



AAPM&R 2017 Annual Assembly and Technical Exhibition

Cursory ADA Facility Survey Report

May 11 and 12, 2016



Project Methodology

On Wednesday May 11, 2016, and Thursday May 12, 2016, [tactile maps and illustrations \(tmi\)](#) staff conducted a cursory architectural barrier assessment of venues for the American Academy of Physical Medicine & Rehabilitation (AAPM&R), 2017 Annual Assembly and Technical Exhibition, located in Denver, Colorado as requested by AAPM&R for this project. Detailed measurements were not taken for elements; however, a quick assessment was made of all elements expected to be used for the Exhibition which are required to adhere to the scoping and technical provisions of the American's with Disabilities Act 2010 Regulations for physical access.

The basis for this assessment is the 2010 ADA Title III Regulations, Part 36 Nondiscrimination on the Basis of Disability in Public Accommodations and Commercial Facilities (as amended by the final rule published on September 15, 2010)

§ 36.304 Removal of barriers.

(a) General. A public accommodation shall remove architectural barriers in existing facilities, including communication barriers that are structural in nature, where such removal is readily achievable, i.e., easily accomplishable and able to be carried out without much difficulty or expense.

(b) Examples. Examples of steps to remove barriers include, but are not limited to, the following actions – (1) Installing ramps;

(2) Making curb cuts in sidewalks and entrances;

(3) Repositioning shelves;

(4) Rearranging tables, chairs, vending machines, display racks, and other furniture;

(5) Repositioning telephones;

(6) Adding raised markings on elevator control buttons;

(7) Installing flashing alarm lights;

(8) Widening doors;

(9) Installing offset hinges to widen doorways;

(10) Eliminating a turnstile or providing an alternative accessible path;

(11) Installing accessible door hardware;

(12) Installing grab bars in toilet stalls;

(13) Rearranging toilet partitions to increase maneuvering space;

(14) Insulating lavatory pipes under sinks to prevent burns;

(15) Installing a raised toilet seat;

(16) Installing a full-length bathroom mirror;

(17) Repositioning the paper towel dispenser in a bathroom;

(18) Creating designated accessible parking spaces;

(19) Installing an accessible paper cup dispenser at an existing inaccessible water fountain;

(20) Removing high pile, low density carpeting

(c) Priorities. A public accommodation is urged to take measures to comply with the barrier removal requirements of this section in accordance with the following order of priorities. (1) First, a public accommodation should take measures to provide access to a place of public accommodation from public sidewalks, parking, or public transportation. These measures include, for example, installing an entrance ramp, widening entrances, and providing accessible parking spaces.

(2) Second, a public accommodation should take measures to provide access to those areas of a place of public accommodation where goods and services are made available to the public. These measures include, for example, adjusting the layout of display racks, rearranging tables, providing Brailled and raised character signage, widening doors, providing visual alarms, and installing ramps.

(3) Third, a public accommodation should take measures to provide access to restroom facilities. These measures include, for example, removal of obstructing furniture or vending machines, widening of doors, installation of ramps, providing accessible signage, widening of toilet stalls, and installation of grab bars.

(4) Fourth, a public accommodation should take any other measures necessary to provide access to the goods, services, facilities, privileges, advantages, or accommodations of a place of public accommodation.

All diagrams and italicized references included in this document are from the 2010 ADA Regulations.

Summary of Findings - Cursory Facility Evaluation

The survey of the following venues was conducted on May 11 - 12, 2016:

- Pinnacle Club by Grand Hyatt
- Wynkoop Brewing Company
- Union Station public areas
- Embassy Suites by Hilton Denver
- Colorado Convention Center
- Hyatt Regency Denver
- Homewood Suites Denver/Downtown
- Hilton Garden Inn Denver Downtown

Pinnacle Club by Grand Hyatt

- The accessible route to the Pinnacle Club at the Grand Hyatt crosses the 16th Street Mall. The blended curb ramps do not have tactile warning strips or delineated crosswalks and the mall



shuttle buses cross at these intersections. Compliant curb ramps should be placed as maintenance occurs in these locations.

- The Grand Hyatt provides only valet parking
- The lobby, registration and elevators are accessible.



- The Pinnacle Club is located on the top floor of the Hyatt with accessible, expansive views on all sides.



- All restroom doors exceed the allowable 5 lbs. opening force. Adjust all closers to meet this requirement.

404.2.8 Closing Speed. Door and gate closing speed shall comply with 404.2.8.

404.2.8.1 Door Closers and Gate Closers. Door closers and gate closers shall be adjusted so that from an open position of 90 degrees, the time required to move the door to a position of 12 degrees from the latch is 5 seconds minimum.

- The drinking fountains are hidden around a corner at the end of the restroom hall. Add directional signage.



Wynkoop Brewing Company

- The accessible route to the Wynkoop is by a ramp located on Wynkoop St. at mid-block.

Accessible ramp to the Wynkoop





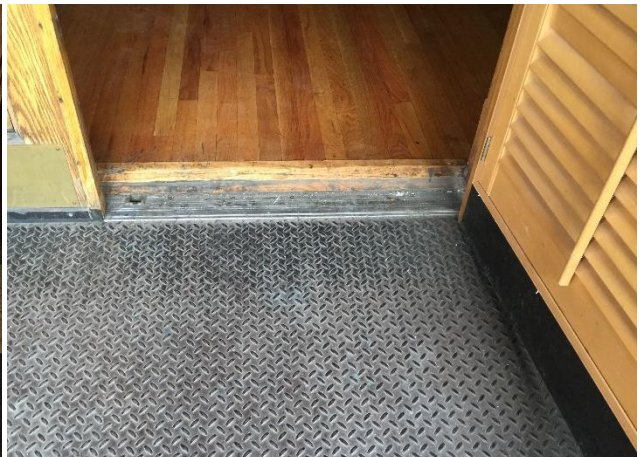
- The accessible route has several joints that have changes in level greater than $\frac{1}{4}$ " vertical or $\frac{1}{2}$ " maximum beveled. Recommend repairing these sections of pavement.



- The threshold at the accessible entrances are too high, need to be $\frac{3}{4}$ " high maximum with beveled edges. Recommend replacing with $\frac{1}{2}$ " high maximum thresholds.

404.2.5 Thresholds. Thresholds, if provided at doorways, shall be $\frac{1}{2}$ inch (13 mm) high maximum. Raised thresholds and changes in level at doorways shall comply with 302 and 303.

EXCEPTION: Existing or altered thresholds $\frac{3}{4}$ inch (19 mm) high maximum that have a beveled edge on each side with a slope not steeper than 1:2 shall not be required to comply with 404.2.5.



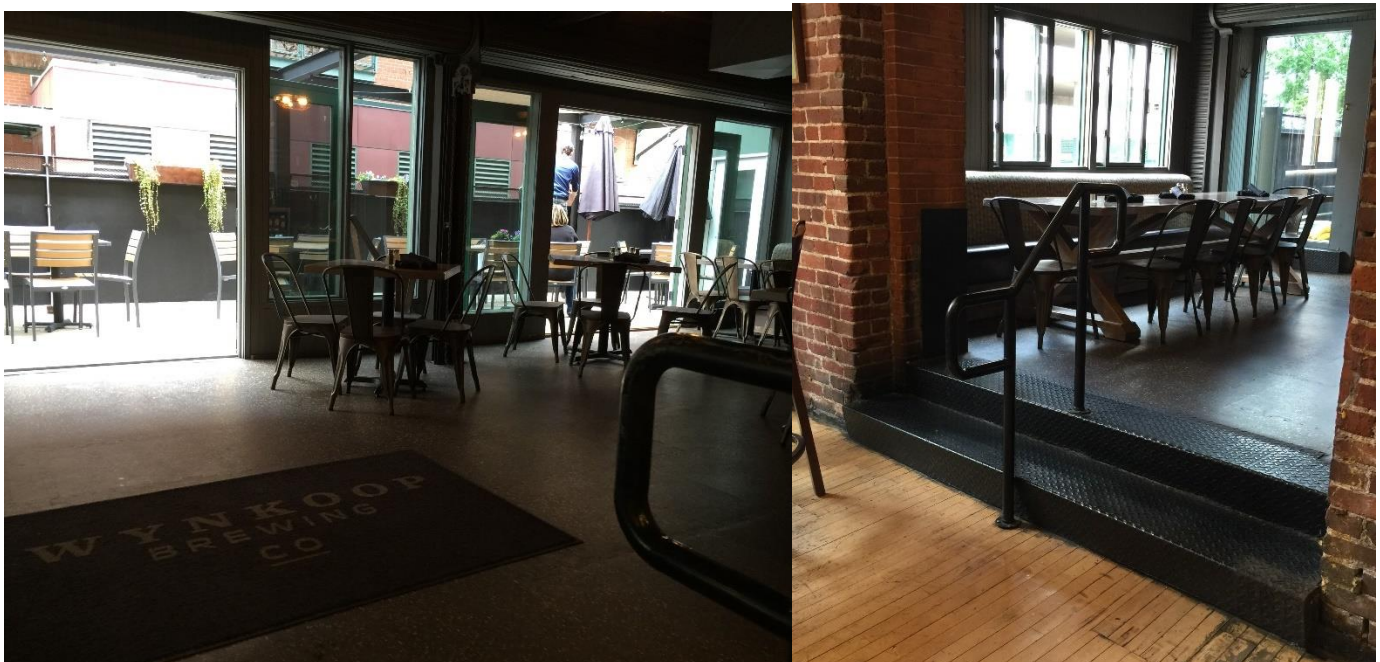
216.6 Entrances. Where not all entrances comply with 404, entrances complying with 404 shall be identified by the International Symbol of Accessibility complying with 703.7.2.1 (wheelchair symbol). Directional signs complying with 703.5 that indicate the location of the nearest entrance complying with 404 shall be provided at entrances that do not comply with 404.

Advisory 216.6 Entrances. Where a directional sign is required, it should be located to minimize backtracking. In some cases, this could mean locating a sign at the beginning of a route, not just at the inaccessible entrances to a building.

- The directional sign at the front entrance needs to be replaced, change wording to accessible entrance instead of handicap access.



- Neither of the exterior eating areas are accessible to wheelchair users. Recommend adding accessible seating when any modifications are made to one of these areas to meet the requirement for access.



- There are several bars in the facility, none have a lowered section for accessible seating. Sitting at the bar is a unique experience from table service and should be made accessible so that all patrons have this available to them. Recommend adding a lowered section at one or more of the bars.



- The first floor accessible restroom does not meet accessibility requirements:
 - Required clear floor space at door is blocked by a chair and movable trash can. Remove chair from room and replace trash can with narrow version on the door side of sink.
 - Watch video link to understand all accessibility requirements needed in accessible restrooms, make sure cleaning and maintenance staff understand their role in maintaining access.

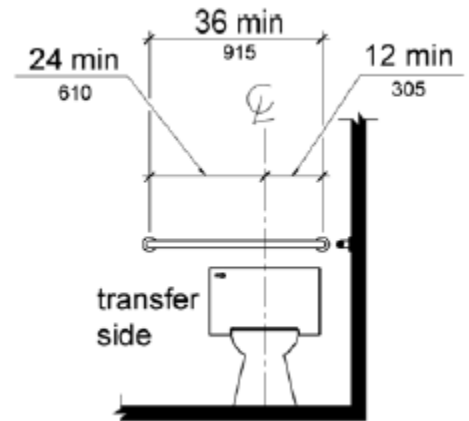
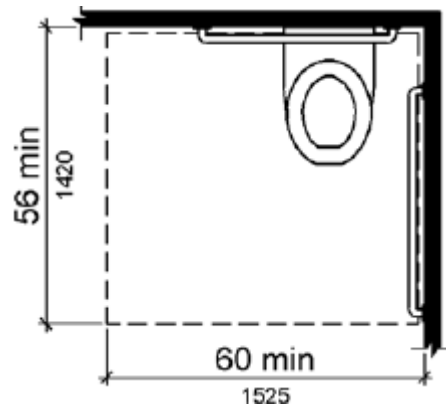
<https://www.access-board.gov/guidelines-and-standards/buildings-and-sites/about-the-ada-standards/guide-to-the-ada-standards#> (scroll to bottom of page to the animations)



[Accessible Toilet Rooms](#)



- There needs to be adequate clear space adjacent to the toilet for a side transfer. The new lavatory to be installed in this room should be moved closer to the side wall to provide the 60" required. Install a 36" grab bar along rear wall in place of the 24" existing.



- Soap and towel dispensers need to be lowered to 48" max. from floor to outlet.
- Wrap lavatory drain pipes.
- The mirror is hung too high. Lower to 40" maximum above floor.

603.3 Mirrors. Mirrors located above lavatories or countertops shall be installed with the bottom edge of the reflecting surface 40 inches (1015 mm) maximum above the finish floor or ground. Mirrors not located above lavatories or countertops shall be installed with the bottom edge of the reflecting surface 35 inches (890 mm) maximum above the finish floor or ground.

- Second floor restrooms have most required accessibility features, elements that need to be addressed:
 - Entrances have very high thresholds. Replace with ½" beveled maximum.
 - Both restrooms have 6 or more fixtures, they need a wheelchair accessible compartment (provided) and an ambulatory compartment (not provided). Modify one stall in each restroom to be an ambulatory stall that opens outward with handles on both sides of door.

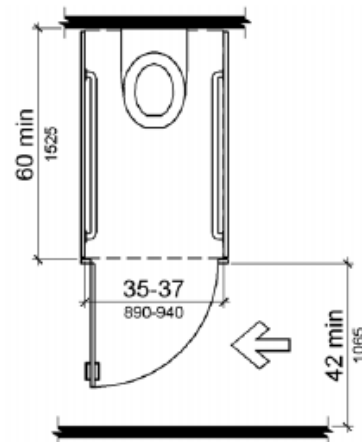
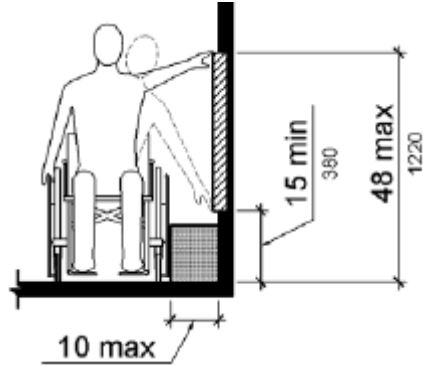


Figure 604.8.2 Ambulatory Accessible Toilet Compartment

- Soap and towel dispensers need to be lowered to 48" max. from floor to outlet.



- Handrails do not meet building code or accessibility requirements for historic buildings. These are the main egress stairs for the building and should meet requirements. Recommend adding compliant handrails adjacent to the historic rails. Provide handrails on both sides of stairs.



505.6 Gripping Surface. Handrail gripping surfaces shall be continuous along their length and shall not be obstructed along their tops or sides. The bottoms of handrail gripping surfaces shall not be obstructed for more than 20 percent of their length. Where provided, horizontal projections shall occur 1½ (38 mm) minimum below the bottom of the handrail gripping surface.

Advisory 505.6 Gripping Surface. People with disabilities, older people, and others benefit from continuous gripping surfaces that permit users to reach the fingers outward or downward to grasp the handrail, particularly as the user senses a loss of equilibrium or begins to fall.

Most of the accessible height tables on the second floor are located up a 6” step. Provide accessible tables on the main level or ramp to make this upper area accessible.



- The Wynkoop Brewing Company should conduct a full ADA self-evaluation and transition plan to help prioritize accessibility upgrades for this important landmark.

Union Station

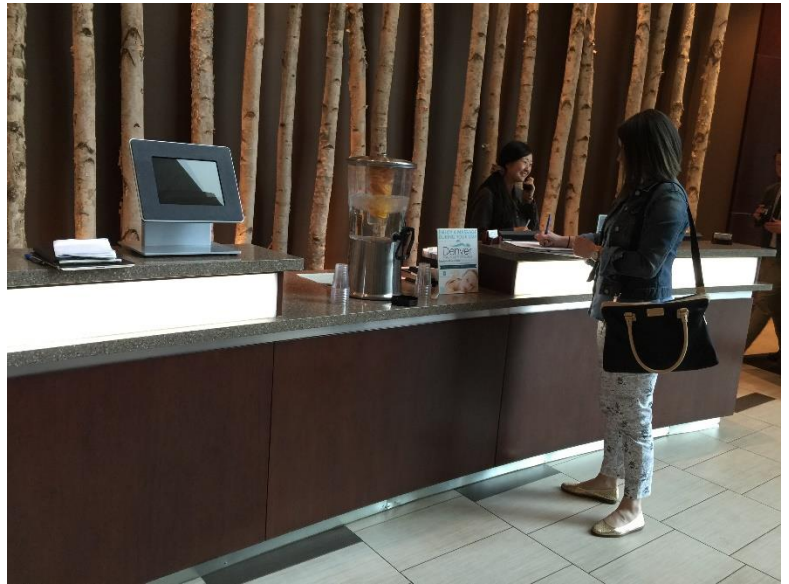
- Union Station was completely remodeled and reopened a year and a half ago. The public spaces provided are accessible and usable to all, with easy access from trains, buses and the free 16th Street Mall shuttles.

Embassy Suites by Hilton Denver Downtown Convention Center

Embassy Suites provides several types of accessible suites that are comparable to the standard suites provided. Accessible suites include either a roll-in shower or a transfer tub with removable seat. We looked at two of the accessible suites and the public areas in this review. The lobby, registration and elevators are accessible. Recommendations:

- The accessible section of the registration counter is being used for water service. Need to maintain a minimum of 36" clear counter length for a parallel approach by wheelchair users. Train staff to greet wheelchair users at this location.

904.4.1 Parallel Approach. A portion of the counter surface that is 36 inches (915 mm) long minimum and 36 inches (915 mm) high maximum above the finish floor shall be provided. A clear floor or ground space complying with 305 shall be positioned for a parallel approach adjacent to the 36 inch (915 mm) minimum length of counter.



- The 2010 regulations require a dual height drinking fountain. When fountain is replaced, install a dual height fountain.
- The drinking fountain creates a protruding object on the restroom hall side. Recommend adding another planter or other furnishing on this side to create an alcove for the fountain, or change the drinking fountain to a compliant version that is cane detectable.

307.2 Protrusion Limits. Objects with leading edges more than 27 inches (685 mm) and not more than 80 inches (2030 mm) above the finish floor or ground shall protrude 4 inches (100 mm) maximum horizontally into the circulation path.

- All restroom doors exceed the allowable 5 lbs. opening force. Adjust all closers to meet this requirement.

404.2.8 Closing Speed. Door and gate closing speed shall comply with 404.2.8.

404.2.8.1 Door Closers and Gate Closers. Door closers and gate closers shall be adjusted so that from an open position of 90 degrees, the time required to move the door to a position of 12 degrees from the latch is 5 seconds minimum.

- The accessible route to the convention center from this hotel requires crossing two sets of light rail tracks. They are compliant with tactile warning strips on each side, rail gaps are approximately 3" wide.

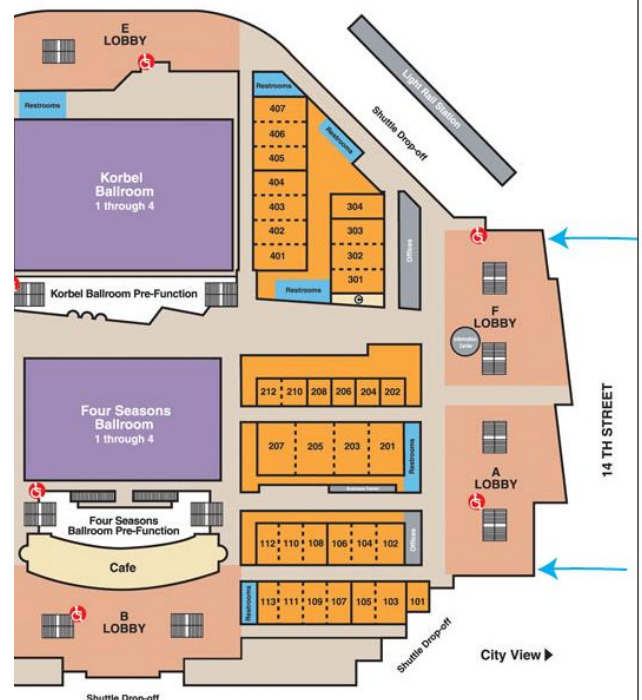


One of the light rail crossings from Embassy Suites to the Convention Center

Colorado Convention Center

The Colorado Convention Center provides many accessible features that need to be identified for visitors.

- Entrances on 14th Street are not all accessible. Provide directional signs to the accessible doors.
- Website does not include accessibility information. It does include information on other services, and should include an accessibility page with access information on:
 - Wheelchair/scooter availability and location of service
 - Accessible charging station
 - Accessible entrances and routes to other levels
 - Map of accessibility features
- Running slope of the main ramp in the lobby exceeds 8.33%, provide signage to elevators



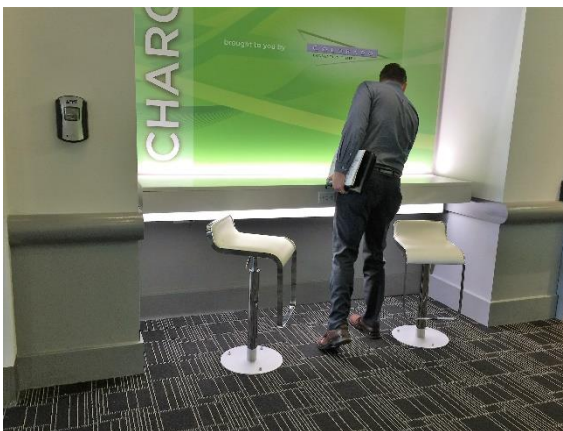
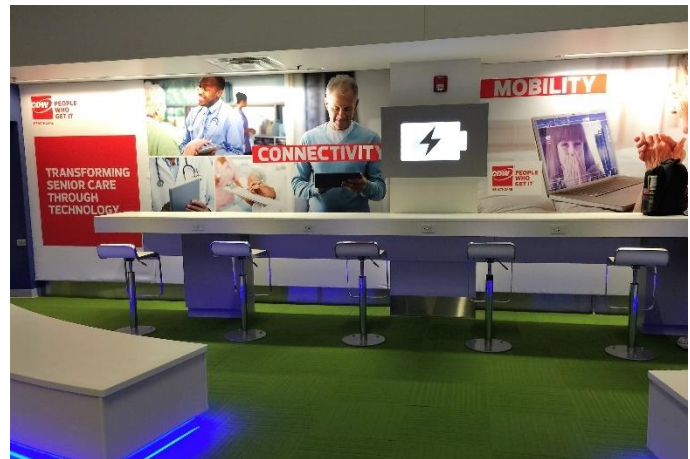


Main ramp at center of lobby exceeds 10%

- Charging stations do not include an accessible work surface. Add at the left end of these stations with charging outlet.

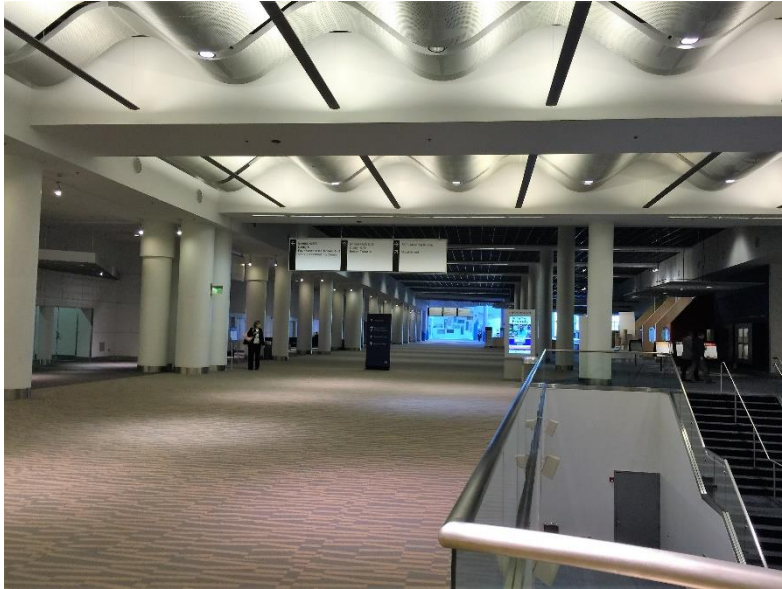
902.2 Clear Floor or Ground Space. A clear floor space complying with 305 positioned for a forward approach shall be provided. Knee and toe clearance complying with 306 shall be provided.

902.3 Height. The tops of dining surfaces and work surfaces shall be 28 inches (710 mm) minimum and 34 inches (865 mm) maximum above the finish floor or ground

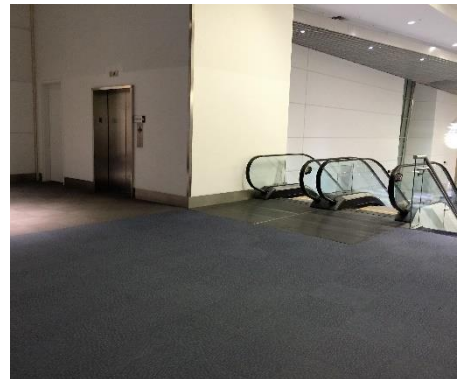


- Lower the height of one of these charging stations in the 700 hall to meet accessible work surface requirements, keep one space clear of seating for wheelchair use.

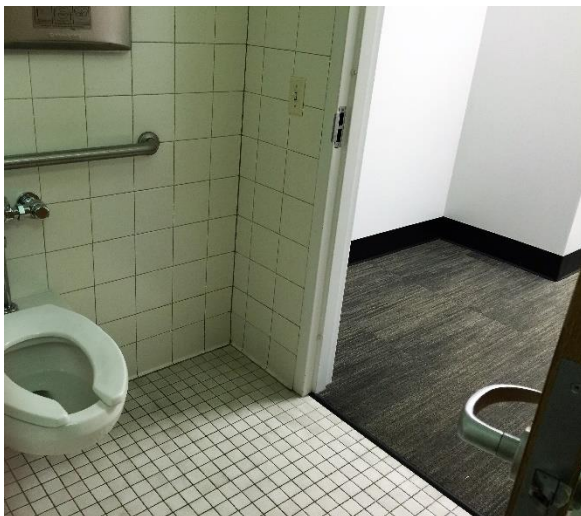
- Lower the height of the hand sanitizer adjacent to accessible charging station so that the outlet is 48" above the floor maximum.
- The elevators in the Center are not located in the central corridors with the escalators and stairs. Provide directional signage easily visible from the stair/escalator entrances. The wheelchair symbol on the maps should include an elevator symbol as well to clarify for cane users, people with strollers, etc.



Elevator location to access ballroom



- Most of the restrooms in the Convention Center are accessible, signage with wheelchair symbol are not provided and not needed as all are accessible.
- The mezzanine has three single user restrooms, none of them meet ADA requirements. The restroom to the right as you exit the elevator includes an inaccessible shower, inadequate clear floor space at door and toilet (a wheelchair user cannot close the door). Recommend this restroom be replaced with an accessible restroom when alterations are made.



- The men's restroom on the mezzanine level does not meet ADA requirements.
 - Toilet is too far from wall
 - Urinal blocks transfer area to toilet.
 - Toilet cover dispenser is too high
 - Toilet paper dispenser sticks out too far.
- Provide a compliant toilet room when space is altered.



- The women's restroom on the mezzanine level does not meet ADA requirements.
 - Lavatory drain pipes are not wrapped
 - Lavatory blocks transfer area to toilet.
 - Toilet cover and soap dispenser are too high
 - Toilet paper dispenser sticks out too far.
- Provide a compliant toilet room when space is altered.



- Recommend watching the video below to understand the requirements for accessible toilet rooms:

<https://www.access-board.gov/guidelines-and-standards/buildings-and-sites/about-the-ada-standards/guide-to-the-ada-standards#> (scroll to bottom of page to the animations)

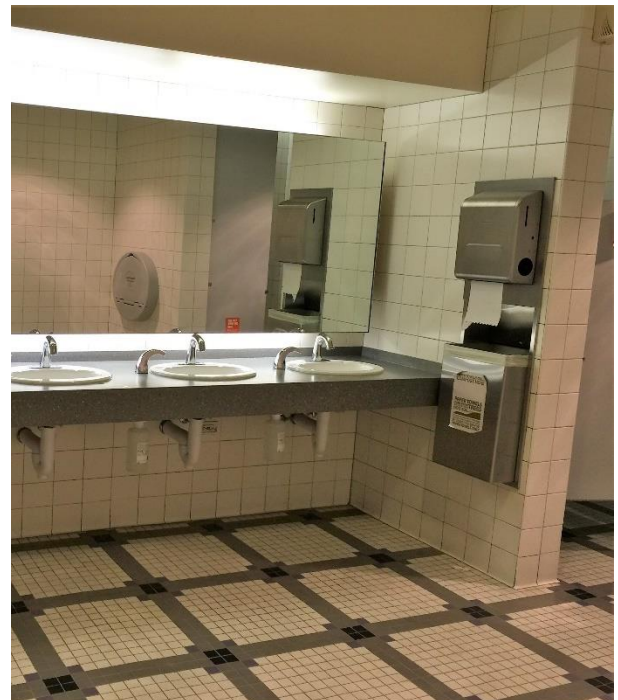
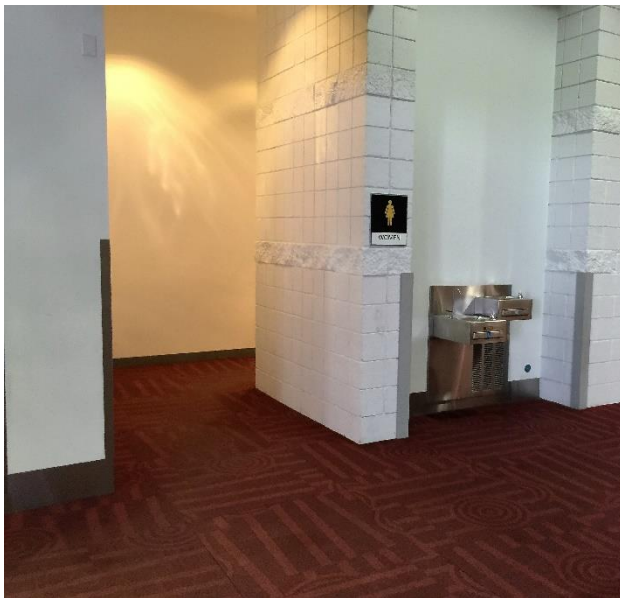


[Accessible Toilet Rooms](#)

- This drinking fountain creates a protruding object on the rollup door side. Recommend adding a bollard or other furnishing on this side to create an alcove for the fountain, or add an apron to the drinking fountain to make it cane detectable.



- The women's restroom between the 600 and 700 halls does not have an accessible towel dispenser. Lower one of the dispensers to have the outlet at 48" maximum above the floor.



Belco Theater in the Colorado Convention Center

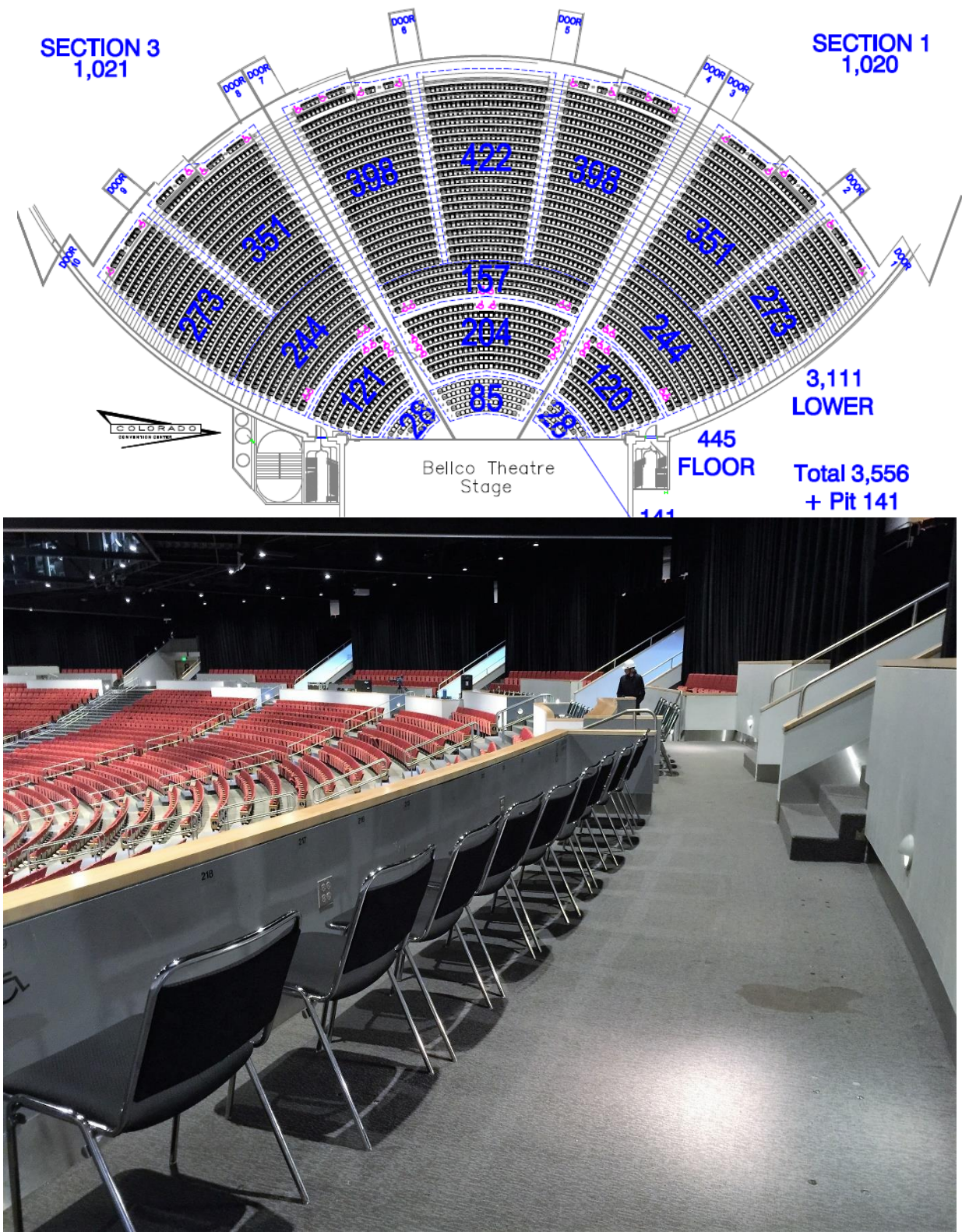


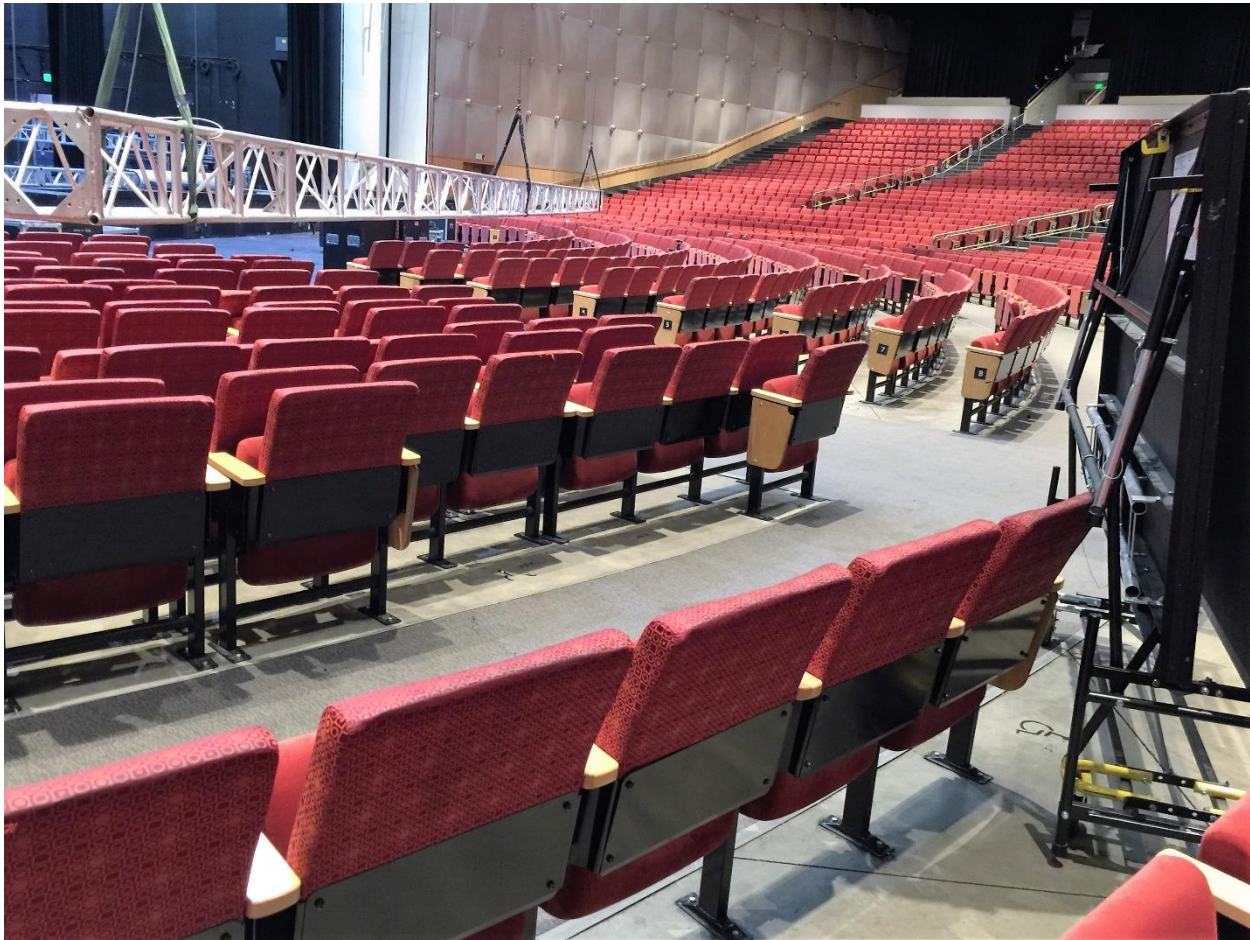
Elevator location for Belco Theater

- The accessible route to the lower seating areas is by a single elevator that also serves the stage and speaker/talent green room areas.
- The elevator is not visible from the lobby and size of the signage makes it difficult to find in this expansive space. This is likely not an issue for ticketed events where patrons are directed to seating, however, for open seating events, the accessible route is difficult to find. Recommend increasing size of signage.
- The elevator is required to be available for anyone to use.
- Seating charts need to show the accessible route to the accessible seats. The route to seating areas 2 and 3 is through this elevator and through Section 1. Describe how dispersed seating is provided in Sections 2 and 3 when the theater is sectioned off and multiple programs are taking place. The ADA does not



allow discrimination because of disability, ie. Requiring a wheelchair user to travel through a program in Section 1 and 2 to get to their program in Section 3.





Identification of available accessible seating. A public accommodation that sells or distributes tickets for a single event or series of events shall, upon inquiry –

- *(i) Inform individuals with disabilities, their companions, and third parties purchasing tickets for accessible seating on behalf of individuals with disabilities of the locations of all unsold or otherwise available accessible seating for any ticketed event or events at the facility;*
- *(ii) Identify and describe the features of available accessible seating in enough detail to reasonably permit an individual with a disability to assess independently whether a given accessible seating location meets his or her accessibility needs; and*
- *(iii) Provide materials, such as seating maps, plans, brochures, pricing charts, or other information, that identify accessible seating and information relevant thereto with the same text or visual representations as other seats, if such materials are provided to the general public.*

The Bellco Theater is a complex facility with many programs and services offered. There are several accessibility issues found in this cursory review of limited areas. Recommend the theater have a full self-evaluation and transition plan developed to identify all barriers, and develop solutions to make all services accessible to people with disabilities.

Hyatt Regency Denver at Colorado Convention Center

- The Hyatt Regency has 10 accessible parking spaces in their self-park garage. Most of these are van accessible spaces.
- The accessible route from this hotel to the convention center does not cross the light rail tracks. This is the closest hotel to the convention center accessible entrance.



- The entrance doors and lobby space are accessible. The registration, concierge, and car rental counters are not accessible. Need to add accessible counters, temporary now, schedule permanent counter installation.



904.4 Sales and Service Counters. Sales counters and service counters shall comply with 904.4.1 or 904.4.2. The accessible portion of the counter top shall extend the same depth as the sales or service counter top.

904.4.1 Parallel Approach. A portion of the counter surface that is 36 inches (915 mm) long minimum and 36 inches (915 mm) high maximum above the finish floor shall be provided. A clear floor or ground space complying with 305 shall be positioned for a parallel approach adjacent to the 36 inch (915 mm) minimum length of counter.

904.4.2 Forward Approach. A portion of the counter surface that is 30 inches (760 mm) long minimum and 36 inches (915 mm) high maximum shall be provided. Knee and toe space complying with 306 shall be provided under the counter. A clear floor or ground space complying with 305 shall be positioned for a forward approach to the counter.

- All of the accessible compartments in all restrooms on the public floors are missing one or two door pulls. Accessible stall doors need to have pulls on both sides of the doors and the doors need to be self-closing.
- Restrooms do not have accessible ambulatory stalls in restrooms with 6 or more fixtures. Recommend converting a standard stall to a compliant ambulatory stall with door opening outward, handles on both sides, etc.



604.8.1.2 Doors. Toilet compartment doors, including door hardware, shall comply with 404 except that if the approach is to the latch side of the compartment door, clearance between the door side of the compartment and any obstruction shall be 42 inches (1065 mm) minimum. Doors shall be located in the front partition or in the side wall or partition farthest from

the water closet. Where located in the front partition, the door opening shall be 4 inches (100 mm) maximum from the side wall or partition farthest from the water closet. Where located in the side wall or partition, the door opening shall be 4 inches (100 mm) maximum from the front partition. The door shall be self-closing. A door pull complying with 404.2.7 shall be placed on both sides of the door near the latch. Toilet compartment doors shall not swing into the minimum required compartment area.

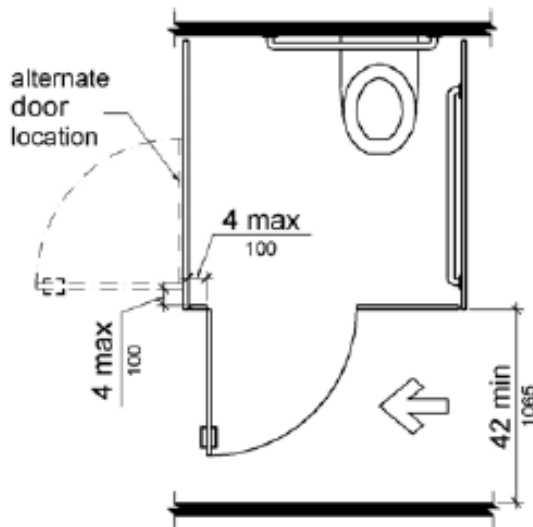


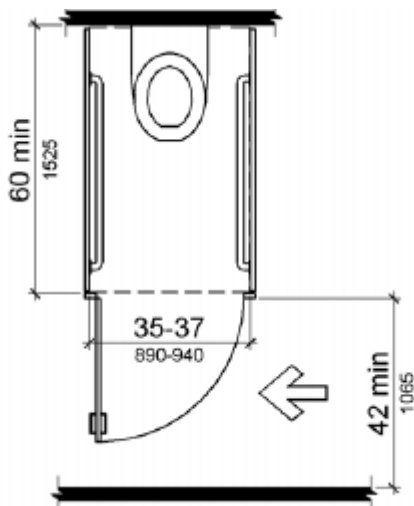
Figure 604.8.1.2 Wheelchair Accessible Toilet Compartment Doors

604.8.2 Ambulatory Accessible Compartments. Ambulatory accessible compartments shall comply with 604.8.2.

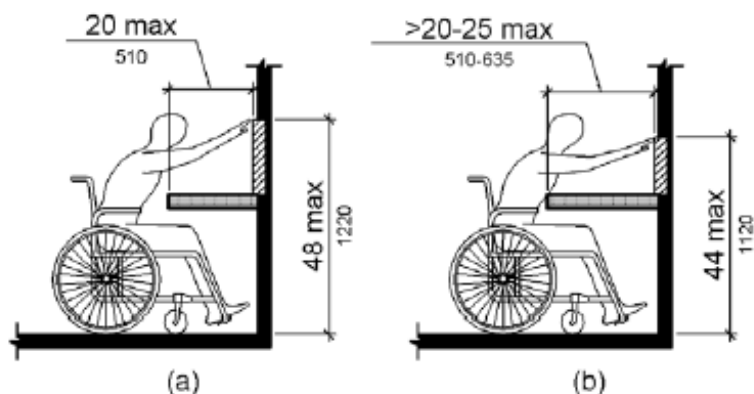
604.8.2.1 Size. Ambulatory accessible compartments shall have a depth of 60 inches (1525 mm) minimum and a width of 35 inches (890 mm) minimum and 37 inches (940 mm) maximum.

604.8.2.2 Doors. Toilet compartment doors, including door hardware, shall comply with 404, except that if the approach is to the latch side of the compartment door, clearance between the door side of the compartment and any obstruction shall be 42 inches (1065 mm) minimum. The door shall be self-closing. A door pull complying with 404.2.7 shall be placed on both sides of the door near the latch. Toilet compartment doors shall not swing into the minimum required compartment area.

604.8.2.3 Grab Bars. Grab bars shall comply with 609. A side-wall grab bar complying with 604.5.1 shall be provided on both sides of the compartment.



- Paper towel dispensers are too deep in the counter. Recommend placing a towel dispenser on counters behind trash hole. 25" maximum from front edge of counter.



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



- Baby changing station is behind door to restroom stalls. When in use, access to the restroom stalls is blocked. Move to an accessible location.



- Baby changing station is in the clear floor space in the accessible compartment. Move to an accessible location.



- Swimsuit water extractors in both locker rooms block the accessible route through the space.
- Scale in women's locker room is in accessible route. Move to a clear area.
- Showers in both locker rooms do not meet ADA requirements.



- Spa counter is not accessible. Add a compliant counter.



Homewood Suites Denver/Downtown - Convention Center

- The entrance is accessible, however, the movable mats at the door do not meet the requirements for a firm and stable surface

302 Floor or Ground Surfaces

302.1 General. Floor and ground surfaces shall be stable, firm, and slip resistant and shall comply with 302.

302.2 Carpet. Carpet or carpet tile shall be securely attached and shall have a firm cushion, pad, or backing or no cushion or pad. Carpet or carpet tile shall have a level loop, textured loop, level cut pile, or level cut/uncut pile texture. Pile height shall be ½ inch (13 mm) maximum. Exposed edges of carpet shall be fastened to floor surfaces and shall have trim on the entire length of the exposed edge. Carpet edge trim shall comply with 303.



- There is an accessible section at the end of the bar in the dining space.



- The suites are very spacious and the unit we reviewed was very accessible.
- The microwave in the kitchen is not accessible. Recommend adding a countertop microwave to all accessible suites.



Hilton Garden Inn Denver Downtown



- There is an accessible registration counter at the far end of the counter, not visible from entrance.

- There are no accessible tables or bar space in the dining area. Add accessible tables on an accessible route with adequate maneuvering and clear floor space.



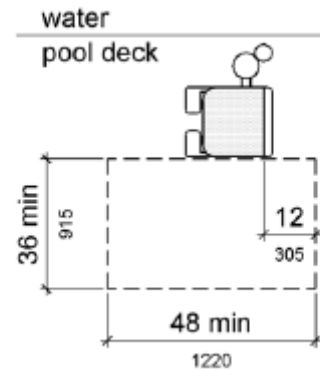
902.3 Height. The tops of dining surfaces and work surfaces shall be 28 inches (710 mm) minimum and 34 inches (865 mm) maximum above the finish floor or ground.

- There is no lift for the hot tub. Add a lift for this spa as required by the 2010 ADA Standards.



1009.2.3 Clear Deck Space. On the side of the seat opposite the water, a clear deck space shall be provided parallel with the seat. The space shall be 36 inches (915 mm) wide minimum and shall extend forward 48 inches (1220 mm) minimum from a line located 12 inches (305 mm) behind the rear edge of the seat. The clear deck space shall have a slope not steeper than 1:48.

Figure 1009.2.3 Clear Deck Space at Pool Lifts



- There are no door pulls on the accessible compartment doors in the lobby restrooms. Add a door pull on the inside and outside of doors.



- Mirrors are mounted higher than 40" above floor.
- Lavatory pipes and supply lines are not wrapped



606.5 Exposed Pipes and Surfaces. Water supply and drain pipes under lavatories and sinks shall be insulated or otherwise configured to protect against contact. There shall be no sharp or abrasive surfaces under lavatories and sinks.

Conclusion

The limited cursory assessment of venues for the American Academy of Physical Medicine & Rehabilitation (AAPM&R), 2017 Annual Assembly and Technical Exhibition, located in Denver, Colorado, resulted in a number of accessibility concerns. Of paramount importance is the provision of accessible routes into and through the convention center and Wynkoop facilities.

Based on our experience and knowledge of the ADA, [tmi](#) believes the observations included in this cursory assessment represent a valid and accurate interpretation of pertaining regulations as well as the scoping and technical provisions that have been adopted for the implementation of those regulations.

The content of this report are submitted as technical assistance and guidance and should not be considered legal advice. Ultimate determination of legal compliance, with and enforcement of Part 36 Regulation, is the responsibility of the U.S. Department of Justice.