existing building situations. If applied to new construction, this will only be a source of unnecessary debate and inconsistent application. There is no guidance or criteria given to enable one to judge what is intended to be feasible or not feasible.

4.1.3(6): This provision is too broad and should be limited to windows that are required to be operable for ventilation purposes. Some windows, for example, may be operable solely to facilitate cleaning. It would be unreasonable to require an operable upper sash of a double hung window to be within the reach range as required by Section 4.2.7.

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March 25, 1991  
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4.1.3(8): Refer to our comments on the definition of "entrance" regarding the unclear meaning of principal entrance. The intended application of the last sentence is unclear. The enforcement of "preferences" is unrealistic and such a statement will be of little value. Nothing definite is required, therefore this is ultimately not enforceable.

4.1.3(9): The BOCA National Building code has precise requirements for horizontal exits including the fire separation walls which form a horizontal exit. The Code also has requirements for fire partitions and smoke partitions and they are not permitted in conjunction with a horizontal exit. Additional details of the desired assembly must be provided to determine desired characteristics of the required fire barrier. Section 4.3.11 does not provide any detail as to the required fire assembly to create areas of refuge. Additional information must be provided to allow a determination of the "agency having authority for safety". Typically the "administrative authority" (as defined) is utilized. The last sentence, although more realistic, conflicts with the sixth sentence of 4.3.11. The minimum number of areas of refuge is not clear if one exit is required from a floor.

4.1.3(10): Requiring approximately 50% of fixtures to be accessible is indeterminate and therefore unenforceable. A precise percentage should be stated so that compliance can be readily determined.

4.1.3(19)(a): Refer to our comments on the definition of "Assembly Area". The table does not address occupant loads of less than 50. It would therefore, appear that no wheelchair locations are required in those cases. This is inconsistent since the definition of assembly areas does not exclude capacities of less than 50 from being considered as an assembly area. A minimum of one space should be required in those areas.

4.1.3(19)(b): What constitutes "regular use as meeting or conference rooms" is unclear. The third sentence would appear to apply to all assembly areas, including those where audible communications are not integral to the use of the space, by virtue of the wording, "For other assembly areas. . .". The intent would be more clearly stated with the wording, "For other assembly areas where audible communications are integral to the use of the space, . . .". also, the minimum number of receivers should be stated as "not less than 4%" rather than "equal to 4%" since exactly 4% is unlikely to be a whole number.

#### 4.1.6 Accessible Buildings: Alterations

4.1.6(2): The intended meaning of "Primary Function" is not clear. Clearly, the additional (but undetermined) criteria as to what is disproportionate cost and scope of alterations cannot be evaluated. Thus, the application of this provision is effectively unenforceable.

4.1.6(3)(b): What constitutes "hazardous or impossible due to plan configuration" is unclear and therefore unenforceable. Further, in the event such a determination is made, this provision indicates that "full extension" of the handrail is not required but does not indicate clearly what is expected. It would be reasonable to require as much extension as possible.

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4.1.6(3)(c)(ii): It is not clear if the minimum car dimensions of 48" by 48" are subject to a technical infeasibility consideration. If difficulty in providing a 51" x 54" car dimension can be a technical infeasibility, so might a 48" x 48" dimension. Further, this approach would preclude the acceptability of a car with 46" x 60" dimensions, which is a reasonable circumstance that should be permitted.

## 5. RESTAURANTS AND CAFETERIAS

5.2: Application of accessibility requirements based on the term "decorative character" is not realistically enforceable. The term is vague and its meaning is unclear. A more descriptive criteria is needed if the concept is to be implemented.

## 6. MEDICAL CARE FACILITIES

6.3(1) and (3): Provisions that are stated as preferences are unenforceable. These are statements that should be relocated to the Appendix.

## 7. BUSINESS AND MERCANTILE

7.2: The last sentence presents an example of how the use of permissive language is inappropriate. This statement indicates that an auxiliary counter may be provided when an alternation to create an accessible main counter would be technically infeasible. This literally means that an auxiliary counter may or may not be provided. If the intent is to require the auxiliary counter, the statement must be made in mandatory terms.

## 8. LIBRARIES

8.2: The requirement that "at least 5% or a minimum of one" gives the option to provide either 5% or one. Thus, one is all that is ever required. If the intent is "at least 5% but not less than one", then it should be so stated.

8.4 and 8.5: Provisions that are stated as preferences are unenforceable. These are statements that should be relocated to the Appendix.

## TECHNICAL PROVISIONS

4.3.11: The requirements for opening protectives and permissible penetrations (ducts, pipes, etc.) are not clear. If an elevator is accessed by a smoke proof enclosure or other means, it would be reasonable to permit an area of refuge to have direct access to an exit stairway or such elevator. The direction of egress travel through a door in a wall forming an area of refuge is not clear. A double-acting door (180° swing) would jeopardize the fire performance of the wall.

The sixth sentence in reality only recognizes stairways as an area of refuge. If the building is to be separated into areas of refuge, this sentence requires at a least three areas of refuge in every building (one in which you start and then one in each direction) and does not permit an area of refuge at the end of a building.

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Additional details are needed on what is intended to constitute a "central emergency management control point". Most buildings do not have emergency management personnel, much less a control point.

Prohibiting a standpipe in the stair landing requires explanation. It does not appear reasonable to expect modification of fire-fighting practices.

More importantly the result of this will be the creation of at least three, and most often, four areas of refuge in every building with an interesting access path to each. The content and location of signage resulting from every floor area of a building being an area of refuge from an adjacent area is not clear.

4.6.3 and 4.6.6: Discussions within the ANSI A117.1 Committee raised the question as to whether there is sufficient data upon which a requirement for van spaces can be justifiably based. If vans with side lifts are not sufficiently common, then scoping van spaces cannot be justified. If the prevalence of side lift vans is not known, the appropriate minimum number cannot be realistically chosen. If such data is known then it should be possible to express the requirement as a percentage of the required number of accessible spaces (but not less than one).

It would also be helpful to determine the typical characteristic of van usage. For example, in circumstances wherein the disabled person is accompanied by a driver (or a passenger capable of driving) that is not a wheelchair user, the van can pull up to a conventional accessible space perpendicular, utilize the empty space for unloading (96" plus 60" access aisle) and then park the vehicle in that space after unloading.

If this is found to be the predominant circumstance of usage, then there may not be a need to scope the wider access aisle. Under any circumstances, it appears reasonable to assume that the number of van spaces would not be in addition to the number of conventional accessible spaces, unless there is data indicating that the prevalence of van usage is not related to the general population of people with disabilities that we assume are accommodated by the present parking space requirements.

Section 4.6.6 recommends a clearance of 114 inches for van parking spaces. The ANSI A117.1 committee is recommending 108 inches. Given the lack of available sources of information, it is not clear if there is a standardized dimension that would be appropriate to use.

4.8.2: It would be reasonable to allow steeper slopes for a limited rise in new construction under the same conditions and circumstances that are indicated in 4.1.6(3)(a).

4.8.5 and 4.9.4: The handrail requirements are not representative of current research and building code requirements, particularly with respect to height. In general, these specific provisions, as well as general stairway and ramp dimensional requirements are duplicative and inconsistent with contemporary codes and should be deleted.

BOCA appreciates the opportunity to comment of the proposed guidelines.



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# BUILDING OFFICIALS & CODE ADMINISTRATORS 2 I. INTERNATIONAL, INC.

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March 26, 1991

Mr. John L. Wodatch  
Office of the Americans with Disabilities Act  
Civil Rights Division  
U.S. Department of Justice  
Rulemaking Docket 003  
P. O. Box 75087  
Washington, DC 20013

Dear Sirs:

Attached are BOCA's comments on the proposed rule implementing Title III of the ADA.

We appreciate the opportunity to submit comments.

Very truly yours,

Kenneth M. Schoonover, PE  
Manager, Code Development Services

KMS/dcv

Attachments

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## COMMENTS TO DEPARTMENT OF JUSTICE ON PROPOSED REGULATION IMPLEMENTING TITLE III OF THE ADA

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Building Officials and Code Administrators International, Inc. (BOCA) is a national model code group that promulgates model building regulations and provides various support services to the construction industry and, in particular, to State and local code enforcement agencies.

Successfully making buildings accessible is dependent on two key components. One is a set of reasonable and enforceable regulations and the other is the means to effectively and efficiently enforce those regulations. It appears at this point in time that the ADA is not adequately addressing either of these components.

Regarding enforceable regulations, the guidelines proposed by the Architectural and Transportation Barriers Compliance Board (ATBCB) are inadequate. A copy of BOCA's comments to the ATBCB on the proposed guidelines are attached. A careful review of those comments will illustrate the fundamental incompatibility of the guidelines with traditional code concepts and enforcement techniques. They lack technical credibility in many areas. These fundamental deficiencies present significant potential for confusion, misunderstanding and misapplication and will work against, rather than for the goals of the ADA. They also stand to complicate the planned process for certification of State and local codes.

Regarding the means to enforce the regulations, it is evident that the existing State and local building code enforcement system is the only effective and efficient means by which accessibility can be accomplished at the time of building construction. A decision must be made at the time of construction on those aspects of the ADA and the proposed guidelines that involve judgement, interpretation and flexibility. These interpretive areas include such concepts as what is:

- Readily achievable;
- Structurally impracticable;
- The maximum extent feasible;
- A primary function;
- An alteration that is disproportionate in cost and scope.

These concepts are not necessarily foreign to the current building code enforcement system, however, the authority to interpret the proposed guidelines does not rest with State and local officials. This situation causes us to ponder some fundamental questions.

- How easily can equivalency of a code be determined when the content of the guidelines is inherently inconsistent and in conflict with building codes?
- How can local officials realistically enforce these requirements with confidence that their interpretations and judgements are consistent with the intent of ADA?

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March 26, 1991

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- If a disputed interpretation is taken to the local board of appeals, how can that board act on the matter with similar confidence?
- What jeopardy is a community exposed to if a well-meaning code official approves something that is subsequently found by DOJ to be a violation?
- What protection is afforded to a community with a certified code against suits brought on by building owners, designers or any aggrieved parties that are found by DOJ to be in violation of the ADA? Even if the judgements would eventually favor the local officials, the charges must still be defended; a costly and time-consuming situation.

These circumstances make it clear that the discussion to date on the planned certification process for local building codes is incomplete. The entire code enforcement system in a State or local community, not just the code, must be considered in the certification process. Failure to do so could result in a disincentive for communities to include accessibility requirements in their code enforcement efforts. It is unlikely that States and local communities will adopt requirements they cannot realistically enforce. Some communities might even wash their hands entirely of accessibility and thus avoid the potential pitfalls they otherwise stand to confront. Absent a realistic, cooperative approach, the ADA will end up being enforced through the only means available to DOJ, that ultimately being the courts.

With all of the foregoing concerns, we are not without constructive suggestion. The codes and standards activities on-going in the private sector are diligently working toward the same end as Title III of the ADA. The efforts of the Council of American Building Officials (CABO) to foster the development of the 1991 ANSI A117.1 Standard and of the Board for Coordination of the Model Codes (BCMC) to develop comprehensive scoping requirements are evidence that the private sector efforts are real and productive. The need for redundant federal efforts cannot be justified when the private sector is in position to provide nationally recognized, reasonable and enforceable requirements along with an effective system for enforcement of those requirements. While our private sector efforts may not initially be as aggressive as some advocates may want, they move so substantially toward achieving the same goals, and in many ways so much more effectively, that they should be viewed as the best long-term means to provide accessible buildings. The DOJ must look for the means by which BCMC based scoping provisions along with ANSI A117.1 can be utilized as the basis for this effort.

Thank you for the opportunity to offer our comments.



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APR 19 1991

BOCA INT'L, INC.



# Council of American Building Officials

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(703) 931-4533

RICHARD P. KUCHNICKI  
PRESIDENT

April 16, 1991

Mr. John L. Wodatch  
Office on the Americans with Disabilities Act  
Civil Rights Division  
U.S. Department of Justice  
Rulemaking Docket 003  
P.O. Box 75087  
Washington, DC 20013

Dear Mr. Wodatch:

The Council of American Building Officials (CABO) is offering comments on the Department of Justice proposed regulation to implement Title III of the Americans with Disabilities Act (ADA).

CABO has three members--Building Officials and Code Administrators International (BOCA), International Conference of Building Officials (ICBO) and Southern Building Code Congress International (SBCCI). These three model code organizations have more than 10,000 local and state building code jurisdictions as their principal members. It is the representatives of those members that determine the content of the model building codes and subsequently enforce the building codes as adopted by the local and state building code jurisdictions.

Local and state governments have made considerable progress in recent years in requiring increased accessibility to and usability of buildings and facilities by persons with physical disabilities. This is reflected in the increased adoption of building and construction requirements that continue to be developed and refined based on the available information and research. As accessibility requirements within building codes have evolved over the past twenty-five years, the exclusions on accessible design requirements have continued to decrease.

In an attempt to accelerate this trend, CABO assumed the Secretariat of the American National Standard for Buildings and Facilities--Providing Accessibility and Usability for Physically Handicapped People in 1987. Also, CABO assigned its Board for the Coordination of the Model Codes (BCMC) the task of developing enforceable scoping provisions for the model codes that would make



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all buildings accessible, with accessible means of egress. The subjects of accessibility, scoping and egress are being maintained on the BCMC agenda so as to be responsive to further federal developments and future changes to the Standard.

Items are assigned to the BCMC agenda by the CABO Board of Directors. An item is removed from the agenda when BCMC completes a recommendation and transmits it to the CABO Board. An exception has been made for the agenda item on scoping and egress for ANSI A117.1 because the work that has been done is related to the 1986 edition of the Standard and changes to the 1991 edition will require changes to the scoping and egress requirements. Also, the item is being maintained on the agenda should there be a federal activity with which BCMC might cooperate. The response time is considerably shortened if the item is maintained on the agenda.

The model code organizations are moving to adopt the BCMC scoping provisions into their codes. At its 1990 annual meeting, ICBO adopted the BCMC Scoping Provisions in conjunction with the ANSI Standard A117.1-1986. Also, BOCA and SBCCI have proposed changes to their respective codes which it is anticipated will incorporate the BCMC Scoping Provisions into their codes during the 1991 code change cycle.

In recent years, BOCA, ICBO and SBCCI have, through CABO, been working with the federal government to reduce the overlap and duplication of building and construction requirements between those of the federal agencies and those promulgated by the private sector. Today, the Department of Housing and Urban Development, Department of Veterans Affairs and the Farmers Home Administration of the Department of Agriculture are relying on the health and safety requirements in private sector codes and standards in keeping with the spirit and requirements of OMB Circular No. A-119. Reliance on the use of the health and safety requirements in private sector codes and standards is presently under consideration by the Department of Defense. Additionally the federal agencies are more actively participating in the processes of the model building code system, especially the Department of Housing and Urban Development which has become a member of BOCA, ICBO and SBCCI.

It is our desire and intent to continue these efforts in partnership with the federal government with regard to the Americans with Disabilities Act. For there is no reason why the federal sector should promulgate duplicative and redundant guidelines. It is against this background that we offer our comments.

To be most effective in achieving the goals of ADA, the regulations should be enforced at the time of construction, which requires regulations that are mandatory and that are clear, concise and



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consistent with terms and concepts used in codes and the construction industry. The proposed ADA Guidelines do not meet this criteria. In the ADA Guidelines for example, the term "means of egress" is defined as a "...way of exit travel...." The term "exit" has a unique meaning in many building codes and is separate and distinct from "exit access" and "exit discharge." There are many other examples of potential confusion because the definitions and usage conflict with building codes.

The attached March 25, 1991 letter from Kenneth M. Schoonover, PE, Building Officials and Code Administrators International, to the Architectural and Transportation Barriers Compliance Board (ATBCB) regarding the proposed ADA Guidelines provides numerous examples. We have read comments submitted to ATBCB by others that will provide many more examples; we will cite them for you if they are needed.

While certification of local and state government building codes will assist in insuring enforcement at the time of construction, consideration should be given to certifying the entire local or state code enforcement mechanism. Otherwise, little incentive exists for a local or state government to adopt and enforce the Guidelines without the authority to exercise the judgment provided for in the ADA Guidelines. The example of the term "exit" illustrates the potential for certifying a code that may appear equivalent but which might be interpreted, and thus enforced, differently than might be expected. What liability is a municipality or code official exposed to if, through DOJ's enforcement authority, a feature that the well-meaning code official approved is subsequently found by DOJ to be in violation?

The attached copy of Legal Aspects of Code Administration is intended for the Building Official but it also addresses the potential liability of the jurisdiction somewhat. Generally, while the sovereign immunity of state governments and their officials apply to counties, it does not apply to municipalities. In our increasingly litigious society, the Building Official as well as the municipality is brought into legal suits and it is costly to defend especially when the municipality does not cover the expenses of the Building Official. See Chapters One and Three.

Chapter Seven provides some detail on a board of appeals that may be appointed to consider challenges to decisions of the Building Official. Such a board is an important part of a local or state government code enforcement mechanism. It is a part of the local or state government mechanism that should exist in order for the code to be certified by the Department of Justice. We urge the development of a certification activity that will encompass the entire code enforcement mechanism and offer our assistance in the development process.



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The foregoing is the reason for the significant effort that has been made to editorially revise ANSI A117.1 to develop essential code language and to develop the BCMC Scoping and Egress Provisions. They will be compatible with and readily enforceable by local and state governments. They are generally consistent with the ADA Guidelines in the areas and elements treated. The differences are largely a matter of degree which are relatively minor when compared to the need for enforcement at the time of construction and the immediate benefits to be derived therefrom by people with physical disabilities.

We urge the Department of Justice to endeavor to find the revised ANSI A117.1 and the BCMC Scoping and Egress Provisions equivalent to the ADA Guidelines.

Section 36.603(1), as presently stated, would require a jurisdiction to submit all standards referenced in the code, which would necessitate the submission of several hundred documents. In view of the need to obtain only that documentation relevant to the jurisdiction's requirements for accessibility and usability, we suggest the wording be changed to require submission of relevant documents only.

We believe local and state governments will be very reluctant to adopt and attempt to enforce requirements that are likely to increase their potential liability. Thus, enforcement is likely to be through the judicial system which will delay significantly the benefits to be derived by the physically disabled.

Sincerely,

*Richard P. Kuchnicki*

Richard P. Kuchnicki  
President

RPK:kh  
enclosures

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## TELECOPIER TRANSMITTAL

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Fax: 913/381-5756

FROM: Alexander Vachon

Office of Senator Bob Dole  
141 Hart Senate Office Building  
Washington, D.C. 20510

(202) 224-6521

NUMBER OF PAGES TO FOLLOW: 2

SUBJ: \_\_\_\_\_

| ADAAG-1991                                                               | BOCA-1993                                                                                                                                                                                                         | COMMENTS                                                                                                                                                                                                                                                                                              |
|--------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4.22.1 Toilet rooms; Minimum number                                      | P-1205.1 Where Required<br>1104.2 Connected Spaces<br>1108.2 Toilet and Bathing Facilities                                                                                                                        | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                             |
| 4.22.2 Toilet rooms; Doors                                               | P-1205.2.3 Single-Occupant Rooms                                                                                                                                                                                  | The provisions are equivalent regarding door swing into water closet clear space in a single occupant toilet room. For other circumstances, BOCA references CABO/ANSI A117.1. See ADAAG 4.13 for additional comparison.                                                                               |
| 4.22.3 Toilet rooms; Clear floor space                                   | P-1205.1 Where Required<br>1108.2 Toilet and Bathing Facilities                                                                                                                                                   | No substantive difference. The provisions are equivalent. BOCA requires accessible fixtures and elements in toilet rooms to be accessible, including providing an accessible route to such elements. Provision for turning space and overlapping of clear floor space is covered in CABO/ANSI A117.1. |
| 4.22.4 Toilet rooms; Water closets                                       | P-1205.1 Where Required<br>P-1205.2.2 Ambulatory Accessible Compartment<br>P-1205.2.3 Single-Occupant Rooms<br>P-1205.3 Water Closet<br>1108.2 Toilet and Bathing Facilities<br>1108.2.1 Water Closet Compartment | The provisions are equivalent except that BOCA only requires a 60" minimum length for the ambulatory accessible stall on the basis that it is not intended to be fully wheelchair accessible. See ADAAG 4.16 and 4.17 for additional comparison.                                                      |
| 4.22.5 Toilet rooms; Urinals                                             | P-1205.1 Where Required<br>1108.2 Toilet and Bathing Facilities                                                                                                                                                   | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                             |
| 4.22.6 Toilet rooms; Lavatories and mirrors                              | 1108.2 Toilet and Bathing Facilities                                                                                                                                                                              | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                             |
| 4.22.7 Toilet rooms; Controls and dispensers                             | 1104.2 Connected Spaces<br>1108.2 Toilet and Bathing Facilities                                                                                                                                                   | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                             |
| 4.23.1 Bathrooms, bathing facilities and shower rooms; Minimum number    | 1104.2 Connected Spaces<br>1108.2 Toilet and Bathing Facilities                                                                                                                                                   | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                             |
| 4.23.2 Bathrooms, bathing facilities and shower rooms; Doors             | P-1205.2.3 Single-Occupant Rooms                                                                                                                                                                                  | The provisions are equivalent regarding door swing into water closets clear space in a single occupant toilet room. For other circumstances, BOCA references CABO/ANSI A117.1. See ADAAG 4.13 for additional comparison.                                                                              |
| 4.23.3 Bathrooms, bathing facilities and shower rooms; Clear floor space | P-1205.1 Where Required<br>1108.2 Toilet and Bathing Facilities                                                                                                                                                   | No substantive difference. The provisions are equivalent. BOCA requires accessible fixtures and elements in toilet rooms to be accessible, including providing an accessible route to such elements. Provision for turning space and overlapping of clear floor space is covered in CABO/ANSI A117.1. |

November 18, 1993



| ADAAG-1991                                                                           | BOCA-1993                                                                                                                                                                                                         | COMMENTS                                                                                                                                                                                                                                               |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4.23.4 Bathrooms, bathing facilities and shower rooms; Water closets                 | P-1205.1 Where Required<br>P-1205.2.2 Ambulatory Accessible Compartment<br>P-1205.2.3 Single-Occupant Rooms<br>P-1205.3 Water Closet<br>1108.2 Toilet and Bathing Facilities<br>1108.2.1 Water Closet Compartment | The provisions are equivalent except that BOCA only requires a 60 inch minimum length for the ambulatory accessible stall on the basis that it is not intended to be fully wheelchair accessible. See ADAAG 4.16 and 4.17 for additional comparison.   |
| 4.23.5 Bathrooms, bathing facilities and shower rooms; Urinals                       | P-1205.1 Where Required<br>1108.2 Toilet and Bathing Facilities                                                                                                                                                   | No substantive difference. The provisions are equivalent.                                                                                                                                                                                              |
| 4.23.6 Bathrooms, bathing facilities and shower rooms; Lavatories and mirrors        | 1108.2 Toilet and Bathing Facilities                                                                                                                                                                              | No substantive difference. The provisions are equivalent.                                                                                                                                                                                              |
| 4.23.7 Bathrooms, bathing facilities and shower rooms; Controls and dispensers       | 1104.2 Connected Spaces<br>1108.2 Toilet and Bathing Facilities                                                                                                                                                   | No substantive difference. The provisions are equivalent.                                                                                                                                                                                              |
| 4.23.8 Bathrooms, bathing facilities and shower rooms; Bathing and shower facilities | P-1205.1 Where Required<br>1108.2 Toilet and Bathing Facilities                                                                                                                                                   | No substantive difference. The provisions are equivalent. BOCA requires at least one of each type of fixture to be accessible. If both a tub and a shower are provided, one of each must be accessible.                                                |
| 4.23.9 Bathrooms, bathing facilities and shower rooms; Medicine cabinets             | 1108.2 Toilet and Bathing Facilities                                                                                                                                                                              | No substantive difference. The provisions are equivalent. The dimensions for medicine cabinet shelf height is covered in CABO/ANSI A117.1.                                                                                                             |
| 4.24.1 Sinks; General                                                                | P-1205.4 Lavatory and Kitchen Sink<br>1103.2 Standard                                                                                                                                                             | ADAAG is charging text only; no substantive comparison. BOCA text covers kitchen sinks and lavatories. Other sinks are covered in CABO/ANSI A117.1.                                                                                                    |
| 4.24.2 Sinks; Height                                                                 | P-1205.4 Lavatory and Kitchen Sink                                                                                                                                                                                | No substantive difference. The provisions are equivalent.                                                                                                                                                                                              |
| 4.24.3 Sinks; Knee clearance                                                         | P-1205.4.1 Clearance                                                                                                                                                                                              | No substantive difference. The provisions are equivalent except that BOCA requires an 8" deep knee clearance underneath kitchen sinks and does not specify the width of the knee space.                                                                |
| 4.24.4 Sinks; Depth                                                                  |                                                                                                                                                                                                                   | See CABO/ANSI A117.1.                                                                                                                                                                                                                                  |
| 4.24.5 Sinks; Clear floor space                                                      | P-1205.4 Lavatory and Kitchen Sink                                                                                                                                                                                | No substantive difference. The provisions are equivalent. BOCA's 30 inch by 30 inch minimum clear floor space is measured from the face of the sink. The required clearances beneath the sink make up the remainder of the ADAAG required floor space. |
| 4.24.6 Sinks; Exposed pipes and surfaces                                             | P-1205.4.2 Piping                                                                                                                                                                                                 | No substantive difference. The provisions are equivalent with respect to pipe insulation. Abrasive surfaces are covered in CABO/ANSI A117.1.                                                                                                           |
| 4.24.7 Sinks; Faucets                                                                | P-1205.5 Faucet                                                                                                                                                                                                   | No substantive difference. The provisions are equivalent.                                                                                                                                                                                              |

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| ADAAG-1991                                                                                        | BOCA-1993                                                                    | COMMENTS                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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| 4.25 Storage                                                                                      | 1108.5 Storage and Locker Facilities                                         | Scoping for storage is equivalent. See ADAAG 4.1.3(12)(a) for scoping requirements. The dimensions and details are covered in CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                        |
| 4.25.1 Storage; General                                                                           |                                                                              | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 4.25.2 Storage; Clear floor space                                                                 |                                                                              | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 4.25.3 Storage; Height                                                                            |                                                                              | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 4.25.4 Storage; Hardware                                                                          |                                                                              | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 4.26.1 Handrails, grab bars and tub and shower seats; General                                     | P-1205.8 Grab Bars<br>1022.0 Handrails                                       | ADAAG is charging text only; no substantive comparison.                                                                                                                                                                                                                                                                                                                                                                                                                |
| 4.26.2 Handrails, grab bars and tub and shower seats; Size and spacing of grab bars and handrails | P-1205.8 Grab Bars<br>1022.2 Handrail Details<br>1022.2.5 Handrail Grip Size | No substantive difference. The provisions are equivalent. BOCA treats handrails and grab bars separately based on their distinctly different functions, purpose and usage. BOCA specifies a handrail diameter of 1 1/4" to 2" with a performance alternative for other shapes that provide equivalent graspability. BOCA also provides a specific alternative based on the perimeter and cross-sectional dimensions. Grab bar details are covered in CABO/ANSI A117.1. |
| 4.26.3 Handrails, grab bars and tub and shower seats; Structural strength                         | P-1205.8 Grab Bars<br>1615.8 Guards and Handrails                            | ADAAG is silent on structural strength for handrails. BOCA covers grab bars, seats and fasteners by reference to CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                                     |
| 4.26.3(1) Bending stress                                                                          |                                                                              | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 4.26.3(2) Shear stress                                                                            |                                                                              | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 4.26.3(3) Fasteners; shear                                                                        |                                                                              | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 4.26.3(4) Fasteners; tension                                                                      |                                                                              | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 4.26.3(5) Rotation                                                                                | P-1205.8 Grab Bars                                                           | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                                                                                                                                                                              |
| 4.26.4 Handrails, grab bars and tub and shower seats; Eliminating hazards                         | 1022.2 Handrail Details                                                      | No substantive difference. The provisions for handrails are equivalent. BOCA covers grab bars by reference to CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                                        |
| 4.27.1 Controls and operating mechanisms; General                                                 | 1103.2 Standard<br>1108.0 Controls, Operating Mechanisms and Hardware        | ADAAG is charging text only; no substantive comparison. Scoping is equivalent. Except as indicated in comparison of ADAAG 4.27.3 and 4.27.4, BOCA covers dimensions and details by reference to CABO/ANSI A117.1.                                                                                                                                                                                                                                                      |
| 4.27.2 Controls and operating mechanisms; Clear floor space                                       |                                                                              | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

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| ADAAG-1991                                                          | BOCA-1993                                                                                                                                                  | COMMENTS                                                                                                                                                                                                                                                                   |
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| 4.27.3 Controls and operating mechanisms; Height                    | 421.10.1(9) Outdoor Private Swimming Pool<br>917.5.1 Manual Fire Alarm Boxes<br>1017.4 Door Hardware<br>1108.0 Controls, Operating Mechanisms and Hardware | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                  |
| 4.27.4 Controls and operating mechanisms; Operation                 | P-1205.5 Faucet<br>P-1205.7.4 Faucet<br>1017.4 Door Hardware<br>1108.0 Controls, Operating Mechanisms and Hardware                                         | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                  |
| 4.28.1 Alarms; General                                              | 917.8.1 Visible Alarms                                                                                                                                     | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                  |
| 4.28.2 Alarms; Audible alarms                                       | 917.8.2 Audible Alarms                                                                                                                                     | No substantive difference. The provisions are equivalent. BOCA specifies a maximum sound pressure level of 130 dBA. BOCA specifies minimum sound pressure levels in addition to the requirement for 15 dBA above ambient.                                                  |
| 4.28.3 Alarms; Visual alarms                                        | 917.8.1 Visible Alarms<br>1103.2 Standard                                                                                                                  | No substantive difference. The provisions are equivalent with respect to integration of visual alarms into the building system. BOCA covers details of photometric and location features of ADAAG 4.28.3(1) through 4.28.3(8) and 4.28.4 by reference to CABO/ANSI A117.1. |
| 4.28.3(1) Lamp                                                      |                                                                                                                                                            | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                      |
| 4.28.3(2) Color                                                     |                                                                                                                                                            | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                      |
| 4.28.3(3) Pulse duration                                            |                                                                                                                                                            | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                      |
| 4.28.3(4) Intensity                                                 |                                                                                                                                                            | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                      |
| 4.28.3(5) Flash rate                                                |                                                                                                                                                            | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                      |
| 4.28.3(6) Height                                                    |                                                                                                                                                            | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                      |
| 4.28.3(7) Location in rooms                                         |                                                                                                                                                            | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                      |
| 4.28.3(8) Location in corridors                                     |                                                                                                                                                            | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                      |
| 4.28.4 Alarms; Auxiliary alarms                                     |                                                                                                                                                            | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                      |
| 4.29.1 Detectable warnings; General                                 | 1109.1 Detectable Warnings                                                                                                                                 | BOCA scoping includes only passenger transit platform edges. The BOCA text (and CABO/ANSI A117.1) is silent in the details of detectable warning characteristics.                                                                                                          |
| 4.29.2 Detectable warnings; Detectable warnings on walking surfaces |                                                                                                                                                            | The BOCA text (and CABO/ANSI A117.1) is silent in the details of detectable warning characteristics.                                                                                                                                                                       |

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| ADAAG-1991                                                                             | BOCA-1993                                    | COMMENTS                                                                                                                                                                       |
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| 4.29.3 Detectable warnings; Detectable warnings on doors to hazardous areas (Reserved) |                                              | No text to compare.                                                                                                                                                            |
| 4.29.4 Detectable warnings; Detectable warning at stairs (Reserved)                    |                                              | No text to compare.                                                                                                                                                            |
| 4.29.5 Detectable warnings; Detectable warnings at hazardous vehicular areas           |                                              | See comment to ADAAG 4.29.1.                                                                                                                                                   |
| 4.29.6 Detectable warnings; Detectable warnings at reflecting pools                    |                                              | See comment to ADAAG 4.29.1.                                                                                                                                                   |
| 4.29.7 Detectable warnings; Standardization (Reserved)                                 |                                              | No text to compare.                                                                                                                                                            |
| 4.30.1 Signage; General                                                                | 1109.2 Signs<br>1109.2.1 Directional Signage | ADAAG is charging text only; no substantive comparison. BOCA scopes signage (see ADAAG 4.1 for comparison) and covers details and dimensions by reference to CABO/ANSI A117.1. |
| 4.30.2 Signage; Character proportion                                                   |                                              | See CABO/ANSI A117.1.                                                                                                                                                          |
| 4.30.3 Signage; Character height                                                       |                                              | See CABO/ANSI A117.1.                                                                                                                                                          |
| 4.30.4 Signage; Raised and brailled characters and pictorial symbol signs (Pictograms) |                                              | See CABO/ANSI A117.1.                                                                                                                                                          |
| 4.30.5 Signage; Finish and contrast                                                    |                                              | See CABO/ANSI A117.1.                                                                                                                                                          |
| 4.30.6 Signage; Mounting location and height                                           |                                              | See CABO/ANSI A117.1.                                                                                                                                                          |
| 4.30.7(1) Symbols of accessibility; Where required                                     | 1109.2 Signs<br>1109.2.1 Directional Signage | No substantive difference. The provisions are equivalent.                                                                                                                      |
| 4.30.7(2) Volume control telephone                                                     |                                              | See CABO/ANSI A117.1.                                                                                                                                                          |
| 4.30.7(3) Text telephones                                                              |                                              | See CABO/ANSI A117.1.                                                                                                                                                          |
| 4.30.7(4) Symbols of accessibility; Assistive listening systems                        | 1107.2.2 Listening Systems<br>1109.2 Signs   | No substantive difference. The provisions are equivalent.                                                                                                                      |
| 4.30.8 Symbols for accessibility; Illumination levels (Reserved)                       |                                              | No text to compare.                                                                                                                                                            |
| 4.31.1 Telephones; General                                                             |                                              | See comment to ADAAG 4.1.3(17)(a).                                                                                                                                             |
| 4.31.2 Telephones; Clear floor or ground space                                         |                                              | See CABO/ANSI A117.1.                                                                                                                                                          |
| 4.31.3 Telephones; Mounting height                                                     |                                              | See CABO/ANSI A117.1.                                                                                                                                                          |

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| ADAAG-1991                                                                | BOCA-1993                                                                        | COMMENTS                                                                                                                                                                     |
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| 4.31.4 Telephones; Protruding objects                                     |                                                                                  | See CABO/ANSI A117.1.                                                                                                                                                        |
| 4.31.5 Telephones; Hearing aid compatible and volume control telephones   |                                                                                  | See CABO/ANSI A117.1.                                                                                                                                                        |
| 4.31.6 Telephones; Controls                                               |                                                                                  | See CABO/ANSI A117.1.                                                                                                                                                        |
| 4.31.7 Telephones; Telephone books                                        |                                                                                  | See CABO/ANSI A117.1.                                                                                                                                                        |
| 4.31.8 Telephones; Cord length                                            |                                                                                  | See CABO/ANSI A117.1.                                                                                                                                                        |
| 4.31.9 Telephones; Text telephones                                        |                                                                                  | See CABO/ANSI A117.1.                                                                                                                                                        |
| 4.31.9(1) Location                                                        |                                                                                  | See CABO/ANSI A117.1.                                                                                                                                                        |
| 4.31.9(2) Provisions for portable units                                   |                                                                                  | See CABO/ANSI A117.1.                                                                                                                                                        |
| 4.31.9(3) Alternatives permitted                                          |                                                                                  | See CABO/ANSI A117.1.                                                                                                                                                        |
| 4.32.1 Fixed or built-in seating and tables; Minimum number               | 1107.2.4 Exception 3, Dining Areas<br>1108.6 Fixed or Built-in Seating or Tables | BOCA scopes accessible fixed and built-in seating and tables equivalent to ADAAG [see ADAAG 4.1.3(18)]. BOCA covers details and dimensions by reference to CABO/ANSI A117.1. |
| 4.32.2 Fixed or built-in seating and tables; Seating                      |                                                                                  | See CABO/ANSI A117.1.                                                                                                                                                        |
| 4.32.3 Fixed or built-in seating and tables; Knee clearances              |                                                                                  | See CABO/ANSI A117.1.                                                                                                                                                        |
| 4.32.4 Fixed or built-in seating and tables; Height of tables or counters |                                                                                  | See CABO/ANSI A117.1.                                                                                                                                                        |
| 4.33.1 Assembly areas; Minimum number                                     | 1107.2.3 Wheelchair Spaces                                                       | See ADAAG 4.1.3(19)(a) for comparison of scoping. BOCA covers details and dimensions by reference to CABO/ANSI A117.1.                                                       |
| 4.33.2 Assembly areas; Size of wheelchair locations                       |                                                                                  | See CABO/ANSI A117.1.                                                                                                                                                        |
| 4.33.3 Assembly areas; Placement of wheelchair locations                  | 1107.2.3 Wheelchair spaces                                                       | No substantive difference. The provisions are equivalent.                                                                                                                    |
| 4.33.4 Assembly areas; Surfaces                                           |                                                                                  | See CABO/ANSI A117.1.                                                                                                                                                        |
| 4.33.5 Assembly areas; Access to performing areas                         |                                                                                  | See CABO/ANSI A117.1.                                                                                                                                                        |
| 4.33.6 Assembly areas; Placement of listening systems                     |                                                                                  | See CABO/ANSI A117.1.                                                                                                                                                        |



| ADAAG-1991                                                                      | BOCA-1993                                                                                                                          | COMMENTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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| 4.33.7 Assembly areas; Types of listening systems                               |                                                                                                                                    | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 4.34 Automated teller machines                                                  |                                                                                                                                    | Provisions for ATM's are not health or safety related and therefore are outside the scope of building codes. Enforcement of such provisions through traditional code enforcement methods is impractical. Permits are not required for the planning, installation or alteration of such equipment and modifications that routinely occur in existing buildings therefore cannot be realistically inspected and approved. CABO/ANSI A117.1 contains specific provisions for ATM's. |
| 4.34.1 Automated teller machines; General                                       |                                                                                                                                    | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 4.34.2 Automated teller machines; Controls                                      |                                                                                                                                    | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 4.34.3 Automated teller machines; Clearances and reach range                    |                                                                                                                                    | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 4.34.4 Automated teller machines; Equipment for persons with vision impairments |                                                                                                                                    | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 4.35.1 Dressing and fitting rooms; General                                      | 1108.7.1 Dressing and Fitting Rooms                                                                                                | No substantive difference. The provisions are equivalent. BOCA scoping is equivalent to ADAAG [see ADAAG 4.1.3(21)]. BOCA covers details and dimensions by reference to CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                        |
| 4.35.2 Dressing and fitting rooms; Clear floor space                            |                                                                                                                                    | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 4.35.3 Dressing and fitting rooms; Doors                                        |                                                                                                                                    | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 4.35.4 Dressing and fitting rooms; Bench                                        |                                                                                                                                    | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 4.35.5 Dressing and fitting rooms; Mirror                                       |                                                                                                                                    | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 5.1 Restaurants and cafeterias; General                                         | 1107.2.4 Dining Areas<br>1110.2 Alterations                                                                                        | No substantive difference. The provisions are equivalent. Segregation of smoking and non-smoking areas is not realistically enforceable through traditional code enforcement methods since it is, to a great extent, a facility management matter and can be adjusted or varied on a routine basis without notice to or approval by the code official.                                                                                                                           |
| 5.2 Restaurants and cafeterias; Counters and bars                               | 1107.2.4 Dining Areas                                                                                                              | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 5.3 Restaurants and cafeterias; Access aisles                                   | 1011.3 Width<br>1012.2.1 Measurement of Required Minimum Width of Aisles and Aisle Accessways.<br>1012.2.6 Minimum Width of Aisles | No substantive difference. The provisions are equivalent. BOCA is more conservative in the measurement of aisle width (when the option to use Section 1012.0 is chosen) by requiring the clear width to be measured to a point 19 inches away from the edges of tables or counters to account for the presence of a chair or seat at the table or counter.                                                                                                                       |

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| ADAAG-1991                                                                                      | BOCA-1993                                                                  | COMMENTS                                                                                                                                                                                                                                                                                                        |
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| 5.4 Restaurants and cafeterias; Dining areas                                                    | 1107.2.4 Dining Areas                                                      | No substantive difference. The provisions are equivalent. ADAAG allows a larger inaccessible mezzanine in non-elevator buildings. BOCA limits such mezzanines to 25% of the total area of accessible seating.                                                                                                   |
| 5.5 Restaurants and cafeterias; Food service lines                                              | 1011.3 Width<br>1012.2.6 Minimum Width of Aisles                           | The 36 inch minimum width is covered by the general accessible route and aisle provisions. ADAAG's discussion of 42 inch width is advisory only. BOCA does not address tray slides or self-service shelves as these are fixture characteristics that traditionally are not within the scope of a building code. |
| 5.6 Restaurants and cafeterias; Tableware and condiment areas                                   |                                                                            | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                           |
| 5.7 Restaurants and cafeterias; Raised platforms                                                | 1107.2.4 Dining Areas                                                      | The provisions are equivalent with respect to permanent construction. BOCA requires the total seating area to be accessible. Temporary head table arrangements traditionally occur without review and approval by the code official and cannot be effectively regulated by building codes.                      |
| 5.8 Restaurants and cafeterias; Vending machines and other equipment                            |                                                                            | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                           |
| 5.9 Restaurants and cafeterias; Quiet areas (Reserved)                                          |                                                                            | No text to compare.                                                                                                                                                                                                                                                                                             |
| 6.1 Medical care facilities; General                                                            | 308.3 Use Group I-2                                                        | No substantive difference. The provisions are equivalent. ADAAG's description of medical care facilities corresponds to BOCA's Use Group I-2.                                                                                                                                                                   |
| 6.1(1) Hospitals - general purpose hospitals, psychiatric facilities, detoxification facilities | 1103.1 Where Required<br>1104.2 Connected Spaces<br>1107.3.2 Use Group I-2 | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                       |
| 6.1(2) Hospitals - mobility specialists                                                         | 1103.1 Where Required<br>1104.2 Connected Spaces<br>1107.3.2 Use Group I-2 | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                       |
| 6.1(3) Long term care facilities, nursing homes                                                 | 1103.1 Where Required<br>1104.2 Connected Spaces<br>1107.3.2 Use Group I-2 | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                       |
| 6.1(4)(a) Alterations to patient bedrooms; Entire areas                                         | 1110.2 Alterations                                                         | BOCA's requirement that alterations comply is equivalent. See ADAAG 6.1(1), 6.1(2) and 6.1(3) for comparison of the required number of accessible rooms.                                                                                                                                                        |
| 6.1.4(b) Alterations to patient bedrooms; Individual rooms                                      | 1110.2 Alterations                                                         | BOCA's requirement that alterations comply is equivalent. See ADAAG 6.1(1), 6.1(2) and 6.1(3) for comparison of the required number of accessible rooms.                                                                                                                                                        |



| ADAAG-1991                                                                | BOCA-1993                                                       | COMMENTS                                                                                                                                                                                                                                                                                                                                            |
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| 6.2 Medical care facilities; Entrances                                    | 1107.3.2 Use Group I-2                                          | BOCA is equivalent in the scoping of passenger loading zones. BOCA does not address weather protection of accessible entrances.                                                                                                                                                                                                                     |
| 6.3 Medical care facilities; Patient bedrooms                             | 1107.3.2 Use Group I-2                                          | Cross reference and charging text only; no meaningful comparison.                                                                                                                                                                                                                                                                                   |
| 6.3(1) Patient bedrooms; Doors                                            | 1017.0 Means of Egress Doorways<br>1017.3 Size of Doors         | No substantive difference. The provisions are equivalent. BOCA requires 44 inch wide doors for the movement of beds, which will typically be applicable to acute care bedrooms.                                                                                                                                                                     |
| 6.3(2) Patient bedrooms; Maneuvering space                                |                                                                 | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                               |
| 6.3(3) Patient bedrooms; Clear floor space at beds                        |                                                                 | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                               |
| 6.4 Medical care facilities; Patient toilet rooms                         | 1107.3.2 Use Group I-2<br>P-1205.0 Accessible Plumbing Fixtures | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                                                           |
| 7.1 Business and mercantile: General                                      | 1103.1 Where Required                                           | Charging text only. No meaningful comparison.                                                                                                                                                                                                                                                                                                       |
| 7.2(1) Sales and service counters; With cash registers                    | 1104.2 Connected Spaces<br>1108.7.2 Counters and Windows        | No substantive difference. The provisions are equivalent. BOCA references CABO/ANSI A117.1 for details and dimensions and does not specifically provide for alternative arrangements.                                                                                                                                                               |
| 7.2(2) Sales and service counters; Without cash registers                 | 1104.2 Connected Spaces<br>1108.7.2 Counters and Windows        | No substantive difference. The provisions are equivalent. BOCA references CABO/ANSI A117.1 for details and dimensions and does not specifically provide for alternative arrangements.                                                                                                                                                               |
| 7.2(2)(i) Length and height                                               |                                                                 | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                               |
| 7.2(2)(ii) Auxiliary counter                                              |                                                                 | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                               |
| 7.2(2)(iii) Alternatives permitted                                        |                                                                 | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                               |
| 7.2(3) Sales and service counters; Assistive listening devices (Reserved) |                                                                 | No text to compare.                                                                                                                                                                                                                                                                                                                                 |
| 7.3(1) Check-out aisles; Number required                                  | 1108.7.3 Check-out Aisles                                       | The provisions are equivalent. BOCA does not address the type of check-out aisle since such things as express check-out lanes or "cash only" lanes are a facility management matter and can be adjusted or varied on a routine basis without notice to or approval by the code official. BOCA does not provide for the exceptions allowed by ADAAG. |
| 7.3(2) Check-out Aisles; Aisle width                                      |                                                                 | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                               |
| 7.3(3) Check-out Aisles; Signage                                          | 1109.2 Signs                                                    | BOCA does not address required signage at check-out aisles.                                                                                                                                                                                                                                                                                         |
| 7.4 Security Bollards                                                     | 1104.1 Where required<br>1107.1 General                         | No substantive difference. The provisions are equivalent. BOCA does not specifically address security bollards but requires an accessible route and accessible means of egress.                                                                                                                                                                     |

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| ADAAG-1991                                                                                                                                                                    | BOCA-1993                                                                          | COMMENTS                                                                                                                                                                                                                                                                                          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8.1 Libraries; General                                                                                                                                                        | 1103.1 Where Required<br>1104.2 Connected Spaces<br>1107.2 Use Group A             | No substantive difference. The provisions are equivalent. ADAAG is charging text only.                                                                                                                                                                                                            |
| 8.2 Libraries; Reading and study areas                                                                                                                                        | 1108.6 Fixed or Built-in Seating or Tables                                         | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                         |
| 8.3 Libraries; Check-out areas                                                                                                                                                | 1104.2 Connected Spaces<br>1108.7.2 Counters and Windows                           | No substantive difference. The provisions are equivalent. BOCA references CABO/ANSI A117.1 for details and dimensions and does not specifically provide for alternative arrangements.                                                                                                             |
| 8.4 Libraries; Card catalogs and magazine displays                                                                                                                            | 1103.1 Where Required<br>1104.2 Connected Spaces                                   | No substantive difference. The provisions are equivalent. BOCA references CABO/ANSI A117.1 for reach ranges. "Preferred" criteria is unenforceable.                                                                                                                                               |
| 8.5 Libraries; Stacks                                                                                                                                                         | 1103.1 Where Required<br>1104.2 Connected Spaces                                   | No substantive difference. The provisions are equivalent. "Preferred" criteria is unenforceable.                                                                                                                                                                                                  |
| 9(1) Accessible transient lodging; General                                                                                                                                    | 310.3 Use Group R-1 Structures                                                     | ADAAG's description of transient lodging is comparable to BOCA's Use Group R-1.                                                                                                                                                                                                                   |
| 9.1.1 Hotels, motels, inns, boarding houses, dormitories, resorts and other similar places of transient lodging; General                                                      | 310.5 Use Group R-3 Structures<br>1103.1 Where Required<br>1104.2 Connected Spaces | No substantive difference. The provisions are equivalent. ADAAG's exception is substantially equivalent to BOCA's description of Use Group R-3 which is exempt from accessibility requirements.                                                                                                   |
| 9.1.2 Hotels, motels, inns, boarding houses, dormitories, resorts and other similar places of transient lodging; Accessible units, sleeping rooms, and suites                 | 1107.4.1 Accessible Guestrooms                                                     | BOCA requires fewer accessible rooms but is judged as being sufficient to satisfy the anticipated demand for such rooms. BOCA requires a greater ratio (50%) of roll-in showers in accessible guestrooms. The actual number of rooms with roll-in showers will be lower than ADAAG in some cases. |
| 9.1.3 Hotels, motels, inns, boarding houses, dormitories, resorts and other similar places of transient lodging; Sleeping accommodations for persons with hearing impairments | 917.8.1 Visible Alarms<br>1107.4.1 Accessible Guestrooms                           | No substantive difference. The provisions are equivalent. BOCA does not address telephones or door knock indicators. Such devices are not enforceable through traditional building code methods.                                                                                                  |
| 9.1.4(1) Hotels, motels, inns, boarding houses, dormitories, resorts and other similar places of transient lodging; Dispersion of accommodations                              | 1107.4.1 Accessible Guestrooms                                                     | BOCA does not address dispersion of sleeping accommodations. Some factors, such as room rates vary on a seasonal, or even daily basis. Enforcement through a building code is not practical.                                                                                                      |
| 9.1.4(2) Hotels, motels, inns, boarding houses, dormitories, resorts and other similar places of transient lodging; Equivalent facilitation                                   | 106.4 Alternative Materials and Equipment                                          | BOCA does not address dispersion of sleeping accommodations. Some factors, such as room rates vary on a seasonal, or even daily basis. Enforcement through a building code is not practical.                                                                                                      |
| 9.1.5 Hotels, motels, inns, boarding houses, dormitories, resorts and other similar places of transient lodging; Alterations to accessible units, sleeping rooms and suites   | 1110.2.2(7) Scoping for Alterations                                                | No substantive difference. The provisions are equivalent. (Note: Section 1110.2.2(7) was printed incorrectly and should read, "...shall comply with Section 1007.0 and Section 917.8...".)                                                                                                        |



| ADAAG-1991                                                                                                                 | BOCA-1993                                                                                                                                               | COMMENTS                                                                                                                                                                                      |
|----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9.2.1 Hotel units; General                                                                                                 | 1107.4.1 Accessible Guestrooms                                                                                                                          | ADAAG contains only charging text and a cross reference. No meaningful comparison.                                                                                                            |
| 9.2.2 Hotel units; Minimum requirements                                                                                    | 1103.1 Where Required<br>1104.2 Connected Spaces<br>1108.0 Building Features and Facilities                                                             | No substantive difference. The provisions are equivalent.                                                                                                                                     |
| 9.2.2(1) Hotel units; Clear maneuvering space                                                                              |                                                                                                                                                         | See CABO/ANSI A117.1.                                                                                                                                                                         |
| 9.2.2(2) Hotel units; Accessible route                                                                                     | 1103.1 Where Required<br>1104.2 Connected Spaces                                                                                                        | No substantive difference. The provisions are equivalent.                                                                                                                                     |
| 9.2.2(3) Hotel units; Doors                                                                                                | 1017.0 Means of Egress Doorways                                                                                                                         | No substantive difference. The provisions are equivalent.                                                                                                                                     |
| 9.2.2(4) Hotel units; Storage facilities                                                                                   | 1108.5 Storage and Locker Facilities                                                                                                                    | No substantive difference. The provisions are equivalent.                                                                                                                                     |
| 9.2.2(5) Hotel units; Controls                                                                                             | 1108.8 Controls, Operating Mechanisms and Hardware                                                                                                      | No substantive difference. The provisions are equivalent.                                                                                                                                     |
| 9.2.2(6) Hotel units; Accessible spaces                                                                                    | 1103.1 Where Required<br>1104.2 Connected Spaces<br>1105.0 Parking Facilities<br>1107.4.1 Accessible Guestrooms<br>1108.2 Toilet and Bathing Facilities | No substantive difference. The provisions are equivalent.                                                                                                                                     |
| 9.2.2(7) Hotel units; Kitchens, kitchenettes, or wet bars                                                                  |                                                                                                                                                         | See CABO/ANSI A117.1.                                                                                                                                                                         |
| 9.2.2(8) Hotel units; Accommodation for hearing impairments                                                                | 1107.4.1 Accessible Guestrooms                                                                                                                          | No substantive difference. The provisions are equivalent. See comments on ADAAG 9.1.3.                                                                                                        |
| 9.3 Visual alarms, notification devices and telephones                                                                     | 917.8.1 Visible Alarms                                                                                                                                  | BOCA is equivalent with respect to emergency alarms. BOCA does not address telephone or door knock indicators. Such devices are not enforceable through traditional code enforcement methods. |
| 9.3.1 General                                                                                                              | 917.8.1 Visible Alarms                                                                                                                                  | See ADAAG 9.3.                                                                                                                                                                                |
| 9.3.2 Equivalent facilitation                                                                                              | 106.4 Alternative Materials and Equipment                                                                                                               | See ADAAG 9.3.                                                                                                                                                                                |
| 9.4 Other sleeping rooms and suites                                                                                        | 1017.3 Size of Doors                                                                                                                                    | No substantive difference. The provisions are equivalent. See ADAAG 4.13.5.                                                                                                                   |
| 9.5 Transient lodging in homeless shelters, halfway houses, transient group homes, and other social service establishments | 308.2 Use Group I-1<br>310.3 Use Group R-1 Structures<br>1107.3.1 Use Group I-1<br>1107.4.1 Use Group R-1                                               | ADAAG's description of these facilities correspond to BOCA's Use Groups R-1 and I-1.                                                                                                          |

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| ADAAG-1991                                                             | BOCA-1993                                                                                           | COMMENTS                                                                                                                                                                                            |
|------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9.5.1 New construction                                                 | 1104.1 Where Required<br>1104.2 Connected Spaces                                                    | No substantive difference. The provisions are equivalent. BOCA is equivalent with respect to public and common use areas. Appliances and similar amenities are outside the scope of building codes. |
| 9.5.2 Alterations                                                      | 1110.2 Alterations<br>1110.2.2 Scoping for Alterations                                              | No substantive difference. The provisions are equivalent. BOCA requires all alterations to comply, unless technically infeasible.                                                                   |
| 9.5.2(1) Social service establishments which are not homeless shelters | 1110.2.2 Scoping for Alterations                                                                    | See ADAAG 9.5.2.                                                                                                                                                                                    |
| 9.5.2(1)(a) Sleeping rooms                                             | 1110.2.2 Scoping Alterations                                                                        | See ADAAG 9.5.2.                                                                                                                                                                                    |
| 9.5.2(1)(b) Other areas                                                | 1110.2.2 Scoping Alterations                                                                        | See ADAAG 9.5.2.                                                                                                                                                                                    |
| 9.5.2(2) Homeless shelters                                             | 1110.2.2 Scoping Alterations                                                                        | See ADAAG 9.5.2.                                                                                                                                                                                    |
| 9.5.2(2)(a) Entrances                                                  | 1110.2.2 Scoping Alterations                                                                        | See ADAAG 9.5.2.                                                                                                                                                                                    |
| 9.5.2(2)(b) Sleeping space                                             | 1110.2.2 Scoping Alterations                                                                        | See ADAAG 9.5.2.                                                                                                                                                                                    |
| 9.5.2(2)(c) Toilet facilities                                          | 1110.2.2 Scoping Alterations                                                                        | See ADAAG 9.5.2.                                                                                                                                                                                    |
| 9.5.2(d) Common areas                                                  | 1110.2.2 Scoping Alterations                                                                        | See ADAAG 9.5.2.                                                                                                                                                                                    |
| 9.5.2(e) Accessible route                                              | 1110.2.2 Scoping Alterations                                                                        | See ADAAG 9.5.2.                                                                                                                                                                                    |
| 9.5.2(f) Location                                                      | 1110.2.2 Scoping Alterations                                                                        | See ADAAG 9.5.2.                                                                                                                                                                                    |
| 9.5.3 Accessible sleeping accommodations in new construction           | 1107.3.1 Use Group I-1<br>1107.4.1 Use Group R-1                                                    | Cross references only. See comments for the referenced ADAAG sections.                                                                                                                              |
| 10.1 Transportation facilities; General                                | 303.0 Assembly Use Groups<br>1103.1 Where Required<br>1104.2 Connected Spaces<br>1107.2 Use Group A | No substantive difference. The provisions are equivalent.                                                                                                                                           |
| 10.2 Transportation facilities; Bus stops and terminals                |                                                                                                     | Bus stops, bus shelters and route identification signs are outside the scope of regulation by building codes.                                                                                       |
| 10.2.1 Transportation facilities; New construction                     |                                                                                                     | See ADAAG 10.2.                                                                                                                                                                                     |
| 10.2.1(1) Bus stop pads                                                |                                                                                                     | See ADAAG 10.2.                                                                                                                                                                                     |
| 10.2.1(2) Shelters                                                     |                                                                                                     | See ADAAG 10.2.                                                                                                                                                                                     |
| 10.2.1(3) Route identification signs                                   |                                                                                                     | See ADAAG 10.2.                                                                                                                                                                                     |



| ADAAG-1991                                                        | BOCA-1993                                                                                                     | COMMENTS                                                                                                                                                                                                                                                                                                  |
|-------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10.2.2 Transportation facilities; Bus stop siting and alterations |                                                                                                               | See ADAAG 10.2.                                                                                                                                                                                                                                                                                           |
| 10.2.2(1) Arrangement                                             |                                                                                                               | See ADAAG 10.2.                                                                                                                                                                                                                                                                                           |
| 10.2.2(2) Route identification signs                              |                                                                                                               | See ADAAG 10.2.                                                                                                                                                                                                                                                                                           |
| 10.3 Transportation facilities; Fixed facilities and stations     | 303.0 Assembly Use Groups<br>1103.1 Where Required<br>1107.2 Use Group A                                      | Title only; no text to compare. Transportation stations are classified by BOCA as Use Group A-3.                                                                                                                                                                                                          |
| 10.3.1 Transportation facilities; New construction                | 303.0 Assembly Use Groups<br>1103.1 Where Required<br>1107.2 Use Group A                                      | Charging text only. No meaningful comparison.                                                                                                                                                                                                                                                             |
| 10.3.1(1) Arrangement of facilities                               | 1103.1 Where Required<br>1104.1 Where Required<br>1106.0 Accessible Entrances<br>1109.7.1 Directional Signage | No substantive difference. The provisions are equivalent. BOCA does not specifically address accessible routes coinciding with circulation paths for the general public. The exact meaning, intent, interpretation and application is unclear and therefore should not affect a judgement of equivalence. |
| 10.3.1(2) Entrances                                               | 1106.2 Multiple Accessible Entrances                                                                          | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                 |
| 10.3.1(3) Connections to other facilities                         | 1104.2 Connected Spaces                                                                                       | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                 |
| 10.3.1(4) Signage at entrances                                    |                                                                                                               | This type of signage is typically outside the scope of building codes. Braille signage and mounting location and height is covered by reference to CABO/ANSI A117.1.                                                                                                                                      |
| 10.3.1(5) Station identification signs                            |                                                                                                               | See comment to ADAAG 10.3.1(4).                                                                                                                                                                                                                                                                           |
| 10.3.1(6) Route, station and destination lists                    |                                                                                                               | See comment to ADAAG 10.3.1(4).                                                                                                                                                                                                                                                                           |
| 10.3.1(7) Fare facilities                                         | 1104.2 Connected Spaces                                                                                       | BOCA is equivalent with respect to accessible route requirements and clear wheelchair passage widths but does not otherwise address fare vending devices.                                                                                                                                                 |
| 10.3.1(8) Detectable warning at platform edges                    | 1109.1 Detectable warnings                                                                                    | The provisions are equivalent with respect to scoping. BOCA exempts bus stops to clarify that detectable warnings or protective guards are not required at street curbs. A street curb would technically be considered a drop-off. See comment to ADAAG 4.29.2 regarding detectable warning details.      |
| 10.3.1(9) Rail-to platform height                                 |                                                                                                               | Construction characteristics related to transportation vehicle dimensions are not enforceable through building codes since such vehicles are outside the scope of building codes.                                                                                                                         |
| 10.3.1(10) Vehicle boarding locations                             |                                                                                                               | BOCA does not specifically address this subject.                                                                                                                                                                                                                                                          |

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| ADAAG-1991                                        | BOCA-1993                                                            | COMMENTS                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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| 10.3.1(11) Lighting                               |                                                                      | BOCA does not specifically address this subject.                                                                                                                                                                                                                                                                                                                                                                                                          |
| 10.3.1(12) Text telephones                        |                                                                      | See ADAAG 4.1.3(17)(a).                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 10.3.1(12)(a) Required                            |                                                                      | See ADAAG 4.1.3(17)(a).                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 10.3.1(12)(b) Four or more                        |                                                                      | See ADAAG 4.1.3(17)(a).                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 10.3.1(13) Track crossing                         |                                                                      | BOCA does not specifically address this subject.                                                                                                                                                                                                                                                                                                                                                                                                          |
| 10.3.1(14) Public address systems                 |                                                                      | Information systems are outside the scope of building codes and are not enforceable through traditional building code methods.                                                                                                                                                                                                                                                                                                                            |
| 10.3.1(15) Clocks                                 |                                                                      | Clocks are outside the scope of building codes and are not enforceable through traditional building code methods.                                                                                                                                                                                                                                                                                                                                         |
| 10.3.1(16) Escalators                             | 3001.2 Referenced Standards                                          | BOCA requires compliance with ASME A17.1-1990 which only addresses the requirement that at least two adjacent treads be level. Under ASME A17.1, the second tread may not be fully exposed before the risers begin to form. The requirements for marking tread edges is premature based on lack of technology in the industry to respond with durable, adequate materials and concerns over the visual disorientation that may result to escalator users. |
| 10.3.1(17) Elevators                              | 1108.3 Elevators and Lifts<br>3006.3 Accessible Elevators            | BOCA requires conformance with ASME A17.1-1990 and does not specifically require glazed elevators.                                                                                                                                                                                                                                                                                                                                                        |
| 10.3.1(18) Ticketing areas                        | 1004.2 Connected Spaces                                              | Cross reference only. See ADAAG 7.2 for substantive comparison.                                                                                                                                                                                                                                                                                                                                                                                           |
| 10.3.1(19) Baggage check-in and retrieval systems | 1017.0 Means of Egress Doorways<br>1104.2 Connected Spaces           | No substantive difference. The provisions are equivalent. Gate surfaces are covered by reference to CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                                     |
| 10.3.2 Existing Facilities: Key stations          | 1110.2.2 Scoping for Alterations                                     | BOCA requires full conformance when alterations are undertaken but does not retrospectively require upgrades in existing buildings.                                                                                                                                                                                                                                                                                                                       |
| 10.3.2(1) Accessible route required               | 1110.2.2 Scoping for Alterations                                     | See ADAAG 10.3.2.                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 10.3.2(2) Accessible route features               | 1110.2.2 Scoping for Alterations                                     | See ADAAG 10.3.2.                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 10.3.2(3) Fare collection                         | 1110.2.2 Scoping for Alterations                                     | See ADAAG 10.3.2.                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 10.3.2(4) Rail to platform height                 | 1110.2.2 Scoping for Alterations                                     | See ADAAG 10.3.2 and 10.3.1(9).                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 10.3.2(5) Connections to other facilities         | 1110.2.2 Scoping for Alterations                                     | See ADAAG 10.3.2.                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 10.3.3 Existing Facilities: Alterations           | 1110.2.1 Alterations Affecting an Area Containing a Primary Function | Cross reference only. See comments on ADAAG 4.1.6(2).                                                                                                                                                                                                                                                                                                                                                                                                     |

| ADAAG-1991                                          | BOCA-1993                                                                              | COMMENTS                                                                                                                                                                                                                                                                                                                                                              |
|-----------------------------------------------------|----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10.4.1(1) Airports; Arrangement of facilities       | 1104.2 Connected Spaces                                                                | No substantive difference. The provisions are equivalent. ADAAG's provision lacks specificity and should not affect a judgement of equivalence.                                                                                                                                                                                                                       |
| 10.4.1(2) Airports; Circulation path                | 1104.2 Connected Spaces<br>1106.0 Accessible Entrances<br>1109.2.1 Directional Signage | No substantive difference. The provisions are equivalent. BOCA does specifically address accessible routes coinciding with circulation paths for the general public. The exact meaning, intent, interpretation and application is unclear and should not affect a judgement of equivalence. See ADAAG 4.30 for comparison of the referenced requirements for signage. |
| 10.4.1(3) Airports; Ticketing areas                 | 1104.2 Connected Spaces                                                                | Cross reference only. See ADAAG 7.2 for substantive comparison.                                                                                                                                                                                                                                                                                                       |
| 10.4.1(4) Airports; Telephones                      |                                                                                        | See ADAAG 4.1.3(17)(a).                                                                                                                                                                                                                                                                                                                                               |
| 10.4.1(5) Airports; Baggage check-in area retrieval | 1017.0 Means of Egress Doorways<br>1104.2 Connected Spaces                             | No substantive difference. The provisions are equivalent. Gate surfaces are covered by reference to CABO/ANSI A117.1.                                                                                                                                                                                                                                                 |
| 10.4.1(6) Airports; Public address systems          |                                                                                        | Information systems are outside the scope of building codes and are not enforceable through traditional building code methods.                                                                                                                                                                                                                                        |
| 10.4.1(7) Airports; Clocks                          |                                                                                        | Clocks are outside the scope of building codes and are not enforceable through traditional building code methods.                                                                                                                                                                                                                                                     |
| 10.4.1(8) Airports; Security systems (Reserved)     |                                                                                        | No text to compare.                                                                                                                                                                                                                                                                                                                                                   |



## ARCHITECTURAL AND TRANSPORTATION BARRIERS COMPLIANCE BOARD

### Americans With Disabilities Act Accessibility Guidelines for Buildings and Facilities

**AGENCY:** Architectural and  
Transportation Barriers Compliance  
Board.

**ACTION:** Notice of intent to establish  
advisory committee.

**SUMMARY:** The Architectural and  
Transportation Barriers Compliance  
Board (Access Board) announces its  
intent to establish an advisory  
committee to review the Americans  
with Disabilities Act Accessibility  
Guidelines (ADAAG) for buildings and  
facilities and requests applications from  
interested organizations for members to  
serve on the committee. The committee  
will make recommendations to the  
Access Board for updating ADAAG to  
ensure that the guidelines remain  
consistent with technological  
developments and changes in national  
standards and model codes, and meet  
the needs of individuals with  
disabilities.

**DATES:** Applications should be received  
by June 6, 1994.

**ADDRESSES:** Applications should be sent  
to the Office of Technical and  
Information Services, Architectural and  
Transportation Barriers Compliance  
Board, 1331 F Street, NW., suite 1000,  
Washington, DC 20004-1111. Fax  
number (202) 272-5447.

**FOR FURTHER INFORMATION CONTACT:**  
Marsha Mazz, Office of Technical and  
Information Services, Architectural and  
Transportation Barriers Compliance  
Board, 1331 F Street, NW., suite 1000,  
Washington, DC 20004-1111.  
Telephone number (202) 272-5434  
extension 21 (Voice); (202) 272-5449  
(TTY). This document is available in  
alternate formats (cassette tape, braille,  
large print, or computer disc) upon  
request.

**SUPPLEMENTARY INFORMATION:** The  
Architectural and Transportation  
Barriers Compliance Board (Access  
Board) is responsible for developing  
guidelines under the Americans with  
Disabilities Act of 1990 to ensure that  
newly constructed and altered buildings  
and facilities covered by the law are  
readily accessible to and usable by  
individuals with disabilities.<sup>1</sup> The

Access Board published its accessibility  
guidelines for the Americans with  
Disabilities Act in July 1991. 36 CFR  
part 1191, Appendix A. These  
guidelines, known as the Americans  
with Disabilities Act Accessibility  
Guidelines (ADAAG), have been  
adopted by the Department of Justice  
and the Department of Transportation as  
the accessibility standards for newly  
constructed and altered places of public  
accommodation, commercial facilities,  
and transportation facilities covered by  
the Americans with Disabilities Act.<sup>2</sup> 28  
CFR part 36, Appendix A; 49 CFR part  
37, Appendix A.

When it initially published ADAAG,  
the Access Board announced that it  
would periodically review and update  
the guidelines to ensure that they  
remain consistent with technological  
developments and changes in national  
standards and model codes, and meet  
the needs of individuals with  
disabilities. 56 FR 35410 (July 26, 1991).  
The Access Board also stated that it  
would work cooperatively with national  
standards and model code organizations  
to achieve a single standard over time  
that meets the requirements of the  
Americans with Disabilities Act and  
that can be adopted as an accessibility  
code by State and local governments  
throughout the country. Id.

The Access Board will begin the  
process of reviewing and updating  
ADAAG this fiscal year by establishing  
an ADAAG Review Advisory Committee  
(Committee). The establishment of the  
Committee would be in the public  
interest and would support the agency  
in performing its duties and

consists of 25 members. Thirteen are appointed by  
the President from among the public, a majority of  
who are required to be individuals with disabilities.  
The other twelve are heads of the following Federal  
agencies or their designees whose positions are  
Executive Level IV or above: The Departments of  
Health and Human Services, Education,  
Transportation, Housing and Urban Development,  
Labor, Interior, Defense, Justice, Veterans Affairs,  
and Commerce; General Services Administration;  
and United States Postal Services.

<sup>2</sup> The Access Board has initiated rulemaking to  
add new sections to ADAAG for certain State and  
local government facilities covered by the  
Americans with Disabilities Act. 57 FR 60612  
(December 21, 1992). Under Department of Justice  
regulations, State and local governments presently  
have the option of using ADAAG or an earlier  
accessibility standard, the Uniform Federal  
Accessibility Standards (UFAS), when constructing  
or altering buildings and facilities. 28 CFR  
35.151(c). The Department of Justice is expected to  
amend the regulations in the near future to  
eliminate this option. The Access Board is also  
working with other Federal agencies to use ADAAG  
as the basis for the accessibility standard for  
federally financed facilities covered by the  
Architectural Barriers Act. Eventually, it is  
anticipated that there will be a single accessibility  
standard for all public and private buildings and  
facilities covered by the Americans with Disabilities  
Act and the Architectural Barriers Act.

responsibilities under the Americans  
with Disabilities Act. The Committee  
will review ADAAG in its entirety and  
make recommendations to the Access  
Board on:

- Improving the format and usability of  
ADAAG;
- Reconciling editorial and substantive  
differences between ADAAG and national  
standards and model codes, including the  
CABO/ANSI A117.1-1992 American  
National Standard for Accessible and Usable  
Buildings and Facilities;
- Updating ADAAG to reflect  
technological developments and to meet the  
needs of individuals with disabilities; and
- Coordinating future revisions to ADAAG  
with national standards and model codes  
organizations.

The Committee will be expected to  
present a report with its  
recommendations to the Access Board  
within one year of the Committee's first  
meeting.

The Access Board requests  
applications from organizations  
representing the following interests for  
membership on the Committee:

- Architects and design professionals;
- Building owners and operators;
- Individuals with disabilities;
- Model code groups;
- State and local building and accessibility  
code officials; and
- Other persons affected by accessibility  
standards.

The number of Committee members will  
be limited to effectively accomplish the  
Committee's work and will be balanced  
in terms of interests represented.

Applications should be sent to the  
Access Board at the address listed at the  
beginning of this notice. The application  
should include a statement of the  
organization's interests and the name,  
title, address and telephone number of  
the person who would represent the  
organization on the Committee. The  
application should also describe of the  
person's qualifications, including any  
experience the person has had with  
developing or applying national  
standards, model codes, or State and  
local codes. Committee members will  
not be compensated for their service.  
The Access Board may pay travel  
expenses for a limited number of  
persons who would otherwise be unable  
to participate on the Committee.  
Committee members will serve as  
representatives of their organizations,  
not as individuals. They will not be  
considered special government  
employees and will not be required to  
file confidential financial disclosure  
reports.

After the applications have been  
reviewed, the Access Board will publish  
a notice in the **Federal Register**

<sup>1</sup> The Access Board is an independent Federal  
agency established by section 502 of the  
Rehabilitation Act of 1973, as amended, whose  
primary mission is to promote accessibility for  
individuals with disabilities. The Access Board



announcing the appointment of Committee members and the first meeting of the Committee. The Committee will operate in accordance with the Federal Advisory Committee Act, 5 U.S.C. app 2. The Office of Management and Budget has approved the Committee in accordance with Executive Order 12838. Committee meetings will be held in Washington, DC. Each meeting will be open to the public. A notice of each meeting will be published in the Federal Register at least fifteen days in advance of the meeting. Records will be kept of each meeting and made available for public inspection.

Although the Committee will be limited in size, there will be an opportunity for the public to present written information to the Committee and to comment at Committee meetings. Persons and organizations who are interested in particular sections of ADAAG, are encouraged to inform the Access Board of their interests. The Access Board will notify persons and organizations who indicate interest in particular sections of ADAAG when Committee meetings are scheduled to discuss those sections.

Authorized by vote of the Access Board on November 10, 1993.

Judith E. Heumann,  
Chairman, U.S. Architectural and  
Transportation Barriers Compliance Board.  
[FR Doc. 94-8230 Filed 4-5-94; 8:45 am]  
BILLING CODE 5150-01-P

## DEPARTMENT OF COMMERCE

### Agency Form Under Review by the Office of Management and Budget

DOC has submitted to the Office of Management and Budget (OMB) for clearance the following proposal for collection of information under the provisions of the Paperwork Reduction Act (44 U.S.C. Chapter 35).

Agency: Bureau of Export Administration.

Title: National Security Assessment of the Cartridge and Propellant Actuated Device Industry.

Agency Form Number: None.

OMB Approval Number: None.

Type of Request: New Collection.

Burden: 400 hours.

Number of Respondents: 50.

Avg Hours Per Response: 8 hours.

Needs and Uses: Information will be collected from 50 firms to assess the health and competitiveness of the Cartridge and Propellant Activated Device Industry. Recommendations will be made to maintain the viability of this critical industry.

**Affected Public:** Businesses or other for-profit institutions, small businesses or organizations.

**Frequency:** One time.

**Respondent's Obligation:** Mandatory.

**OMB Desk Officer:** Gary Waxman,  
(202) 395-7340.

Copies of the above information collection proposal can be obtained by calling or writing Edward Michals, DOC Forms Clearance Officer, (202) 482-3271, Department of Commerce, room 5327, 14th and Constitution Avenue, NW., Washington, DC 20230.

Written comments and recommendations for the proposed information collection should be sent to Gary Waxman, OMB Desk Officer, room 3208, New Executive Office Building, Washington, DC 20503.

Dated: March 31, 1994.

Edward Michals,

Departmental Forms Clearance Officer, Office of Management and Organization.

[FR Doc. 94-8251 Filed 4-5-94; 8:45 am]

BILLING CODE 3510-CW-F

## International Trade Administration

[A-357-804]

### Silicon Metal From Argentina; Amendment to Final Results of Antidumping Administrative Review

**SUMMARY:** On December 14, 1993, the Department of Commerce (the Department) published in the Federal Register the final results of administrative review of the antidumping duty order on silicon metal from Argentina. The results covered the period March 29, 1991 through August 31, 1992. For one firm, Silarsa, we are amending these final results due to a clerical error.

**EFFECTIVE DATE:** April 6, 1994.

**FOR FURTHER INFORMATION CONTACT:** Maureen McPhillips or John Kugelman at (202) 482-5253, Office of Antidumping Compliance, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW., Washington, DC 20230.

### SUPPLEMENTARY INFORMATION:

#### Background

On December 14, 1993, the Department of Commerce (the Department) published in the Federal Register (58 FR 65336) the final results of administrative review of the antidumping duty order on silicon metal from Argentina (57 FR 48779, September 26, 1991). The review covered the period March 29, 1991 through August 31, 1992.

Since Silarsa did not respond to the Department's request for cost of production and constructed value information, for the final results we relied on best information available (BIA) for Silarsa. As BIA, we used the dumping margin petitioners had constructed by using the information on the record of the review.

Subsequent to the publication of the final results, we received timely allegations of ministerial errors from Silarsa. Silarsa requested that we correct certain claimed errors in the calculation of Silarsa's cost of manufacturing (COM) and constructed value (CV), which affected the final margin we assigned to Silarsa. Silarsa pointed out that, contrary to basic accounting principles, the Department had erroneously double-counted the cost of materials by adding "1992 WIP (work in process)" and "1992 Finished Goods" to Silarsa's "1992 Purchases".

In response, petitioners stated that Silarsa's request was without foundation. Petitioners noted that the Department assigned Silarsa a BIA rate of 54.97% because Silarsa terminated its participation in the review only after the Department initiated a sales-below-cost investigation based on petitioners' allegations. Petitioners further asserted that the arguments raised by Silarsa in its clerical error allegation did not constitute the type of ministerial error discussed in 19 CFR 353.28(d), which covers ministerial errors of a clerical or arithmetic nature.

Petitioners contended that Silarsa argued its case in its rebuttal brief and in its December 23, 1993, clerical error allegation. In petitioners' view, this attempt by Silarsa to bring its post-decision reargument of its case under the guise of allowing for identification of ministerial errors is an abuse of that rule and should be rejected.

On March 2, 1994, the Court of International Trade (CIT), in *Silarsa S.A. v. United States* (Court No. 94-01-00030), issued an order remanding the final results of the 1991-1992 administrative review of the antidumping duty order on silicon metal from Argentina for the correction of ministerial errors. We agreed with Silarsa and the CIT that certain inventory items were double-counted in petitioners' calculation of Silarsa's cost of materials. On March 17, 1994, the Department submitted its redetermination on remand to the CIT. On March 24, 1994, the CIT affirmed the Department's redetermination on remand.





## United States Architectural and Transportation Barriers Compliance Board

1331 F Street, NW • Washington, DC 20004-1111 • 202-272-5434 (Voice) • 202-272-5449 (TDD) • 202-272-5447 (FAX)

APR 21 1994

Dr. Alexander Vachon, Legislative Assistant  
Senator Robert Dole  
Washington, D.C. 20510-1601

Dear Dr. Vachon:

As you know, the Access Board is charged with developing accessibility guidelines under the Americans with Disabilities Act. Recently, the Board published three important notices in the Federal Register which I would like to bring to your attention.

On March 30, 1994, the Board published a notice that outlines the research projects that will be awarded in this fiscal year. This notice also requests comments on proposed research priorities for fiscal years 1995 and 1996. Our goal in setting these proposed research priorities is to enhance our understanding of the difficult accessibility issues which will be the subject of upcoming rulemaking and to improve the technical assistance which the Access Board provides regarding the Americans with Disabilities Act Accessibility Guidelines (ADAAG).

The Access Board also published, on April 6, 1994, a notice of intent to establish an ADAAG Review Advisory Committee. The goal of this Committee will be to provide recommendations to the Board for improving ADAAG. The Committee will be asked to provide recommendations in three areas: editorial changes to make the document more user-friendly, substantive improvements including reconciling the differences between ADAAG and other model codes and standards, and future plans to ensure that ADAAG and other model codes and standards benefit from a productive relationship. The Board expects that this process will yield a state-of-the-art document that may serve as the basis for a single, unified accessibility standard. Interested organizations are invited to submit applications to the Board by June 6, 1994.

Finally, on April 12, 1994, the Board issued a final rule to temporarily suspend ADAAG requirements for detectable warnings at curb ramps, hazardous vehicular areas, and reflecting pools until July 26, 1996. This final rule was issued jointly with the Department of Transportation and the Department of Justice. I am enclosing a recent *Technical Assistance Bulletin* that explains why detectable warnings were originally included in ADAAG and explains why this provision is being temporarily suspended. The Access Board is currently conducting additional research on detectable warnings.

I hope that you and your staff find this information helpful. Should you have a question about any of these documents, please feel free to contact the Access Board's Legislative Analyst, Ms. Kathy Roy Johnson at (202) 272-5434, extension 15.

Sincerely,

Lawrence W. Roffe  
Executive Director

Enclosures



On April 12, 1994, the Access Board published a joint final rule with the Departments of Justice (DOJ) and Transportation (DOT) to suspend temporarily--until July 26, 1996--requirements for detectable warnings at curb ramps, hazardous vehicular areas, and reflecting pools. This action does not affect the ADAAG requirement for detectable warnings at transit platforms, which remains in effect.

The landmark Americans with Disabilities Act (ADA), enacted on July 26, 1990, provides comprehensive civil rights protections to individuals with disabilities in the areas of employment (title I), State and local government services (title II), public accommodation and commercial facilities (title III), and telecommunications (title IV). Both the Department of Justice and the Department of Transportation, in adopting standards for new construction and alterations of places of public accommodation and commercial facilities covered by title III and public transportation facilities covered by title II of the ADA, have issued implementing rules that incorporate the **Americans with Disabilities Act Accessibility Guidelines (ADAAG)**, developed by the Access Board.

#### **U.S. Architectural and Transportation Barriers Compliance Board**

## **BULLETIN #1: DETECTABLE WARNINGS**

### **Why were detectable warnings developed?**

A detectable warning is a standardized surface that incorporates small truncated domes at closely-spaced intervals (see Plan and Section illustrations). The use of distinctively-textured paving patterns as signaling and wayfinding devices for the foot or cane of pedestrians who have vision impairments was pioneered in Japan in the mid-1960s. Today, curb ramps and grade-level crossings at intersections in many Japanese cities are marked by installations of bright yellow tiles with an alternating pattern of raised truncated domes. Similar wayfinding tiles with raised ridges mark routes and stopping points along sidewalks and in transit stations to assist travellers who are blind or who have low vision.

Persons with little or no usable vision depend upon environmental cues--ambient sounds, edges and other physical elements that can be sensed by a cane, and texture changes underfoot--for safe and independent travel. People with low vision can also use color contrast as a navigation aid.

When raised curbs do not mark and separate the pedestrian route on a sidewalk from the vehicular way, as at curb ramps, vehicle drop-offs, or depressed corners at intersections, it is difficult for some pedestrians to discern the boundary between pedestrian safety and hazard.

Several research projects tested textured walking surfaces in the United States in the 1980s. One study compared the detectability of the truncated dome pattern with other textured surfaces. Several pilot installations of raised-pattern tiles in a strip along the edge of a transit platform tested their utility, maneuverability, and safety on level surfaces at drop-offs.

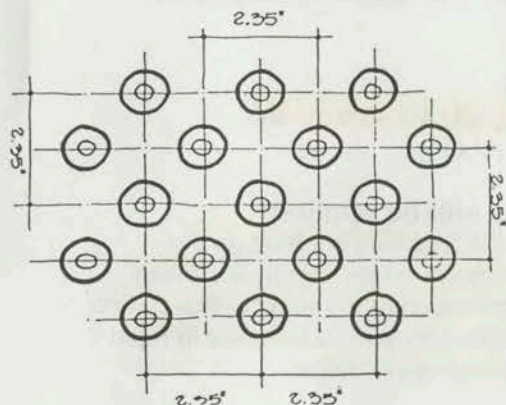
### **ADAAG 3.3 Definitions.**

#### **Detectable Warning.**

A standardized surface feature built in or applied to walking surfaces or other elements to warn visually impaired people of hazards on a circulation path.

#### **4.1.3 (15) New Construction.**

Detectable warnings shall be provided at locations as specified in 4.29.



**PLAN of TRUNCATED DOMES**  
(not to scale)



#### **ADAAG 4.7.7 Detectable Warnings.**

A curb ramp shall have a detectable warning complying with 4.29.2. The detectable warning shall extend the full width and depth of the curb ramp.

#### **ADAAG 4.29.2 Detectable Warnings on Walking Surfaces.**

Detectable warnings shall consist of truncated domes with a diameter of nominal 0.9 in (23 mm), a height of nominal 0.2 in (5 mm) and a center-to-center spacing of nominal 2.35 in (60 mm) and shall contrast visually with adjoining surfaces, either light-on-dark, or dark-on-light.

The material used to provide contrast shall be an integral part of the walking surface. Detectable warnings used on interior surfaces shall differ from adjoining walking surfaces in resiliency or sound-on-cane contact.

#### **ADAAG 4.29.5 Detectable Warnings at Hazardous Vehicular Areas.**

If a walk crosses or adjoins a vehicular way, and the walking surfaces are not separated by curbs, railings, or other elements between the pedestrian areas and vehicular areas, the boundary between the areas shall be defined by a continuous detectable warning which is 36 in (915 mm) wide, complying with 4.29.2.

#### **ADAAG 4.29.6 Detectable Warnings at Reflecting Pools.**

The edges of reflecting pools shall be protected by railings, walls, curbs or detectable warnings complying with 4.29.2.

Findings of the studies conducted prior to the publication of scoping requirements and technical specifications for detectable warnings in the *ADA Accessibility Guidelines* indicated that maximum effect was achieved:

- when the warning texture was unique, so that it would not be confused with other commonly-encountered surfaces in the environment;
- when its location adjoined or abutted the hazard, where it could signal an impending change, and
- when it extended beyond the average stride in length, so that it allowed the pedestrian to sense it physically, understand its meaning, and react appropriately before the hazard was encountered.

Additionally, a high visual contrast at pedestrian and vehicular hazards was recommended by these and other research studies. ADAAG scoping for detectable warnings and the technical specifications for the truncated domes they require were developed to alert pedestrians of an imminent hazard and were not intended for use as wayfinding devices.

#### **Why have some applications of detectable warnings been temporarily suspended?**

The Access Board, in response to business and user concerns about the need for and safety of truncated domes on curb ramps and at hazardous vehicular areas, has determined that additional research is needed to determine whether changes to ADAAG requirements for detectable warnings may be necessary. A research project involving a large number of test subjects has been initiated under Board sponsorship. It is anticipated that findings from this and other research will assist the Access Board in determining both the need for and usability of current technical specifications for detectable warnings, particularly those applied to sloping surfaces at curb ramps, and to complete rulemaking in this area prior to the July 26, 1996 expiration date of the temporary suspension.

#### **What scoping requirements have been suspended?**

ADAAG scoping at 4.1.3(15) requires that detectable warnings be provided "at locations specified in 4.29." The temporary suspension includes these locations:

- on curb ramps (ADAAG 4.7.7);
- at hazardous vehicular areas (ADAAG 4.29.5), and
- at reflecting pools (ADAAG 4.29.6).

#### **Where must detectable warnings still be applied?**

The technical provisions of ADAAG 4.29.2 remain in effect as the standard for detectable warnings at platform edges in transit stations, as required in ADAAG 10.3.1(8). Since much of the early research into detectable warnings was conducted where they were installed in rapid rail systems, abundant data exist on these applications.



**ADAAG 10.3 Fixed Facilities and Stations.**

**10.3.1 New Construction.**

[...]

**(8) Platform edges bordering a drop-off and not protected by platform screens or guard rails shall have a detectable warning. Such detectable warnings shall comply with 4.29.2 and shall be 24 inches wide running the full length of the platform drop-off.**

Platform edges in new and altered rapid, light, commuter, and intercity rail stations must have detectable warnings. Additionally, key rapid, light, and commuter rail stations and all intercity rail stations must install detectable warnings where platform edges are not otherwise protected by screens or guardrails.

The detectable warning must be placed at the platform edge and must extend the full length of the platform in a 24-inch width. The 24-inch requirement is an absolute dimension, not a minimum. Where a breakaway material is installed at the platform edge, the width of the detectable warning surface may begin at the edge of the breakaway material rather than at the edge of the platform. Since the sway--the "dynamic envelope"--of some commuter rail cars may overlap a platform edge, the area of the detectable warning installation should not be considered a safety zone but rather an indication of an adjacent drop-off or platform edge.

Interior applications require that the warning feature provide contrast in resilience or in sound when sensed by a cane. The domes and their matrix must also offer a strong visual contrast to adjacent pedestrian surfaces. Although ADAAG does not specify values for light-on-dark or dark-on-light contrast, a 70% figure is recommended in the Appendix.

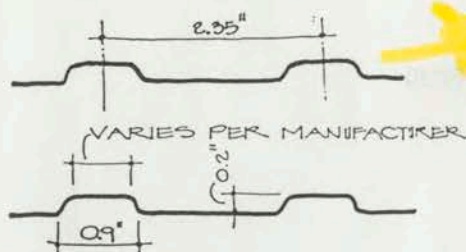
**What is the new deadline for key station retrofits requiring detectable warnings under the DOT rule?**

On November 30, 1993, the Department of Transportation amended its ADA regulation to extend the compliance date for retrofitting key rail stations with detectable warnings. The new deadline is July 26, 1994. For further information on this rulemaking, which also affects procedures for requesting equivalent facilitation under the DOT rule, contact DOT at (202)366-1656 (V) or (202)755-7687 (TTY).

**Who makes detectable warnings?**

The Access Board has been advised by the following manufacturers that their products meet the technical specifications for detectable warnings. All proposed materials should be carefully evaluated against ADA guidelines for application, design and installation. The Access Board does not review plans, products or materials for ADA compliance and thus cannot certify the suitability of such products or systems for the purposes intended.

The Department of Transportation regulations governing public transportation services and facilities establish a procedure through which an agency--or manufacturer--may apply for a determination of equivalent facilitation for a design or technology that represents a departure from ADAAG technical or scoping provisions. DOT has granted equivalent facilitation for some surface treatment specifications whose geometry, spacing, or profile differ from detectable warning provisions in ADAAG; products meeting these specifications have been listed in this Bulletin as well. For more information, contact DOT at (202)366-1656 (V) or (202)755-7687 (TTY).



**SECTION thru TRUNCATED DOMES**  
(not to scale)



This listing is provided by the Access Board in the interests of information dissemination. The Access Board does not evaluate or certify products as complying with the requirements of any accessibility standard. Neither the Access Board nor the U.S. Government assumes liability for the contents of this list or its use, nor do they endorse manufacturers or their products. Trade or manufacturer's names appear herein solely because they are considered essential to the object of this Bulletin. This listing should not be construed as exhaustive or comprehensive, nor does inclusion on the list attest to the suitability of a specific product for a particular use. Readers are advised to obtain and review manufacturer's specifications, recommended applications, and installation instructions in order to evaluate each product for its intended use.

### **Applied Surfaces**

Applied Surfaces, Incorporated  
18 Overlook Avenue  
Rochelle Park, NJ 07662  
TEL: (201)836-5552 / FAX: (201)836-5552

Advantage Metal Systems  
685 Oak Street, Suite 13-1  
Brockton, MA 02401  
TEL: (508)580-5177 / FAX: (508)587-9510

Bridgeco Products Division  
Brio Industries Incorporated  
302 Maro Road  
Pasadena, MD 21122  
TEL: (800)466-4884; (301)261-2166

COTE-L Enterprises, Incorporated  
1542 Jefferson Street  
Teaneck, NJ 07666  
TEL: (201)836-9448 / FAX: (201)836-2290

COTE-L Midwest  
211 East Ohio, Suite 513  
Chicago, IL 60611  
TEL: (312)321-9068

Gene Falco Tool Supply  
88 Toledo Street  
Farmingdale, NY 11735  
TEL: (516)752-7550 / FAX: (516)752-7515

Increte Systems  
8509 Sunstate Street  
Tampa, FL 33634  
TEL: (800)752-4626 / FAX: (813)886-0188

Nation Wide Products Company  
P.O. Box 9031  
Fort Worth, TX 76147-2031  
TEL: (817)332-7217 / FAX: (817)335-1240

Rapidcrete Incorporated  
P.O. Box 16  
Syracuse, NY 13205  
TEL: (800)446-5338; (315)457-5338 / FAX: (315)451-2290

Strongwall Industries, Inc.  
P.O. Box 201  
Ridgewood, NJ 07451  
TEL: (201)445-4633 / FAX: (201)447-2317

***Masonry Unit Pavers/Bricks***

Hanover Architectural Products, Incorporated  
240 Bender Road  
Hanover, PA 17331  
TEL: (717)637-0500 / FAX: (717)637-7145

Hastings Pavement Company, Incorporated  
30 Commercial Street  
Freeport, NY 11520  
TEL: (516)379-3500 / FAX: (516)379-0570

Oldcastle, Inc.  
5600 Glenridge Drive, Suite 260W  
Atlanta, GA 30342  
TEL: (404)851-9484 / FAX: (404)851-9390

Superock Block Company  
3301 27th Avenue North  
P.O. Box 5326  
Birmingham, AL 35207  
TEL: (205)324-8624 / FAX: (205)324-8671

Whitacre-Greer Fireproofing Company  
P.O. Box 460  
Waynesburg, OH 44688-0460  
TEL: (216)866-9331 / FAX: (216)866-4208

***Metal Plate***

Advantage Metal Systems  
685 Oak Street, Suite 13-1  
Brockton, MA 02401  
TEL: (508)580-5177 / FAX: (508)587-9510

High Quality Manufacturing  
P.O. Box 208  
Woburn, MA 01801  
TEL: (617)935-8450 / FAX: (617)935-4958

***Precast Curb Ramps***

Steps Plus, Incorporated (NY sales only)  
Kravec Drive  
Syracuse, NY 13214  
TEL: (315)446-8050 / (315)449-0271

***Resilient Mats***

ADA Consultants, Incorporated  
P.O. Box 41029  
Raleigh, NC 27629-1029  
TEL: (919)872-4994 / FAX: (919)954-1015



Detectable Warnings/MSi  
17150 Newhope Street, Unit 106  
Fountain Valley, CA 92708-4200  
TEL: (800)897-9276; (714)966-0779 / FAX: (714)966-1226

MCW Industries  
East 12411 Empire Avenue  
Spokane, WA 99216  
TEL: (509)891-6342 / FAX: (509)927-1368

REHAU Incorporated  
P.O. Box 1706  
1501 Edwards Ferry Road  
Leesburg, VA 22075  
TEL: (703)777-5255 / FAX: (703)777-3053

### ***Stamping/Imprinting Systems***

Cobblecrete  
205 West 2000 South  
Madera, CA 93637  
TEL: (800)798-5791; (801)224-6662 / FAX: (801)225-1690

CT Concrete Company  
394 Whitehall Street  
Allentown, PA 18104  
TEL: (215)433-2757 / FAX: (215)433-3402

Increte Systems  
8509 Sunstate Street  
Tampa, FL 33634  
TEL: (800)752-4626 / FAX: (813)886-0188

Specialty Concrete Products  
P.O. Box 2922  
West Columbia, SC 29171  
TEL: (803)955-0707 / FAX: (803)955-0011

Stampcrete Decorative Concrete, Incorporated  
127 Ball Circle  
Syracuse, NY 13210  
TEL: (315)451-2837 / FAX: (315)451-2290

Stamprite  
1462 SW 12th Avenue  
Pompano Beach, FL 33069  
TEL: (305)946-6155 / FAX: (305)946-8049

### ***Tiles***

American Olean Tile Company  
Lansdale, PA 19446-0271  
TEL: (215)855-1111 / FAX: (215)362-6050

Bridgeco Products Division  
Brio Industries Incorporated  
302 Maro Road  
Pasadena, MD 21122  
TEL: (800)466-4884; (301)261-2166

Carsonite International  
1301 Hot Springs Road  
Carson City, NV 89701  
TEL: (800)648-7974 / FAX: (702)883-0525

Castek, Incorporated  
20 Jones Street  
New Rochelle, NY 10801  
TEL: (800)321-7870; (914)636-1000 / FAX: (914)636-1282

Crossville Ceramics  
Cumberland County Industrial Park  
Crossville, TN 38555  
TEL: (615)484-2110 / FAX: (615)484-8418

Dal-Tile Corporation  
6760 Gravel Avenue  
Alexandria, VA 22310  
TEL: (703)971-8485 / FAX: (703)971-8604

Engineered Plastics, Incorporated  
300 Pearl Street, #200  
Buffalo, NY 14202  
TEL: (800)682-2525; (716)842-6039 / FAX: (716)842-6049

Project Design USA, Incorporated  
1950 Old Covington Road  
Conyers, GA 30208  
TEL: (404)388-0552 / FAX: (404)388-0527

Safety Services, Incorporated  
1543 Del Plaza No. 3  
Baton Rouge, LA 70815  
TEL: (504)924-0010 / FAX: (504)928-3447

Summitville Tiles, Incorporated  
Summitville, OH 43962  
TEL: (216)223-1511 / FAX: (216)223-1414

Terra Clay Products, Incorporated  
926 26th Street  
West Palm Beach, FL 33407  
TEL: (407)655-3988 / FAX: (407)833-4629

**Bulletin #1**

**April 1994**

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**U.S. Architectural and Transportation Barriers Compliance Board  
The Access Board / 1331 F St, NW #1000 / Washington, DC 20004  
TEL: (800)USA-ABLE (202)272-5434 TTY: (202)272-5449**



# ARCHITECTURAL AND TRANSPORTATION BARRIERS COMPLIANCE BOARD

Americans With Disabilities Act  
Research Priorities for Fiscal Years  
1995 and 1996

AGENCY: Architectural and  
Transportation Barriers Compliance  
Board.

SUMMARY: The Architectural and  
Transportation Barriers Compliance  
Board (Access Board) announces its FY  
1994 research plan and requests  
comments and recommendations on  
research projects for FY 1995 and 1996.  
DATES: Comments should be received by  
May 31, 1994. Comments received after  
this date will be considered to the  
extent practicable.

ADDRESSES: Comments should be sent to  
the Office of Technical and Information  
Services, Architectural and  
Transportation Barriers Compliance  
Board, 1331 F Street, NW., suite 1000,  
Washington, DC 20004-1111. This  
document is available in accessible  
formats (cassette tape, braille, large  
print, or computer disc) upon request.  
Copies may be obtained from the Access  
Board by calling (202) 272-5434 (voice)  
or (202) 272-5449 (TTY).

FOR FURTHER INFORMATION CONTACT:  
Dave Yanchulis, Architectural and  
Transportation Barriers Compliance  
Board, 1331 F Street, NW., suite 1000,  
Washington, DC 20004-1111.  
Telephone (202) 272-5434 extension 27.  
(Voice) or (202) 272-5449 (TTY).

SUPPLEMENTARY INFORMATION: The  
Architectural and Transportation  
Barriers Compliance Board (Access  
Board) is an independent Federal  
agency responsible for developing  
minimum guidelines and providing  
technical assistance on accessibility.  
Although originally established to  
develop and enforce accessibility  
guidelines for facilities designed,  
constructed, or altered with certain  
Federal funds, the Access Board's  
responsibilities were significantly  
expanded with passage of the  
Americans with Disabilities Act (ADA)  
of 1990. The ADA prohibits  
discrimination on the basis of disability  
in both the public and private sector  
and affords persons with disabilities  
civil rights protections. Under this law,  
the Access Board is responsible for  
issuing minimum accessibility  
guidelines for places of public  
accommodation and commercial  
facilities in the private sector, State and  
local government facilities in the public  
sector, and transportation facilities and  
vehicles. In the summer of 1991, the

Access Board published the ADA  
Accessibility Guidelines (ADAAG) for  
Buildings and Facilities and the ADA  
Accessibility Guidelines for  
Transportation Vehicles. See 36 CFR  
parts 1191 and 1192. The Access Board  
is currently finalizing revisions to  
ADAAG for its extended application to  
State and local government facilities.

The Access Board has conducted  
research into various aspects of  
accessibility pertaining to architecture  
and design, communication, and  
transportation in order to meet its  
responsibilities for developing  
minimum design guidelines and  
providing technical assistance. Since  
enactment of the ADA, this research has  
focused on the ADA accessibility  
guidelines. The Access Board has  
undertaken projects to develop  
technical assistance and training  
materials on these guidelines and  
conducted research related to the  
development and implementation of the  
guidelines. Projects completed or  
currently underway include research on  
automated doors, access to assembly  
areas, access to communication in  
transit facilities for persons with hearing  
or visual impairments, communication  
for persons who are hard of hearing in  
restaurants, assessment of the need for  
detectable warnings, and evaluation of  
the specifications for ramps. The Access  
Board remains committed to research  
that ensures the ADA accessibility  
guidelines are consistent with  
technological advances, revisions to  
model codes and standards, and the  
needs of persons with disabilities and  
that provides the basis for the  
development of future guidelines.

## FY 1994 Research Plan

This year's program includes the  
following research and technical  
assistance projects:

### ADAAG Manual

Through the training and technical  
assistance it provides, the Access Board  
is aware of a strong continuing need for  
guidance on ADAAG. This project will  
develop a comprehensive manual that  
clarifies and interprets ADAAG for use  
by general and technical audiences.  
Recommendations on a subscription  
service for updates to the manual will  
also be developed as part of this project  
so that users of the manual can be  
systematically apprised of future  
revisions and additions to ADAAG. This  
project replaces a previously scheduled  
study on public information for persons  
with cognitive disabilities. Originally,  
the Access Board had decided to  
conduct research on symbols, signage,  
and information that effectively conveys

wayfinding information to individuals  
with cognitive disabilities. The  
Transportation Research Board (TRB) is  
currently undertaking a research project  
on this subject. Consequently, the  
Access Board has deferred research in  
this area pending the completion of the  
TRB study and will serve on its advisory  
panel.

### Design Requirements for Persons Using Powered Mobility Aids

Some of the provisions in ADAAG,  
such as those for clear floor space,  
maneuvering clearances, and reach  
ranges, are based on anthropometric  
data derived from studies involving  
persons using manual wheelchairs. In  
view of the increasing popularity and  
variety of powered mobility aids, this  
project will investigate design  
specifications appropriate for persons  
using powered wheelchairs, scooters,  
and other motorized mobility aids.

### Detectable Warnings

A project to study the need for  
detectable warnings on curb-ramps and  
at hazardous vehicular areas was  
awarded in FY 1993 and is currently  
underway. Based on the results of this  
study, which are due this summer,  
additional research on the appropriate  
specifications for such warnings may be  
undertaken as an optional task with FY  
1994 research funds.

This notice does not solicit contract  
applications for these projects. Requests  
for proposals for these projects (except  
the study on detectable warnings) will  
be published in the Commerce Business  
Daily this spring.

## FY 1995 and 1996 Research Priorities

The Access Board intends to continue  
to focus on issues and subjects related  
to the ADA accessibility guidelines in  
the conduct of FY 1995 and 1996  
research projects. This includes projects  
to study issues and areas that are  
scheduled for future rulemaking;  
provide information necessary in  
keeping the guidelines up to date;  
examine issues of compliance with  
certain requirements; and develop  
technical assistance materials that  
facilitate compliance with the  
guidelines. Consistent with these  
objectives, and in recognition of likely  
budgetary constraints, the Access Board  
has adopted the following priorities for  
the consideration of FY 1995 and 1996  
research projects:

### First Priority

Research on areas that are scheduled  
for future rulemaking. The Access Board



anticipates issuing guidelines on recreation areas, children's environments (a subject of research that has been completed), and for ferries, excursion boats, and other forms of water transportation. In addition, the Access Board is to undertake a process for reviewing ADAAG in its entirety and for reconciling substantive differences between the technical requirements of ADAAG and other national codes and standards such as the American National Standards Institute (ANSI) A117.1-1992 standard, a national consensus standard used by many States as an access code.

#### *Second Priority*

Research on existing provisions in the guidelines that lack specificity, such as "performance" standards which may specify a result without detailing acceptable alternatives for compliance. Research on these provisions can examine and assess various methods for compliance, including the study of new and emerging technologies offering additional solutions.

#### *Third Priority*

Re-evaluation of existing specifications that are based on research that is no longer representative of today's population of persons with disabilities.

The Access Board seeks comment on this prioritization as the basis for its FY 1995 and 1996 research agenda. Comments on other aspects of accessibility research policy are also welcome.

With respect to specific research subjects, the Access Board is considering projects on the following areas for FY 1995 and 1996. These are not listed in any order of priority:

#### *Access to Water Transportation*

Identification and analysis of design solutions for providing access to boats, ferries, and other water vessels that take into account recognized constraints.

#### *Swimming Pool Accessibility*

Review and analysis of methods and products for providing access into swimming pools in order to develop recommendations on requirements for such access.

#### *Emergency Communication Equipment*

Identification and analysis of alternatives for providing emergency communication equipment in elevators and areas of rescue assistance that is accessible to persons with hearing impairments and persons with visual impairments as required by ADAAG.

In addition, the Access Board anticipates using its FY 1995 and 1996 research budgets to fund additional projects related to the ADAAG manual such as the development and distribution of future updates.

The Access Board seeks comment on these projects as priorities for FY 1995 or 1996 and requests recommendations for other subjects of research related to the ADA accessibility guidelines that should be taken into consideration. These guidelines primarily contain new construction design criteria for buildings, facilities and transit vehicles and do not cover non-fixed elements or operational and maintenance issues. Commenters are encouraged to take into consideration the priorities the Access Board has adopted and to explain the need for each recommended project or research subject.

In addition, the Access Board is interested in information on research activities being planned or sponsored by other public and private organizations. Of particular interest is accessibility research related to design and architecture, products and elements such as lifts, transportation, communication, and the population of persons with disabilities, including demographic studies and anthropometric data.

Dated: March 23, 1994.

Judith E. Heumann

Chairman, The U.S. Architectural and Transportation Barriers Compliance Board.

[FR Doc. 94-7446 Filed 3-29-94; 8:45 am]

BILLING CODE 8150-01-P



# **THE EFFECT OF ADAAG ON THE BUILDING REGULATORY PROCESS AND THE PRIVATE SECTORS RESPONSE**

# The Effect Of ADAA On The Building Regulatory Process And The Private Sectors Response

**Building Officials and Code Administrators International, Inc.**  
**4051 WEST FLOSSMOOR ROAD ■ COUNTRY CLUB HILLS, ILLINOIS 60478-5795**  
**708/799-2300**

**6/94**



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## THE EFFECT OF ADAAG ON THE BUILDING REGULATORY PROCESS AND THE PRIVATE SECTORS RESPONSE

### General

BOCA, along with the other model codes and the Council of American Building Officials (CABO), addressed the issue of accessibility for persons with physical disabilities to our nation's buildings well before the advent of the Americans with Disabilities Act (ADA). The accessibility provisions now found in the *BOCA National Building Code/1993* and *BOCA National Plumbing Code/1993* as well as the referenced standard *CABO/ANSI A117.1-1992* are the product of the model code and consensus national standards development processes, and not the reactive, wholesale adoption of a federal civil rights law. The Americans with Disabilities Act Accessibility Guidelines (ADAAG) has an undeniably valid goal, accessible buildings, but is fundamentally inconsistent with contemporary building regulatory methods. The enforcement tool for a civil rights law is ineffective in achieving the end result of assuring that buildings, on a wide spread basis, comply with accessibility requirements when they are built. Consequently, ADAAG has put the construction industry and state and local code enforcement in a legal quandary of unprecedented impact on the participants in the construction industry.

### A. Incompatibility of ADAAG with Traditional or Contemporary Code Enforcement Methods

First, ADAAG serves as part of the regulations of a civil rights statute. Accordingly, it contains a number of provisions that are non-code items, i.e., items not enforceable in the traditional building regulatory framework. For instance, ADAAG specifies the clearance between a bed and an opposing wall in hotel guest rooms. ADAAG also requires that accessible dining room seating be dispersed between the designated smoking and non-smoking areas. Clearly, these concerns fall beyond the control of a state or local code enforcement official whose enforcement activities are concluded prior to the tenant or owner taking possession and furnishing the space.

Second, some of ADAAG is written in permissive language. "It is preferable that all [building] entrances be accessible..." is undoubtedly true, yet not enforceable through a building code. What is lacking is a specific enforceable criteria for the requirement. Additionally, many of the requirements are followed by examples or "laundry lists" of affected elements. Again, this adds bulk to ADAAG which would be inappropriate in a code by virtue of the probable absence of a pertaining item in the laundry list.

Third, there are some instances in which ADAAG and the codes are clearly at odds. For instance, the number of accessible guest rooms in a hotel with 100 total units would be 2 under the *BOCA National Building Code* and 5 under ADAAG. These areas of discrepancy were reviewed in open meetings under the sponsorship of CABO-BCMC, where it was determined that the more restrictive requirements of ADAAG



## Page 2

were not substantiated by need, research or existing building use. In most instances, these substantive differences between ADAAG and the codes will be where local amendments will be necessary prior to a state or local jurisdiction applying for certification.

Finally, there are instances in which the model codes exceed ADAAG, religious entities, for example, are not exempt from accessibility requirements. The model codes view the need for accessibility in such occupancies as churches, parochial schools, etc. to be at least as important as in other occupancies.

The code enforcement community, and numerous other interested and affected parties have invested considerable time and effort to address accessibility in buildings through the BCMC and A117 standard process. At the same time, they have attempted to help appropriate federal agencies recognize the means by which the goals of ADAAG can be achieved through reliance the private sector efforts. The construction industry, state and local jurisdictions and ultimately people with disabilities — who are the intended benefactors of the ADA — would be better served if a vehicle for recognition and acceptance by DOJ of the model code/consensus standard process was found or, if necessary, developed and implemented.

### B. The Model Code Response to ADAAG

The Americans with Disabilities Act Accessibility Guidelines (ADAAG) are part of the DOJ regulations for Title III of the act. ADAAG was developed by the U.S. Architectural and Transportation Barriers Compliance Board (The Access Board), which began work on the document immediately after President Bush signed the bill into law in July of 1990. The final ADAAG was published in July 26, 1991.

Fearing the development of two, contradictory sets of accessibility requirements — one from DOJ, the other in building and plumbing codes adopted and enforced by state and local jurisdiction throughout the United States — the model codes encouraged the Access Board to use the work of the BCMC<sup>1</sup> and the A117

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<sup>1</sup> **The BCMC Process:** In 1988, the CABO Board for the Coordination of Model Codes (CABO-BCMC) began the process of developing accessibility requirements to be recommended to the respective code bodies of the BCMC's members - BOCA, Southern Building Code Congress International (SBCCI), International Conference of Building Officials (ICBO) and National Fire Protection Association (NFPA). This accessibility report scoped the technical requirements of ANSI A117.1-1986, and eventually included life safety provisions (accessible means of egress, areas of refuge) for persons with disabilities.

The involvement of persons with disabilities and their representatives in creating the CABO-BCMC accessibility report was unprecedented, leading to the protracted dialogue which, in 1991, resulted in the final BCMC report. BOCA representatives submitted the report as proposed code changes in the 1991 BOCA Code Development Cycle and the final package was approved in September of 1991. Further refinements were subsequently accomplished in the 1992 Code Development cycle. The *1993 BOCA National Building and Plumbing Codes* reflect the five years of deliberation which the model code and disability groups invested in the development of accessibility requirements.



Committee<sup>2</sup>, incorporating these documents into the final ADAAG. Citing its charge from Congress to develop guidelines consistent with the 1984 Uniform Federal Accessibility Standards, the Access Board declined the incorporation of the BCMC Accessibility Report or the A117.1 Standard. However, many of the ADAAG requirements (e.g., the area of rescue assistance provisions) were taken directly from the BCMC, and a number of the new requirements in the A117 draft (e.g., visible alarm appliances) were incorporated in ADAAG.

The BCMC and A117 Committee responded in kind. Though both were virtually finished with their respective documents, each group performed a comprehensive, side-by-side analysis of its document and ADAAG, incorporating many of the ADAAG requirements in the final draft. The CABO A117 Committee completed its work in June, 1992. The BOCA representatives to the BCMC introduced its changes into the 1992 BOCA Code Development Cycle. The result is a set of accessibility requirements in the *BOCA National Building and Plumbing Codes/1993* which largely meet or exceed the construction requirements of the Americans with Disabilities Act.

### C. Where Are We Now?

The *BOCA National Building and Plumbing Codes/1993* have been forwarded to DOJ for review and comment, as has the *CABO A117.1-1992* standard. The DOJ Title III regulations do not allow model codes and standards to be certified as equivalent to ADAAG, but the response from DOJ would be a first step toward streamlining and making more cost-effective the process of evaluating applications for certification by state and local jurisdictions which use the BOCA Codes. To date, DOJ has not responded beyond acknowledgement of receipt of these requests. We are looking forward to the federal agencies acknowledging and acting on the opportunity that exists to right the ship and recognize how the private sector efforts can be a solution to the current dilemma.

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<sup>2</sup> The CABO/ANSI A117.1 Accessibility Standard: As the ANSI A117.1-1986 Standard approached ANSI's five year deadline for revision, CABO assumed the role of Secretariat for the Standard. Beginning in 1989, the A117 Committee undertook an exhaustive review of the technical provisions of the standard, as well as the research and technology which had evolved since 1986 and had a bearing on the A117 requirements. Representatives from BOCA played a key role in the development of the new edition of the standard. By the fall of 1991, the document was nearly complete.





June 8, 1994

## EVENTS IN DEVELOPMENT OF ACCESSIBILITY PROVISIONS IN THE BOCA NATIONAL CODES

**June, 1974** - BOCA adopts comprehensive scoping and technical requirements for accessibility in the BOCA Basic Building Code/1975. The provisions departed substantially from ANSI A117.1-1961 which had been judged by many, including those in the barrier free architecture field, to be outdated and inadequate.

**November, 1980** - ANSI A117.1-1961 is updated and issued as ANSI A117.1-1980. BOCA lists ANSI A117.1-1980 in Appendix B of the BOCA Basic Building Code/1981.

**January, 1981** - BOCA Basic Building and Plumbing Codes/1981 comprehensively cover accessibility based on ANSI A117.1-1980. BOCA relocates accessible plumbing facility requirements from the BOCA Basic Building Code to the BOCA Basic Plumbing Code.

**September, 1986** - ANSI A117.1-1980 updated and issued as ANSI A117.1-1986.

**December, 1987** - BOCA updates the BOCA National Building and Plumbing Codes/1987 to reference ANSI A117.1-1986.

**September, 1988** - BOCA updates the BOCA National Plumbing Code to coordinate accessible plumbing fixture requirements with ANSI A117.1-1986.

**July, 1990** - The Americans with Disabilities Act (ADA) is signed into law.

**October, 1990** - The Council of American Building Official's Board for the Coordination of the Model Codes (CABO-BCMC) issues scoping provisions for accessibility after thorough review of ADAAG scoping.

**July, 1991** - The Access Board issues final rule publishing the Americans with Disabilities Act Accessibility Guidelines (ADAAG). The U.S. Department of Justice (DOJ) concurrently adopts ADAAG.

**September, 1991** - BOCA comprehensively updates all accessibility provisions for the 1992 Accumulative Supplement to the BOCA National Building and Plumbing Codes/1990 based on the CABO-BCMC October, 1990 recommended scoping provisions, reflecting substantial agreement with ADAAG.

**June, 1992** - CABO-BCMC updates its recommended scoping provisions after thorough review of the Federal Fair Housing Amendments Act (FHAA) and further review of ADAAG.

**August, 1992** - CABO submits to the DOJ the final draft of A117.1-1992, the CABO-BCMC scoping provisions and a comparison of those documents with ADAAG requesting technical review in accordance with Section 36.608 of 28 CFR Part 36, Subpart F, Certification of State Laws or Local Building Codes. No response has been received to date.

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**September, 1992** – BOCA updates accessibility provisions for the BOCA National Building and Plumbing Codes/1993 based on the 1992 BCMC recommended scoping provisions, reflects a substantial agreement with ADAAG and the FHAA. The reference to ANSI A117.1-1986 is updated to CABO/ANSI A117.1-1992.

**December, 1992** – CABO assumes the secretariat of ANSI A117.1 and updates ANSI A117.1-1986 and issues CABO/ANSI A117.1-1992. The updating process considered a comprehensive comparison of CABO/ANSI A117.1 and ADAAG and reflects a substantial agreement between CABO/ANSI A117.1-1992 and ADAAG.

**October, 1993** – BCMC updates its recommended scoping provisions for residential dwelling units based on the Federal Fair Housing Amendments Act (FHAA), CABO/ANSI A117.1-1992 and the work of the CABO/ANSI A117.1 Residential Task Force.

**November, 1993** – Proposed changes are submitted to BOCA to update the residential accessibility provisions in the BOCA National Codes/1993 based on the October, 1993 BCMC recommendations. The Code Development Committee recommended approval in March, 1994. Final action by the BOCA membership will be taken in September, 1994.

**December, 1993** – BOCA submits to DOJ the accessibility provisions of the BOCA National Building and Plumbing Codes/1993 and a comprehensive comparison of those documents with ADAAG for technical review in accordance with Section 36.608 of 28 CFR Part 36, Subpart F. No response beyond acknowledgement of receipt has been received to date.





BUILDING OFFICIALS AND CODE  
ADMINISTRATORS INTERNATIONAL, INC.  
SOUTHERN BUILDING CODE  
CONGRESS INTERNATIONAL, INC.  
INTERNATIONAL CONFERENCE OF  
BUILDING OFFICIALS



# Council of American Building Officials

5203 LEESBURG PIKE • FALLS CHURCH, VA 22041  
(703) 931-4533 • FAX (703) 379-1546

RICHARD P. KUCHNICKI  
PRESIDENT

August 17, 1992

Ms. Irene Bowen, Deputy Director  
U.S. Department of Justice, Civil Rights Division  
Office on the Americans with Disabilities Act  
320 First Street, N.W.  
Room 838  
Washington, DC 20001

Dear Irene:

In accordance with our informal agreement on March 5, we are transmitting for your technical review a copy of the ANSI A117.1 Final Draft dated June 15, 1992, the companion CABO/BCMC scoping recommendations, and comparisons of those documents with ADAAG to identify significant differences.

We felt it would be premature to isolate those items that are candidates for rule-making until such time that you have reviewed this transmittal with your own findings. A subsequent meeting, similar to the one we had March 5, is requested to discuss further cooperative action.

We will appreciate your early response to this transmittal so it can be transmitted to the memberships of the three model codes at their annual conferences. At that time, the model codes will each take final action on approval of code change submittals reflecting the BCMA and ANSI documents. The first of these conferences is ICBO's in Dallas the week of August 30.

Sincerely,

A handwritten signature in cursive script that reads 'Dick'.

Richard P. Kuchnicki  
President

RPK/bc

cc: Joseph Bertoni, BOCA  
J. Lee Hauser, SBCCI  
James Manson, ICBO  
Clarence Bechtel, BOCA  
James Bihr, ICBO  
William Tangye, SBCCI  
William Stone, CABO Chairman

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THE COUNCIL OF AMERICAN BUILDING OFFICIALS IS DEDICATED TO PUBLIC SAFETY IN THE BUILT ENVIRONMENT THROUGH  
THE DEVELOPMENT AND USE OF THE MODEL CODES PRODUCED BY ITS CONSTITUENT ORGANIZATIONS. ENHANCEMENT OF PROFESSIONALISM  
IN CODE ADMINISTRATION, AND FACILITATING ACCEPTANCE OF INNOVATIVE BUILDING PRODUCTS AND SYSTEMS



**COMPARISON BETWEEN ANSI A117.1-1992 & ADAAG**  
 (ADAAG scoping statements not included.)

| <u>ANSI<br/>Section</u> | <u>ADAAG<br/>Section</u> | <u>Differences/Comments</u>                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------------|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4.2.6.1                 | 4.2.6                    | ANSI low side reach is 15 in; ADAAG is 9 in.                                                                                                                                                                                                                                                                                                                                                                          |
| 4.3.3                   | 4.3.3                    | ADAAG cites 4.13.6 on maneuvering space at doors.                                                                                                                                                                                                                                                                                                                                                                     |
| 4.3.7                   | 4.3.8                    | ADAAG allows wheelchair lifts on accessible routes.                                                                                                                                                                                                                                                                                                                                                                   |
| 4.3.10                  | 4.8.5<br>4.9.4<br>4.2.6  | ANSI space between handrail and adjacent surface is 1 1/2 in; ADAAG is 1 1/2 absolute; ADAAG allows handrails in recess; ADAAG requires handrails to be 1 1/4 to 1 1/2 in OD and ANSI is 1 1/4 to 2 in.                                                                                                                                                                                                               |
| 4.3.11(4)               | 4.9.4(2)                 | ADAAG requires 12 in stair handrail extension at bottom; ANSI requires 12 in extension if guard or wall is located so as to accept the extension.                                                                                                                                                                                                                                                                     |
|                         | 4.7                      | ADAAG requires detectable warnings.                                                                                                                                                                                                                                                                                                                                                                                   |
| 4.8.2                   | 4.8.2                    | ADAAG calls for least possible slope.                                                                                                                                                                                                                                                                                                                                                                                 |
| 4.8.7                   | 4.8.7                    | ANSI curb is 4 in high; ADAAG is 2 in.                                                                                                                                                                                                                                                                                                                                                                                |
| 4.9.4                   | 4.9.4                    | See comments on 4.3.10. ANSI has exception for aisle stairs and aisle ramps.                                                                                                                                                                                                                                                                                                                                          |
| 4.10.1.9                | 4.10.9                   | ADAAG specifies min car dimensions; ANSI has performance statement.                                                                                                                                                                                                                                                                                                                                                   |
| 4.10.1.14               | 4.10.14                  | ADAAG restricts reach to 48 in; ANSI allows use of either reach.                                                                                                                                                                                                                                                                                                                                                      |
| 4.12                    | 4.12                     | ANSI criteria requires window hardware to comply with operable parts requirements.                                                                                                                                                                                                                                                                                                                                    |
| 4.13.4                  | 4.13.4                   | ANSI does not apply to double doors at storage areas.                                                                                                                                                                                                                                                                                                                                                                 |
| 4.13.6.16               | 4.13.6                   | ANSI exempts all 44 in wide min hospital doors from maneuvering clearances; ADAAG exempts doors to "acute care" rooms only.                                                                                                                                                                                                                                                                                           |
| 4.13.9                  | 4.13.9                   | ADAAG limits door hardware mounting height to 48 in.                                                                                                                                                                                                                                                                                                                                                                  |
| 4.13.14                 |                          | ADAAG does not have these requirements for doors in buildings but does have similar provisions for Transportation Facilities in sections 10.3.1(7) and 10.4.1(5).                                                                                                                                                                                                                                                     |
| 4.15.2.2<br>4.15.2.3    | 4.15.3                   | ANSI criteria is 3 in from front edge for spout with water stream at 30 degrees max from front of unit for parallel approach for all fountain shapes; ADAAG is 3 in for any approach for round and oval shapes or "at the front" for other shapes for water flow essentially parallel to front of unit. For front approach, ANSI criteria is 5 in max from front edge for spout with 15 degrees max for water stream. |
| 4.16.2                  | 4.22.2                   | ADAAG does not permit door to swing into clear floor space for any fixture.                                                                                                                                                                                                                                                                                                                                           |
| 4.16.6                  | 4.19.6                   | Above lavatories and sinks, ANSI requires bottom edge of mirror to be 38 in max from floor; ADAAG is 40 in max. In dressing room ANSI requires bottom edge to be 18 in max above the floor.                                                                                                                                                                                                                           |

|          |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|----------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4.17.2   | 4.16.2 | ANSI requires 48 in in front of water closet and 42 in from water closet centerline to nearest obstruction on side of water closet not adjacent to a wall in all cases.                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 4.17.3.2 | 4.16.4 | ANSI allows 24 in min grab bar behind water closet; ADAAG requires 36 in min.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 4.17.6   | 4.16.6 | ANSI requires toilet paper dispenser to be 7 to 9 in in front of water closet with outlet to be 15 to 48 in above floor and min clearance of 1 in below and 12 in above the grab bar.                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 4.18     | 4.17   | ANSI specifies a 60 in wide stall only for wheelchair accessibility; ADAAG allows 36 in and 48 in wide stalls for wheelchairs. ANSI limits 36 in wide stall to ambulatory accessibility. ANSI requires a handle on the inner side of the door or self-closing hinges. ANSI calls out reach heights for coat hooks and fold-down shelves.                                                                                                                                                                                                                                                                                                            |
| 4.21.2   | 4.20.2 | ANSI sets 30 in by 93 in clear floor space for parallel approach to tub with a permanent seat; ADAAG is 30 in by 75 in.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 4.21.3   | 4.20.3 | ANSI specifies 15 in wide min for permanent seat at head of tub; ADAAG is 15 in absolute in Fig. 33 and 15 in max in Fig. 34.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 4.21.6   | 4.20.6 | ANSI allows use of adjustable height shower head on a vertical bar.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 4.21.8   |        | ANSI sets tub rim height at 17 in to 19 in.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 4.22.3   | 4.21.3 | ANSI requires rear edge of seat to be 2 1/2 in from the seat wall (ADAAG is 1 1/2 in) and sets max/min for other dimensions (ADAAG sets max only) so seat will not be too narrow. If a seat is provided in a roll-in shower stall, ADAAG requires it to be a folding type and be mounted on wall adjacent to controls.                                                                                                                                                                                                                                                                                                                              |
| 4.22.6   | 4.21.6 | In transfer type stall, ANSI allows controls and shower unit to be mounted within 15 in of centerline of seat; ADAAG requires mounting on wall centerline.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 4.23.3   | 4.25.3 | ADAAG restricts high reach to 48 in when the distance between a wheelchair and a shelf or clothes rod exceeds 10 in; ANSI allows the use of either the 48 or 54 in reach.                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 4.26.2   | 4.28.2 | ANSI requires sound duration of 30 seconds; ADAAG requires 60 seconds. ADAAG requires weighting against the "A" scale.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 4.26.3   | 4.28.3 | ADAAG requires lamps to be 75 candela for all applications; ANSI allows varying intensity. ADAAG would provide greater intensity in corridors and rooms up to 40 feet square; ANSI would provide greater intensity in rooms greater than 40 feet square and in sleeping rooms. ANSI requires appliances to be within 15 ft of end of corridor. ANSI requires flash rate to be 0.33 Hz; ADAAG is 1 Hz min. ANSI specifies appliance to be 80 in to 96 in above floor; ADAAG is 80 in above highest floor level or 6 in below ceiling, whichever is lower. ANSI specifies for awake and asleep modes with higher intensity appliances for the latter. |
| 4.27     | 4.29   | ADAAG describes detectable warnings and requires them on curb ramp, hazardous vehicular areas, and at reflecting pools. ANSI calls for standardization within a building, site, etc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                |



|                  |        |                                                                                                                                                                                                           |
|------------------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4.28.3           | 4.30.3 | ANSI specifies varying character heights relative to mounting height and for building directories; ADAAG specifies only for mounting height of 80 in and above.                                           |
| 4.28.4<br>4.28.6 | 4.30.4 | ANSI specifies Braille comply with Specification #800, National Library Service and be separated by 1/2 in, except for elevator control buttons separation is 3/16 in. ADAAG requires verbal description. |
| 4.28.7           | 4.30.6 | ADAAG requires sign mounting such that a person will not encounter protruding object or be within the swing of a door.                                                                                    |
| 4.32.6           | 4.33.6 | In motion picture theaters, ANSI allows fixed seats to be located any where that allows a complete view of the screen.                                                                                    |

| BCMC SCOPING PROVISIONS                                                                                                                                                                                                                                                                                                                                                                          |                                              |                               |                                              |        |    |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|-------------------------------|----------------------------------------------|--------|----|
| General exceptions to scope: Areas where work cannot reasonably be performed by persons having a severe impairment (mobility, sight or hearing) are not required to have the specific features providing accessibility to such persons. (1.1, Excep. 1)                                                                                                                                          |                                              |                               |                                              |        |    |
| Details, dimensions and construction specifications for items herein shall comply with the requirements set forth in the American National Standards Institute standard CABO/ANSI A117.1-1992, "Accessible and Usable Buildings and Facilities." (1.3)                                                                                                                                           |                                              |                               |                                              |        |    |
| In other than the offices of health care providers, transportation facilities and airports, and multitenant Group M occupancies, floors that are above and below accessible levels, and that have an aggregate area of not more than 3000 square feet, and an aggregate occupant load of not more than 50, need not be served by an accessible route from an accessible level. (3.1.2, Excep. 2) |                                              |                               |                                              |        |    |
| BCMC recommendations require all stairs to comply with stair provisions that essentially are the same as in ANSI A117.1.                                                                                                                                                                                                                                                                         |                                              |                               |                                              |        |    |
| No equivalent allowance for valet parking.                                                                                                                                                                                                                                                                                                                                                       |                                              |                               |                                              |        |    |
| <p style="text-align: center;"><b>TABLE 3.2</b></p> <table> <tr> <th>Total Parking Spaces Provided</th><th>Required Minimum Number of Accessible Spaces</th></tr> <tr> <td>1 to 5</td><td>1§</td></tr> </table> <p>§The accessible space shall be provided but need not be designated as reserved for physically disabled.</p>                                                                   |                                              | Total Parking Spaces Provided | Required Minimum Number of Accessible Spaces | 1 to 5 | 1§ |
| Total Parking Spaces Provided                                                                                                                                                                                                                                                                                                                                                                    | Required Minimum Number of Accessible Spaces |                               |                                              |        |    |
| 1 to 5                                                                                                                                                                                                                                                                                                                                                                                           | 1§                                           |                               |                                              |        |    |
| Not less than 50% of the entrances shall be accessible.<br>EXCEPTION: Loading and service entrances. (4.1)                                                                                                                                                                                                                                                                                       |                                              |                               |                                              |        |    |

| ADAAG SCOPING PROVISIONS                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| General exceptions to scope:<br>Those portions of a building or facility where unique characteristics of terrain prevent incorporation of accessibility features.<br>Observation galleries used primarily for security purposes. Unoccupiable spaces accessed only by ladders, catwalks, crawl spaces, very narrow passageways, or nonpassenger elevators, and frequented only by service personnel for repair purposes. (4.1.1(5))                                                              |
| ADAAG uses a combination of the 1980, 1986 and proposed 1992 ANSI A117.1.                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Elevators are not required in facilities that are less than three stories or that have less than 3000 square feet per story unless the building is a shopping center, a shopping mall or the professional office of a health care provider, or another type of facility as determined by the Attorney General. (4.1.3(5)Exception 1)                                                                                                                                                             |
| Stairs connecting levels that are not connected by an elevator, ramp or other accessible means of vertical access shall comply with ADAAG 4.9. (4.1.3(4))                                                                                                                                                                                                                                                                                                                                        |
| EXCEPTION: Accessible parking spaces are not required where valet parking facilities are provided. (4.1.2(5)(e))                                                                                                                                                                                                                                                                                                                                                                                 |
| ADAAG table in 4.1.2(5)(a).                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <p>The number of accessible entrances to a building or facility shall be determined by the following criteria:</p> <p>At least 50% of public entrances must be accessible.</p> <p>Where the number of required exits is less than the number of entrances, the number of accessible entrances shall be not less than the number of required exits.</p> <p>Where the number of required exits equals or exceeds the number of entrances, all entrances shall be accessible. (4.1.3(8)(a)(ii))</p> |



### BCMC SCOPING PROVISIONS

In Group A1, A2 and A5 occupancies, wheelchair spaces for each assembly area shall be provided in accordance with Table 5.2. Removable seats shall be permitted in the wheelchair spaces. When the number of seats exceeds 300, wheelchair spaces shall be provided in more than one location. Dispersion of wheelchair locations shall be based on the availability of accessible routes to various seating areas, including seating at various levels in multifamily facilities. (5.2.1)

In Group A3 occupancies the total floor area allotted for seating and tables shall be accessible. (5.2.3)

In Group I1 occupancies, at least 50%, but not less than one, of the patient sleeping rooms and their bathing and toilet facilities shall be accessible. (5.3.3)

In Group I2 occupancies, at least one accessible entrance shall include a passenger loading zone complying with CABO/ANSI A117.1. (5.3.5)

In Group R1 occupancies containing 6 or more guest rooms, one for the first 30 guest rooms and one additional for each additional 100 guest rooms or fraction thereof shall be accessible. In hotels with more than 50 sleeping rooms or suites, roll-in type showers shall be provided in one-half, but not less than one, of the required accessible sleeping rooms or suites. (5.4.1)

### ADAAG SCOPING PROVISIONS

One percent, but not less than one, of all fixed seats shall be aisle seats with no armrests, or shall have removable or folding armrests on the aisle side. Seats without armrests, or seats with removable or folding armrests, shall be located on rows of seats which have adjacent aisles at both ends of the row, and shall be located on only one end of the row. Each such seat shall be identified by a sign or marker. Signage notifying patrons of the availability of such seats shall be posted at the ticket office. (4.1.3(19)(a))

Accessible wheelchair spaces may be clustered for bleachers, balconies and other areas having sight lines which require slopes greater than 5 percent. (4.33.3)

Where fixed tables or dining counters are provided, at least 5%, but not less than one, of the fixed tables or portion of the dining counter shall be accessible. The required number of accessible fixed tables and counters shall be proportionally distributed between smoking and nonsmoking areas. (5.1)

In transient social service establishments, accessible sleeping rooms shall be provided in accordance with the table following for transient lodging. (9.5.3)

In medical care facilities, at least one accessible entrance shall include a passenger loading zone complying with ANSI A117.1 and shall be protected from weather by a canopy or a roof overhang. (6.2)

In transient lodging, accessible guest rooms shall be provided in conformance with the table below. In addition, in hotels of 50 or more sleeping rooms or suites, roll-in type showers shall be provided in the required accessible sleeping rooms or suites, in conformance with the table below.

EXCEPTION: Group R1 occupancies containing five or less guest rooms or suites that are occupied as a residence by the owner or proprietor.  
(9.1.2)

#### NO. OF GROUP R1 ACCESSIBLE ROOMS AND ROLL-IN SHOWERS

| No. Rooms   | Total Required Access. Rooms | Accessible Rooms w/ Roll-in Shower  |
|-------------|------------------------------|-------------------------------------|
| 1 to 25     | 1                            |                                     |
| 26 to 50    | 2                            |                                     |
| 51 to 75    | 3                            | 1                                   |
| 76 to 100   | 4                            | 1                                   |
| 101 to 150  | 5                            | 2                                   |
| 151 to 200  | 6                            | 2                                   |
| 201 to 300  | 7                            | 3                                   |
| 301 to 400  | 8                            | 4                                   |
| 401 to 500  | 9                            | 4 + 1 for ea. add'l<br>100 over 400 |
| 501 to 1000 | 2% of total                  |                                     |
| 1001 & over | 20 + 1 for ea 100 over 1000  |                                     |



| BCMC SCOPING PROVISIONS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ADAAG SCOPING PROVISIONS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                    |       |       |           |        |               |                                        |                           |                                               |                                 |                          |                           |                                        |                             |                                                    |                   |                                        |  |                                                                                                                     |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-------|-------|-----------|--------|---------------|----------------------------------------|---------------------------|-----------------------------------------------|---------------------------------|--------------------------|---------------------------|----------------------------------------|-----------------------------|----------------------------------------------------|-------------------|----------------------------------------|--|---------------------------------------------------------------------------------------------------------------------|--|
| Platform (wheelchair) lifts shall not be part of a required accessible route in new construction. (6.2.2)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Platform (wheelchair) lifts shall be permitted under the following conditions:<br>a. to provide an accessible route to a performing area in an assembly occupancy,<br>b. to comply with wheelchair viewing position line-of-sight and dispersion requirements of 5.2.1,<br>c. to provide access to incidental occupiable spaces and rooms with an occupant load of five persons or less which are not open to the general public, or<br>d. to provide access where existing site constraints or other constraints make use of a ramp or elevator infeasible. (4.1.3(5)Exception 4)                                                        |                    |       |       |           |        |               |                                        |                           |                                               |                                 |                          |                           |                                        |                             |                                                    |                   |                                        |  |                                                                                                                     |  |
| At least 50% of drinking fountains, but not less than one, provided on every floor shall be accessible. (6.3)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | At least 50% of drinking fountains on accessible routes, but not less than one, provided on every floor shall be accessible. If only one drinking fountain is provided on any accessible route, it shall be accessible, with an additional drinking fountain accessible to those who have difficulty bending or stooping. (4.1.3(10))                                                                                                                                                                                                                                                                                                     |                    |       |       |           |        |               |                                        |                           |                                               |                                 |                          |                           |                                        |                             |                                                    |                   |                                        |  |                                                                                                                     |  |
| Transit platform edges bordering a drop-off and not protected by platform screens or guardrails shall have a detectable warning.<br>EXCEPTION: Bus stops.<br>(6.5)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | A continuous detectable warning shall be provided at the boundary between pedestrian areas and vehicular areas where the walking surfaces are not separated by curbs, railings or other elements. (4.29.5)<br><br>Edges of reflecting pools shall be protected by railings, walls, curbs or detectable warnings. (4.29.6)<br><br>A continuous detectable warning shall be provided at transit platform edges bordering a drop-off, and not protected by platform screens or guardrails.<br>EXCEPTIONS:<br>1. Bus stops along streets having curbs.<br>2. Heavy rail platforms having a drop-off not exceeding curb height. (ADA Title IV) |                    |       |       |           |        |               |                                        |                           |                                               |                                 |                          |                           |                                        |                             |                                                    |                   |                                        |  |                                                                                                                     |  |
| Every area of refuge shall be provided with a two-way communication system between the area of refuge and a central control point. (9.5)<br>EXCEPTION: Buildings four stories or less in height.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Two-way Communication. A method of two-way communication, with both visible and audible signals, shall be provided between each area of rescue assistance and the primary entry. The fire department or appropriate local authority may approve a location other than the primary entry. (4.3.11.4)                                                                                                                                                                                                                                                                                                                                       |                    |       |       |           |        |               |                                        |                           |                                               |                                 |                          |                           |                                        |                             |                                                    |                   |                                        |  |                                                                                                                     |  |
| <p>BCMC scoping includes the following general building requirements that apply without regard to accessibility requirements:</p> <table border="0"> <tr> <td>Protruding Objects</td> <td>Ramps</td> </tr> <tr> <td>Doors</td> <td>Elevators</td> </tr> <tr> <td>Stairs</td> <td>Alarm Systems</td> </tr> </table> <p>BCMC scoping does not include the following non-code items:</p> <table border="0"> <tr> <td>Telecommunication Devices for the Deaf</td> <td>Automatic Teller Machines</td> </tr> <tr> <td>Raised platforms (temporary) in banquet rooms</td> <td>Smoking/nonsmoking dining areas</td> </tr> <tr> <td>Express check-out aisles</td> <td>Library magazine displays</td> </tr> <tr> <td>Transient lodging notification devices</td> <td>Refrigerator/freezer styles</td> </tr> <tr> <td>"Accessible" escalators in transportation stations</td> <td>Public telephones</td> </tr> <tr> <td>Self-service shelves and display units</td> <td></td> </tr> <tr> <td>Permanent signage for emergency information, general circulation directions and identification of rooms and spaces.</td> <td></td> </tr> </table> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Protruding Objects | Ramps | Doors | Elevators | Stairs | Alarm Systems | Telecommunication Devices for the Deaf | Automatic Teller Machines | Raised platforms (temporary) in banquet rooms | Smoking/nonsmoking dining areas | Express check-out aisles | Library magazine displays | Transient lodging notification devices | Refrigerator/freezer styles | "Accessible" escalators in transportation stations | Public telephones | Self-service shelves and display units |  | Permanent signage for emergency information, general circulation directions and identification of rooms and spaces. |  |
| Protruding Objects                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Ramps                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                    |       |       |           |        |               |                                        |                           |                                               |                                 |                          |                           |                                        |                             |                                                    |                   |                                        |  |                                                                                                                     |  |
| Doors                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Elevators                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                    |       |       |           |        |               |                                        |                           |                                               |                                 |                          |                           |                                        |                             |                                                    |                   |                                        |  |                                                                                                                     |  |
| Stairs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Alarm Systems                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                    |       |       |           |        |               |                                        |                           |                                               |                                 |                          |                           |                                        |                             |                                                    |                   |                                        |  |                                                                                                                     |  |
| Telecommunication Devices for the Deaf                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Automatic Teller Machines                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                    |       |       |           |        |               |                                        |                           |                                               |                                 |                          |                           |                                        |                             |                                                    |                   |                                        |  |                                                                                                                     |  |
| Raised platforms (temporary) in banquet rooms                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Smoking/nonsmoking dining areas                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    |       |       |           |        |               |                                        |                           |                                               |                                 |                          |                           |                                        |                             |                                                    |                   |                                        |  |                                                                                                                     |  |
| Express check-out aisles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Library magazine displays                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                    |       |       |           |        |               |                                        |                           |                                               |                                 |                          |                           |                                        |                             |                                                    |                   |                                        |  |                                                                                                                     |  |
| Transient lodging notification devices                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Refrigerator/freezer styles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |       |       |           |        |               |                                        |                           |                                               |                                 |                          |                           |                                        |                             |                                                    |                   |                                        |  |                                                                                                                     |  |
| "Accessible" escalators in transportation stations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Public telephones                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                    |       |       |           |        |               |                                        |                           |                                               |                                 |                          |                           |                                        |                             |                                                    |                   |                                        |  |                                                                                                                     |  |
| Self-service shelves and display units                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    |       |       |           |        |               |                                        |                           |                                               |                                 |                          |                           |                                        |                             |                                                    |                   |                                        |  |                                                                                                                     |  |
| Permanent signage for emergency information, general circulation directions and identification of rooms and spaces.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    |       |       |           |        |               |                                        |                           |                                               |                                 |                          |                           |                                        |                             |                                                    |                   |                                        |  |                                                                                                                     |  |



**COMPARATIVE ANALYSIS  
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BOCA NATIONAL CODES/1993  
AND THE  
AMERICANS WITH DISABILITIES ACT  
ACCESSIBILITY GUIDELINES (ADAAG)**



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## PREFACE

This document contains a comparative analysis of the accessibility provisions in the 1993 *BOCA National Building and Plumbing Codes* with the Americans with Disabilities Act Accessibility Guidelines (ADAAG) for Building and Facilities published July 26, 1991, as corrected January 14, 1992, and the ADAAG for Transportation Facilities published September 6, 1991, as corrected January 14, 1992.

### FORMAT

The content of the comparison is presented in three columns. The first column contains the ADAAG section number and title; the second column contains the comparable *BOCA National Code* section number and title; and the third column contains comments on the comparability of the provisions. The provisions are listed in numerical order according to ADAAG, although ADAAG section numbers and titles that do not have any corresponding text have been omitted. BOCA section numbers that carry the prefix "P-" indicate a provision in the *BOCA National Plumbing Code/1993*. References to BOCA sections that do not have a letter prefix indicate a provision in the *BOCA National Building Code/1993*.

### SCOPING AND TECHNICAL REQUIREMENTS

Accessibility is regulated by the *BOCA National Codes* in the form of comprehensive *scoping* provisions (i.e., where accessibility is required, how many accessible features are required, etc.) and *technical* provisions (i.e., how to make a feature accessible, required dimensions, etc). All scoping provisions are set forth in the text of the code. Many technical provisions are also set forth in code text. Other technical provisions are enforceable through references to CABO/ANSI A117.1-1992, *Accessible and Usable Buildings and Facilities*. This comparative analysis addresses only those scoping and technical provisions that are contained in BOCA code text. Comparison of the technical provisions contained in CABO/ANSI A117.1-1992 is not included.

### MAINSTREAMING

Many of the technical provisions in the *BOCA National Codes* have been mainstreamed. Mainstreaming refers to the integration of accessibility-related provisions throughout the general content of the code rather than segregating them into a specific section or chapter that contains only provisions on accessibility. Building codes historically have incorporated sections or chapters specifically identified as accessibility related into which all matters of accessibility were placed. Many provisions on accessibility are now recognized as benefitting both the disabled and the nondisabled population. These provisions can be set forth as generally applicable in the location of the code where the particular subject is covered, rather than being specifically identified as accessibility related and located in the accessibility section. Such provisions are then considered as having been mainstreamed.

Building codes have historically treated accessibility somewhat narrowly. In the past, scoping provisions generally indicated the occupancies and conditions to which accessibility was applicable. Any occupancy or condition not specifically identified was, therefore, not covered. The 1993 *BOCA National Codes* take a much more comprehensive approach by requiring all buildings, structures, sites and facilities to be accessible unless specifically exempted. This approach is consistent with the concept of mainstreaming since a mainstreamed provision is also generally applicable unless specifically exempted.

Because mainstreamed provisions are integrated throughout the code and are not necessarily labeled as being accessibility related, one might be misled into thinking that the *BOCA National Codes* do not adequately cover accessibility. Chapter 11 of the *BOCA National Building Code*, along with the mainstreamed provisions identified in this comparison and the adoption by reference of CABO/ANSI A117.1-1992, constitutes BOCA's comprehensive regulation of accessibility.



## EXECUTIVE SUMMARY

Accessibility is comprehensively regulated in the 1993 *BOCA National Codes* through scoping requirements, mainstreamed technical provisions and reference to CABO/ANSI A117.1-1992. This comparison identifies in the second column all provisions of the *BOCA National Codes* that parallel the accessibility provisions in ADAAG. The following is a summary of the primary accessibility considerations which appear in the 1993 *BOCA National Codes*:

|                  |                                     |                   |                                      |
|------------------|-------------------------------------|-------------------|--------------------------------------|
| Section 917.8    | Fire alarms and detectors           | Section 1014.7    | Stairway handrails                   |
| Section 1005.3   | Protruding objects                  | Section 1014.11.4 | Exit signs                           |
| Section 1005.4   | Floor surface                       | Section 1016.0    | Ramps                                |
| Section 1005.6   | Floor elevation change              | Section 1017.1.1  | Floor surface                        |
| Section 1007.0   | Accessible means of egress          | Section 1017.2.3  | Door arrangement                     |
| Section 1011.3   | Corridor width                      | Section 1017.3    | Minimum door width                   |
| Section 1012.2   | Assembly aisle width                | Section 1017.4    | Door hardware                        |
| Section 1012.4   | Walking surface                     | Section 1022.0    | Handrail details                     |
| Section 1012.5   | Ramped aisle handrails              | Chapter 11        | ACCESSIBILITY                        |
| Section 1012.6   | Assembly row width                  | Section 3006.3    | Accessible elevators                 |
| Section 1014.1.1 | Walking surface                     | Section 3402.7    | Accessibility in existing structures |
| Section 1014.6   | Stairway tread and riser dimensions | Section P-1205.0  | Accessible plumbing facilities       |
| Section 1014.6.1 | Stairway tread and riser profile    |                   |                                      |

The purpose of this comparison is to provide information that can assist in evaluating the equivalency of ADAAG and BOCA accessibility provisions. The comparison reflects equivalence in virtually all areas common to both BOCA and ADAAG. There are, however, two categories of differences between some provisions in BOCA and ADAAG. One category of differences are accessibility matters covered in ADAAG that are not within the scope of regulation through the traditional code enforcement system. Such non-code items, not covered in the *BOCA National Codes*, include the following:

|                                                                 |                                                                                                                    |
|-----------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| Amenities, such as refrigerator/freezer and washer/dryer styles | Permanent signage for emergency information, general circulation directions and identification of rooms and spaces |
| Automatic teller machines                                       | Portable toilet and bathing facilities                                                                             |
| Bus stop shelters and route signs                               | Public address information systems                                                                                 |
| Clocks                                                          | Public telephones                                                                                                  |
| Dispersion of transient lodging room types based on rates       | Raised platforms (temporary) in banquet rooms                                                                      |
| Express check-out aisles                                        | Self-service shelves and display units                                                                             |
| Library magazine displays                                       | Smoking/nonsmoking dining areas                                                                                    |
| Passenger loading zones for valet parking                       | Telecommunication Devices for the Deaf                                                                             |
|                                                                 | Transient lodging notification devices                                                                             |
|                                                                 | Transportation fare vending machines                                                                               |

Other differences are apparent from the specific text set forth in each document on a common subject. Determining whether such provisions are equivalent in many cases is straightforward. In some cases, it involves a subjective evaluation, such as when adequate accessibility is achieved through provisions that at face value do not appear to cover the issue in a comparable manner. The comments contained in this comparison reflect the conclusions of BOCA and, where appropriate, discuss the basis on which the determination of equivalence was made.



| ADAAG-1991                  | BOCA-1993                                                                                | COMMENTS                                                                                                                                                                                                                                                                                                               |
|-----------------------------|------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. PURPOSE                  | 101.2 Scope<br>102.4 Referenced Standards<br>1101.1 Scope                                | No substantive difference. The purpose and scope statements are appropriate for each document and are equivalent.                                                                                                                                                                                                      |
| 2.1 Provisions for adults   | 1101.1 Scope                                                                             | BOCA applies to physically disabled persons. Therefore, there is no substantive difference.                                                                                                                                                                                                                            |
| 2.2 Equivalent facilitation | 106.4 Alternative Materials and Equipment                                                | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                              |
| 3.1 Graphic conventions     |                                                                                          | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                  |
| 3.2 Dimensional tolerances  |                                                                                          | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                  |
| 3.3 Notes                   |                                                                                          | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                  |
| 3.4 General terminology     | 202.0 General Definitions (Shall)                                                        | No substantive differences. The BOCA definition of "shall" is equivalent.                                                                                                                                                                                                                                              |
| 3.5 Definitions             | 201.0 General<br>202.0 General Definitions                                               | All relevant terms are defined.                                                                                                                                                                                                                                                                                        |
| Access Aisle                |                                                                                          | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                  |
| Accessible                  | 1102.0 Definitions (Accessible)                                                          | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                              |
| Accessible Element          |                                                                                          | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                  |
| Accessible Route            | 1102.0 Definitions (Accessible route)                                                    | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                              |
| Accessible Space            | 1102.0 Definitions (Accessible)                                                          | The ADAAG definition does not convey any special or unique meaning that would otherwise be misunderstood. The definition in BOCA of "Accessible" includes portions of a site, building, or facility, which therefore includes any space. The provisions are equivalent.                                                |
| Adaptability                | 1102.0 Definitions (Adaptability)                                                        | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                              |
| Addition                    | 202.0 General Definitions (Addition)                                                     | BOCA specifically identifies an increase in height as an addition. ADAAG includes both buildings and "facilities" in the definition. BOCA includes buildings and "structures". Any increase, expansion or enlargement of that which is regulated by BOCA would constitute an addition. The definitions are equivalent. |
| Administrative Authority    | 202.0 General Definitions (Code Official)<br>P-202.0 General Definitions (Code Official) | BOCA identifies the person with the authority to enforce the code as the "code official". The code official is appointed by the jurisdiction that adopts the code. The provisions are equivalent.                                                                                                                      |
| Alteration                  | 202.0 General Definitions (Alteration)                                                   | ADAAG definition is more detailed and specific. BOCA is more general but encompasses similar scope. The definitions are equivalent.                                                                                                                                                                                    |

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| ADAAG-1991                | BOCA-1993                                                                      | COMMENTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|---------------------------|--------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Area of Rescue Assistance | 1007.5 Areas of Refuge                                                         | The lack of a specific definition in BOCA does not affect equivalency. The concept of BOCA's area of refuge is equivalent to ADAAG, including the requirement that it have direct access to an exit.                                                                                                                                                                                                                                                                                                                 |
| Assembly Area             | 303.0 Assembly Use Groups                                                      | BOCA includes religious gathering and transportation facilities in the assembly use group. Educational facilities are separately classified as Use Group E, but are subject to the same accessibility requirements as in ADAAG. BOCA is broader in its description of assembly uses, and is therefore equivalent.                                                                                                                                                                                                    |
| Automatic Door            | 1017.4.3 Power-Operated Doors                                                  | No substantive difference. BOCA's provisions for power operated doors are consistent with these definitions.                                                                                                                                                                                                                                                                                                                                                                                                         |
| Building                  | 202.0 General Definitions (Building)<br>P-201.0 General Definitions (Building) | No substantive difference. BOCA goes on to define the conditions under which attached structures can be classified as separate buildings.                                                                                                                                                                                                                                                                                                                                                                            |
| Circulation Path          |                                                                                | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Clear                     |                                                                                | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Clear Floor Space         |                                                                                | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Closed Circuit Telephone  |                                                                                | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Common Use                |                                                                                | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Cross Slope               |                                                                                | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Curb Ramp                 |                                                                                | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Detectable Warning        |                                                                                | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Dwelling Unit             | 310.2 Definitions (Dwelling unit)                                              | The BOCA definition is broader than ADAAG by inclusion of any unit, whether a residence or transient lodging, that has the requisite facilities. ADAAG only describes "bathing" as a requisite facility whereas BOCA more broadly includes "sanitation" which includes toilet facilities.                                                                                                                                                                                                                            |
| Egress, Means of          | 1002.0 Definitions<br>1007.0 Accessible Means of Egress                        | ADAAG narrowly describes means of egress as a "way of <u>exit</u> travel". In BOCA, <u>exit</u> travel is only one of the three components of the total means of egress. While it is not assumed, for purposes of this comparison, that ADAAG is intended to be less inclusive in the treatment of means of egress, the inconsistency is a potential source of confusion. BOCA is therefore at least equivalent to ADAAG. The lack of specific definition of accessible means of egress does not affect equivalency. |



| ADAAG-1991                   | BOCA-1993                                           | COMMENTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|------------------------------|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Element                      |                                                     | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Entrance                     |                                                     | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Facility                     | 1102.0 Definitions (Facility)                       | No substantive difference. The definitions are equivalent.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Ground Floor                 |                                                     | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Mezzanine or Mezzanine Floor | 502.0 Definitions (Mezzanine)                       | BOCA is more inclusive than ADAAG in what is considered a mezzanine. An intermediate floor level is not a mezzanine according to ADAAG unless it has occupiable space above and below its floor. The reference in ADAAG to having occupiable space above its floor is unclear, but is taken to mean the use of the mezzanine itself as opposed to the use of the story (or roof) immediately above the mezzanine.<br>ADAAG defines "occupiable" as including only certain specific activities. Accordingly, an intermediate floor level in a restaurant, for example, that has patron seating on it would not be considered a mezzanine if restrooms, or some other activity that is not considered "occupiable", are located immediately underneath the "mezzanine" floor. This confuses the application of ADAAG 4.1.3(5) and ADAAG 5.4. For example, the exception for providing elevator service to such an area would not be available because the area is not a mezzanine. This is unreasonable. BOCA takes the approach that a mezzanine is a physical characteristic of the structure, and is not dependent on the use of the space above or below the floor.<br>For purposes of the requirements that are applicable to mezzanines, BOCA is at least equivalent to ADAAG. |
| Marked Crossing              |                                                     | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Multifamily Dwelling         | 310.2 Definitions (Multiple-Family Dwelling)        | No substantive difference. The provisions are equivalent. BOCA provides a means by which multiple single family units (i.e., town house) can be classified as Use Group R-3 rather than Use Group R-2.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Occupiable                   | 1202.0 Definitions (Occupiable space)               | No substantive difference. The definitions are equivalent.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Operable Part                |                                                     | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Path of Travel (Reserved)    |                                                     | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Power-assisted Door          | 1017.4.3 Power Operated Doors                       | No substantive difference. BOCA description of power operated doors is consistent with the ADAAG definition.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Public Use                   | P-1202.0 Definitions (Public or Public Utilization) | BOCA's definition is narrower in scope (applicable to plumbing facilities) but is equivalent within that scope.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |



| ADAAG-1991                                          | BOCA-1993                                   | COMMENTS                                                                                                                                                                                                                                                                      |
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| Ramp                                                | 1016.0 Ramps                                | BOCA does not specifically define the term ramp, however, the requirements for ramps are set forth based on slope. In this respect, the provisions are equivalent and the lack of a definition in BOCA does not affect equivalency.                                           |
| Running Slope                                       |                                             | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                         |
| Service Entrance                                    |                                             | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                         |
| Signage                                             |                                             | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                         |
| Site                                                | 1102.0 Definitions (Site)                   | No substantive difference. The provisions are equivalent. BOCA uses the term lot line. Property lines are not always associated with the subdivision of land.                                                                                                                 |
| Site Improvement                                    |                                             | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                         |
| Sleeping Accommodations                             |                                             | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                         |
| Space                                               |                                             | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                         |
| Story                                               | 502.0 Definitions (Story)                   | BOCA is more inclusive and at least equivalent. ADAAG only considers an area as a story if it contains "occupiable space". Given ADAAG's definition of "occupiable", it would appear that under ADAAG a floor containing only dwelling units would not be considered a story. |
| Structural Frame                                    | 1612.2 Definitions (Frame; Frame system)    | No substantive difference. BOCA's definitions are more detailed.                                                                                                                                                                                                              |
| Tactile                                             |                                             | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                         |
| Text Telephone                                      |                                             | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                         |
| Transient Lodging                                   | 310.3 Use Group R-1 Structures              | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                     |
| Vehicular Way                                       | 202.0 General Definitions (Street)          | BOCA definition of "street" is equivalent.                                                                                                                                                                                                                                    |
| Walk                                                |                                             | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                         |
| 4.1.1(1) General                                    | 1103.1 Where Required<br>1110.2 Alterations | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                     |
| 4.1.1(2) Application based on building use          | 1107.0 Use Group Requirements               | This only is a correlative, general statement. The substantive comparison is provided at the specifically referenced ADAAG sections.                                                                                                                                          |
| 4.1.1(3) Areas used only by employees as work areas | 1103.1 Where Required                       | No substantive difference. The provisions are equivalent. BOCA's scope broadly encompasses work areas and thus requires at least the equivalent degree of access as ADAAG.                                                                                                    |

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| ADAAG-1991                                                       | BOCA-1993                                                          | COMMENTS                                                                                                                                                                                                                                                                                                 |
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| 4.1.1(4) Temporary structures                                    | 101.2 Scope<br>1103.1 Where Required                               | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                |
| 4.1.1(5)(a) Structurally impracticable                           | 106.2 Modifications<br>1102.0 Definitions (Technically infeasible) | No substantive difference. The provisions are equivalent. The additional detailed explanation in ADAAG does not affect equivalence.                                                                                                                                                                      |
| 4.1.1(5)(b) Specific spaces                                      | 1103.1 Where Required; Exception 2                                 | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                |
| 4.1.2 Accessible sites and exterior facilities: New construction |                                                                    | No substantive text to compare.                                                                                                                                                                                                                                                                          |
| 4.1.2(1) Accessible route; Public area to entrance               | 1104.1 Where Required                                              | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                |
| 4.1.2(2) Accessible route; Between facilities                    | 1104.2 Connected Spaces                                            | No substantive difference. The provisions are equivalent. In other than dwelling units, BOCA restricts the path of an accessible route, when there is only one such route, from having to pass through non-typical circulation areas.                                                                    |
| 4.1.2(3) Protruding objects                                      | 1005.3 Protruding Objects                                          | BOCA mainstreams this issue. See ADAAG 4.4. Same comparison is applicable since this is a direct cross reference.                                                                                                                                                                                        |
| 4.1.2(4) Ground surfaces                                         | (Same Sections as listed for ADAAG 4.5, 4.5.1, 4.5.2 and 4.5.3)    | BOCA mainstreams this issue. See ADAAG 4.5. Same comparison is applicable since this is a direct cross reference.                                                                                                                                                                                        |
| 4.1.2(5)(a) Parking spaces                                       | 1105.1 Required                                                    | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                |
| 4.1.2(5)(b) Van spaces                                           | 1105.4 Van Spaces<br>1105.5 Location                               | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                |
| 4.1.2(5)(c) Loading zones                                        |                                                                    | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                    |
| 4.1.2(5)(d) Medical care facilities                              | 1105.1 Required<br>1105.3 Medical Facilities                       | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                |
| 4.1.2(5)(d)(i) Outpatient units                                  | 1105.3 Medical Facilities                                          | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                |
| 4.1.2(5)(d)(ii) Specialized treatment facilities                 | 1105.3 Medical Facilities                                          | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                |
| 4.1.2(5)(e) Valet parking                                        |                                                                    | BOCA does not scope passenger loading zones for valet parking. Regulation of valet parking through the traditional code enforcement methods is not practical since valet parking is a discretionary service provided by the facility owner. See CABO/ANSI A117.1 for details on passenger loading zones. |
| 4.1.2(6) Toilet and bathing facilities                           | 1108.2 Toilet and Bathing Facilities                               | No substantive difference regarding permanent toilet and bathing facilities. Portable toilet and bathing facilities are not realistically enforceable through the traditional code enforcement methods.                                                                                                  |



| ADAAG-1991                                   | BOCA-1993                                                            | COMMENTS                                                                                                                                                                                                                                                                                                                                                                                                      |
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| 4.1.2(7) Building signage                    | 1109.2 Signs<br>1109.2.1 Directional Signage<br>1014.11.4 Exit Signs | See comparison for ADAAG 4.1.3(16)(a) and (b) for signage at rooms and information signs. This section of ADAAG appears to be redundant except that 4.1.3(16)(b) has an exception not contained in 4.1.2(7).                                                                                                                                                                                                  |
| 4.1.2(7)(a) Parking spaces                   | 1109.2 Signs                                                         | BOCA does not require signage where 5 or fewer total parking spaces are provided. With such a small number of total spaces, adequate parking for all others persons is unreasonably disrupted when one space is reserved, especially in the event of only one total parking space. The net effect is to require more total spaces and these are usually cases wherein available space for parking is limited. |
| 4.1.2(7)(b) Loading zones                    | 1109.2 Signs                                                         | Identical provisions.                                                                                                                                                                                                                                                                                                                                                                                         |
| 4.1.2(7)(c) Entrances                        | 1109.2.1 Directional Signage                                         | BOCA's intent is based on the concept that unmarked entrances are assumed to be accessible. Once inaccessible entrances are required to be provided with directional signage, additional signage at the accessible entrances is not necessary.                                                                                                                                                                |
| 4.1.2(7)(d) Toilet and bathing facilities    | 1109.2.1 Directional Signage                                         | BOCA's intent is based on the concept that unmarked toilet and bathing facilities are assumed to be accessible. Once inaccessible toilet and bathing facilities are required to be provided with directional signage, additional signage at the accessible toilet and bathing facilities is not necessary.                                                                                                    |
| 4.1.3 Accessible buildings: New construction | 1103.0 Applicability                                                 | No substantive text to compare.                                                                                                                                                                                                                                                                                                                                                                               |
| 4.1.3(1) Accessible route within facilities  | 1104.2 Connected spaces                                              | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                                                                                                                     |
| 4.1.3(2) Protruding objects                  | 1005.3 Protruding Objects                                            | BOCA mainstreams this issue. See ADAAG 4.4 for substantive comparison since ADAAG is only a cross reference.                                                                                                                                                                                                                                                                                                  |
| 4.1.3(3) Ground and floor surfaces           | (Same sections as for ADAAG 4.5)                                     | BOCA mainstreams this issue. See ADAAG 4.5 for substantive comparison since ADAAG is only a cross reference.                                                                                                                                                                                                                                                                                                  |
| 4.1.3(4) Stairs                              | 1014.0 Stairways                                                     | BOCA mainstreams this issue and is applicable to all stairways regardless of other accessible means of vertical access. See ADAAG 4.9 for substantive comparison since ADAAG is only a cross reference.                                                                                                                                                                                                       |



| ADAAG-1991                                       | BOCA-1993                                                          | COMMENTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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| 4.1.3(5) Elevators                               | 1104.2 Connected Spaces, Exception 2<br>1108.3 Elevators and Lifts | There are two cases in which the requirements for vertical access for the mobility impaired between BOCA and ADAAG are different. In both cases, BOCA provides for greater accessibility.<br>1. 2 story or more facility (other than shopping or health care) that is less than 3000 ft <sup>2</sup> with an occupant load greater than 50; BOCA requires vertical access and ADAAG does not.<br>2. 2 story facility (other than shopping or health care) greater than 3000 ft <sup>2</sup> ; BOCA requires vertical access and ADAAG does not.<br>BOCA does not mandate elevators as the only means of vertical access in multi-story buildings, it is unlikely that ramps will supplement the use of elevators as the commonly chosen means of vertical access. BOCA does not permit the use of platform (wheelchair) lifts as part of a required accessible route in new construction under any circumstances. |
| 4.1.3(6) Windows (Reserved)                      |                                                                    | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 4.1.3(7)(a) Doors at entrances                   | 1017.0 Means of Egress Doorways                                    | BOCA mainstreams this issue. The scope of BOCA's requirements is applicable to all means of egress doors and therefore includes the door covered in ADAAG plus any additional egress doors at an entrance. See ADAAG 4.13 for comparison of specific door requirements.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 4.1.3(7)(b) Doors to accessible spaces           | 1017.0 Means of Egress Doorways                                    | BOCA mainstreams this issue. The scope of BOCA's requirements is applicable to all means of egress doors and therefore includes the door covered in ADAAG plus any additional egress doors serving the accessible space. See ADAAG 4.13 for comparison of specific door requirements.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 4.1.3(7)(c) Doors as part of an accessible route | 1017.0 Means of Egress Doorways                                    | BOCA mainstreams this issue. The scope of BOCA's requirements is applicable to all means of egress doors and therefore includes the doors covered in ADAAG. See ADAAG 4.13 for comparison of specific door requirements.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 4.1.3(7)(d) Egress doors                         | 1017.0 Means of Egress Doorways                                    | BOCA mainstreams this issue. The scope of BOCA's requirements is applicable to all means of egress doors and therefore includes the doors covered in ADAAG. See ADAAG 4.13 for comparison of specific door requirements.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 4.1.3(8) Entrances                               | 1106.0 Accessible Entrances                                        | No substantive difference. The provisions are equivalent. BOCA requirements also apply independently.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 4.1.3(8)(a)(i) Number required                   | 1106.1 Required<br>1106.2 Multiple Accessible Entrances            | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |



| ADAAG-1991                                         | BOCA-1993                                                       | COMMENTS                                                                                                                                                                                                                                                                                                                                                                                                                 |
|----------------------------------------------------|-----------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4.1.3(8)(a)(ii) Equal to the number of exits       | 1106.1 Required<br>1106.2 Multiple Accessible Entrances         | BOCA does not contain a comparable statement but is nonetheless equivalent. There is no meaningful relationship between the number of accessible entrances and the number of fire exits. The issue of accessible means of egress is addressed in ADAAG 4.3.11 and BOCA 1007.0.                                                                                                                                           |
| 4.1.3(8)(iii) To each tenancy                      | 1106.1 Required                                                 | ADAAG requires one accessible entrance to a tenant space. BOCA requires greater access by requiring 50%, but not less than one, of the entrances to a tenant space to be accessible.                                                                                                                                                                                                                                     |
| 4.1.3(8)(b)(i) Access from garage                  | 1106.2 Multiple Accessible Entrances                            | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                                                                                                                                |
| 4.1.3(8)(b)(ii) Access from tunnels and walkways   | 1106.2 Multiple Accessible Entrances                            | No substantive difference. The provisions are equivalent. BOCA does not make specific mention of tunnels and walkways, but such elements are within the scope of Section 1106.2.                                                                                                                                                                                                                                         |
| 4.1.3(8)(c) Service entrance                       | 1106.1 Required                                                 | No substantive difference. The provisions are equivalent. Service entrances are not required to be accessible only if not less than one other entrance is accessible.                                                                                                                                                                                                                                                    |
| 4.1.3(8)(d) Directional signage                    | 1109.2.1 Directional Signage                                    | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                                                                                                                                |
| 4.1.3(9) Accessible egress                         | 1007.0 Accessible Means of Egress<br>1007.1 General             | No substantive difference. The provisions are equivalent. BOCA does not require the number of accessible areas of refuge to exceed two. The primary criteria that determines required number of fire exits is occupant load. Two means of egress are considered by BOCA to be adequate for up to 500 occupants. Two accessible means of egress will be adequate to serve the mobility impaired population of a building. |
| 4.1.3(10)(a) Drinking fountains; Single fixture    | 1108.4 Drinking Fountains                                       | No substantive difference with respect to drinking fountains for wheelchair accessibility. BOCA does not require drinking fountain locations for people who have difficulty bending or stooping.                                                                                                                                                                                                                         |
| 4.1.3(10)(b) Drinking fountains; Multiple fixtures | 1108.4 Drinking Fountains                                       | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                                                                                                                                |
| 4.1.3(11) Toilet facilities                        | 1104.2 Connected Spaces<br>1108.2 Toilet and Bathing Facilities | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                                                                                                                                |
| 4.1.3(12)(a) Storage units; Number required        | 1108.5 Storage and Locker Facilities                            | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                                                                                                                                |
| 4.1.3(12)(b) Shelves and displays                  | 1108.5 Storage and Locker Facilities                            | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                                                                                                                                |
| 4.1.3(13) Controls                                 | 1108.8 Control, Operating Mechanisms and Hardware               | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                                                                                                                                |

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| ADAAG-1991                                      | BOCA-1993                                                                                                    | COMMENTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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| 4.1.3(14) Emergency warning systems             | 917.8.1 Visible Alarms<br>917.8.2 Audible Alarms                                                             | No substantive difference. The provisions are equivalent. See ADAAG 9.1.2 for substantive comparison of the number of required rooms in Use Group R-1. See ADAAG 4.28 and 9.3 for substantive comparison of the system characteristics.                                                                                                                                                                                                                                                    |
| 4.1.3(15) Detectable warnings                   | 1109.1 Detectable Warnings                                                                                   | BOCA requires detectable warnings only at passenger transit platform edges bordering a drop-off, other than bus stops.                                                                                                                                                                                                                                                                                                                                                                     |
| 4.1.3(16)(a) Signage; Permanent rooms           | 1007.5.4 Identification<br>1007.6 Signage<br>1014.11.4 Signs<br>1109.2 Signs<br>1109.2.1 Directional Signage | BOCA is equivalent only with respect to emergency information and general circulation directions. Other signage for room designations is not enforceable through traditional building code methods.                                                                                                                                                                                                                                                                                        |
| 4.1.3(16)(b) Functional spaces                  | 1007.5.4 Identification<br>1007.6 Signage<br>1014.11.4 Signs<br>1109.2 Signs<br>1109.2.1 Directional Signage | BOCA is equivalent only with respect to emergency information and general circulation directions. Other signage for room designations is not enforceable through traditional building code methods.                                                                                                                                                                                                                                                                                        |
| 4.1.3(17)(a) Public telephones; Number required |                                                                                                              | Provisions for telephones are not health or safety related and therefore are outside the scope of building codes. Enforcement of such provisions through traditional code enforcement methods is impractical. Permits are not required for the planning, installation or alteration of such equipment and modifications that routinely occur in existing buildings therefore cannot be realistically inspected and approved. CABO/ANSI A117.1 addresses details for accessible telephones. |
| 4.1.3(17)(b) Volume control                     |                                                                                                              | See comment to ADAAG 4.1.3(17)(a).                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 4.1.3(17)(c) Text telephone                     |                                                                                                              | See comment to ADAAG 4.1.3(17)(a).                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 4.1.3(17)(c)i Interior required                 |                                                                                                              | See comment to ADAAG 4.1.3(17)(a).                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 4.1.3(17)(c)ii Assembly uses, hotels and malls  |                                                                                                              | See comment to ADAAG 4.1.3(17)(a).                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 4.1.3(17)(c)iii Hospitals                       |                                                                                                              | See comment to ADAAG 4.1.3(17)(a).                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 4.1.3(17)(d) Shelf and outlet required          |                                                                                                              | See comment to ADAAG 4.1.3(17)(a).                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 4.1.3(18) Fixed seating                         | 1108.6 Fixed or Built-In Seating or Tables<br>1104.2 Connected Facilities                                    | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                                                                                                                                                                                                  |



| ADAAG-1991                                                                        | BOCA-1993                                                                                      | COMMENTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4.1.3(19)(a) Assembly areas; Number of seating locations                          | 1107.2.3 Wheelchair Spaces<br>1107.2.4 Dining Areas; Exception 3                               | BOCA requires the same number of wheelchair spaces up to seating capacity of 500. The numbers in ADAAG very likely exceed that which is necessary to serve the needs in large assembly uses. The BOCA criteria is believed to be sufficient to adequately provide for accessibility for the wheelchair population. For fixed seating in dining areas, BOCA requires more wheelchair spaces (5%) than ADAAG. BOCA does not scope folding or removable armrest aisle seating.                                                              |
| 4.1.3(19)(b) Assistive listening systems                                          | 1107.2.2 Listening Systems                                                                     | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 4.1.3(20) ATM's                                                                   |                                                                                                | See CABO/ANSI A117.1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 4.1.3(21) Dressing rooms                                                          | 1108.7.1 Dressing and Fitting Rooms                                                            | No substantive difference. The provisions are equivalent.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 4.1.5 Accessible Buildings: Additions                                             | 202.0 General Definitions (Alteration)<br>1110.1 Maintenance of Facilities<br>3403.0 Additions | No substantive difference. BOCA requires additions to comply with the requirements for new construction. Alterations in BOCA, by definition, do not include additions. See ADAAG 4.1.6 (2) for comparison of provisions for alterations.                                                                                                                                                                                                                                                                                                 |
| 4.1.6(1) Alterations; general                                                     | 1110.2 Alterations<br>3404.2 Requirements                                                      | Charging text only; no substantive comparison.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 4.1.6(1)(a) Alterations; Decreased accessibility prohibited                       | 1110.1 Maintenance of Facilities<br>3404.2 Requirements                                        | No substantive difference. The provisions are equivalent. BOCA requires the alterations to comply with the same requirements as new construction and all existing facilities to be maintained accessible.                                                                                                                                                                                                                                                                                                                                |
| 4.1.6(1)(b) Alterations; Conformance with requirements for new construction       | 1110.2 Alterations, Exception<br>3404.2 Requirements                                           | No substantive difference. The provisions are equivalent. BOCA provides for greater accessibility in the case of a change of occupancy. ADAAG does not specifically categorize a change of occupancy as an alteration. Therefore, if a change of occupancy does not involve any alterations, ADAAG 4.1.6 does not apply. BOCA 1110.3 requires conformance to requirements for new construction, unless technically infeasible. (Note: The reference to Section 1110.3 in the exception is a typographical error and should be 1110.2.1). |
| 4.1.6(1)(c) Alterations; Extent of accessibility required                         | 1110.2 Alterations<br>3404.2 Requirements                                                      | No substantive difference. The provisions are equivalent. BOCA requires alterations to fully comply, unless technically infeasible.                                                                                                                                                                                                                                                                                                                                                                                                      |
| 4.1.6(1)(d) Alterations; Greater accessibility than new construction not required | 1110.2 Alterations<br>3404.2 Requirements                                                      | BOCA is more inclusive than ADAAG and is therefore more than equivalent. Altered elements must conform to all code requirements, including accessibility requirements, unless technically infeasible. It should also be noted that since many accessibility requirements are mainstreamed in BOCA, the "technical infeasibility" test is limited to those matters contained within the scope of Section 1110.0. Modified application of the mainstreamed requirements could only be requested in accordance with BOCA Section 106.2.     |

November 18, 1993



# What kind of public building access do the handicapped need?



*The author, an insider with the decade-old handicap access crusade, details the simple and costless design modifications which can enable thousands of handicapped persons to live the kind of normal life the able-bodied take for granted. Mr. Hopkins also traces the access movement's history from early legislation and standards-writing to current model code activity.*

## William B. Hopkins

If it were possible for all the physically disabled citizens of our country to gather together and give a shout of approval for BOCA's June 11 action on access and use of buildings and facilities for the disabled (S-75-74), the roar would be heard from Maine to California. As one intimately involved in the barrier-free architecture crusade for over a decade, I feel that the millions of physically disabled, nationwide, are most appreciative of BOCA for its official recognition of their problem—and especially of Michigan's Miriam King and her supporters for their dedicated pursuit of this objective with BOCA.

Barrier-free architecture makes sense. Increments to construction costs are not a factor when architectural barriers are eliminated on the drawing boards. Maintenance costs can be reduced and even insurance rates lowered because of the added safety features. Most importantly, our handicapped friends and neighbors will, in time, be liberated from a world of dependence and isolation. No longer will they be denied access and use of buildings open to everyone else. No longer will they be denied employment opportunities because their wheelchairs can't climb steps or can't get into a restroom.

W.B. "Bill" Hopkins is Public Affairs Director for the Minnesota Society for Crippled Children and Adults, in which capacity he helped make Minneapolis the first American city with a curb-ramping program for the handicapped and elderly. He was subsequently instrumental in bringing handicap access modifications to the Minneapolis Building Code, and later before the Minnesota State Legislature.



## Think what it might be like

Think what it might be like to be suddenly confined to a wheelchair yourself. Take a look at the building where you work, your home, the church where you worship, the educational institutions you attended, your favorite theater and restaurant, and the place where you vote. Think about the variety of buildings you normally visit as a requisite to your vocation—and the many streets you cross to get to them. The odds are ominous that you would not be able to get into more than a handful of them in a wheelchair. And the curbs at the street intersections would make you a prisoner of the block.

What would you do if you had to use a bathroom and found that there was no way you could get your chair through the door of a water closet compartment? Sure, there are people around who would be willing to get you a helping hand, but would your pride and spirit of independence permit this, especially from a total stranger? When you are handicapped, you are almost the same person today that you were yesterday, the primary difference being that you now have to ambulate from a seated position—with wheels performing the function of your legs. You have the same ambitions, needs and desires you have always had, but—now you are ejected from the mainstream of life only because the man-made environment we have constructed for you is crammed with a myriad of senseless barriers to your mobility.

Would you feel utter frustration and seethe internally for the thoughtlessness of your fellowman? Would you see yourself as a victim of discrimination? Would you think your human rights have been grossly violated? Would you feel disenfranchised? Would you feel like an outcast from society? I'm sure you will agree that the answer to all these questions is a resounding, "Yes!"

Today, our nation provides a hostile environment for those with mobility problems. Much has been done to



relieve this situation but progress towards a barrier-free society has been all too slow. Every day a multitude of buildings are constructed without any thought being given to the design needs of all people. In the enlightened modern society we enjoy today, this is morally wrong and discriminates against everybody who has suffered the loss of physical ability. Little do designers and builders realize that they themselves may some day be denied access or use of a building because of an accident, illness, or old age which may leave them physically disabled.

#### S-75-74 a "giant stride"

Yes, BOCA has taken a giant stride by unanimously approving sweeping code changes which will give the disabled the accessibility and usability of all new buildings under its jurisdiction. We sincerely hope that the code administrators using other model codes without access provisions will do likewise within a short time. But each of us must realize that any code is no more effective than its enforcement. That's where you come in as an individual building official in your own community. It is up to you to personally see that every set of building plans which crosses your desk includes every specification set forth for the disabled in the *Basic Building Code*. Those lines on working drawings will have an everlasting effect on the lives of physically handicapped people. If you permit even one step to be constructed which shouldn't be, you are, in effect, erecting a glaring sign which reads, "Handicapped—KEEP OUT!"

There may be those who are disappointed that BOCA did not pattern its handicap specifications after the American National Standard A117.1-1961 (R 1971) as did ICBO. No doubt it is in the best interests of architects and builders nationwide to have a uniform code throughout the country. However, I feel it would have been a massive "cop-out" on the part of BOCA to have adopted an existing document which has been declared by many in the barrier-free architecture field to be outdated and inadequate. Up to this point, the ANSI Standard A117.1-1961 has been the only national standard available—and it has performed a much-needed educational task for an unenlightened construction industry. Yet, it cannot be effective as a portion of any national or state code until such time as it is updated and expanded to totally reflect the minimal design needs of the disabled. The new BOCA Code amendments reflect advanced thinking on the subject and, in this author's opinion, are far superior to ICBO's amendments for the handicapped. We who are disabled or who are fighting for the human rights of the disabled trust that BOCA will never accept anything less than what you have right now in design specifications for the handicapped.

#### Designing for interchangeability use

Although the *Basic Building Code* requires that four percent of the dwelling units in an apartment building shall be accessible to the handicapped, there is no indication of what is needed to accomplish this. My personal philosophy is that commercial apartment units for the physically disabled should be designed in such a way that the units are equally desirable by the able-bodied should a disabled person not be readily available for tenancy (no loss of income to owner attributable to design). Until such time that BOCA shall again consider code changes, it would certainly be in order for building officials to have some compatible guidelines at their disposal, and I am pleased to submit the following suggestions for your consideration.

#### Kitchen requirements

The kitchen should meet the following requirements:

1. A minimum of five feet clear floor space between opposing cabinets and walls should be provided.
2. Sink bowls should not exceed five inches in depth and the drain should be trapped near the back wall of the cabinet. Sink water control should be the single lever type.
3. There should be an open space under the sink no less than two-feet-six-inches wide and two-feet-five-inches high. For the able-bodied tenant who may occupy the unit, this space may be enclosed by a door(s) or by other means which can be easily removed. Any shelving provided under the sink should also be easily removable.
4. Counter tops should not exceed 36 (preferably 34 inches) inches in height and some storage space should be located underneath. The bottom of wall cabinets should not be greater than 16 inches above the work surface of the base cabinet except for those cabinets over cooking surfaces, ovens and refrigerators. All shelving in cabinets should be adjustable, and suspension drawers are highly recommended.
5. An opening should be provided at some point under the counter (same dimensions as under the sink) with a work surface of 36 inches in length which is 2 feet 6 inches above the floor (even able-bodied housewives sometimes like to sit down to peel the potatoes). A slide-out work surface would fulfill the above requirement.
6. Stove and oven controls should be located at the front or on the side (never on the back). Where separate cooking surfaces and oven are used, the top of the oven housing should not exceed 52 inches in height above the floor. Controls for vent hoods and lights over cooking units should be reachable from a wheelchair (perhaps mounted in the counter top?).

Kitchen design for the disabled can be much more sophisticated than as discussed here. However, I believe that the average disabled adult will find that he can function in a kitchen which meets the above specifications. For those interested, *The Wheelchair in the Kitchen* is available from the Paralyzed Veterans of America, 7315 Wisconsin Ave., Washington, D.C. 20014, \$2.50.

#### Doors and hardware

All doors within the unit should have a minimum of 32 inches clear usable width. This will usually require the installation of 34 inch doors. There should be at least 42 inches of unobstructed space in front of any door where the wheelchair is required to make a 90-degree turn in order to enter or exit. Such could be the case when the bedroom(s) and or bathroom is located off an interior hallway. This would mean that the hallway must have a minimum dimension of 42 inches in any direction. Lever-type door handles are much preferred to the conventional knob. All doors, including those with locks, should be easily operable with only one hand. Sliding or folding doors are preferable for closets and should be equipped with a D-type handle.

(Continued on next page)



## HANDICAP ACCESS ...

(Continued from preceding page)

### Switches and controls

All switches and controls for light, heat, air conditioning, ventilation, windows, draperies, and all similar controls of frequent or essential use should be placed within the reach of an individual in a wheelchair. They should be located no higher than 48 inches above the floor, preferably 40 inches. Electrical outlets should be 24 inches from the floor. Special attention should be given to locations which would not necessitate the wheelchair individual reaching over, around or across furniture, heating units, cabinets, etc., to gain access to the switches or controls.

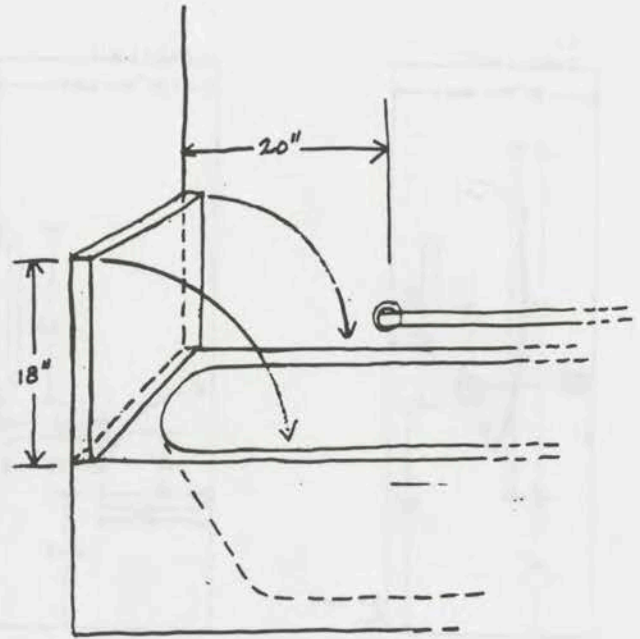
Finally, please keep in mind that the average adult wheelchair is 42 inches in length and 25 inches in width (some chairs are as wide as 28 inches). This may help to determine whether or not sufficient maneuvering space has been provided.

### Bathroom dimensions

The bathroom itself must be of such dimensions that the wheelchair can gain access to any fixture within the room. In general, the new specifications for the *Basic Building Code* for a public toilet room are adequate. The minimum dimensions for a bathroom containing a tub, water closet and lavatory are approximately six feet-six-inches by eight feet. The tub should be equipped with hand-hose shower equipment, grab bars, single level-type water control, and a bench which is either of built-in or fold-down type.



Curb-ramping allows street access and freedom of movement to the partially disabled—those using canes and "walkers"—as well as persons using wheelchairs.



This "Interchangable" use bathtub design features a fold-down bench or platform at the head end. Note grab bar in background.

### The barrier-free design movement—a history

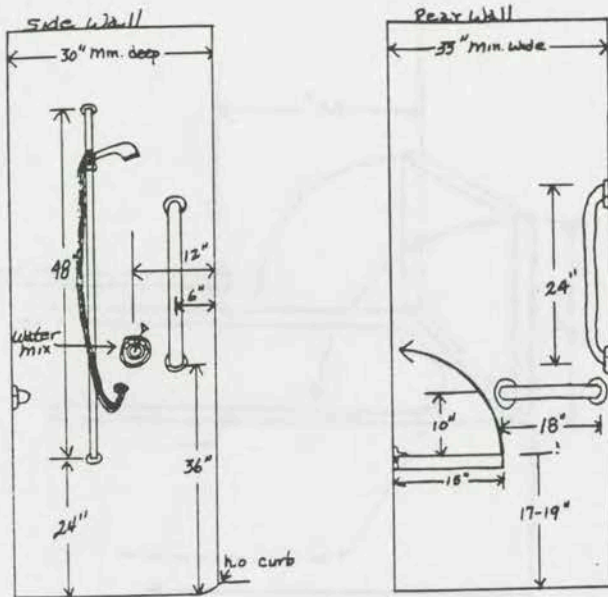
National attention was directed to the problem of architectural barriers in 1957 when Hugh Deffner of Oklahoma City, named "Handicapped American of the Year," had to be bodily carried up the steps of the Federal Building in Washington, D.C., in order to receive his award. In 1958, an ad hoc group of the President's Committee on Employment of the Handicapped, with valuable assistance from the Veterans Administration, compiled a guide outlining special features needed in a building to ensure access and use by the disabled. During that same year, the Minnesota Society for Crippled Children and Adults (MiSCCA) established what was probably the first state-wide Architectural Barriers Committee in the nation. There are several references to Minnesota in this history, because our state is recognized as a pacesetter in the barrier-free crusade.

### Early ANSI Standard

In 1959, the American National Standards Institute (then known as The American Standards Association) set up a special committee under the co-sponsorship of the President's Committee and the National Easter Seal Society. A national conference was called in which many trade and professional organizations were represented. From this conference evolved the *Standards for Making Buildings and Facilities Accessible to, and Usable by, the Physically Handicapped* (ANSI A117.1-1961). Much of the standards document was derived from research done at the University of Illinois.

Also, in 1961, MiSCCA was the recipient of the first federal grant ever approved on the subject. The purpose of the Minnesota project was to provide statistical data on the extent to which architectural barriers existed in four com-





This shower design for handicapped use shows rear and side wall fixtures such as grab bar, bench and hand-held shower sprayer.

munities. In a nutshell, after an on-site detailed survey of 485 buildings, only seven were judged to be accessible to, and usable by, the handicapped. The survey was based on the buildings themselves and their approach walks. If automobile parking had been considered, the seven would have been reduced to zero. Perhaps more importantly, the project developed the first film ever made on the subject "Sound the Trumpets," which is continuing to be seen world-wide.

#### State legislation and national research

In 1963, Minnesota and North Carolina became the first states to enact statewide legislation forbidding the construction of barriers to the handicapped in new buildings financed by the state. Since that time, virtually every state in the union has enacted some form of anti-barriers legislation. In 1971, Minnesota expanded its legislation to include accessibility and usability of all buildings, excepting only single and two-family dwellings and farm buildings. Other states have since done likewise and the current trend seems to be in this direction.

In 1966, President Johnson appointed a National Commission on Architectural Barriers to study the entire problem and make recommendations toward solutions. The final report of the Commission was made in December of 1967 in the form of a booklet entitled "Design for All Americans" (available from the Superintendent of Documents, Government Printing Office). One of the more important acts of the Commission was to arrange for construction-cost studies through the National League of Cities. Three new buildings—a civic center, city hall and hotel—were used as subjects in the study. Comparing what was actually spent to what would have been spent to make these buildings accessible to the handicapped, the League found that the increased cost would have been less than

one-tenth of one percent. Cost estimates were also made on seven hypothetical buildings, each representing a type being commonly built today. The cost increments determined to make them barrier free were less than one-half of one percent.

#### Federal regulation and model code provisions

In 1968, Congress enacted Public Law 90-480 which mandates barrier free architecture for all buildings 1) to be constructed or altered by, or on behalf of, the United States; 2) to be leased in whole or in part by the United States or; 3) to be financed in whole or in part by a grant or loan made by the United States.

The Rehabilitation Act of 1973 established the Federal Architectural and Transportation Barriers Compliance Board to insure compliance with P.L. 90-480 as amended in 1970 by P.L. 91-205, mandating for the disabled accessible and usable mass transit systems. Today, several other anti-barriers bills are being considered by Congress.

The International Conference of Building Officials finally got around to incorporating some minimal specifications for the handicapped in the 1973 edition of the *Uniform Building Code* many years after they were made aware of the problems this omission was creating for disabled Americans. And now BOCA has made its move and a good one it was, indeed!

Winston Churchill once stated, "We shape our buildings; thereafter they shape us." He probably wasn't thinking about the physically disabled when he said this, but . . . think about it.



Building industry neglect at the design stage poses the handicapped with outrageous and painful obstacles many able-bodied persons would never even imagine, or tolerate if they did.



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EDITORIAL

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## Disabilities Act Implementation Path Exists Right Now

With no small amount of political and media fanfare, Congress has passed and the President has signed the 1990 Americans with Disabilities Act (ADA).

Ostensibly, the needs of 43 million Americans with physical or mental disabilities are being addressed through this legislation. Barriers faced by the disabled in such areas as housing, employment, transportation and public/commercial building access will be cast aside. Our concern is not with the worthy goals of the act, but with its implementation.

To implement this act, the U.S. Dept. of Justice in consultation with the federal Architectural and Transportation Barriers Compliance Board (ATBCB) has 180 days to develop rules and guidelines for its enforcement.

Are we looking here at the federal government effectively addressing the needs of America's disabled? We're not sure yet. Certainly, the intent of the ADA legislation is worthy and commendable. But how efficiently the act's objectives are delivered to any given disabled individual on Main Street, U.S.A., remains to be seen.

Enforcement of the act lies with the Attorney General under the Civil Rights Act of 1964. Civil rights cases are major productions, entailing lengthy litigation, and suitable for landmark issues such as desegregating educational systems.

Construction regulation is routinely and effectively accomplished across the land through the local building permit process. It involves millions of decisions and interpretations annually. Its effectiveness is extraordinarily high in achieving regulatory intent of complex issues at the point of delivery.

Don't think we oppose accessibility for the disabled. Quite to the contrary. BOCA and the other model code organizations are several years ahead of the feds on this issue.

Working through the CABO Board for the Coordination of the Model Codes (BCMC), the model code organizations have voluntarily worked since 1987 to develop model regulations for implementing the CABO/ANSI A117.1 accessibility standard uniformly through the nation's model code system. BCMC's report on Accessibility and Egress for People with Physical Disabilities is near completion and scheduled for public hearing on October 16, 1990.

Disabled persons and their advocates have enthusiastically joined with BCMC's code enforcement and construction industry representatives in developing the BCMC report. Brian Black, an advocate for the Eastern Paralyzed Veterans Association, has termed the BCMC report "a true consensus document with which the disabled community has taken a leading role."

At a June 23rd meeting, BOCA's Board of Directors unanimously passed a resolution urging the U.S. Dept. of Justice to

convene a committee of professionals who have actively participated in the BCMC deliberations to assist ATBCB in developing guidelines for implementing the CABO/ANSI A117.1 Standard under the Americans with Disabilities Act.

The point of the board's resolution is that concerned and knowledgeable representatives of the disabled, construction and code enforcement communities have worked diligently for several years to accomplish through the model code system the very objectives of the just-enacted Americans with Disabilities Act. We think the federal government would be sorely remiss not to utilize the fruit of these efforts.

The model code system reliably delivers responsive code enforcement at the local level across more than 90 percent of the United States. Federal bureaucracy has in the past ignored the responsiveness and effectiveness of the model code system, and we surely would not wish to see that happen in this case.

In the late 1970's, for example, the Consumer Product Safety Commission (CPSC) preempted the model code system, as well as state and local governments, in the interpretation and enforcement of safety glazing requirements. The agency soon discovered that, with virtually no inspection staff, it was woefully incapable of any effective glazing enforcement without the active support and involvement of the construction industry, including those representing the regulatory system prevailing in this country. By the early 1980's, glazing requirements were back in the model codes and reliably enforced through some 15,000 local governments using the model codes.

More recently, the 1988 Fair Housing Act also addressed the subject of accessible housing for the disabled. Enacted on September 13, 1988, it required the Dept. of Housing and Urban Development to issue design guidelines for compliance within 180 days — the same deadline given the Justice Department by the recent Americans with Disabilities Act. HUD's 1988 Fair Housing Act guidelines did not appear in the *Federal Register* until 640 days after the act became law. Compliance with this act is intended to be fully implemented on March 13, 1991, but the HUD Guidelines are not final as yet.

When will our federal representatives and servants realize that implementation is not a minor detail but, in fact, the key to efficient and effective compliance? It won't do the disabled any favor to snarl the well-intended Americans with Disabilities Act in this kind of federal red tape. We urge the Justice Department and the ATBCB to adopt the CABO/ANSI A117.1 accessibility standard without amendment, and to make sensible use of the significant groundwork done by BCMC for implementing enforcement of the standard at the local level through the nation's model code system.



## Americans With Disabilities Act - A local perspective

By David M. Hammerman  
Director, Department of Inspections, Licenses & Permits  
Howard County, Maryland

The competing effect of the Americans with Disabilities Act (ADA) provisions on the local building regulatory system is a concern for code officials who are accustomed to enforcing model building codes and standards. The ADA enforcement mechanism is fashioned upon a system of compliance which encourages individuals to file complaints with the Justice Department or bring private lawsuits where there is alleged non-compliance. Therefore, this becomes a "reactive" regulatory system rather than a "proactive" regulatory system with which the building design and construction community works today. As I understand it, the ADA system, however, will encourage both serious and frivolous complaints which could clog the legal system.

To explain the potential effects of a "reactive" ADA posture on the community, let me share some observations and conclusions of a recent tour of Ellicott City, Maryland, a nationally registered historic district dating back to the early 19<sup>th</sup> century.

Ellicott City is famous for historical appeal attributed to its Main Street and clustered small shops and retail stores. Main Street is situated on a steep slope and parallels the Tiber River which actually flows beneath many existing old buildings. Floods are not uncommon to this community, and floodplain restrictions are ever competing with desires to alter or rebuild the older buildings; not withstanding the regulatory constraints imposed on alterations or additions within the historic district.

Many of the buildings are inaccessible to mobility impaired persons. Limited parking facilities, narrow walkways, steps protruding in the sidewalk, curbside telephone poles, and other impediments adversely affect handicapped use and accessibility of the infrastructure and building entrances.

To make these buildings accessible

and usable in accordance with *all* of the ADA requirements would be astonishingly unrealistic and costly, and diminish their historical character. In many instances, it would be impossible to meet the exacting technical elements of the established codes without waivers or adjustments. Further complicating the problem is the fact that local and federal land use restrictions, such as floodplain limitations, conflict with ADA and do not have provisions to accommodate ADA mandated changes. As noted in the January 2 *Federal Register*, much of Ellicott City, however, fortunately will need to comply only with the more realistic historic structures requirements of the ADA.

During the tour of the Main Street and the contiguous shops and retail areas, a new dimension of concern became apparent. Of the few existing ramps, slopes, and handicapped accessible surfaces built years ago, weather and normal deterioration caused settlement cracks and walkway expansion joints to widen and surfaces to drop out of plane. Perhaps a Handicapped Maintenance Code similar to an Existing Structures Code needs to be developed as a companion document to the established Handicapped Codes. This is a necessary component to assure uniform structure compliance with ADA.

Will the initiation of ADA requirements trigger an avalanche of complaints to the local regulatory agencies and the Civil Rights Division of the U.S. Department of Justice? Should we accept a "reactive" posture for ADA compliance?

What is the answer? I believe that the only way to achieve sensible compliance with the ADA is through a cooperative effort with the Department of Justice, the U.S. Architectural & Transportation Barriers Compliance Board (ATBCB), and our nation's established building codes and standards regulatory process. The Department of

Justice will begin this summer to implement the ADA based upon the federal accessibility standards and scoping provisions that ATBCB has just published in the *Federal Register* for public comment. Since many of these proposed provisions are similar to either those found in or being considered in the next update of the ANSI A117.1 Accessibility Standard, most states and localities should be able to obtain certification of their codes by the Department of Justice. This step should help the ADA process, but it does not go far enough. It does not reduce the "reactive" nature of the system.

The ADA can become a "proactive" process by the Department of Justice making maximum use of the nation's existing codes enforcement process. Justice could create that system by not only certifying a jurisdiction's "code" but by also certifying its enforcement process, including its appeals and waivers system. In this manner, a state or local building department could assist the owners of buildings determine what changes must be made to their existing, new, or rehabilitated structures to bring them into compliance with this important new civil rights legislation.

The ATBCB's proposed rules of January 22, 1991 offer a precedent for establishing such a far reaching relationship. On page 2308 of the *Federal Register*, ATBCB proposes to make use of state and local historic preservation boards and commissions to determine if the ADA's proposed accessibility provisions would "threaten or destroy the historic significance of such designated properties." Similar authority in the hands of state and local building regulatory departments and their accessibility boards would go a long way towards providing a more proactive approach towards assuring compliance with both the spirit and the law of the ADA.

Let's not reinvent the wheel. Let's not have a compliance system based on reaction to complaints or issues of ideal fixes and literal compliance with the "rules." Are we ready to immerse ourselves into a "reactive" system of ADA compliance? If so, when all is said and done, there will be much more said than done!





The State of Maryland hosted a walking tour of the downtown area of Ellicott City and a portion of the commercial area of the City of Columbia on January 4, 1991.

The purpose of the visit was to walk through a typical older town and a planned unit development to identify problems in providing accessible entrances to and routes through buildings. Our purpose was to assist the Department of Justice as it prepares the regulations for the Americans with Disabilities Act.

Participating in the tour were staff from the Maryland Department of Housing and Community Development; David Hammerman and staff from Howard County, Maryland Department of Inspections, Licenses, and Permits; Department of Justice Attorneys Irene Bowen, Stewart Oneglia, and Janet L. Blizard; Kim Beasley, Paralyzed Veterans of America; and Robert Wible and Ann Holland of NCSBCS.

Ellicott City is an historic district located in a valley with steep granite hillsides. In addition, a stream runs through the town and under several buildings on Main Street, making a portion of the town a 100-year floodplain.

Ellicott City is typical of many of Maryland's small municipalities which have uneven terrain and empty buildings. From time to time buildings undergo renovation in an attempt to compete

with newer shopping districts on the outer limits of these communities. The terrain in these small towns may be more or less severe than Ellicott City, but the problems are the same.

Generally, there are vacant lots in these communities caused by fire, demolition, or left over from a building boom of another era. It may be necessary in future years of controlled growth to construct buildings on the sites. Ellicott City has some vacant sites upon which it may be very difficult to construct an accessible building.

The tour was a good illustration of problems encountered at the local level. One store had an entrance walk of paving bricks which had settled unevenly, making it difficult for a wheelchair user to negotiate. This is a problem in historic districts where there may be requirements for authentic walkway restorations of brick laid on sand or installing an approach to a building from a steep sloping street, where the designer would need to create a safe entry and yet provide for proper drainage. Many stores which fronted directly on a narrow sidewalk had several steps up to the first floor level.

## Americans with Disabilities Act - A state perspective

By James C. Hanna Director, Codes Administration  
Maryland Department of Housing and Community Development

In Maryland, a change of use for this type of building requires accessibility, but the owner may apply for a waiver since it may not be possible to install a ramp or lift.

After touring a few commercial buildings in Columbia, Maryland, we concluded that while much of the city is not currently accessible, it was achievable. Some problems we cited were areas within stores which may create an accessibility problem, such as pharmacy platforms and raised security areas.

Issues to be resolved between the ADA and the Maryland Building Code for the Handicapped include differences in requirements for two-story buildings, minimum square footage requirements, and Maryland's inclusion of religious and private clubs. Also, the Maryland Building Code for the Handicapped has provisions for obtaining waivers in cases of hardship and impracticality. It appears the ADA has no waiver provisions and this raises the possibility that the Maryland code may not receive certification from the Department of Justice if those provisions remain in the code.



ADA statutory requirements become effective on July 26, 1992 for employers with 25 or more employees. Two years later, the requirements apply for employers with 15-24 employees.

Public accommodations fall under ADA requirements on January 26, 1992. New facilities designed and constructed for first occupancy after January 26, 1993 must be accessible. This means:

1. Public accommodations such as restaurants, hotels, theaters, doctors' offices, pharmacies, retail stores, museums, libraries, parks, private schools, and day care centers may not discriminate on the basis of disability, effective January 26, 1992. Private clubs and religious organizations are exempt.

2. Auxiliary aids and services must be provided to individuals with vision or hearing impairments or other individuals with disabilities so that they can have an equal opportunity to participate or benefit, unless an undue burden would result.

3. Physical barriers in existing facilities must be removed if removal is readily achievable (i.e., easily accomplishable and able to be carried out without much difficulty or expense). If not offered, alternative methods of providing the services must be offered, if those methods are readily achievable.

4. All new construction in public accommodations, as well as in "commercial facilities" such as office buildings, must be

accessible. Elevators are generally not required in buildings under three stories or with fewer than 3,000 square feet per floor, unless the building is a shopping center, mall, or a professional office of a health care provider.

5. Alterations must be accessible. When alterations to primary function areas are made, an accessible path of travel to the altered area (and the bathrooms, telephones, and drinking fountains serving that area) must be provided to the extent that the added accessibility costs are not disproportionate to the overall cost of the alterations. Elevators are required as described above.



## BOCA Code Provisions on Accessibility

It is widely recognized that the goal of greater accessibility to buildings and structures cannot be realized without reliance on this nation's building code enforcement system. The model building codes in the United States have been enforcing accessibility requirements for a number of years, primarily through the adoption and use of ANSI Standard A117.1.

BOCA, for example, first incorporated comprehensive requirements based on ANSI A117.1 in the 1975 edition of the *BOCA Basic Building Code*. In the 15-plus years since, there has been a continual effort to maintain and update those provisions as state-of-the-art technology progresses. The same effort can be expected to continue as the 1991 edition of ANSI A117.1 develops and the efforts of BCMC to develop comprehensive scoping requirements are considered in the annual code change process.

The 1991 BOCA Code Change Cycle will include BCMC's proposed re-write of Section 512.0 of the *BOCA National Building Code/1990*. When the 1991 edition of ANSI A117.1 is established, it is reasonable to anticipate that BCMC will develop scoping provisions consistent with the new standard for consideration by the BOCA membership. (The timing of these various activities could result in the 1993 edition of the *BOCA National Building Code* referencing the new ANSI A117.1, including comprehensive scoping provisions, barring any unforeseen delays in either the ANSI process or the BCMC process.)

The question this raises, then, is the ultimate compatibility

between the updated model building codes and guidelines that will be developed by the ATBCB. The ideal circumstance one could hope for is the existence of a *BOCA National Building Code* that incorporates the 1991 ANSI A117.1 along with BCMC scoping provisions, which would then be evaluated and certified by the Department of Justice as meeting or exceeding the ADA. A community could then know with confidence that they are in compliance with the ADA (insofar as buildings are addressed by the ADA) by doing nothing more complicated than adoption of the BOCA code.

Whether this "ideal" circumstance can become reality depends in large measure on whether the ATBCB and the Department of Justice will choose to rely completely on ANSI A117.1. The model code groups have consistently taken the position that the federal government should rely on the private sector for standards and regulations whenever possible. ANSI A117.1, can, and should, be utilized as the consensus national standard on the subject of accessibility. Since the ADA is law as passed by Congress, the private sector could conceivably hear from the ATBCB and the Department of Justice that its hands are tied and that it is compelled to work within the established law. If the future model code does not measure up, then the "ideal" circumstance will not be realized. One solution to that, and perhaps the best long-term solution, would be to go back and change the law to enable ANSI A117.1 to be the standard upon which accessibility to buildings is based.

## Management Skills Training

### Training and Coaching For Code Enforcement Supervisors

#### The Concept

Employee development is an important responsibility for supervisors. Two key skills for supervisors are coaching and on-the-job training. In this seminar participants practice training and coaching techniques using work tasks from code enforcement.

#### Content

- Basics of adult learning theory.
- Determining what to train and how to train.
- On-the-job training techniques.
- Coaching for continued job performance.
- Delegation as an employee development tool.
- Developing an action plan.



#### Who Should Attend?

Managers, supervisors and other code enforcement professionals who provide on-the-job coaching and training.

#### Fees:

\$115 (BOCA members) includes participant materials and morning and afternoon refreshments. Lunch is on your own. Nonmember registration fee is \$150 and must be prepaid.

#### Locations and Dates:

|                   |              |
|-------------------|--------------|
| Lansing, MI       | February 26  |
| Cincinnati, OH    | March 26     |
| Pittsburgh, PA    | April 30     |
| Springfield, MA   | May 7        |
| Richmond, VA      | May 30       |
| Nashville, TN     | June 18      |
| Austin, TX        | September 10 |
| Oklahoma City, OK | October 8    |
| Denver, CO        | November 12  |

Contact the Seminar Coordinator at BOCA Training Services, (708) 799-2300, for Registration Forms.



## FEATURE

# ADA

## Americans With Disabilities Act 1990

**T**he 1990 Americans with Disabilities Act (ADA), signed into law by President Bush last July 26, 1990, aims to provide greater accessibility to an estimated 43 million disabled Americans. The Act, enforceable as civil rights legislation, is scheduled to take effect in early 1992. Steps toward its implementation began Jan. 22, when the Architectural and Transportation Barriers Compliance

Board (ATBCB), an independent federal agency, published proposed guidelines in the *Federal Register* for public comment. At the March 25, 1991, conclusion of the comment period, ATBCB will finalize the guidelines for the Department of Justice (DOJ) by April 26, 1991.

They will then be examined by the Justice Department, which is expected to implement a set of standards based on these guidelines by Jan. 26, 1992.



## *The ADA legislation grants individuals with disabilities comprehensive civil rights protection similar to that provided to persons on the basis of race, sex, national origin, and religion as outlined in the Civil Rights Act of 1964.*

The department has also been assigned the responsibility for enforcing the Act.

The impact ADA will have on businesses and the code enforcement industry is far-reaching and is being increasingly realized. It is viewed by many disabilities' advocates, industry experts, and federal officials as the most sweeping civil rights legislation since the Civil Rights Act of 1964.

The proposed ATBCB guidelines, as required in Title III of the Americans with Disabilities Act (Public Accommodations and Services Operated by Private Entities), will be the basis for the accessibility standards for new construction and alterations in places of public accommodation and commercial facilities, such as hotels, stores, theaters, offices, and transportation systems that will be established by the Justice Department. Transportation systems are covered separately and are not addressed in this article. ADA is not applicable to single or multifamily housing, both of which are handled by the Fair Housing Act (FHA) of 1988.

ATBCB's implementation guidelines are intended to ensure that newly constructed and altered buildings and facilities are readily accessible to, and usable by, individuals with disabilities in terms of architecture and design. According to the Act, "readily accessible and usable" does not mean total accessibility, but rather that a building or part of a building be provided with a reasonable degree of accessibility to accommodate people with disabilities.

Accessibility, in general, is defined as any site, building, facility, or portion thereof that complies with the guidelines and can be approached, entered, and used by individuals with disabilities. For example, entrances, corridors, bathrooms, water fountains, and other amenities should be accessible to people with disabilities.

In addition to being readily accessible and usable, altered buildings must comply with the "readily achievable removal of architectural barriers" provision. This is the only provision that differs in terms of when to comply from the rest of the Act. For any existing building with ten to 25 occupants, compliance begins July 26, 1992 and for those facilities with ten or fewer occupants, compliance is set for Jan. 26, 1993.

The architectural barriers provision simply means that architectural barriers should be removed if it is easily accomplishable without much difficulty or expense. Some barriers like door locks or safety railings are beneficial, but other barriers, such as stairs, turnstiles, and toilet stall walls, are impediments to those with physical disabilities.

There are many factors to be considered in determining whether the removal of a barrier is readily achievable—the nature and cost of the action needed, the overall financial resources of the operation, the size of the work force, the impact of alterations on the operation, and the type of operation. Some common examples of barrier removal that would be deemed readily achievable under ADA are:

- the installation of a bathroom grab bar,
- a small entrance stoop that could be ramped, and
- the removal of a fixture or obstacle blocking an otherwise accessible entrance

There are instances where architectural changes may not be feasible, in which case the proposed guidelines would require that some other reasonable accommodation be made. For example, if a water fountain is too high for a person using a wheelchair, a likely solution might be to install a paper cup dispenser near the fountain.

### **Historical Development of ATBCB Guidelines**

The ADA legislation grants individuals with disabilities comprehensive civil rights protection similar to that provided to persons on the basis of race, sex, national origin, and religion as outlined in the Civil Rights Act of 1964. In Title III of ADA, discrimination on the basis of disability is prohibited in places of public accommodation by any person who owns, leases (or leases to), or operates such a building.

One of the first, although tacit, supporters of the legislation was the National Council on Disability (NCD), an independent federal agency begun in 1978 to establish disability policy for federally funded programs. In 1986, NCD completed a two-year study on disabilities and published its report, "Toward Independence." The report described "the inadequacy of the existing, limited patchwork of protections for individuals with disabilities," and ultimately recommended that a comprehensive civil rights law requiring equal opportunity for individuals with disabilities throughout the United States be enacted.

Two years later, legislation was introduced by former Sen. Lowell Weicker, Jr. (R-CT) and former House Democratic Whip Tony Coelho (D-CA), but

the bill failed to pass both the Senate Labor and Human Resources and House Public Works Committees. Disability concerns cropped up again during the presidential campaign of then Vice-President Bush and was reintroduced in Congress in May, 1989. The Bush administration reiterated its support for ADA through Attorney General Dick Thornburgh's public testimonies before the Senate Committee on Labor and Human Resources and the House Judiciary Committee. Thornburgh suggested that changes be made, and after extensive negotiations between the bill sponsors and White House, conference committee deliberations, and floor debates, legislation was unanimously passed in July, 1990.

ADA was drawn on two key civil rights elements—the Civil Rights Act of 1964 and Title V of the Rehabilitation Act of 1973,

***Any new construction of public accommodations or commercial facilities designed or constructed for first occupancy after January 26, 1993 must comply with the ADA requirements, unless it is proven structurally impractical.***

*(Continued on next page)*



## FEATURE

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thus making disabilities appear as a civil rights issue and not federal bureaucratic intrusion. Reportedly, this was why there was solid support and swift approval from lawmakers. Conceivably, no politically astute lawmaker would want to be seen as opposing the principle of civil rights.

Civil rights is viewed as an unassailable concept on Capitol Hill, and, as a result, proponents lobbied from this standpoint, hoping lawmakers would be too fearful of opposing legislation that would help the disabled join the mainstream. Proponents argued that the majority of people with disabilities live outside the mainstream of American economic and social life, thus barring them from the same employment, recreation, and consumer choices of everyone else.

Currently, there is a law mandating that all federally related jobs and workplaces provide reasonable accommodations to people with disabilities, and be designed and constructed in a readily accessible and usable way. Proponents quickly contended that this provides no guarantee of accessibility in the vast number of public accommodations and commercial facilities that are not federally related. They believed that many of the state and local laws covering nonfederally related buildings tend to be either obsolete or inadequate. Proponents further contended that some jurisdictions have no laws establishing accessibility standards, and that ADA best resolves the issue by applying a federal standard to these types of buildings.

### Public Accommodations, Commercial Facilities Defined

Under the Act, there are provisions specifically defining what constitutes public accommodations and commercial facilities.

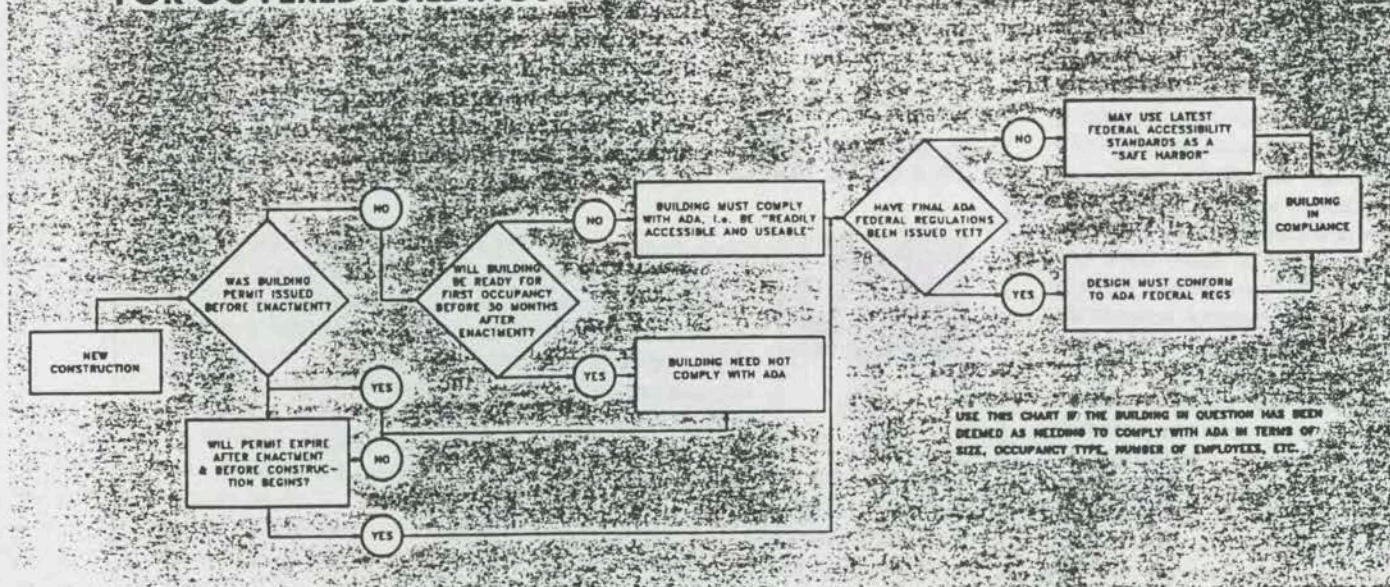
Public accommodations are divided into the following twelve categories:

- (1) places of lodging;
- (2) establishments serving food or liquor;
- (3) places of exhibition or entertainment;
- (4) places of public gathering;
- (5) sales or rental establishments;
- (6) service establishments;
- (7) stations used for specified public transportation;
- (8) places of public display or collection;
- (9) places of recreation;
- (10) places of education;
- (11) social service center establishments; and
- (12) places of exercise or recreation.

In order to be considered a public accommodation, a facility must be operated by a private entity, its operations must affect commerce, and it must fall within one of the above categories. For example, both hospitals and homeless shelters would be considered a public accommodation because they are a service establishment and social service center, respectively. However, residential facilities would not because they are not considered a place of lodging. This would include cases where there is a residential apartment wing located in a hotel. The residential apartment wing would not be covered by ADA, but by the Fair Housing Act.

If a facility is not considered a public accommodation, it is likely to be considered a commercial facility and still be subject to ADA requirements. Commercial facilities are buildings in-

### A GUIDE TO ADA COMPLIANCE REGARDING NEW CONSTRUCTION FOR COVERED BUILDINGS





tended for nonresidential use and whose operations will also affect commerce, such as office buildings, factories, and other places in which employment will occur. This is interpreted broadly to include those establishments not covered under public accommodations.

## Compliance Needed For Public Accommodations, Commercial Facilities

Any new construction of public accommodations or commercial facilities that are designed or constructed for first occupancy after Jan. 26, 1993 must comply with the requirements, unless it can be demonstrated that such action would prove structurally impractical. It is not yet clear what constitutes "designed or constructed for first occupancy." The unresolved issue that needs to be clarified is when do the ADA requirements apply and what is their effect on buildings whose design is underway before the compliance date.

## It is not yet clear what constitutes "designed or constructed for first occupancy."

In the meantime, the provision for new construction calls for at least one accessible route to connect to accessible building or facility entrances with all accessible spaces and elements within the building or facility; some of which may involve corridors, floors, ramps, elevators, and lifts.

Requirements for alterations refer to any change that affects or could affect the usability of that building. These include, but are not limited to, remodeling, renovations, rehabilitation, reconstruction, historic restoration, changes or rearrangement of the structural parts of a building, changes or rearrangement in the plan structure of walls and partitions, and any extraordinary repairs. In the case of each of these alterations, the path of travel to the altered area, and restrooms, telephones, and drinking fountains serving these areas must be made accessible to the extent that additional accessibility features are not disproportionate to the overall alterations in terms of cost and scope. Normal maintenance, reroofing, painting or wallpapering, or changes made to mechanical or electrical systems are not considered alterations, unless they affect the usability of the building or facility.

Alterations that would result in a decrease in the level of accessibility of a building or facility are specifically prohibited. For example, if an existing facility has two entrances, both of which are accessible by means of a ramp, it would not be permissible to replace one of the ramps with steps, even though a single ramp would be allowed for new construction. Apparently, according to ATBCB, there have been problems in the past where existing facilities that incorporated accessibility features have been altered, resulting in an overall decrease of accessibility.

It is also clear that alterations are not required to provide greater accessibility than is required in new construction. For instance, if the elevators and stairs in a building are being altered and the elevators are made accessible, no accessibility modifications are required to the stairs connecting levels now connected by the accessible elevators. This is because the provisions for new construction require

only stairs connecting levels that are not connected by an elevator to comply. However, if modifications to the stairs are required by a local code to correct unsafe conditions, the modifications must be completed in accordance with accessibility requirements, unless it is technically impractical.

The only exception to any of these requirements is the installation of elevators, which are not required for newly constructed or altered facilities less than three stories or have less than 3,000 sq. ft. per story, unless the building is a shopping center, mall, or medical office. Elevators may be required in other types of facilities, depending on the usage of the facility based on criteria to be determined later by the Justice Department.

Other requirements include protruding objects, such as telephones, and ground and floor surfaces along accessible routes and in accessible rooms. Any object protruding from walls with their leading edges between 27 inches and 80 inches above the finished floor may extend not more than 4 inches into walks,

halls, corridors, passageways, or aisles. The concern here is whether this provision gives adequate warning to individuals with impaired vision who use the wall as a guide, which is fairly common among individuals suffering from low vision and who may not use mobility aids, such as canes and guide dogs.

Ground and floor surfaces must be stable, firm, and slip-resistant, though there has not been a quantitative measure assigned for slip-resistance. According to ATBCB, this has led to the use of some inappropriate materials, especially for ramps. It was learned through an ATBCB sponsored research project that individuals with disabilities have a need for greater friction on walking surfaces than others. As a result, an assigned slip resistance value to be implemented in accordance with the guidelines is being considered by ATBCB for ground and floor surfaces. The inclusion of a slip resistance value would require builders and designers to carefully consider the choice of materials and hopefully discourage, at the very least, the use of inappropriate materials.

Because all of these requirements as outlined in the *Federal Register* encompass so many areas, there is not sufficient time

(Continued on page 36)

## Meet BOCA Employee . . .



**Chris Holland**, staff engineer, started his employment in May of 1990. Chris works for BOCA Evaluation Services, Inc., and his job involves writing research reports, performing written and telephone code interpretations, and doing plan reviews. Additionally, Chris will be conducting training seminars in the future. He attended Purdue University in West Lafayette, Indiana. A 1986 graduate, Chris holds a Bachelor of Science Degree in Interdisciplinary Engineering with an emphasis on Mechanical Engineering. He participated in intramural sports at school. Before joining the BOCA staff, Chris worked for his father's company, R.L. Holland & Associates, as a manufacturer's sales representative. Chris was married shortly after coming to BOCA, and he and his wife, Kathie, live in Homewood, Illinois. Outside of work, Chris enjoys bicycling, swimming, water skiing, boating and most sports.



## FEATURE

(Continued from page 21)

or space to detail them, along with the many exceptions, concerns, and unanswered questions that remain. For example, there are sections devoted entirely to alterations for electrical, mechanical, or plumbing systems, or for asbestos removal; historic preservation; ramps and stairs; windows; toilet stalls; alarms; automated teller machines; dining areas; places of transient lodging; libraries; swimming pools; state and local government buildings; and others.

### The Cost of Implementing ADA Requirements

The cost incurred in designing and renovating buildings to meet the ADA requirements seems to be elusive among many advocates, industry experts, and lawmakers. The exact cost is not known. However, it has been estimated that businesses stand to spend \$200 million annually in construction costs.

This has many building owners worried because they will have to carry the financial burden that comes with making whatever changes are necessary—wider doors, ramps, and lifts, and special telephones and lavatories—to accommodate the disabled. Many owners believe if the federal government wants these requirements, they should at least foot the bill for it.

In addition, building owners would like to have some type of technical assistance. Technical assistance is important because

whenever there is noncompliance is forcing code officials to shift from a proactive to reactive posture. The sentiment among those in the industry is that to make buildings accessible and usable in accordance with all of the ADA requirements would be both unrealistic and costly, not to mention that it may diminish the character of some cities across the nation that are known for historical appeal (see related article on Ellicott City, Maryland, Page 37).

Furthermore, there are many local and state governments that have already made considerable progress in requiring increased accessibility to buildings and facilities by people with disabilities. This is reflected in the increased adoption of building and construction requirements that continue to be developed and refined based on the latest information and research. As accessibility requirements within model building codes have evolved over the last two decades, accessibility of all buildings has grown steadily.

Accessibility efforts have accelerated since the Council of American Building Officials (CABO) assumed the Secretariat of the American National Standard (A117.1)—*Providing Accessibility and Usability for Physically Handicapped People*—in 1987. At that time, CABO assigned its Board for the Coordination of the Model Codes (BCMC) the task of developing enforceable scoping provisions that would require buildings to be

***... The ADA requirements fall short of being clear, concise, and consistent with the terms and concepts used in codes and the construction industry.***

trying to determine how to make alterations to buildings is a long, cumbersome process. To date, nothing has been brought forward by the federal government in the way of technical assistance or financial incentives and tax credits.

There is also immense concern regarding anticipated legal expenses resulting from a backlash of court cases. This is because the ADA requirements are based on civil rights legislation and enforcement will be through the judicial system, thus causing huge delays to an already cramped system. According to 1989 statistics reported in the *Wall Street Journal*, 1.5 million people filed for disability benefits. Today, there are some 25,000 disability cases pending in federal court. This figure is expected to rise substantially once the ADA requirements apply.

Another reason for expected courtroom battles is because of the ambiguity of many of the proposed requirements, terms, and concepts. This opens the door for conflicting interpretations, and, in the end, the courts would ultimately have to resolve the resulting disputes.

### ADA's Effect on Code Enforcement Industry

How the courts will make these judgements and how they're enforced will have a competing effect on the building regulatory system. This is of particular concern for code officials, who are accustomed to enforcing model building codes and standards in a proactive manner. Proactive enforcement enables code officials to actively seek out code violations and obtain compliance without total reliance on the judicial system. This method of enforcement has been very successful in achieving compliance than an untried system of reliance on complaints and resolutions through the courts.

Whereas, using an enforcement tool that encourages individuals to file legal complaints with the Justice Department

accessible, with accessible means of egress. Both the scoping provisions and those for means of egress will be continually developed and maintained in a manner that is responsive to further developments and future changes to the standard while, at the same time, being mindful of the traditional enforcement methods.

Between the efforts of CABO to revise the ANSI A117.1 Standard and BCMC to establish comprehensive scoping requirements, the private sector will be producing technically credible, reasonable, and enforceable requirements that will largely be able to accomplish the same overall purpose of the ADA requirements. These private sector efforts are apparently being ignored, or at least severely under-utilized by ATBCB.

Currently, BOCA and the other model code organizations are moving to adopt the BCMC scoping provisions into their codes. They have previously, through CABO, worked with the federal government to reduce the overlap and duplication of building and construction requirements between those of the federal agencies and those promulgated by the private sector. For example, the Department of Housing and Urban Development (HUD), Department of Veterans Affairs (DVA), and the Farmers Home Administration of the Department of Agriculture (DOA) are now relying on the health and safety requirements in private sector codes and standards. The Department of Defense (DOD) is presently considering the same requirements. More importantly, federal agencies are actively participating in the processes of the model building code system, especially HUD which holds membership in BOCA. BCMC hopes to continue these efforts with the federal government in regard to the ADA requirements.

Another concern expressed by BOCA and the other model code organizations is that the ADA requirements fall short of being clear, concise, and consistent with the terms and concepts



used in codes and the construction industry. For example, the term "means of egress" is defined as a "... way of exit travel ...". The term "exit" has a unique meaning in many building codes and is separate and distinct from "exit access" and "exit discharge." There are many other examples of potential confusion because the definitions and usage conflict with current building codes.

Though these differences exist and may not be resolved, it is expected that most states will still be able to obtain certification of their codes by the Justice Department. Certification of local and state codes is the thrust of the Justice Department's enforcement tool for the ADA requirements. The basis for this type of enforcement lies in the department's hope that most states will be granted certification, so then enforcement will be integrated into local building department's operations. If this occurs, it will no doubt reduce the pressure placed on the Justice Department.

But, any jurisdiction that has weak accessibility codes will either be forced to develop a code of its own or adopt one based on the minimum requirements. Neither the Justice Department nor ATBCB sees this as a potential threat to the ADA requirements. ATBCB member Ellen Harland, an architect and certified building official, said this is not a major problem because most states already have strong accessibility codes.

A possible underlying problem that has been overlooked throughout is the potential for jurisdictions to drop their accessibility standards altogether and rely on the ADA requirements and Justice Department enforcement rather than face the difficulty of having to enforce the ADA requirements that are not clear, reasonable, and enforceable. This would result in the Justice Department having to solely enforce the requirements without

the help of local building departments and could prove to be a much greater burden than the Justice Department realizes.

In general, it is evident that the existing building code enforcement process is the most realistic vehicle through which the goal of accessible buildings will be realized. The private sector codes and standards are and will continue to be responsive to this issue by producing reasonable, credible, and enforceable requirements. Cooperative efforts between the private and federal sector have successfully worked in the past and continue to work in many areas. It is incumbent on the federal sector to, once again, realize the benefit to all affected parties that would be gained by trusting and relying on the private sector to responsibly and effectively accomplish our mutual goals. ■

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**Editor's Note:** Anyone interested in obtaining a copy of the ATBCB guidelines once they are finalized on April 26, 1991, contact: James Raggio, Office of the General Counsel, Architectural and Transportation Barriers Compliance Board (ATBCB), 1111-18th St. NW., Suite 501, Washington, D.C. 20036. Telephone: (202) 653-7834.

## Maryland's Walking Tour Assists DOJ

Recently, the state of Maryland hosted a walking tour of downtown Ellicott City and a part of the commercial area of the city of Columbia. The purpose of the tour was to walk through a typical older town and a planned unit development to identify problems in providing accessible entrances to and routes through buildings. The tour was also an effort to assist the Department of Justice (DOJ) as it prepares to issue final ADA implementation guidelines on April 26, 1991.

Ellicott City, a nationally registered historic district dating back to the early 19th century, is typical of Maryland's small municipalities that are located on uneven terrain and consist of many empty buildings and vacant lots. It is common in the state for buildings to be constructed or undergo renovation on these sites. The city is also susceptible to floods, resulting in floodplain restrictions. These restrictions are often competing with the need to alter the older buildings, not to mention the building code restraints for alterations or additions within a historic district. For these reasons, it would be difficult, once the ADA requirements apply, for owners to construct accessible buildings on these sites.

One of the more serious problems encountered on the tour was an entrance walk made of paving bricks which had settled unevenly, making it difficult for a wheelchair user to function. This is common in historic districts where there may be requirements for authentic walkway restorations or installing

a building entrance from a steep, sloping street.

Another problem was that store entrances were directly in front of a narrow sidewalk with steps leading up to the first level. According to the *Maryland Building Code for the Handicapped*, a change of use for this building requires accessibility; however, the owner may apply for a waiver because it may not be possible to install a ramp or lift. To date, the ADA has no waiver clause, so, as a result, the state code may not receive certification from the Justice Department.

Additional impediments were limited parking facilities and curbside telephone poles.

In Columbia, where some commercial buildings were considered inaccessible they were still deemed achievable—in other words, owners would have to make the necessary changes to comply with the ADA requirements. Some of these changes referred to raised floor platforms at a pharmacy counter and elevated security floor areas.

It was learned after the tour that some issues need to be resolved between ADA and the *Maryland Building Code for the Handicapped*. This includes differences in requirements for two-story buildings, minimum square footage, and the state's inclusion of religious and private clubs. To date, religious and private clubs are exempt from the ADA requirements.



**T**wo landmark federal regulations governing accessibility now have published guidelines that outline necessary construction features to make new and existing buildings accessible to the physically disabled. In 1988, Congress passed the Fair Housing Amendments Act (FHAA) to cover multiple-family housing of four units or more on a site. In 1990, Congress passed the Americans With Disabilities Act (ADA) to cover the majority of remaining buildings.

Both acts spring from the Civil Rights Act of 1964. Indeed, ADA is specific to civil rights of disabled individuals, with final enforcement through the U.S. Department of Justice (DOJ). FHAA, on the other hand, is administered and enforced by the U.S. Department of Housing and Urban Development (HUD).

Why then should local building departments concern themselves with federal regulations stipulating enforcement by federal agencies? Because both acts affect significant portions of building construction, and the federal government recognizes the necessity of local enforcement to achieve widespread compliance.

From the beginning, the model codes have followed the legislation and resulting guidelines through BCMC and the CABO/ANSI A117 Committee, which is in the process of revising the national standard on accessibility features of building construction.

This article identifies some of the obvious reasons why local jurisdictions should carefully consider whether to volunteer to act as a plan review and inspection agency for these federal regulations. It also tracks current status of codes and standards that conflict with the new regulations.

### Fair Housing Features

As noted, the Fair Housing Amendments Act requires multiple-family housing of four units or more to provide 100-percent accessible units on all floors for buildings with elevators and on ground floors in buildings without elevators. There are exceptions for impractical sites, such as hilly terrain and elevated buildings in floodplain areas.

Common areas, like laundry rooms and lobbies, are required to be fully accessible, whereas individual units can be adaptable for future conversion to accessibility when needed. FHAA criteria for adaptability are more lenient than those of ANSI A117.1, requiring only usable doorway widths, a level or ramped accessible route through the dwelling unit, accessible heights for light switches, electrical outlets and environmental controls, reinforced walls for grab bar attachment, and wheelchair-maneuverable kitchens and bathrooms. Although less restrictive than the current ANSI standard, FHAA provisions cover many more units than are usually scoped for ANSI compliance.

Here are some of the provisions in the HUD guidelines that may cause enforcement difficulties:

**Impractical sites.** Accessibility need not be provided to a percentage of units, in buildings without elevators, that cannot establish an accessible route to the entrance due to elevation changes that exceed 10 percent. There are different slope analyses to be used to test for impracticality, depending on number of buildings on the site, and number of entrances to a building.

A single building with one common entrance must depend on a measurement from the planned building entrance to all vehicular or pedestrian arrival points, including parking lots, public transportation stops, and public sidewalks. If none of these points is within 50 feet of the planned entrance, the slope is calculated to the nearest arrival point. It is possible, then, for one of many arrival points to be used as the deciding factor for accessibility.

Other buildings can base the number of accessible ground floor units on the percentage of undisturbed site with natural grade less than 10 percent, using 2-foot contour intervals. This survey analysis must be certified by a professional engineer, architect or surveyor. An additional test adds any units that end up with a maximum slope of 8.33% between the entrance and pedestrian or vehicular arrival point.

Since there is a real economic impact associated with the number of required accessible units, it follows that considerable time will be demanded on verification of existing and final site elevations.

**Grab bar reinforcement.** Guideline illustrations show rectangular reinforcement areas to locate material inside walls for future grab bar attachment. Some minimum horizontal dimensions match center-to-center dimensions of

mounting hardware, so may not be usable for available grab bars. Guidelines suggest using plywood or wood blocking, but attachment of the backing material to wall framing is critical for proper support of a grab bar. For these reasons, the ANSI A117 Committee is considering deletion of similar diagrams for adaptable units. This becomes another plan review and inspection item, with little guidance for the building official.

**Usable bathrooms in multistory dwelling units.** The guideline requires bathrooms on the accessible level of a multistory dwelling unit to be accessible. However, multistory dwelling units (townhouse configuration) in buildings without elevators are not required to be accessible. Possibly this guideline applies to multistory dwelling units in a building with elevators, when the elevator stops at one story only of the unit.

**Egress.** The guideline does not have requirements for safe egress of persons with disabilities.

In their basic provisions, the HUD guidelines state it is HUD

## Enforcing Federal Accessibility Guidelines

By

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&

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policy to "encourage states and units of general local government to include, in their existing procedures for the review and approval of newly constructed covered multiple-family dwellings, determinations as to whether the design and construction of such dwellings are consistent" with the guidelines. In the next section, the guidelines state, "Determinations of compliance or noncompliance by a state or a unit of general local government...are not conclusive in enforcement proceedings under the Fair Housing Amendments Act."

This seeming conflict can be interpreted as a mere technicality, since the act itself does not account for state or local enforcement. It can also be interpreted to mean compliance efforts by state or local jurisdictions have no legal standing.

## ADA Features

ADA requires all new construction and alterations in places of public accommodations and commercial facilities to be accessible in accordance with a combination of provisions from the Uniform Federal Accessibility Standards that used ANSI A117.1-1980 as a base, plus provisions from ANSI A117.1-1986 and some of its proposed revisions. The only occupancies specifically exempted are religious buildings, private clubs, and single- and multiple-family dwellings. Final ADA Accessibility Guidelines for Buildings and Facilities (ADAAG) prepared by the U.S. Architectural and Transportation Barriers Compliance Board (ATBCB) were issued July 26, 1991 (28 CFR; Part 36).

The ADAAG includes scoping provisions that basically follow the Uniform Federal Accessibility Standard. In general, they are more restrictive than the BCMC scoping provisions approved by CABO earlier this year. Of particular interest is the requirement for elevators in all three-story buildings and in those two-story buildings housing a shopping center, shopping mall,

the professional office of a health care provider, or another type of facility as determined by the U.S. Attorney General.

Here are some of the provisions in the ADAAG that may cause enforcement difficulties:

**Definition of facility.** The guidelines apply to accessible buildings and facilities. The definition of facilities includes "other personal property" located on a site. There is no indication of what personal property might be required to be accessible.

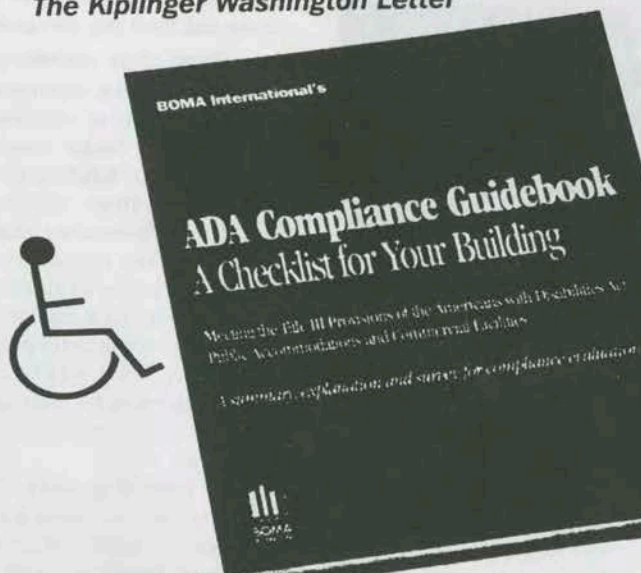
**Definition of occupiable.** The definition covers rooms and spaces "in which individuals congregate for amusement, educa-

*From the beginning, the model codes have followed the legislation and resulting guidelines through BCMC and the ANSI A117 Committee.*

tional or similar purposes or in which occupants are engaged at labor," which is the same definition found in the model codes. There are problems created where this term is used in other definitions. For example, the definition of "story" is tied to occupiable space, such that a story without occupiable space is not considered a story for purposes of the guidelines. The definition of "mezzanine" is also tied to occupiable space occurring above and below the mezzanine floor. If the space above and

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## ACCESSIBILITY GUIDELINES (Continued from preceding page)

below is not "occupiable," the mezzanine cannot be considered a mezzanine.

**Accessible parking spaces.** Special spaces can be moved from a particular parking area "if equivalent or greater accessibility, in terms of distance from an accessible entrance, cost and convenience is ensured." Enforcing "cost" and "convenience" is difficult.

**Elevators in two-story buildings.** The guidelines require a passenger elevator in two-story shopping centers, shopping malls, the professional office of a health care provider, "or another type of facility as determined by the Attorney General." There is no clue as to what these other types may be.

**Accessible entrances.** The guidelines require the same number of accessible entrances as there are required exits, then add in parenthesis that "this paragraph does not require an increase in the total number of entrances planned for a facility." That seems to leave it up to the planner to determine how many accessible entrances are required.

**Smoking areas.** Fixed tables and counters in restaurants and cafeterias must be proportionally distributed between the smoking and nonsmoking areas, a distribution not typically established at time of plan review.

*Each of the BCMC member organizations must decide how to present its accessibility provisions. At stake is the central issue of implementation and enforcement.*

**Elevators in altered buildings.** The guidelines say elevator installation is not required in altered buildings less than three stories or 3,000 sq. ft. per story, unless the building is a shopping center, shopping mall, professional office of a health care provider, or another facility as determined by the Attorney General. Does that mean an accessible elevator must be added to three-story buildings and special two-story buildings when they are altered?

**Alterations to a Primary Function.** When an alteration could affect usability of a "primary function area," which is not defined, the area of primary function must include an accessible route to restrooms, telephones and drinking fountains serving that area, "unless such alterations are disproportionate to the overall alterations in terms of cost and scope (as determined under criteria established by the Attorney General)."

## Certification of Local Codes

A special feature of ADA is the certification by DOJ of state or local accessibility regulations as meeting all, or part, of the ATBCB guidelines. Those meeting all of the guidelines could do so by meeting or exceeding all scoping and technical provisions in the guidelines. Those meeting or exceeding only some of the guidelines will presumably have the option of partial application supplemented by the guidelines, or addition of necessary revisions to meet guideline requirements. This certification

## Revised ANSI Standard A117.1 Available for Public Review

The American National Standard for Buildings and Facilities - Providing Accessibility and Usability for Physically Handicapped People (ANSI A117.1-1986) has been extensively revised in response to more than 570 comments during the last public review. A new draft showing substantive revisions made by the committee has been prepared and is being made available for public review and comment commencing January 24, 1992.

The public review period will be for 60 days from January 24, 1992 to March 25, 1992. All public comments must be received by the end of the public review.

To be considered by the committee, a public comment must recommend a change that would satisfy the concern of the commentator. The public comment must also be accompanied by a substantiation that would justify a change being made by the committee.

The committee is conducting a concurrent ballot on the changes during the public review. All public comments and negative ballots from the committee are to be considered at the next committee meeting tentatively scheduled for the week of June 8, 1992.

Only the substantive changes made by the committee are subject to public review. Proposed changes to other text material is not acceptable at this time.

Prepaid order for the 1-24-92 Draft Standard of A117.1 (\$20.00 U.S. per copy including postage and handling. Virginia residents must include 4 1/2 percent sales tax) should be made payable to the Council of American Building Officials. Publication orders and inquiries should be addressed to:

Secretary, ANSI A117 Committee  
Council of American Building Officials  
5203 Leesburg Pike, Suite 705  
Falls Church, VA 22041  
(703) 931-4513

process will result in the same jumble of state and local accessibility regulations that are seen now.

DOJ announced it would not accept requests for certification until after January 26, 1992. Prior to filing the request, a public hearing must be held within the state or locality. A transcript of the hearing is required with the application. This is followed by an informal hearing in Washington, D.C., to allow testimony from interested persons.

DOJ will also review the model codes for consistency with ADAAG. No public hearings are involved, and the review does not result in model code certification. DOJ's review will result only in guidance to assist in evaluations of state and local codes using the model code as a base. DOJ anticipates this approach will foster cooperation among governments, private entities developing standards, and individuals with disabilities.

## BCMC and ANSI A117 Committee

CABO's Board for the Coordination of the Model Codes (BCMC) added scoping of ANSI A117.1-1986 to its agenda in



October, 1987. This activity included six public hearings, with a BCMC recommendation approved by CABO in February, 1990, and subsequent approval of a revised draft on December 13, 1991. The BCMC recommendations included egress provisions and "mainstreaming" provisions such as stair geometry, doorway widths and door-opening forces.

CABO, itself, became secretariat of ANSI A117.1 in 1987. Working on the five-year update schedule for ANSI standards, the A117 committee met in August of 1991 to consider committee and public comments on the proposed 1992 edition. That meeting coincided with the publication of the ADA Accessibility Guidelines.

CABO and others have worked toward a national consensus program for accessibility and egress for persons with disabilities, with the common understanding that using the existing local regulatory system is the most efficient way to implement and enforce the necessary provisions. There exist many scoping and technical differences between these private-sector requirements and the new federal guidelines.

Hopefully, a closer match of provisions will be accomplished eventually. For example, the U.S. Architectural and Transportation Barriers Compliance Board (ATBCB) has developed a comparison of ADA and the proposed ANSI A117.1 standard that was reviewed by the ANSI committee agenda at its December, 1991 meeting. A number of additional changes to the proposed ANSI A117.1 standard were approved by the ANSI Committee to eliminate some of the differences identified in the comparison.

CABO has committed BCMC to keep accessibility on its agenda until the conflicts are resolved as much as possible. Meanwhile, two BCMC members — ICBO and NFIPA — have published their own versions of accessibility provisions based loosely on the BCMC recommendations. The 1991 *Uniform*

*Building Code* contains accessibility and egress provisions, while the 1991 *Life Safety Code* includes egress provisions only. The other two BCMC members — BOCA and SBCCI — have addressed the BCMC recommendations in their 1991 code change cycles. As a result of the actions at the BOCA 1991 Annual Conference, the BCMC recommendations appear in the 1992 Accumulative Supplement to the *BOCA National Codes*. BOCA's 1992 Code Change Cycle will address further refinements as recommended by BCMC.

### What's Next?

Each of the BCMC member organizations must decide how to present its accessibility provisions. At stake is the central issue of implementation and enforcement. BCMC proposals assume the building official will enforce accessibility provisions just like any other building feature in the code. FHAA and ADA, however, specifically name Federal agencies as the enforcement mechanism. However, both agencies have indicated, in public meetings and supplementary printed information, that enforcement from state and local authorities will also be relied on. For instance, DOJ certification of a state or local code "will constitute rebuttable evidence that the law or code meets or exceeds the ADA's requirements."

There are other BCMC proposals to consider in a different light — those labeled "mainstreaming." The so-called mainstreaming provisions were extracted by BCMC from ANSI A117.1 to reflect some key aspects of building construction that benefit all building users. BCMC's perception is that elements of the means of egress, such as stair geometry, door width and height and operating hardware, provide added safety to all of us,

(Continued on next page)

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## ACCESSIBILITY GUIDELINES

(Continued from preceding page)

and were, therefore, submitted for inclusion in the model code provisions on means of egress.

All in all, there are some hard decisions to be made on the accessibility issue, especially concerning the role, if any, of local code officials in providing accessibility in their communities. Considering that buildings must be designed in compliance with the FHAA and ADA in addition to state and/or locally adopted accessibility requirements, it seems prudent for building officials to work with their legal department to become not only familiar with the two federal laws and their guidelines, but the *extent* that the building officials should attempt to interpret and enforce the guidelines. The necessary publications can be ordered from HUD and ATBCB using the information shown with this article.

### Implementation Schedule

- 3/13/91. Federal Fair Housing Amendments Act of 1988 applies for first occupancy under permit issued on or after 6/15/90.
- 1/26/92. All state and local government facilities, services and communications must be accessible.
- 1/26/92. Public accommodations may not discriminate on basis of disability. *Existing buildings*: provide auxiliary aids and services, unless undue burden results; remove physical barriers if able to "without much difficulty or expense."
- 1/26/93. New construction designed and constructed for first occupancy must be accessible. Alterations to existing buildings must be accessible. ■

### How to Order Guidelines

HUD guidelines will be codified in the 1991 edition of the Code of Federal Regulations as Appendix II to the Fair Housing regulations (24 CFR Ch. I, Subch. A, App. II). It may be possible to get a reprint from the Federal Register, Vol. 56, No. 44, dated March 6, 1991. Contact Merle Morrow, Office of HUD Program Compliance, Room 5204, Department of Housing and Urban Development, 451 Seventh Street, SW, Washington, DC 20410-0500. Telephone 202/708-2618.

ATBCB guidelines on ADA are available from James Raggio, Office of the General Counsel, Architectural and Transportation Barriers Compliance Board, 1111 18th Street, NW, Suite 501, Washington, DC 20036. Telephone 202/653-7834. This document is available in accessible formats (cassette tape, braille, large print, or computer disk) upon request.



## Accessibility Hurdles

by David Harris, AIA, President  
National Institute of Building Sciences  
Washington, D.C.

The Americans with Disabilities Act became law on July 26, 1990. Its purpose is to remove physical and other barriers affecting the 43 million Americans estimated to have some form of disability — a laudable goal and an especially important one to those whose lives will be made more pleasant and useful by the law. But, to the building community, the law's implementation and enforcement may prove troubling.

The act, known as the ADA, requires federal agencies to promulgate regulations to carry out its intent. The law's scope includes employment, transportation, public accommodations, state and local government services, and telecommunications. On July 26, 1991, the Department of Justice issued final rules for accessibility in commercial and in local and state government facilities — the regulations that architects and other design professionals must follow in the design of most new and altered nonresidential buildings. The DOJ regulations include the ADA Accessibility Guidelines for Buildings and Facilities (ADAAG), requirements developed by another agency, the Architectural and Transportation Barriers Compliance Board.

The Americans with Disabilities Act appears to venture boldly into the states' constitutional powers to regulate construction, and into the domain of the nation's voluntary standards process, which sets many of the technical criteria adopted in building codes. Building codes will likely continue to regulate accessibility in buildings; thus, for the present, the ADA will result in an additional layer of regulation, causing some confusion and added cost. Although the new rule resembles part of a building code, its foundation is the 1964 civil rights law. This appears to be Congress' rationale for largely bypassing the state and local building regulatory system.

Like it or not, the issue of who's in charge is clearly answered by the new regulations. From a practical perspective, however, it is unfortunate DOJ's regulations offer no viable system for interpretation, plan review or inspection. For accessibility provisions, the code official as a single source of guidance and interpretations may be a convenience of the past. Rather, the law's primary enforcement mechanism is

(Continued on next page)



through the courts — after building design and construction are complete. This is likely to result in more work for an overburdened court system and an increase in liability for the building community. Many comments on the proposed rules recommended integrating the new regulations into the in-place state and local building regulatory process. Sadly, this has not happened, but it appears DOJ may be open to this approach in the future.

The new ADA regulations allow the attorney general to "certify" state and local building codes that meet or exceed the act's minimum requirements. But this program, which requires hearings and lengthy review periods and must recur every time the code is updated, is likely to prove cumbersome, especially considering the thousands of local and state jurisdictions that amend and adopt codes and standards or confirm compliance. Model codes, upon which most local and state codes are based, cannot be certified under the new rules, thus denying an option that would surely facilitate implementation of ADA.

Some states and localities may choose to adopt the new federal accessibility standards and seek certification in order to reduce the burden on designers. It is doubtful, however, that the state or local code agency will have the authority to interpret these standards.

Further, although ADAAG parallels and ANSI standard, it contains some "permissive" language, thus giving more latitude for interpretations. But with the voluntary standard for accessibility for the disabled, ANSI A117.1, now being revised by its secretariat, the Council of American Building Officials, good opportunities for coordination are available.

The Department of Justice indicates that it plans to work with the model codes and CABO to bring the provisions of the ADAAG and the ANSI accessibility standard closer together. However, DOJ also indicates that it cannot adopt private standards "wholesale," although other federal agencies often adopt voluntary consensus standards as allowed and encouraged by Office of Management and Budget Circular A-110.

In the government's zeal to meet the letter of the law, many feel it has missed the best opportunity to meet the new law's intent effectively. In the best interests of those with disabilities and of the nation, one hopes that the Department of Justice is sincere in its pledge to work with the private sector, not only to provide for a single accessibility standard that will be kept up to date, but also to use the strengths of the in-place state and local building regulatory process.

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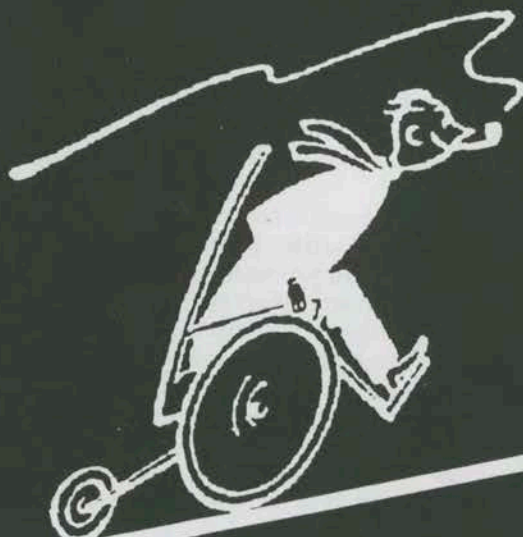
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# Code Provisions or ADA Guidelines —

**Which Are Preferable?**



**W**ith the passage of the Americans With Disabilities Act (ADA) and the subsequent development of its Accessibility Guidelines (ADAAG) — which are incorporated in the Department of Justice (DOJ) regulations for public accommodations — a national accessibility standard for public and private sector construction has come into being. All commercial facilities being built for first occupancy on or after January 26, 1993, for which a building permit application has yet to be submitted must conform to the technical requirements of ADAAG. In those jurisdictions that reference the *BOCA National Building Code* and its 1992 Supplement, its provisions are also in place, requirements that in some instances are significantly different than the new ADAAG standard. Confusion and concern in the design, enforcement and building management fields are the inevitable result.

**Some History** The Council of American Building Officials' (CABO) Board for the Coordination of the Model Codes (BMC) has been wrestling with the issue of accessibility for a number of years. The changes to Section 512.0, Physically Handicapped and Aged, of the *BOCA National Building Code* are a result of those deliberations, work which BOCA acknowledged was done "...not as a reaction to some federal mandate, but because [CABO and BMC believe] access for people with disabilities is an important and valuable goal." The Eastern Paralyzed Veterans Association (EPVA) is proud to have been one of the many disability organizations that contributed to this consensus process. We believe that those jurisdictions which adopt the *BOCA National Building Code* and 1992 Supplement without changes to Section 512.0 will have substantial access requirements that meet or exceed the spirit and purpose of the ADA.

Yet, with the introduction of ADAAG, many have questioned the need for two sets of access requirements. The Commonwealth of Virginia dropped all of the access requirements of its *Uniform Statewide Building Code*, incorporating ADAAG (and the Fair Housing Accessibility Guidelines) in their stead. Washington State anticipates incorporating many of the ADAAG requirements in its code this year. Some have suggested New Jersey should adopt ADAAG, and in the process not only drop its Barrier Free Subcode, but reject the new requirements found in Section 512.0.

Across the country, many people are reacting to these new federal requirements — at least flirting with the idea of abandoning the model code consensus process and substituting the federal ADA regulations.

Should jurisdictions using the *BOCA National Building Code* follow Virginia's example and adopt ADAAG?

**ADAAG's Attraction** There are a number of compelling reasons to incorporate ADAAG in state and local building codes. First and foremost, the ADA is "the law of the land," and all alterations, additions and new construction will have to meet ADAAG specifications, now or in the near future, to conform to that law.

By Brian D. Black, Regional Advocate  
Eastern Paralyzed Veterans Association



To do otherwise — for instance, to not provide braille signage — can be considered a discriminatory act, subjecting the architect and building owner to injunctive action and civil penalties in federal court. To design and construct a commercial facility that does not conform to the federal standard will be considered and treated no differently than discrimination on the basis of race, religion or sex.

Code enforcement officials may be subject to action as well. In *Legal Aspects of Code Administration*, the authors suggest that negligence or nonfeasance on the part of a code official may not be actionable in a tort liability case. The public duty doctrine, as well as statutory protections in some jurisdictions, suggests a code official may be immune to civil actions brought by a disabled person because a building was not built to current accessibility standards. But now that access has become a civil rights issue, those protections may no longer apply.

I am reminded of a part-time building/zoning official in a small, rural village. He cited a homeowner for various zoning violations when the latter installed an above-ground swimming pool and storage shed on his property. Losing appeals to the Zoning Board of Appeals, and faced with removing the pool and shed, the homeowner attempted to sue the official for damages, asserting the official knew of the installations and was required to stop the work before it was completed. The state Municipal Officer Law and relevant case law held the official immune from such actions.

## When viewed in its entirety, ADAAG is significantly less restrictive than the 1992 code requirements.

The homeowner, whose surname was Hispanic, then found a new attorney and tried a new approach. The building/zoning officer, he claimed, was not enforcing zoning regulations but was, in fact, taking discriminatory actions against the homeowner based on his ethnicity. The issue suddenly became one of civil rights, not zoning ordinances, and the official quickly faced an \$800,000 injury suit in federal district court. None of the state protections applied.

Can the ADA, as a civil rights statute, be applied in a similar fashion? If a code official fails to enforce the access requirements of Section 512.0 (or ADAAG), does he or she become open to allegations of civil rights violations in federal district court? The law is too new to provide definitive answers, yet the traditional protections afforded code enforcement officials are certainly put into question by the ADA.

Even without the real or imagined threats ADA may pose to the design and enforcement professions, adopting ADAAG is attractive in that it would provide one single accessibility standard in the state. Currently, meeting both ADA and *BOCA National Building Code* requirements demands a review of the code, ANSI A117.1, and ADAAG to determine which document is "most restrictive" for any particular element in a building, then applying that document to that element. In a two-story office building with more than 3,000 square feet per floor, the code requires an elevator (ADAAG does not); ADAAG requires braille signage (ANSI does not); and all three have different stair and ramp handrail requirements. The situation begs simplification.

Finally, the ADAAG accessibility requirements for blind and visually impaired, deaf and hard-of-hearing persons are significantly better than those currently in the code and will remain so until the 1992 ANSI A117.1 is available for incorporation by reference. Adopting ADAAG in the code would mean better

application and enforcement of the braille, TDD, visual alarm and detectable warning provisions now in the federal document.

## ADAAG's Problems

For the Eastern Paralyzed Veterans Association,

there is a single, strong reason for not wanting ADAAG to become the accessibility standard in place of Section 512.0. When viewed in its entirety, ADAAG is significantly less restrictive than the 1992 code requirements. ADAAG's scoping, which indicates where access must occur and how many accessible elements are required, presents many deficiencies when compared to our code.

For example, the ADAAG:

- exempts elevators/vertical access in many two-story buildings of more than 3,000 square feet per floor;
- requires no accessible elements in employee spaces;
- exempts private clubs and religious organizations;
- does not require total first floor access when the use of a building is changed (BOCA does, and requires all floors to be accessible in large buildings);
- does not "mainstream" access requirements for ramps, stairs and doors; and
- provides less restrictive means of egress/life safety provisions for persons with disabilities.

James Weisman, EPVA Program Counsel, is aware of these differences, and believes BOCA should not give up its better accessibility requirements. "The ease [of having a single standard] should not outweigh our desire to provide the best accessibility possible," declares Weisman, noting with dismay the jurisdictions now reducing their accessibility requirements by referencing ADAAG. "Architects will simply have to comply with the strictest requirements, whether they be local, state or federal." Weisman also suggested BOCA could adopt ADAAG with amendments that would retain the more restrictive aspects of the 1992 code.

"Not a good idea," responded a New York Department of State Codes Division official when asked whether ADAAG should be adopted into the code. "There's a lot of messy stuff in [ADAAG]."

The state official was reacting to ADAAG from a code administration and enforcement perspective. Very simple, ADAAG is not a building code, was not written in code language, and would not fit well into the existing building code. Definitions for "addition," "alteration," "means of egress," "mezzanine" and other terms differ significantly from the existing code language, in some instances to the detriment of our current accessibility requirements. Unenforceable language (e.g., "it is preferable that all entrances be accessible") does nothing to improve access but creates headaches for the designer and code official. Requirements for special occupancies (medical offices, cafeterias) fit nowhere in BOCA's occupancy classifications. Simply, ADAAG is a square peg that won't fit in a round hole.

Finally, ADAAG is not a consensus document. It has not benefitted (as has ANSI and the BCMC and BOCA documents) from days of public meetings between disabled persons and their groups, industry representatives, product manufacturers and code enforcement officials, and thus cannot represent the best and most enforceable accessibility available. For instance, testimony at a recent ANSI A117.1 Committee meeting revealed the National Association of the Deaf finds ADAAG's hotel alarm requirements substandard. The National Federation of the Blind indicated ADAAG's dimensions for braille are not the standard typically used by blind persons. ADAAG allows a 1:6

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## CODE PROVISIONS OR ADA GUIDELINES

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ramp in historic preservation buildings that EPVA opposed both in the ANSI and BCMC meetings we have attended. The fault lies not in the hard work and experience of those in the Architectural and Transportation Barriers Compliance Board (ATBCB) who developed the document. Rather, the process imposed on developing the guideline denied the board the give-and-take essential to creating optimal accessibility language, the give-and-take that consensus documents such as ANSI and the *BOCA National Building Code* represent.

### Where Do We Go From Here?

The ANSI A117.1 Committee plans to publish its 1992 edition later this year. The new standard will incorporate many of the new and expanded access specifications currently in ADAAG; in fact, ATBCB acknowledges borrowing considerably from the ANSI 1991 draft while developing the guidelines.

Like the A117.1 Committee, the BCMC is a function of CABO. Sharing many common members, it can (and clearly will) amend and expand its access requirements once the new ANSI is published. It, too, will incorporate those ADAAG requirements deemed appropriate and enforceable. Hopefully, it will also retain the more restrictive provisions of its access report, though those provisions exceed the mandates of the politicians and bureaucrats in Washington. For persons with disabilities, the "best of all possible worlds" may come to fruition. BOCA can then incorporate similar, more encompassing language into Section 512.0 through its code change process, thus meeting or exceeding the federal requirements.

The Department of Justice regulations provide for the certification of state and local codes as "equivalent" to ADAAG.

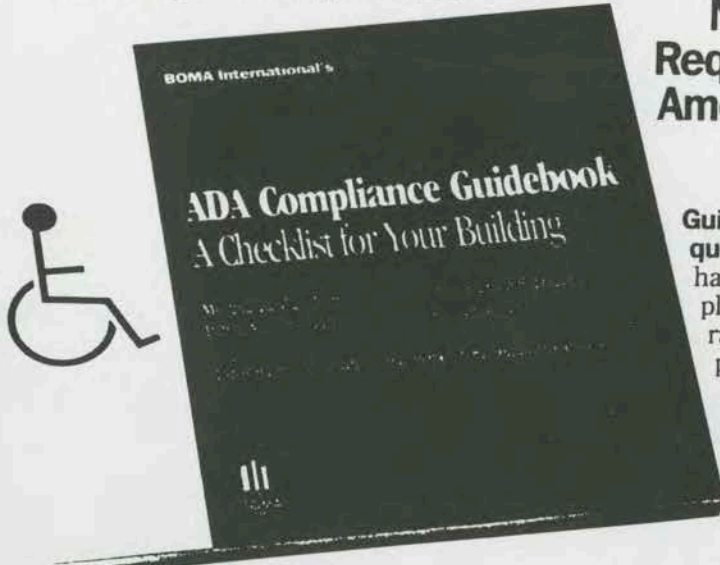
Were the *BOCA National Building Code/1992* so certified, compliance with BOCA could be used as evidence of compliance with the ADA, thus reducing the liability of the designer, building owner and operator of a public accommodation.

Will our code be certified? Again, it is premature to guess what the BCMC and BOCA code change process may do in this regard. Even if the code is amended to be comparable to ADAAG, a BOCA jurisdiction must apply for certification, and public hearings must be held on the matter. Finally, staff from the DOJ have indicated the department will be very strict in its scrutiny of a state or local code. The decision to certify is theirs and theirs alone.

There is a more important issue, one to which Jim Weisman alluded. Is our concern certification, or is it to provide the best accessibility possible? Do states and municipalities make approval by the DOJ their exclusive goal, and to that end are they willing to sacrifice the stricter provisions of our code? Code development is a political process, and the building and design industries have already suggested such trade-offs may be demanded if the expanded requirements of ADAAG and ANSI/1992 are put into place.

I am not an attorney like Mr. Weisman. Nor am I a representative of, or expert on, model codes. As an advocate for accessibility, I believe only that a single, clear and enforceable mandate for accessibility for persons with disabilities is needed. Give us something that is simple, understandable and — unlike the complicated and contradictory language of the federal government's ADAAG — something that's enforceable on a local level. People with disabilities, and indeed all of us, deserve nothing less. The access provisions of the *BOCA National Building Code* and 1992 Supplement can always be improved, but they offer the best — and most enforceable — requirements we have to date. Sacrificing them to federal guidelines for mere expediency's sake is certainly ill-advised.

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4 h

July 5, 1992

## Update on Model Code Activities Regarding ADA

BOCA and the other model code groups have been engaged in ongoing dialogue with the U.S. Department of Justice (DOJ) on the status of the model codes in relation to the Americans With Disabilities Act Accessibility Guidelines (ADAAG), and how the model codes and ADAAG can be harmonized. The Department of Justice has expressed interest in working with the model codes based on the obvious mutual benefit of having compatibility between ADAAG and the model codes.

The model code efforts are centered on: 1) the revisions being undertaken to ANSI A117.1 for which the Council of American Building Officials (CABO) is the secretariat; 2) the CABO/BCMC (Board for the Coordination of the Model Codes) scoping provisions that will set forth which buildings must comply and to what extent compliance is required; and 3) the mainstream technical requirements also being developed by BCMC.

The revision process for ANSI A117.1 is moving forward under a schedule that should have the 1992 edition of the standard available by the end of this year. The ANSI committee met June 9-11, 1992, to address the public comments and negative ballots on the most recent draft of the standard. The revision process included consideration of numerous changes to provide consistency with ADAAG. The results of the actions taken will be published with a 60-day public review period, and resolution of any subsequent appeals, after which the standard will be finalized and distributed.

Also, during the week of June 8, BCMC met to hold a final public hearing on the scoping provisions. The product of this hearing is the final report of the BCMC that will be sent to the CABO board for approval. CABO will then submit the BCMC scoping report to DOJ with a list of the differences between it and ADAAG for DOJ's review. The results of that review will determine the extent of harmonization achieved, and will eventually be of assistance to states and local communities that will be petitioning DOJ for certification of their codes.

BCMC will be submitting challenges for the 1992 Code Change Cycle to incorporate the latest BCMC scoping provisions into the 1993 *BOCA National Codes*. The 1992 ANSI A117.1 standard should be issued in time for reference in the 1993 *BOCA National Code* editions. These events will represent enormous steps toward the harmonization of BOCA and ADAAG that will benefit all involved.

## New Challenge Comments Document

During this year's code change cycle, BOCA introduced the concept of a code changes comments document to lessen reliance on solely verbal testimony at Spring Meeting code change hearings. Positive response to the code changes comments document has prompted BOCA to develop a challenge roster comments document for use at final hearings during BOCA Conferences.

The Challenge Comments Document will provide the opportunity to make your views known regarding the challenges to be heard at BOCA's 77th Annual Conference scheduled for September 20-25, 1992, in St. Paul, Minnesota. The published challenges will be available in early August. A coupon is enclosed in this *Bulletin* mailing for use in obtaining a copy of the Final Hearing Roster, which includes the text of all proposed challenges received by BOCA.

Upon receipt of the Final Hearing Roster, you may submit written comments for inclusion in the Challenge Comments Document. The deadline for receipt of comments at BOCA headquarters is the close of business on September 4, 1992. The Challenge Comments Document will be distributed at the Conference in each attendee's registration package.

For those interested in submitting comments, the format guideline details will be included in the Final Hearing Roster. The availability of this material will permit the voting membership, and other interested parties, to be more familiar with the likely discussion, and eliminate the need for significant reliance on verbal testimony at BOCA's Annual Conference.

### — INSIDE —

New ASTM Standard  
On FRTW

Detroit Boarding House Fire

New BOCA Plan Review  
Software

Design Authority  
And State Registration Laws

### • MEETING CALENDAR •

BOCA's 77th Annual Conference  
September 20-25, 1992  
Radisson Hotel Saint Paul  
St. Paul, Minnesota

BOCA's 1993 Spring Meeting  
March 28-April 2, 1993  
St. Louis Airport Marriot  
St. Louis, Missouri

BOCA's 78th Annual Conference  
September 19-24, 1993  
Claridge Hotel & Casino  
Atlantic City, New Jersey

BOCA's 1994 Spring Meeting  
March 20-25, 1994  
Sheraton Springfield Monarch Pl.  
Springfield, Massachusetts

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# ADA: A Common Sense Approach <sup>4 i</sup>

by Jim W. Sealy, AIA



I have just finished looking at what is probably the 100th article that I have seen about the Americans With Disabilities Act (ADA). I didn't say reading, because you no longer have to read them to know what they say. Each has included a brief overview of the law; thrown in some stimulating words like "sweeping legislation," skimmed the scope of Title III, listed the 12 categories of application, said that churches and private clubs are exempt, and then concluded with a bit about compliance. I suppose that all of these articles have been necessary, but I just wish that the content would change a little bit. The only thing that has changed thus far has been the byline. I know that some will criticize me for this, but here is what I have been waiting for someone to say: *Don't be afraid of ADA — it ain't nothing new!*

We have been living with accessibility design for a lot of years now and the fact that it is now a part of federal legislation is not going to change all that much about how we design buildings. The ADA is not accessibility legislation. It is civil rights legislation and has done nothing more than add certain physical disabilities to existing civil rights laws. It is true that ADA has added some new "bells and whistles" but accessibility design remains basically the same. It's also true that it calls for the removal of architectural barriers in existing facilities, but there are limits to how and when barrier removal is required.

Probably a lot of the fear stems from some of the words or phrases that are in the law. It speaks of removing barriers when it is "readily achievable, technically feasible and can be accomplished without undue burden." For some, those words have meant mass confusion and thus the fear of ADA. A lot of us have heard representatives of the Department of Justice (DOJ) and the Architectural Transportation Barriers Compliance Board (ATBCB) talk about ADA and they have all said that the writers of the law never envisioned that the world would become flat on January 26, 1992. They were right. It didn't happen. We still have hills and valleys and the resultant barriers that have been created naturally, and artificially, by those hills and valleys.

Rather than being afraid of ADA or, worse yet, over-reacting to it, we need to proceed with caution and make certain that what we are doing will not be counter-productive to its intent. We need to identify our barriers and make plans to remove those that fall within the parameters for removal, as defined in the regulations and guidelines. That, in itself, is not an easy task. It is complicated by the fact that a barrier may not be removed if it is not readily achievable, etc. How does one determine when barriers are removable, or if an exclusion can be claimed be-

cause of those words that have frightened us? The answer to this is simple: no one knows! Each barrier has a uniqueness that will require analysis and, even then, that analysis is subject to interpretation.

Since there aren't any finite answers, there are some approaches that we have assumed when we are talking with our clients about barrier removal. Some of our government friends and even some of our code officials have stated that the design professional must be the interpreter of ADA. We accept that, but only to the extent that the design professional is the first interpreter of ADA, just as we have been with all of the codes that are already being dealt with by our profession. We will be the first interpreter, but we will not be the final interpreter. That is a task that has been reserved for our courts or other authorities that have jurisdiction over construction. What our firm has done has been to make ourselves knowledgeable about ADA in order to assist our clients in making their decisions about barrier removal. We assist our clients in understanding what we perceive as readily achievable, and then wait for their directive. Because ADA is being enforced by the Justice Department, it is subject to interpretation in the courts. Therefore, we make every attempt to assist our clients to comply with the intent of the law and, in that way, we strive not to present a target that will be subject to critical interpretation.

What if we are sued, you ask. If we are, our interpretation of ADA is automatically subjected to the court's interpretation, and whatever we have done is academic at that point. Therefore, as we assist our clients in making their decisions, we ensure that they understand that we are giving them our interpretation of untested legislation and that we are both subject to outside interpretation that will necessarily occur after the fact. We also make certain that they are aware of the liability involved in our collective actions. It is our interpretation that the removal of barriers is first and foremost a business decision.

After all, ADA certainly did not intend to remove barriers if by removing the barrier the facility is removed. That wouldn't make sense and that is precisely what we tell our clients. We tell them that we are going to take a good, old-fashioned, common sense look at the problem and we are going to come up with some common sense solutions collectively. We have found that all of our clients are willing to comply with the spirit of ADA, but they

are not interested in ceasing business if the burden of removing a barrier is too great. Our goal is to make our clients understand this approach and, then, we invite them to join us in waiting for someone else to make the final interpretations.

*The jury is still out... please stand by!*

*Jim W. Sealy, AIA, is an architect in Dallas, Texas. He consults with other architects and design professionals on building codes, ordinances and standards. He has been a member of the Southern Building Code Fire and Life Safety Subcommittee since 1976 and the Chairman of AIA's Liaison Group to the Board for the Coordination of the Model Codes since 1985.*



## U.S. Justice Department Responds To Washington's Request for ADA Certification

THE WASHINGTON STATE Building Code Council submitted its barrier free design regulations for certification by the U.S. Department of Justice (DOJ) as equivalent to the Americans With Disability Act Accessibility Guidelines (ADAAG) in January 1992. The Justice Department has just now issued an initial response requesting additional information and clarification on provisions regarding floor spaces, path of travel, the number of accessible rooms required in hotels, motels, and other resorts, as well as definitional differences for mezzanines and assembly buildings. The Justice Department's response is the first on any state or local jurisdiction's certification application, possibly setting a precedent for future reviews.

In a letter to the council, the Justice Department provided an analysis of the Washington State regulations identifying elements that do not appear to satisfy ADA requirements. Some of these elements are considered technical, including the lack of requirements for accessible elevators or platform lifts, different terminology for certain provisions, the specific number of accessible rooms required in hotels, motels, and other resorts, the number or percentage of rooms required to have roll-in showers in hotels and motels, and specifications for determining when accessibility modifications would threaten or destroy the historic significance of a building or facility.

The Justice Department's response to Washington's submittal came after the state's Labor and Industries Department completed work on requirements for elevators and platform lifts. The Justice Department was informed that the Washington State Building Code Council had already adopted additional regulations to correct technical errors and make editorial corrections to the 1992 State Regulations for Barrier Free Facilities to ensure greater consistency with ADAAG. At that time, the state's Labor and Industries Department also revised its safety rules governing elevators, dumbwaiters, escalators, and lifting

devices to be consistent with ADAAG.

After receiving the Justice Department's response, Washington State building code staff members met with DOJ's staff for two days in June 1993 to address these and other issues. As a result of the meeting, the Washington State staff formally responded to the Justice Department's response in August 1993. Included in the response are numerous interpretations to clarify code requirements and ensure equivalency with ADAAG. Furthermore, the council expects to obtain a preliminary determination for certification by the Justice Department within three or four months, according to Washington State Unit Manager Willy O'Neill.

The alternative to each state's, such as Washington's, attempt to obtain certification from the Justice Department is for a state to adopt provisions of a model code and rely on the continued model codes development processes to achieve consistency between ADAAG, Council of American Building Officials' (CABO) A117.1 standard, and the model codes. This action is the goal of both BOCA and the Council of American Building Officials (CABO). The Council of American Building Officials (CABO) had previously submitted the new standard, CABO/ANSI A117.1-1992, to the Justice Department and is now awaiting results of DOJ's review. BOCA recently completed a comparison of the accessibility provisions in the *BOCA National Codes/1993*, which will be submitted to the Justice Department for review.

Because BOCA-1993 references CABO/ANSI A117.1-1992, BOCA's comparison includes only accessibility-related code text. BOCA's submission coupled with CABO's submission encompasses the full scope of accessibility provisions in the current *BOCA National Codes*. The Justice Department's review of both BOCA's and CABO's submission is only intended to provide model code organizations guidance on the consistency with ADAAG. The Justice Department's review will not lead to cer-

tification of the *BOCA National Codes* or CABO/ANSI A117.1 but the review of applications for certification of state or local codes that are based on the *BOCA National Codes*.

While the CABO/ANSI A117.1 standard was being completed, several issues were raised involving the areas of plumbing, signage, automated teller machines (ATM), detectable warnings, and cognitive disabilities. As a result, the ANSI A117 Committee established task forces to further investigate these issues and develop recommended changes if deemed necessary.

One of the major issues surrounding the CABO/ANSI A117 standard relates to plumbing and a 36-inch square shower stall intended as a transfer shower stall. This shower stall is intended for independent use by wheelchair users who prefer to transfer to a stall to take a shower. Where dimensions are measured can create different sizes of shower stalls. For example, if measurements are made at the base of a prefabricated shower stall and it is intended that the floor of the stall be square the results would be a much larger stall at midheight because rounded corners are formed in the manufacturing process. It is a popular belief that a stall with a greater depth and lesser width would better serve individuals with disabilities.

The plumbing task force in reviewing this criteria questioned whether the data on which the criteria are based reflect current technology and conditions of use. The task force concluded that a substantial research project is necessary to either confirm the existing criteria or serve as the basis for changes that would better aid individuals with disabilities. Subsequently, a multiyear project with financial support from several sources is being reviewed by the task force.

Another issue involving ATMs questions its height to the bottom of the viewing screen from the floor or ground. Currently, CABO/ANSI A117.1-1992 calls for 38 inches. According to available data, such measurement places the screen



lower than necessary for viewing from a wheelchair, thus creating a viewing problem for a tall person and causing unnecessary manufacturing problems. Therefore, the ATM task force expanded its scope to include a review of these issues affecting individuals with disabilities. The possibility of developing standardized transaction codes and a standard for keypads which can be used on all ATMS is presently being considered by all major financial organizations and ATM manufacturers. The realization of these considerations by the task force have resulted in discussions of the feasibility of a remote control used for ATMs in a similar manner as those used for television sets. This latest development would likely make the viewing ranges from wheelchairs and other issues irrelevant.

A third issue surrounding signage focuses on the following four factors:

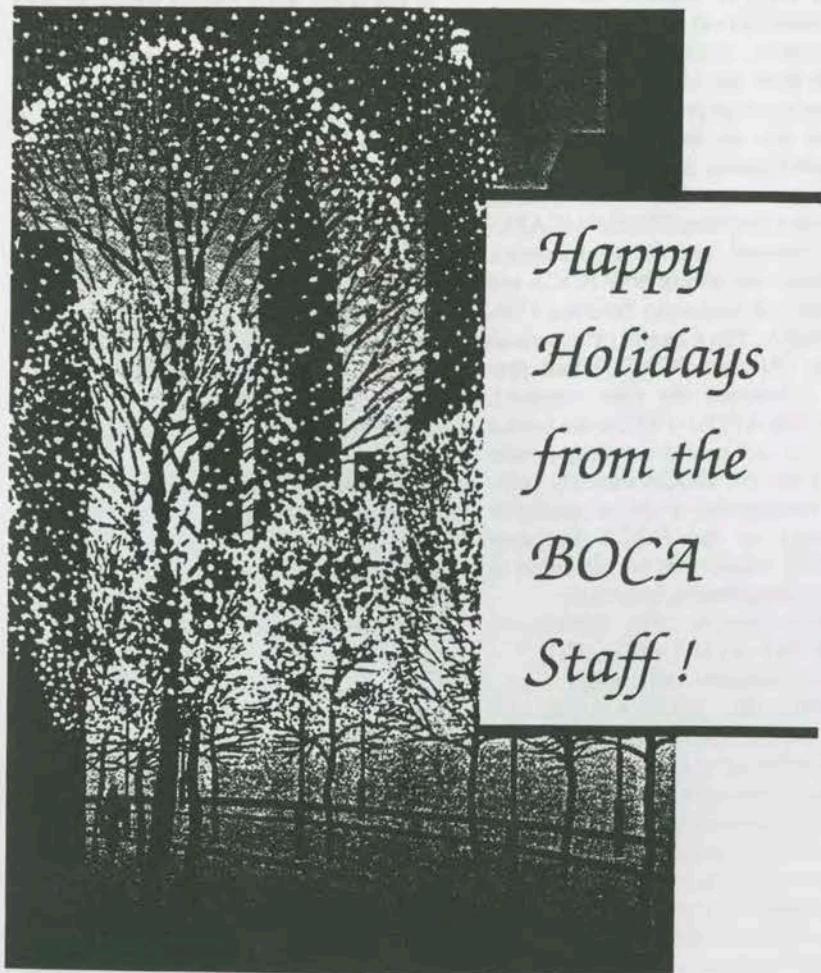
- 1) The 5/8-inch minimum height for characters in building directories.
- 2) The effect of shadow on raised vs. engraved characters.
- 3) The required size of characters based on either viewing or distance.
- 4) The contrast between characters and the background/field of a sign.

It was concluded by the signage task force that the manner in which the criteria are stated may pose more of a problem and subsequently the task force considered whether there are simplified ways of determining if the criteria have been met.

A fourth task force was established by the CABO/ANSI A117 Committee to consider whether criteria can be developed for residential housing that will comply with the Fair Housing Accessibility Guidelines (FHAG). Moreover, technical criteria regarding accessibility are being reviewed by the task force, and

the site and scoping criteria are being studied by the CABO Board for the Coordination of Model Codes (BCMC). Such effort is aimed at establishing recommendations to the CABO/ANSI A117 Committee on whether existing criteria are satisfactory or if a completely different set of criteria comparable to FHAG should be developed for use by the private sector.

Two additional task forces—Detectable Warnings and Cognitive Disabilities—are now being established by the ANSI A117 Committee. The former will be activated as soon as information is available from research currently being conducted to determine whether certain types of detectable warnings are effective and if there is any use for them in the environment. The task force on cognitive disabilities is in the process of being activated, and it is hoped that advocacy organizations will join in the activity.



|                  |                    |
|------------------|--------------------|
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## Philadelphia Lawsuit Points Up ADA Enforcement Ambiguities

A lawsuit filed last October in U.S. District Court alleges that Philadelphia's Department of Licenses & Inspections (L&I) failed to enforce requirements of the Americans With Disabilities Act (ADA) during the renovation of two business properties in that city. The suit was filed in the names of Disabled in Action in Pennsylvania, an advocacy group, and a wheelchair-bound Philadelphia resident.

The suit points up current ambiguity and confusion surrounding accessibility enforcement in that it seeks to hold a local government responsible for enforcement which, by legislative definition, is reserved to the U.S. Justice Department and the federal courts.

The suit alleges that renovations to both Philadelphia properties — a health food store and a restaurant — involved new entrances with steps which prevent access by a person in a wheelchair. An attorney for the health food store said the store retained an accessible side entrance, while the restaurant's owner said that facility also has an accessible side entrance.

Under the federal ADA legislation, which references the Civil Rights Act of

1964, two enforcement mechanisms are provided. The U.S. Justice Department, in response to a complaint or on its own initiative, can pursue enforcement action. In the alternative, individual plaintiffs can sue for ADA enforcement in federal court.

"It is the city's position that Philadelphia or any other unit of local government has neither the authority nor responsibility to enforce ADA," commented L&I Code Development Director David L. Wismer, P.E. "At this point, building departments are simply outside of the loop of ADA enforcement."

Wismer said he and other city officials have met on several occasions with the lawyer for the disabled group to explain accessibility efforts the city is making in the absence of ADA enforcement authority. He cited work by the Council of American Building Officials (CABO) to reflect the current state of accessibility knowledge and experience in its updated 1992 edition of the CABO/ANSI A117.1 Accessibility Standard, as well as efforts by the Board for the Coordination of the Model Codes (BCMC) to develop scoping provisions to facilitate enforcement of

A117.1 by the code official.

Philadelphia intends to update within a year to the 1993 edition of the *BOCA National Building Code*, Wismer said, noting that BOCA's 1993 edition references the 1992 CABO/ANSI A117.1 standard. He added that both the 1992 ANSI/CABO A117.1 standard and the BCMC scoping provisions were presented to the Department of Justice in August of 1992 and that no determination has yet been made by that agency as to equivalence to ADA requirements.

Wismer also explained that Pennsylvania's three major cities (Philadelphia, Pittsburgh and Scranton) have heretofore been using scoping provisions contained in state-level accessibility legislation while relying on the CABO/ANSI A117.1 Standard for accessibility technical requirements.

The Philadelphia Code Development Director said there has been little activity on the lawsuit since its October filing, except for continuances. "It's sort of in limbo right now," he remarked, "and I wouldn't rule out the possibility of a relatively simple settlement."

### BOCA Membership Mailing Labels

Mailing labels for all or part of BOCA's membership list are available for purchase, subject to BOCA's review of the piece to be mailed and determination that the mailing piece does not conflict with the goals or programs of the BOCA organization.

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The following are approximate totals for the major BOCA membership categories as of January 25, 1994.

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| • <b>Total Membership</b> (Mailists 1-6)                                                                                                                  | 11,848 |
| • <b>Principal Representatives of Active Governmental Members</b> (Code Officials) (Mailist 1)                                                            | 3,469  |
| • <b>Total Governmental Code Officials</b> (including Principal Representative, Additional Representatives and Associate Memberships) (Mailists 1, 2 & 4) | 6,662  |
| • <b>Professional</b> (Registered Architects & Engineers) (Mailist 3)                                                                                     | 1,605  |
| • <b>Cooperating</b> (General Building Industry) (Mailist 5)                                                                                              | 1,731  |
| • <b>Sustaining</b> (Trade Associations & Manufacturers) (Mailist 6)                                                                                      | 1,850  |

Upon BOCA's approval of the mailing piece, one to two weeks should be allowed for label shipment. Label orders placed by BOCA members will be billed. *Nonmember orders must be prepaid.* Please direct your label request to: Jim Bechtel, BOCA International, 4051 West Flossmoor Road, Country Club Hills, Illinois 60478-5795, phone (708) 799-2300, ext. 287.







## APPENDIX

### 1. COMPARISONS OF BOCA AND CABO DOCUMENTS WITH ADAAG

- a. Comparison between ANSI A117.1-92 and ADAAG, Council of American Building Officials, Falls Church, VA, 8/14/92.
- b. Comparative Analysis Of The BOCA National Codes/1993 and the Americans with Disabilities Act Accessibility Guidelines (ADAAG), Building Officials and Code Administrators International, Inc., Country Club Hills, IL, November 18, 1993.

### 2. COMMENTS SUBMITTED DURING DEVELOPMENT OF ADAAG

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- b. Vognild, Richard A., SBCCI, Letter to ATBCB, September 27, 1990.
- c. Schoonover, Kenneth M., BOCA, Letter to ATBCB, October 1, 1990.
- d. Kuchnicki, Richard P., CABO, Letter to ATBCB, October 1, 1990.
- e. Kuchnicki, Richard P., CABO, Letter to ATBCB, March 6, 1991.
- f. Pauls, Jake, Hughes Associates, Inc., Notes for remarks at Department of Justice Hearing on ADA Title III Regulations, Washington, DC, March 15, 1991.
- g. Kuchnicki, Richard P., CABO, Letter to ATBCB, March 20, 1991.
- h. Vognild, Richard A., SBCCI, Letter to ATBCB, March 22, 1991.
- i. Lathrop, James K., National Fire Protection Association, Letter to ATBCB, March 22, 1991.
- j. Conrad, Richard, NCSBCS, Letter to ATBCB, March 25, 1991.
- k. Schoonover, Kenneth M., BOCA, Letter to ATBCB, March 25, 1991.
- l. Schoonover, Kenneth M., BOCA, Letter to U.S. Department of Justice, March, 26, 1991.
- m. Kuchnicki, Richard P., CABO, Letter to U.S. Department of Justice, April 16, 1991.

### 3. CORRESPONDENCE REFLECTING MODEL CODE ATTEMPTS TO WORK IN CONCERT WITH FEDERAL AGENCIES

- a. Kuchnicki, Richard P., CABO, Letter to Department of Justice, July 3, 1990.
- b. Wible, Robert C., NCSBCS, October 3, 1990.
- c. Spangler, Bob, CABO, February 7, 1991.
- d. Kuchnicki, Richard P., CABO, February 12, 1991.
- e. Heilstedt, Paul K., BOCA, February 28, 1992.
- f. Heilstedt, Paul K., BOCA, March 9, 1992.
- g. Conrad, Richard T., NCSBCS, July 1, 1992.
- h. Bowen, L. Irene, Department of Justice, October 21, 1992.
- i. Gramm, Phil, Senator, August 11, 1993.



4. MISCELLANEOUS ARTICLES ON CODE ENFORCEMENT ISSUES RELATED TO ADA.

- a. What kind of public building access do the handicapped need?, Hopkins, William B., *The Building Official and Code Administrator*, October, 1974, p. 14-17.
- b. Disabilities Act Implementation Path Exists Right Now, *The Building Official and Code Administrator*, July/August, 1990, p. 48.
- c. Americans with Disabilities Act - A local perspective, Hammerman, David M., *NCSBCS News*, p. 4.  
Americans with Disabilities Act - A state perspective, Hanna, James C., *NCSBCS News*, p.5.
- d. BOCA Code Provisions on Accessibility, *The Building Official and Code Administrator*, January/February, 1991, p. 18.
- e. ADA Americans With Disabilities Act 1990, *The Building Official and Code Administrator*, March/April, 1991, p. 18.
- f. Enforcing Federal Accessibility Guidelines, Heilstedt, Paul K., Vognild, Richard, *The Building Official and Code Administrator*, January/February, 1992. p. 12-16.  
Accessibility Hurdles, Harris, David, *The Building Official and Code Administrator*, January/February, 1992, p. 16-17.
- g. Code Provisions or ADA Guidelines - Which Are Preferable?, Black, Brian D., *The Building Official and Code Administrator*, March/April, 1992, p. 30-32.
- h. Update on Model Code Activities Regarding ADA, *Bulletin*, July 5, 1992.
- i. ADA: A Common Sense Approach, Sealy, Jim W., *The Building Official and Code Administrator*, September/October, 1992, p. 20.
- j. U.S. Justice Department Responds to Washington's Request for ADA Certification, *The Building Official and Code Administrator*, November/December, 1993, p. 8-9.
- k. Philadelphia Lawsuit Points Up ADA Enforcement Ambiguities, *The Building Official and Code Administrator*, January/February, 1994, p. 8.