Common Errors Seminar Details

TBR Facilities Meeting April 14, 2015

*For Facilities Managers and Installers of accessible elements.

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These details will assist with installing accessible elements correctly. Remember all dispensers, coat hooks etc. must be within accessible reach ranges and have a wheelchair CFS to be reached from.

1. Minimum compliant door opening width –with door open at 90 degrees.

2. Examples of Compliant door hardware
3a. - Forward approach to a door with pull side door maneuver space

3b. – Examples of allowable door maneuver space. Also continued on next sheet
3b. – continued

(g) hinge approach, push side, door provided with both closer and latch

(h) latch approach, pull side

(i) latch approach, pull side, door provided with closer

(j) latch approach, push side

(k) latch approach, push side, door provided with closer
3c. Door Hardware

Example of a U-Pull

Door hardware must be operable with closed fist

3d. Double-Leaf Door Example -

Operable

Existing

4” or 5’ door

Operable

Reconfigured

Door panels

4. Max Threshold heights
5. Accessible route – minimum width

6. – Turning space required in rooms

7a.- Alcove 24” deep or less

7b.- Example of alcove depth more than 24”
8. – Max change of elevation without beveled edge

\[ \frac{1}{4} \max \]

9. Max change of elevation with beveled edge

\[ \frac{1}{4} \]

10. – Carpet pile height

11. – Mirror Height to reflective surface

12. – Robe hook (minimum one)

13. CFS UNDER LAV.

14. Lav Rim Hgt.

15. Knee Clearance
16. Min. Space Under Lav

17. Toe Clearance

18. Shield or insulation for pipes


a. Over 20”-25” deep Lav

b. Over 20” deep Lav

c. Not over and obstruction

20. – Example of accessible faucets
21a. Compliant toilet CFS

A – 91 code
B - 91 code
C- 2010 code

a, b, c – only A and B are allowed for buildings built before 1992. Buildings built or renovated after March 15, 2102 must use “C”.

21b. – Example of clear path to all toilet fixtures – opening cannot be less than 32” - also see detail 5 above.
22. Toilet Center Line SAD-10

23. Minimum Toilet CFS also see detail 21a.

24. Toilet Seat Height to top of seat in down position.

25. Grab bar locations and heights a. thru e.
   a. Side grab bar location  
   b. Grab bar height to top of bar  
   c. Items Mounted below and above bar
d. Rear Grab Bar height  
e. Rear Grab Bar Location

26. Flush Control Location  
27. Toilet Paper Location  
also see detail 25c.

29. Compliant Stall door locations and minimum hall width to latch side of door when open 90 degrees
30. - Stall width

31. - Stall depth can be 56” if wall hung toilet

32a. Door may open in if it doesn’t encroach required CFS

32b. – Example Door swing not allowed in CFS of toilet
33. – Urinal Control Height

Note: accessible urinal required only when more than one urinal is provided in a toilet room.

34. – Urinal bowl and depth dimensions

35. – Accessible drinking fountains

- a. Dual Fountain
- b. Single lower fountain
- c. Operable with closed fist
- d. Accessible drinking fountain dimensions
- e. In an alcove
f. Accessible drinking fountain Clear Floor Space in alcoves. Also see detail 7b.

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g. Accessible Dual Drinking Fountain dimensions

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NOTE: SPOUT TO PROVIDE A WATER FLOW AT LEAST 4" HIGH. SEE ADA 4.15.3.
36. Compliant Toilet Seat Cover Dispenser Locations

**Compliant Toilet Seat Cover Dispenser in Stalls**

- Locate both 1-1/2" min. below grab bar.

- Dimensions:
  - Width: 60" min.
  - Height: 56" min.

**Compliant Toilet Seat Cover Dispenser Location**

- Locate both 1-1/2" min. below grab bar.

- Dimensions:
  - Width: 60" min.
  - Height: 56" min.

**Side Stall Wall**

- Dimensions:
  - Width: 30" min.
  - Height: 48" max.

**Note:** "A" works best for 94 ADAAG toilet CFS.
37. – A. transaction counter showing accessible portion.

38. Accessible counter-alternative fix.

39. – Dressing room bench dimensions for SAD-10 code – bench back is optional but if not used then bench must against a wall. Either location requires the bench to be fastened to wall or floor so that it
doesn’t move during a transfer from a wheelchair. Note CFS is required on end of bench for benches installed after March 15, 2012. Before that date the CFS could be side approach and in front of the bench.

a.  
b.  
c.

40. Example of heights to highest operable parts.
41. Access to goods and services (also Library Stacks)

42. – Toe Clearance

(a) elevation

(b) plan
43. – Knee Clearance

![Diagram of knee clearance](image)

(a) elevation  
(b) plan

44. – Clearance for Bathtubs (detail below)

![Diagram of bathtub clearance](image)

(a) removable in-tub seat  
(b) permanent seat

45. – Grab Bars for Bathtubs with Permanent Seats

![Diagram of grab bars](image)

(a) elevation  
(b) plan
46. – Grab Bars for Bathtubs with Removable In-Tub Seats

47.a. – Limits of Protruding Objects
47.b. – Post-Mounted Protruding Objects

47.c. - Vertical Clearance - under stairs.
48. (Fixes) – Detectable Warning Fin in hallways with small protruding wall appliances

49. a.– Drinking Fountian Protruding Object Hazard
49.b. Correcting Drinking Fountain as Protruding Object Hazard

**Option 1**

- Add trim or skirt here
- At or below 27" required

**Option 2**

- 15"
- 18" minimum
- Lower fountain
- Privacy-type shield
- At or below 27” AFF

50. – Unobstructed Forward Reach

51. – Unobstructed Side Reach
52. – Obstructed High Forward Reach

53. Obstructed High Forward Reach
54. – Floor Designations on Jambs of Elevator Hoistway Entrances

55. – Visible Hall Signs
56. – Elevated Car Dimensions

57. – Elevator Control Button Identification

<table>
<thead>
<tr>
<th>Control Button</th>
<th>Tactile Symbol</th>
<th>Braille Message</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency Stop</td>
<td>( \times )</td>
<td>“STOP” Three cells</td>
</tr>
<tr>
<td>Alarm</td>
<td></td>
<td>“ALARM” Four cells</td>
</tr>
<tr>
<td>Door Open</td>
<td></td>
<td>“OPEN” Three cells</td>
</tr>
<tr>
<td>Door Close</td>
<td></td>
<td>“CLOSE” Five cells</td>
</tr>
<tr>
<td>Main Entry Floor</td>
<td></td>
<td>“MAIN” Three cells</td>
</tr>
<tr>
<td>Phone</td>
<td></td>
<td>“PHONE” Four cells</td>
</tr>
</tbody>
</table>
58. – CFS at Refrigerator

59. Accessible Exercise Equipment Room Layout
ACCESSIBLE PASSENGER LOADING ZONE SIGNAGE

PER ADA 4.1.2 (7) b.

UNIVERSAL SYMBOL

REQUIRES ONLY UNIVERSAL WHEELCHAIR SYMBOL (ADA FIG. 43 B)
LOCATIONS (A, B, C, D) ARE ALL ACCEPTABLE WHEN FACING INCOMING TRAFFIC
A, B & D SAME SIZE AS PARKING SIGNS - MAKE CANOPY SIGN 'C' (10" - 18") HIGH MIN.
LOCATION 'D' (ON POLE) MUST BE 80' AFG TO NOT BE A PROTRUDING OBJECT HAZARD

NOTE: WHEN NOT ALL PASSENGER LOADING ZONES (PLZ) ARE ACCESSIBLE, DIRECTIONAL
SIGNAGE MUST BE POSTED AT NON-ACCESSIBLE PLZs DIRECTING
HC TO NEAREST ACCESSIBLE PLZ - DETAIL PDS A-24

PASSENGER LOADING ZONE SIGNAGE

INSTALLER NOTES

© 2004
61. PLZ Access Aisle

62. Compliant Parking Space/Aisle width example a. and b.
63. Parking Space Sign height

64. Compliant Locker Hardware
65. LULA Elevators

408 Limited-Use/Limited-Application Elevators

408.1 General. Limited-use/limited-application elevators shall comply with 408 and with ASME A17.1 (incorporated by reference, see “Referenced Standards” in Chapter 1). They shall be passenger elevators as classified by ASME A17.1. Elevator operation shall be automatic.

408.2 Elevator Landings. Landings serving limited-use/limited-application elevators shall comply with 408.2.

408.2.1 Call Buttons. Elevator call buttons and keypads shall comply with 407.2.1.

408.2.2 Hall Signals. Hall signals shall comply with 407.2.2.

408.2.3 Hoistway Signs. Signs at elevator hoistways shall comply with 407.2.3.1.

408.3 Elevator Doors. Elevator hoistway doors shall comply with 408.3.

408.3.1 Sliding Doors. Sliding hoistway and car doors shall comply with 407.3.1 through 407.3.3 and 408.4.1.

408.3.2 Swinging Doors. Swinging hoistway doors shall open and close automatically and shall comply with 404, 407.3.2 and 408.3.2.

408.3.2.1 Power Operation. Swinging doors shall be power-operated and shall comply with ANSI/BHMA A156.19 (1997 or 2002 edition) (incorporated by reference, see “Referenced Standards” in Chapter 1).

408.3.2.2 Duration. Power-operated swinging doors shall remain open for 20 seconds minimum when activated.

408.4 Elevator Cars. Elevator cars shall comply with 408.4.

408.4.1 Car Dimensions and Doors. Elevator cars shall provide a clear width 42 inches (1065 mm) minimum and a clear depth 54 inches (1370 mm) minimum. Car doors shall be positioned at the narrow ends of cars and shall provide 32 inches (815 mm) minimum clear width.

EXCEPTIONS: 1. Cars that provide a clear width 51 inches (1295 mm) minimum shall be permitted to provide a clear depth 51 inches (1295 mm) minimum provided that car doors provide a clear opening 36 inches (915 mm) wide minimum.
2. Existing elevator cars shall be permitted to provide a clear width 36 inches (915 mm) minimum, clear depth 54 inches (1370 mm) minimum, and a net clear platform area 15 square feet (1.4 m²) minimum.

408.4.2 Floor Surfaces. Floor surfaces in elevator cars shall comply with 302 and 303.

408.4.3 Platform to Hoistway Clearance. The platform to hoistway clearance shall comply with 407.4.3.
408.4.4 **Leveling.** Elevator car leveling shall comply with 407.4.4.

408.4.5 **Illumination.** Elevator car illumination shall comply with 407.4.5.

408.4.6 **Car Controls.** Elevator car controls shall comply with 407.4.6. Control panels shall be centered on a side wall.

408.4.7 **Designations and Indicators of Car Controls.** Designations and indicators of car controls shall comply with 407.4.7.

408.4.8 **Emergency Communications.** Car emergency signaling devices complying with 407.4.9 shall be provided.
Figure 408.4.1
Limited-Use/Limited-Application (LULA) Elevator Car Dimensions
66. Sign Height

![Diagram showing sign height with dimensions and text]

**Figure 703.4.1**
Height of Tactile Characters Above Finish Floor or Ground

67.-a. Sign location

![Diagram showing sign location with angles and dimensions]

**Figure 703.4.2**
Location of Tactile Signs at Doors
Directional Signage at Non-Compliant Toilets

**Diagram: DIRECTIONAL SIGNAGE AT NON-COMPLIANT TOILETS**

**Sample Signs for Directing**

- **Accessible Toilets on First Floor Via Elevator**
- **Accessible Toilets Located West End of Hallway**
- **Accessible Toilets in North Wing**
- **Accessible Toilet Rooms 1st Floor Only**

**Note:** If route is complicated, additional sign locations may be needed. Optional sign in elevator cab.
DIRECTIONAL SIGNAGE TO ACCESSIBLE ENTRANCES EXAMPLE

X = Location of directional signage.
E = Entrance
SE = Accessible Entrance

X1 = Locate at walk intersection to keep disabled from have to retrace their paths. No height dimensions specified - can be low.

X2 = Can be located beside entrance door - 60” AFF to centerline of sign.

SAMPLE SIGNS

ACCESSIBLE ENTRANCE TO EXAMPLE BUILDING

ACCESSIBLE ENTRANCE SOUTH SIDE OF BUILDING
68. Handrail Heights

Figure 505.4 Handrail Height

69. Handrail Clearances

Figure 505.5 Handrail Clearance
70. Handrail Projections below gripping surface

![Diagram showing handrail projections below gripping surface.]

**Figure 505.6 Horizontal Projections Below Gripping Surface**

71. Handrail Non-Circular Cross Section Style

![Diagram showing non-circular cross sections.]

**Figure 505.7.2 Handrail Non-Circular Cross Section**
72. Ramp handrails-top and bottom extensions

Figure 505.10.1 Top and Bottom Handrail Extension at Ramps

73. Top handrail extensions at stairs

74. Bottom Handrail extension at stair

Figure 505.10.2 Top Handrail Extension at Stairs

Figure 505.10.3 Bottom Handrail Extension at Stairs

Note: X = tread depth
75. Treads, risers and stair nosing

**504.2 Treads and Risers.** All steps on a flight of stairs shall have uniform riser heights and uniform tread depths. Risers shall be 4 inches (100 mm) high minimum and 7 inches (180 mm) high maximum. Treads shall be 11 inches (280 mm) deep minimum.

**504.3 Open Risers.** Open risers are not permitted.

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**Figure 504.5 Stair Nosing**

Technical questions concerning this report should be addressed to:

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