

Section 5: Accessible Routes & Curbs

TEXAS
ACCESSIBILITY
ACADEMY

Architectural
Barriers Program

Accessible Routes

Walking Surfaces, Ramps, & Curb Ramps



206 Accessible Routes



Scoping

Section 206.2 Where Required

Section 206.2 lists 17 areas that are required to have Accessible Routes, as well as how many of those areas are required to comply (“at least one”, “5%”, etc.)

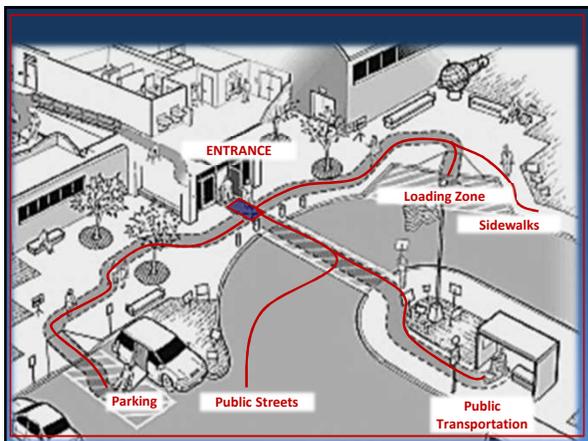
206.2.1 Site Arrival Points

At least one accessible route must be provided within the site from...

- Accessible parking spaces
- Accessible passenger loading zones
- Public streets and sidewalks
- Public transportation stops

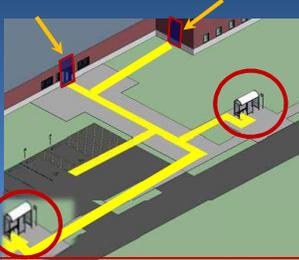


... to the accessible building or facility entrance they serve.



206.2.1 Advisory

Where two or more similar site arrival points (such as bus stops) serve the same accessible entrance or entrances, **both** must be on accessible routes.



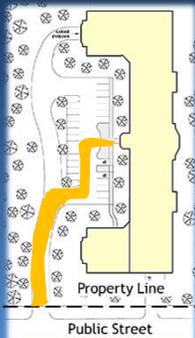
The accessible routes must serve all of the accessible entrances on site.

A driveway can be used as an accessible route as long as it meets the requirements for slope, changes in level, etc.



206.2.1 Site Arrival Points- Ex 2

An accessible route is not be required between site arrival points and the building entrance if the **only** means of access between them is a **vehicular way not providing pedestrian access**.*



**Applicable when there is no public sidewalk.*

106.5.75 Vehicular Way

"A route provided for vehicular traffic, such as in a street, driveway, or parking facility."



206.2.2 Within A Site Accessible (Connecting) Routes

At least one accessible route shall connect accessible:

- buildings
- elements
- facilities
- spaces

...that are on the same site



206.2.2 Within a Site Exception

An accessible (connecting) route is not be required between accessible buildings, facilities, elements, and spaces if...

...the only means of access between them is a vehicular way not providing pedestrian access.

206.2.2 Example 1: Within A Site (Connecting Routes)



Example: Self-Storage facility

Advisory 206.2.2 Within A Site Areas of Sport Activity

An accessible route is required to connect to the boundary of each area of sport activity.

Examples of areas of sport activity include:

- soccer fields
- basketball courts
- baseball fields
- running tracks
- skating rinks
- the area surrounding a piece of gymnastic equipment



206.2.4 Spaces and Elements

At least one accessible route must connect accessible building or facility **entrances** with all accessible **spaces and elements** within the building or facility...

...unless exempted by 206.2.3 Ex 1 -7.



206.2.4 Spaces and Elements Exceptions (w/conditions)

- 1. Raised courtroom stations, including judges' benches, clerks' stations, bailiffs' stations, deputy clerks' stations, and court reporters' stations...
- 2. Assembly areas with fixed seating...
- 3. Some mezzanines...



206.2.5 Restaurants & Cafeterias

In restaurants and cafeterias, an accessible route must be provided to **all dining areas**, including raised or sunken dining areas, and outdoor dining areas.



206.2.6 Performance Areas

Where a circulation path **directly connects** a performance area to an assembly seating area...



206.2.6 Performance Areas

...an accessible route must **directly connect** the assembly seating area with the performance area.



206.2.6 Performance Areas

An accessible route shall be provided from performance areas to ancillary areas or facilities used by performers unless exempted by 206.2.3 Exceptions 1 through 7.



206.2.9.1 Load & Unload areas Amusement Rides

Load and unload areas for amusement rides must be on an accessible route.

Where load and unload areas have more than one loading or unloading position, **at least one** loading and unloading position must be on an accessible route.



206.2.10 Recreational Boating Facilities

Boat slips required to comply with 235.2* and boarding piers at boat launch ramps required to comply with 235.3** shall be on an accessible route.



206.2.11 Bowling Lanes

Where bowling lanes are provided, at least 5%, but no fewer than **one of each type** of bowling lane, shall be on an accessible route.



206.2.12 Court Sports

In court sports, at least one accessible route shall directly connect both sides of the court.





206.2.13 Exercise Machines & Equipment

At least **one of each type** of exercise equipment and machine must be on an accessible route.



206.2.14 Fishing Piers & Platforms

Fishing piers and platforms must be on an accessible route.



206.2.15 Golf Facilities

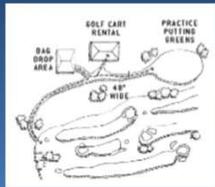
At least one accessible route must connect accessible elements and spaces within the boundary of a golf course.



206.2.15 Golf Facilities

In addition, there must be accessible routes serving the following:

- golf car rental areas
- bag drop areas
- weather shelters
- course toilet rooms
- practice putting greens
- practice teeing grounds
- teeing stations at driving ranges



206.2.16 Miniature Golf Facilities

Holes required to comply with 239.2, including the start of play, shall be on an accessible route.



206.2.17 Play Components

- At least one accessible route shall be provided within the play area.
- The accessible route shall connect ground level play components... and elevated play components ... including entry and exit points of the play components.



Accessible Routes

Section 206.2 listed facilities/places that are required to have Accessible Routes.

Section 206.3 tells us where the accessible routes need to be...

206.3 Location of Accessible Route



Accessible routes shall coincide with or be located in the same area as general circulation paths.

Advisory 206.3 Location

Circulation paths, such as vehicular ways designed for pedestrian traffic, walks, and unpaved paths that are designed to be routinely used by pedestrians shall be accessible or have an accessible route nearby.



206.3 Location- Interior Routes

Where circulation paths are interior, required accessible routes shall also be interior.

If a new stairway is put in a tenant space, an accessible route must also be located inside the tenant space, in the same area.



TM 2014-24

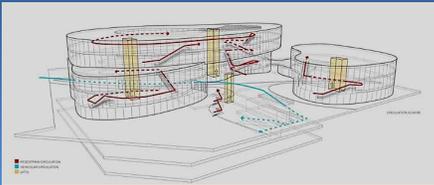


TM 2014-24 was issued on August 15, 2014 clarify the location of Accessible Routes.

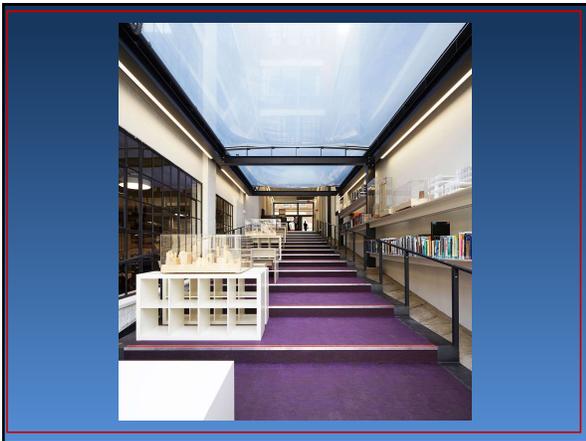
SUMMARY

Accessible routes are required:

1. From all the ways you arrive at the site to all the elements on the site
2. From all spaces and elements to one another
3. From the entrances to all of the spaces & elements inside







Accessible Routes - Technical



402.2 Components

All components of an accessible route must comply, including:

- Walking Surfaces
- Ramps
- Curb Ramps
- Vertical Access
- Doors & Entrances



Section 403



403.2 Floor or Ground Surface

Floor or ground surfaces must comply with the 302 (floor and ground surfaces)...



Therefore, they must be:

- firm
- stable
- slip resistant

And comply with:

- carpet and opening requirements

403.3 Slope

Running Slope cannot be steeper than 1:20 (5%).
Cross Slope may not be steeper than 1:48 (2.08%).



403.4 Changes in Level

Changes in level must comply with 303.

Therefore, they cannot be:

- More than ¼" unless beveled at 1:2
- More than ½" (unless they are a ramp)



403.5.1 Clear Width

The clear width of walking surfaces must be 36" minimum... except as provided in 403.5.2 (clear width at turn).

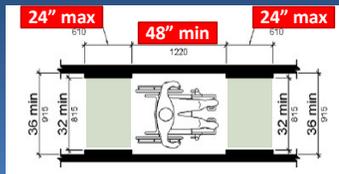
Some Exceptions:

- 60" clear width required for accessible routes connecting ground level play components
- 32" clear width allowed for doorways.



403.5.1 Clear Width

The clear width is permitted to be reduced to 32" for a max length of 24" provided that...

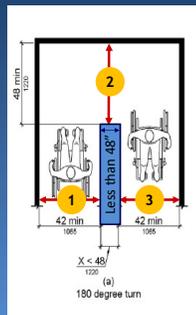


...the sections of reduced width are separated by sections 48" long min and 36" wide min.

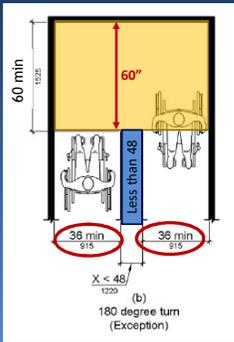
403.5.2 Clear Width at Turn

Where the accessible route makes a 180° turn around an element which is less than 48" wide (x), clear width shall be:

- 1 42" min. approaching the turn
- 2 48" min. at the turn
- 3 42" min. leaving the turn



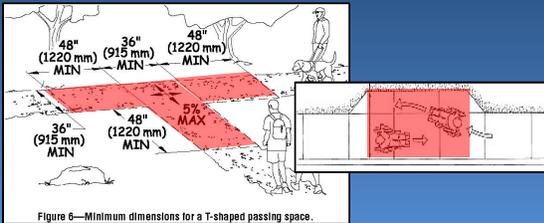
403.5.2 Clear Width at Turn



Where the clear width at the turn is **60" min**, compliance with 403.5.2 (42") is not required.

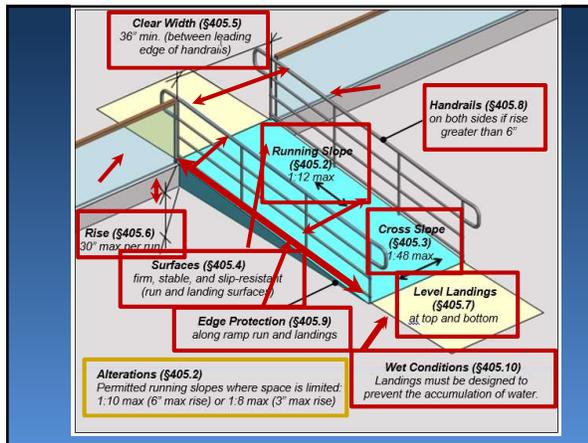
403.5.3 Passing Spaces

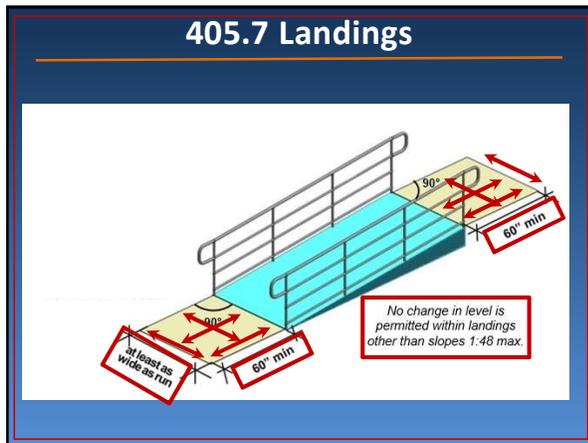
An accessible route with a **clear width less than 60"** must provide passing spaces at intervals of 200' maximum.

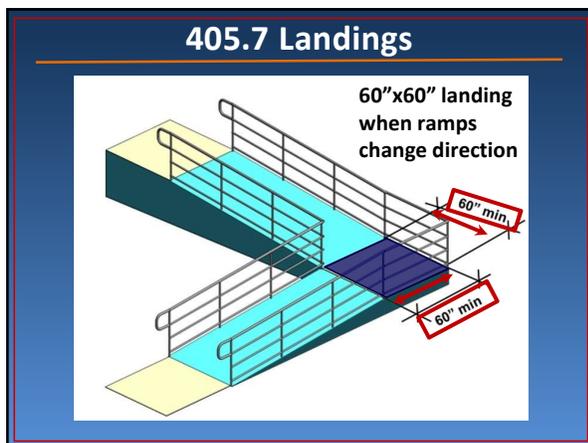


Section 405



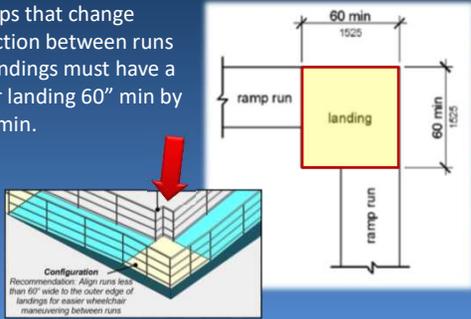






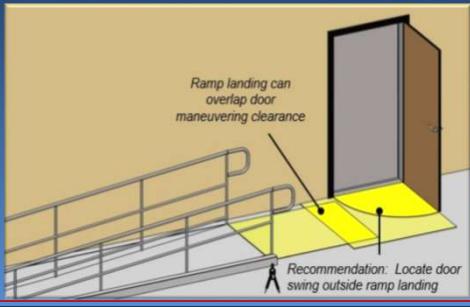
405.7 Change in Direction

Ramps that change direction between runs at landings must have a clear landing 60" min by 60" min.

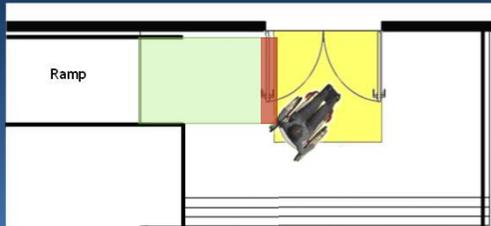


405.7.5 Doorway

Ramp landings can overlap door maneuvering clearances.



405.7.5 Example: Doorways

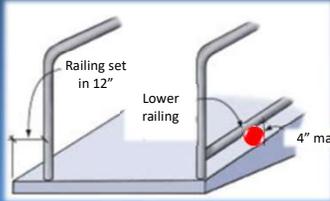


Ramp landings can overlap door maneuvering clearances.

405.9 Handrails

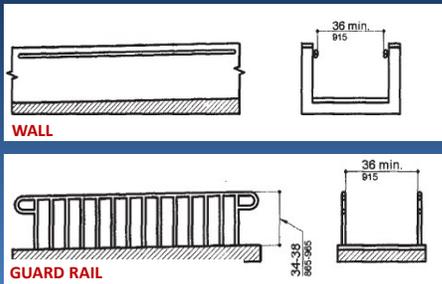
When a ramp rises more than 6", there must be edge protection on each side of the **ramps runs** and each side of the **landings**.

405.9.1
Extended
Floor or
Ground
Surface



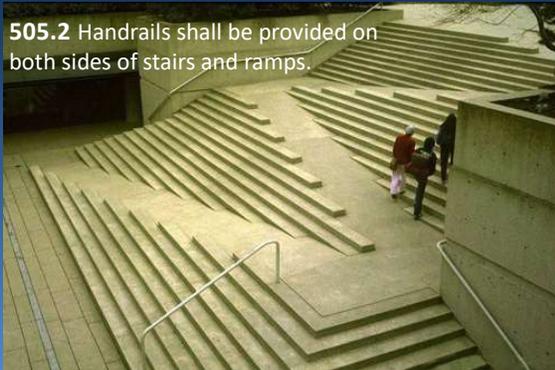
405.9.2
Curb or
Barrier

405.9 Other Edge Protection



Edge protection (such as curbs) cannot reduce the clear width of the walking surface to less than 36".

505.2 Handrails shall be provided on both sides of stairs and ramps.



505.3 Continuity

Handrails must be continuous within the full length of each stair flight or ramp run.



Inside handrails on switchback or dogleg stairs and ramps shall be continuous between flights or runs.

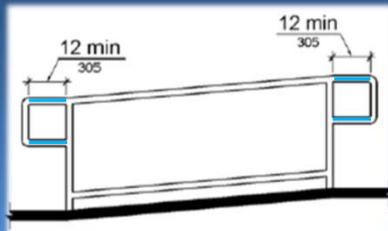
505.6-9 Handrail Surfaces

- No obstructions along tops and sides. Restricted 20% max on bottom. (505.6)
- Criteria for size and shape of cross section (505.7)
- No sharp or abrasive surfaces on or near handrail (505.5)
- Rail cannot rotate or move in fitting (505.9)



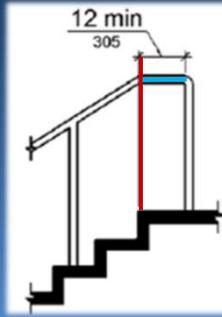
505.10.1 Ramp Extensions

Ramp handrails shall extend horizontally above the landing for **12" min** beyond the top and bottom of ramp runs.



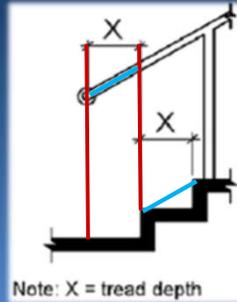
505.10.2 Stair Rail Extensions

At the top of a stair flight, handrails shall extend horizontally above the landing for **12" min** beginning directly above the first riser nosing.



505.10.2 Stair Rail Extensions

At the bottom of a stair flight, handrails shall extend at the slope of the stair flight for a horizontal distance at least **equal to one tread depth** beyond the last riser nosing.



505.10.1 & 2 Extensions

Extensions must return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent ramp/stair run.



505.10 Handrail Extensions

Handrail gripping surfaces must extend beyond and in the same direction of stair flights and ramp runs.



505.10 Exception 3

In **alterations**, full extensions of handrails are not required where the extensions would be hazardous due to plan configuration.



TAS 403.6 Handrails

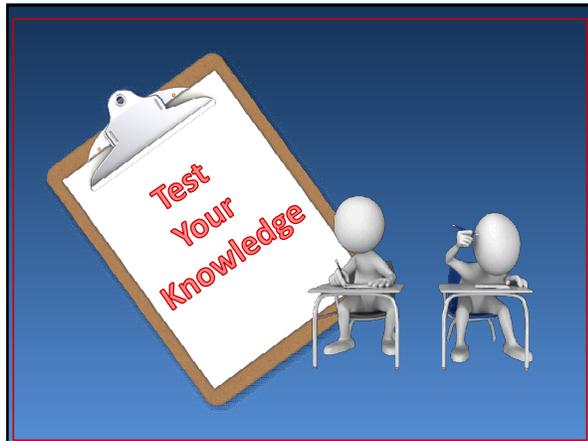
Where handrails are provided along walking surfaces with running slopes less than 1:20 (5%), they shall comply with 505.



Advisory 403.6 Handrails Elevator Cabs and Platform Lifts



Handrails provided in elevator cabs and platform lifts are not required to comply with the requirements for handrails on walking surfaces.



505.10.1 & 2 Extensions must return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent ramp/stair run.

The image contains a photograph of a metal handrail on a staircase. To the left of the photo is a diagram showing a handrail extending from a landing and then turning to run parallel to a flight of stairs. The distance from the end of the handrail on the landing to the start of the flight is labeled 'X'. A note below the diagram says "Note: X = tread depth". To the right of the photo is another diagram showing a handrail extending from a landing and then turning to run parallel to a flight of stairs. The distance from the end of the handrail on the landing to the start of the flight is labeled "12 min" and "300".







Accessible Route Components



Section 406

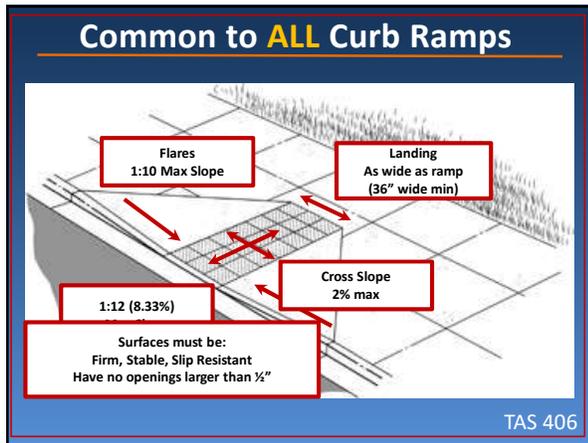


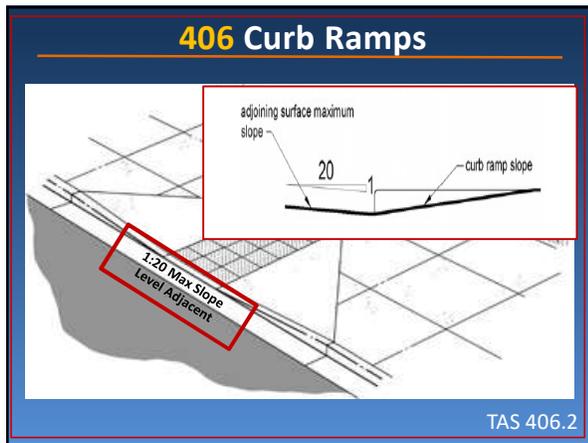
Curb Ramp Requirements

Requirements for curb ramps depend on their location:

- Not in the public right-of-way (ROW)- TAS 406
- In the public right-of-way (ROW)- Rule 68.102









406.5 Location

Curb ramps at marked crossings must be wholly contained within the markings, excluding flared sides.



406.5 Location

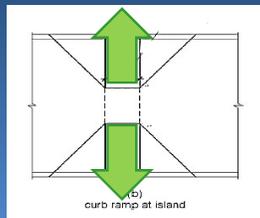
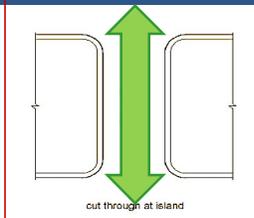
Curb ramps and the flared sides of curb ramps must be located so that they do not project into:

- Vehicular traffic lanes
- Parking spaces or access aisles



406.7 Islands

Raised islands in crossings must be cut through level with the street or have curb ramps at both sides.



68.102 Public ROW Projects

(as of May 15, 2017)

For public right-of-way (ROW) projects, in addition to accepting compliance with applicable TAS requirements, the department will also accept compliance with the [Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way*](#) (aka PROWAG), or its final adopted guidelines.

*published by the Architectural and Transportation Compliance Board on July 26, 2011, 36 CFR Part 1190

Public ROW Projects

For public right-of-way (ROW) projects let after May 15, 2017, the standards used:

- May be TAS or PROWAG if no federal money is involved.
- Must be PROWAG when federal money is provided.

TAS v PROWAG Differences:

RAMPS

[TAS 406](#) - Allows all types of curb ramps, including diagonal curb ramps (406.6).

[PROWAG R304.1](#) - There are two kinds of curb ramps:

- Perpendicular
- Parallel

PROWAG also addresses:

- Combination of perpendicular & parallel ramps
- Blended transitions from old to new work
- Alterations to existing diagonal curb ramps

TAS v PROWAG Differences:

LANDINGS

TAS 406.4 - Ramp landings must be the same width as the ramp (36" min) and 36" long minimum

PROWAG R304.3 – Ramp landings must be the same width as the ramp (48" min) and 48" long minimum.

TAS v PROWAG Differences:

REFUGE ISLANDS

TAS 406.7 – Landings in refuge islands must be at least 36" wide and 48" long.

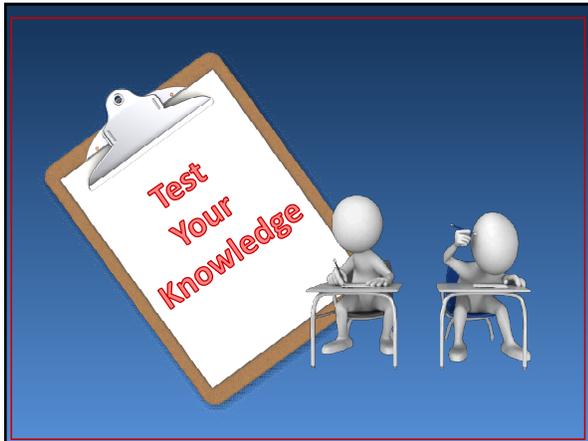
PROWAG R302.3.1 – The clear width of the access route in a refuge island must be at least 60" wide. This includes both the ramp and landing.

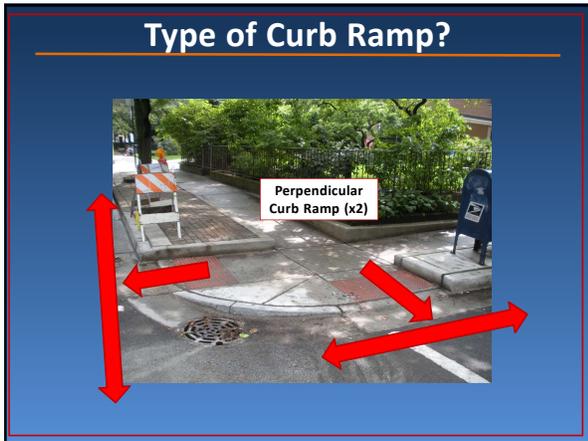
TAS v PROWAG Differences:

DETECTABLE WARNINGS

TAS 705 & 810.5.2 –Only requires detectable warnings at platform boarding areas (bus or train).

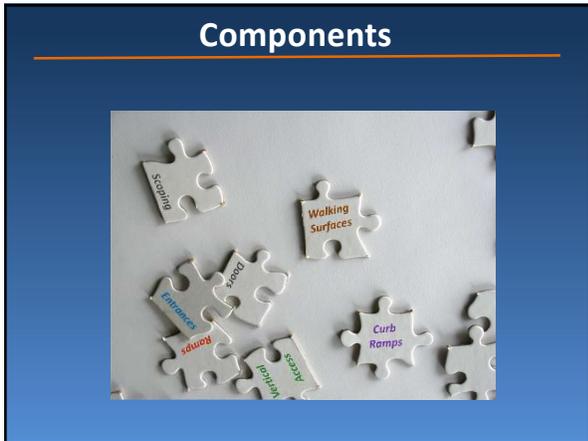
PROWAG R208.1 & .2, R305.2 – Lists specific areas where detectable warnings are required, including boarding platforms, commercial driveways with yield or stop controls, street crossings, and at some refuge islands.













Vertical Accessible Route

There must be at least one accessible route connecting each **story and/or mezzanine** in multi-story buildings and facilities (206.2.3).



Vertical Accessible Route

In multi-story buildings and facilities, vertical access between floors and levels is provided by an:

- Elevator
- Limited-Use Limited-Application Lift (LULA)
- Platform Lift



206.2.3 Exception 1

An accessible route is not required to connect stories in private buildings or facilities that are...

- Less than three stories
- or
- Less than 3000 square feet per story

But there ARE conditions...



206.2.3 Multi-Story - Exception 1

...Provided that the building or facility is not a:

- Shopping center/mall
- Professional office of a health care provider
- Terminal, depot, or other station used for specified public transportation
- Airport terminal
- Other type of facility as determined by the U.S. Attorney General (i.e. federal).

Examples of state agencies that regulate professional services and licenses related to physical or mental health:

- Texas Medical Board
- Texas Physician Assistants Board
- Texas State Board of Acupuncture Examiners
- Texas Board of Nursing
- Texas State Board of Examiners of Professional Counselors

206.2.3 Multi-Story Exception 1

Example:

A 5-story private building with less than 3000 square feet per story could meet this exception (unless it is one of the occupancies that are not allowed to use this exemption).



206.2.3 Multi-Story - Exception 2

Where a two story public building or facility has one story ...

- With an occupant load of 5 or fewer persons
- That does not contain any public use spaces

...that story shall not be required to be connected to the story above or below.

206.2.3 Other Exceptions

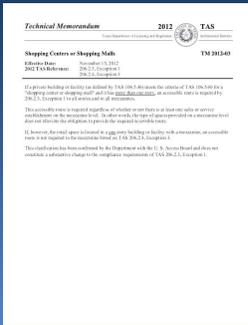
3. Detention & Correctional Facilities
4. Residential Facilities
5. Transient Lodging
6. Air Traffic Control Towers
7. Qualified Historic Buildings or Facilities



206.2.3 Multi-Story - Advisory

- The accessible route exemption does not obviate or limit, in any way, the obligation to comply with the other accessibility requirements.
- Spaces and elements located on a level not required to be served by an accessible route must fully comply with TAS otherwise.

TM 2012-03



TM 2012-03 was issued on November 15, 2012 to clarify the scoping requirements for accessible routes in Shopping Centers or Shopping Malls.

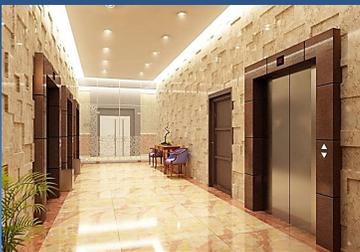
TM 2012-04



TM 2012-04 was issued on November 15, 2012 to clarify terms used in 206.2.3 Exception 1.

206.6 Elevators

Where multiple elevators are provided, **each** elevator must comply with **407** (landings, call controls, button height, car size, etc.).



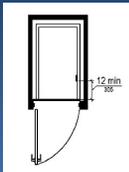
206.6 Elevators



Where elements of existing elevators are altered...
...the same element must also be altered in **all elevators that are programmed to respond to the same call control** as the altered elevator...

407 Elevators

- 407.1 ASME A17.1
- 407.2 Landing Requirements (controls, signals, signs)
- 407.3 Door Requirements (type, operation, timing, width)
- 407.4 Car Requirements (dimensions, floors, clearances, leveling, lighting, controls, etc ...)



206.6 Elevators – Exceptions

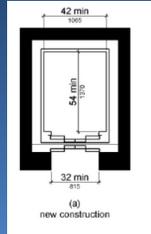
Limited-Use Limited-Application elevators (LULA) are permitted in a building or facility that are:

- Permitted to use the exceptions to 206.2.3 (multi-story buildings)
- or
- Permitted by 206.7 to use a platform lift
- or
- A multi-story residential dwelling unit

408 LULA Elevators

LULAs must comply with:

- 408.1 ASME A17.1
- 408.2 Landing Requirements
- 408.3 Door Requirements
- 408.4 Car Requirements



LULA maximum height: 25'

206.7 Platform Lifts

- In an existing building or facility, platform lifts are permitted as a component of any accessible route.



- Platform lifts are permitted as a component of an accessible route in new construction when it is one of the types listed in 206.7.1 – 206.7.10

206.7.1-.10 New Construction Platform Lifts

When used to provide accessible routes:

- To Performance Areas and Speakers' Platforms
- To comply with the wheelchair space dispersion and line-of-sight requirements
- To incidental spaces which are not public use spaces and which are occupied by five persons maximum
- To Specific Judicial Spaces

206.7.1-.10 New Construction Platform Lifts

When used to provide accessible routes:

- Where existing exterior site constraints make use of a ramp or elevator *technically infeasible*
- To connect levels within transient lodging guest rooms and residential dwelling units
- To provide accessible routes to load and unload areas serving amusement rides

206.7.1-.10 New Construction Platform Lifts

When used to provide accessible routes:

- To play components or soft contained play structures
- To provide accessible routes to team or player seating areas serving areas of sport activity
- Serving recreational boating facilities and fishing piers and platforms instead of gangways

410 Platform Lifts

- Lift height: 12' max
- Cannot be attendant or key operated
- Must provide unassisted entry and exit



410 Platform Lifts

Must comply with:

- 410.2 Floor surfaces
- 410.3 Clear Floor Space
- 410.4 Clearances
- 410.5 Operable Parts
- 410.6 Doors & Gates
- ASME A18.1



Platform Lifts

Portable lifts are not compliant.



Next

SECTION 6

Entrances & Doors

Parking

Go to Section 6
