



City of Angleton, Texas

Americans with Disabilities Act (ADA) Self-Evaluation & Transition Plan

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In association with:



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Abbreviations

ADA – Americans with Disabilities Act

ASTM – American Society for Testing Materials

CFR – Code of Federal Regulations

CIP – Capital Improvement Program

CART – Computer-aided Real-time Transcription

DME – Durable Medical Equipment

DOJ – United States Department of Justice

EEOC – Equal Employment Opportunity Commission

EWF – Engineered Wood Fiber

FHWA – Federal Highway Administration

HYB – Hybrid Systems

MUTCD – Manual on Uniform Traffic Control Devices

PROWAG – Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way

PSA – Programs, Services, and Activities

PIP - Poured in Place Rubber

SHR – Shredded Rubber

TAC – Texas Administrative Code

TIL – Rubber Tiles

TDLR – Texas Department of Licensing and Regulation

TMUTCD – Texas Manual on Uniform Traffic Control Devices

TTY – Teletypewriters

TxDOT – Texas Department of Transportation

VIS – Video Interpreting Services

VRI – Video Remote Interpreting

1.0 Introduction

1.1 Purpose

The purpose of this Americans with Disabilities Act (ADA) Self-Evaluation and Transition Plan is to summarize the activities completed to-date related to ADA compliance and to create a roadmap for the City of Angleton to update their ADA Transition Plan over time. Prioritization methodology for evaluating and implementing improvements has been developed based on the applicable 2010 ADA Standards for Accessible Design (ADA Standards) and 2011 Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way (PROWAG), and the details are provided in this document.

This document includes an overview of the ADA and provides recommendations for the City of Angleton based on guidance from the Federal Highway Administration (FHWA) and U.S. Department of Justice (DOJ) to improve accessibility for the public.

1.2 Legislative Mandate

The ADA is a civil rights law that mandates equal opportunity for individuals with disabilities. The ADA prohibits discrimination in access to jobs, public accommodations, government services, public transportation, and telecommunications. Title II of the ADA also requires that all programs, services, and activities (PSAs) of public entities provide equal access for individuals with disabilities.

The City of Angleton has undertaken an initial evaluation of select PSAs to determine the extent that individuals with disabilities may be restricted in their access.

1.3 ADA Self-Evaluation and Transition Plan Development Requirements and Process

The City of Angleton is obligated to observe all requirements of Title I in its employment practices; Title II in its policies, programs, and services; any parts of Titles IV and V that apply to the City and its programs, services, or facilities; and all requirements specified in the 2010 ADA Standards and 2011 PROWAG that apply to facilities and other physical holdings.

Title II has the broadest impact on the City. Included in Title II are administrative requirements for all government entities employing more than 50 people. These administrative requirements are:

- Complete a Self-Evaluation of current services, policies, and practices;
- Provide notice to the public about the ADA;
- Adopt and publish an ADA grievance procedure;
- Designate at least one (1) person who is responsible for overseeing Title II compliance; and
- Develop a Transition Plan for structural changes needed to operate each service, program, and activity so that it is readily accessible and useable by individuals with disabilities. The Transition Plan will become a working document until all barriers have been addressed.

This document describes the process developed to complete the evaluation of the City of Angleton's PSAs and facilities, provides possible solutions to remove programmatic barriers, and presents a Transition Plan for the modification of facilities and public rights-of way to improve accessibility, which will guide the planning and implementation of necessary program and facility modifications over the next 5 years. The ADA Self-Evaluation and Transition Plan is significant in that it establishes the City's ongoing commitment to the development and maintenance of PSAs and facilities that accommodate all its citizenry.

1.4 Discrimination and Accessibility

Program accessibility means that, when viewed in its entirety, each program is readily accessible to and usable by individuals with disabilities. Program accessibility is necessary not only for individuals with mobility needs, but also to individuals with sensory and cognitive disabilities.

Accessibility applies to all aspects of a program or service, including but not limited to physical access, advertisement, orientation, eligibility, participation, testing or evaluation, provision of auxiliary aids, transportation, policies, and communication.

The following are examples of elements that should be evaluated for barriers to accessibility:

1.4.1 Physical Barriers

- Parking
- Path of travel to, throughout, and between buildings and amenities
- Doors
- Service counters
- Restrooms
- Drinking fountains
- Public telephones
- Path of travel along sidewalk corridors within the public rights-of-way
- Access to pedestrian equipment at signalized intersections

1.4.2 Programmatic Barriers

- Building signage
- Customer communication and interaction
- Non-compliant sidewalks or curb ramps
- Emergency notifications, alarms, and visible signals
- Participation opportunities for City sponsored events

1.4.3 Ongoing Accessibility Improvements

City PSAs and facilities evaluated during the Self-Evaluation will continue to be evaluated on an ongoing basis, and the ADA Transition Plan will be revised to account for changes that have been or will be completed since the initial Self-Evaluation. This Plan will be posted on the City's website for review and consideration by the public.

1.4.4 City of Angleton Approach

The purpose of the Transition Plan is to provide the framework for achieving equal access to the City of Angleton's PSAs within a reasonable timeframe. The City's elected officials and staff believe that accommodating persons with disabilities is essential to good customer service, ensures the quality of life Angleton residents seek to enjoy, and guides future improvements. This Plan has been prepared after careful study of select City's programs, services, activities, and evaluations of a select number of City facilities.

The City of Angleton should make reasonable modifications in PSAs when the modifications are necessary to avoid discrimination based on disability, unless the City can demonstrate that making the modifications will fundamentally alter the nature of the program, service, or activity. The City of Angleton will not place surcharges on individuals with disabilities to cover the cost involved in making PSAs accessible.

1.4.5 Exceptions and Exemptions

A municipality is not required to take any action that would create any undue financial or administrative burden for the public entity, create a hazardous condition for other people, or threaten or destroy the historic significance of a historic property.

In determining whether an alteration would impose an undue financial or administrative burden on a covered entity, factors to be considered include: (i) the nature and cost of the alteration needed; (ii) the overall financial resources of the facility or facilities involved in the provision of the reasonable accommodation; the number of persons employed at such facility; the effect on expenses and resources, or the impact otherwise of such accommodation upon the operation of the facility; (iii) the overall financial resources of the covered entity; the overall size of the business of a covered entity with respect to the number of its employees; the number, type, and location of its facilities; and (iv) the type of operation or operations of the covered entity, including the composition, structure, and functions of the workforce of such entity; the geographic separateness, administrative, or fiscal relationship of the facility or facilities in question to the covered entity.

In determining whether an alteration would threaten or destroy the historic significance of a historic property, the City should first confirm if the property is on the National Register of Historic Places. Based on a search of the National Register of Historic Places NPGallery Database (<https://npgallery.nps.gov/nrhp>) and the associated geodatabase (<https://irma.nps.gov/DataStore/Reference/Profile/2210280>), the Old Brazoria County Courthouse is a historic property (owned by the County and not the responsibility of the City), but there may be other documentation available not provided on these websites.

A municipality is not necessarily required to make each of its existing facilities accessible to and usable by individuals with disabilities. In the event the City determines a proposed action would generate undue financial or administrative burden, create a hazardous condition for other people, or threaten or destroy the historic significance of a historic property, a municipality has a responsibility to communicate and document the decision and the methodology used to reach it. If an action would result in such an alteration or such burdens, a municipality shall take any other actions that would not result in such an alteration or such burdens but would nevertheless ensure that individuals with disabilities receive the benefits or services provided by the City.

1.5 New Construction and Alterations

If the start date for construction is on or after March 15, 2012, all newly constructed or altered state and local government facilities must comply with the 2010 ADA Standards. Before that date, the 1991 ADA Standards (without the elevator exemption), the Uniform Federal Accessibility Guidelines, or the 2010 ADA Standards may be used for such projects when the start of construction commences on or after September 15, 2010.

The most recent standard is the 2010 ADA Standards, which sets the minimum requirements – both scoping and technical – for newly designed and constructed or altered state and local government facilities, public accommodations, and commercial facilities to be readily accessible to and usable by individuals with disabilities. It is effectuated from 28 Code of Federal Regulations (CFR) 35.151 and the 2004 Americans with Disabilities Act Accessibility Guidelines (ADAAG). However, the FHWA and DOJ recommend using PROWAG for designing facilities within the public rights-of-way as a best practice until it is adopted at the federal level. Additionally, R

2010 ADA Standards for Accessible Design

The Department of Justice's revised regulations for Titles II and III of the 1990 ADA were published in the Federal Register on September 15, 2010. These regulations adopted revised, enforceable accessibility standards called the "2010 ADA Standards for Accessible Design". On March 15, 2012, compliance with the 2010 ADA Standards was required for new construction and alterations under Titles II and III. March 15, 2012 is also the compliance date for using the 2010 ADA Standards for program accessibility and barrier removal.

PROWAG

The U.S. Access Board is developing new guidelines for public rights-of-way that will address various issues, including access for blind pedestrians at street crossings, wheelchair access to on-street parking, and various constraints posed by space limitations, roadway design practices, slope, and terrain. The new guidelines will cover pedestrian access to sidewalks and streets, including crosswalks, curb ramps, street furnishings, pedestrian signals, parking, and other components of public rights-of-way. The Board's aim in developing these guidelines is to ensure that access for persons with disabilities is provided wherever a pedestrian way is newly built or altered, and that the same degree of convenience, connection, and safety afforded the public generally is available to pedestrians with disabilities. Once these guidelines are adopted by the Department of Justice, they will become enforceable standards under Title II of the ADA. However, in a memorandum dated January 23, 2006 from the Federal Highway Administration, the draft PROWAG is the recommended best practice and can be considered the state of the practice that could be followed for areas not fully addressed by the 2010 ADA Standards.

In the state of Texas, the Texas Administrative Code (TAC) Chapter 68 (Elimination of Architectural Barriers), Rule §68.102 (Public Right-of-Ways Projects) references compliance with the latest version of PROWAG for elimination of barriers for public rights-of-way projects. The Texas Department of Licensing and Regulation (TDLR) adopted Rule §68.102, effective May 15, 2017. The applicable section of the rule states:

- (a) *For public right-of-way 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, published by the Architectural and Transportation Compliance Board (Access Board) on July 26, 2011, 36 CFR Part 1190 or its final adopted guidelines.*

MUTCD

Traffic control devices shall be defined as all signs, signals, markings, and other devices used to regulate, warn, or guide traffic, placed on, over, or adjacent to a street, highway, pedestrian facility, bikeway, or private road open to public travel by authority of a public agency or official having jurisdiction, or, in the case of a private road, by authority of the private owner or private official having jurisdiction. The Manual on Uniform Traffic Control Devices is incorporated by reference in 23 CFR, Part 655, Subpart F and shall be recognized as the national standard for all traffic control devices installed on any street, highway, bikeway, or private road open to public travel in accordance with 23 U.S.C. 109(d) and 402(a). The policies and procedures of the FHWA to obtain basic uniformity of traffic control devices shall be as described in 23 CFR 655, Subpart F.

It should be noted that the Texas Manual on Uniform Traffic Control Devices (TMUTCD) is incorporated by reference in the TAC and shall be recognized as the Texas standard for all traffic control devices installed on any public street, highway, bikeway, or private road open to public travel.

1.6 Existing City Programs that Implement ADA Upgrades

The City of Angleton currently implements ADA compliant designs through the following efforts:

- The Public Works Department Street Maintenance Program encompasses curb and gutter, pavement, and sidewalk maintenance, all which improve the pedestrian paths of travel in the public rights-of-way and helps maintain pedestrian access routes within the City of Angleton in an accessible condition.
- The City's Sidewalk Replacement Plan is funded through the annual budgeting process and funds have been dedicated for sidewalk replacements since 2020 to address inaccessible sidewalks adjacent to and within proximity of schools, parks, and community centers in the City, including sidewalk adjacent to major and collector roadways and local neighborhood streets.
- The City's Pavement Maintenance service includes pothole repairs that eliminate disruptions in the roadway surface. Additional services include preparation and repairs of paved surfaces where required throughout the City, including when these elements intersect the pedestrian path of travel.
- In the upcoming and most recent City bonds, streets and pedestrian accessibility have been a priority. The City has recently awarded a contract for \$1.7 million in funding for street improvements at these locations: Ridgecrest and Robinhood streets.
- The City follows state guidelines for all projects valued at \$50,000 or more of pedestrian improvements. These projects are registered with the state and use a Registered Accessibility Specialist (RAS) to review plans and to perform a post construction inspection to verify the project meets all applicable accessibility requirements.
- The City seeks out alternate funding mechanisms such as Safe Routes to Schools, the Community Development Block Grant (CDBG) Program, and the Transportation Alternatives Program (TAP) to fund improvements.
- The Parks & Recreation Department has adopted a Parks & Recreation Standards manual to ensure new projects conform to City design standards which require compliance with Accessibility Standards for Play Areas through the ADA Accessibility Guidelines (ADAAG).
- The City has allocated ARPA funding between 2021-2022 for sidewalk projects. This is in the sum of \$200,000.
- The City has an interlocal agreement with Brazoria County to assist in overlaying asphalt roadways that approaching their lifespan. Two miles of roadway are repaired each year.
- Since 2018, the City has partnered with the County for road overlays including milling of the roads which aid in ADA compliance especially at crossings.
- TxDOT is doing a rehabilitation program in Angleton on HWY 35 and 288B/274 Loop which addresses ADA accessibility through reducing overlay mounding. TxDOT will be installing accessible sidewalks to the push buttons at the 288B/Cannan/Tigner intersection.

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2.0 Public Outreach

The City established an external ADA Advisory Committee consisting of representatives from local disability organizations as well as City of Angleton residents. Local organizations that were contacted for participation included:

- Actions, Inc. of Brazoria County
- Allison Audiology
- All the Little Things Count
- Angleton Hike and Bike Committee
- Avondale House
- Baytown Community Group - Down Syndrome Association of Houston
- Brazoria County Association for Children's Habilitation (BACH)
- Brazoria County Center for Independent Living
- Center For Pursuit
- Community Resource Coordination Group (CRCG) Region 6 (Brazoria)
- Down Syndrome Association of Houston
- Houston Area Parkinson Society
- Little People of America - District 8 Houston Chapter
- National Federation of the Blind of Texas - Houston Chapter
- Sight into Sound (formerly Taping for the Blind)
- Houston-Galveston Area Council
- Texas Gulf Coast Aging and Disability Resource Center
- The Arc of the Gulf Coast
- The Harris Center for Mental Health and IDD
- The Lighthouse of Houston
- WorldWide Interpreters

The City hosted an ADA Advisory Committee meeting with representatives from some of these organizations on July 18, 2022, at 5:30 PM, to provide a summary of the transition planning process and to receive feedback on any concerns related to accessibility. The ADA Advisory Committee meeting notes are provided in **Appendix A**. The City will continue to solicit feedback from the public on the Transition Plan, including the outreach efforts described below.

2.1 Web Survey

The City also developed a web survey open to the public. The survey was designed to help the City locate areas of greatest concern to the public and help provide better access to the community. The survey was made available via the following link, and feedback was documented between the start date (July 18, 2022) and end date (July 31, 2022). A summary of web survey feedback is provided in **Appendix A**.

https://www.surveymonkey.com/r/ADA_Angleton

2.2 Web Map

The City also developed an online map to allow the public to identify specific locations where they experience issues related to accessibility, safety, connectivity, or suggestions for accessibility improvements that are needed in Angleton. The map was made available via the following link, and feedback was documented between the start date (July 18, 2022) and end date (July 31, 2022):

<http://wikimapping.com/wikimap/Angleton-ADA-Transition-Plan.html>

The web survey and map were posted on the City's web page, sent out through social media, and emailed to the ADA Advisory Committee for redistribution. These resources serve as a tool to solicit feedback from the public on the Transition Plan. A summary of web map feedback is provided in **Appendix A**.

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3.0 Self-Evaluation and Summary of Findings

The City of Angleton's ADA Transition Plan reflects the results of a comprehensive review of the PSAs provided to employees and the public. The review identifies programmatic barriers to individuals with disabilities interested in accessing the PSAs offered by the City.

3.1 Programs, Procedures, and Policies Review

Under the ADA, the City of Angleton is required to complete a Self-Evaluation of the City's facilities, programs, policies, and practices. The Self-Evaluation identifies and provides possible solutions to those policies and practices that are inconsistent with Title II requirements. To be compliant, the Self-Evaluation should consider all the City's PSAs, as well as the policies and practices the City uses to implement its various programs and services.

To comply with requirements of the plan, the City must take corrective measures to achieve program accessibility through several methods, including, but not limited to:

- 1) Relocation of programs to accessible facilities;
- 2) Modifications to existing programs so they are offered in an accessible manner;
- 3) Structural methods such as altering an existing facility;
- 4) Policy modifications to ensure nondiscrimination; and
- 5) Auxiliary aids provided to produce effective communication.

When choosing a method of providing program access, the City should attempt to give priority to the method that promotes inclusion among all users, including individuals with disabilities.

PSAs offered by the City to the public must be accessible. Accessibility applies to all aspects of a program, services, or activity, including advertisement, orientation, eligibility, participation, testing or evaluation, physical access, provision of auxiliary aids, transportation, policies, and communication.

However, the City does not have to take any action that will result in a fundamental alteration in the nature of a program or activity, create a hazardous condition for other people, or result in an undue financial and/or administrative burden. This determination should generally be made by the ADA/504 Coordinator and/or an authorized designee of the City, such as the City Manager or their designee and must be accompanied by a written statement detailing the reasons for reaching the determination.

The determination of undue burden must be based on an evaluation of all resources available for use. If a barrier removal action is judged unduly burdensome, the City must consider all other options for providing access that will ensure that individuals with disabilities receive the benefits and services of the program or activity. This process must be fully documented.

3.1.1 ADA/504 Coordinator (Title I / Title II)

Under the ADA Title II, when a public entity has 50 or more employees based on an entity-wide employee total count, the entity is required to designate at least one (1) qualified responsible employee to coordinate compliance with ADA requirements. The name, office address, and telephone number of this individual must be available and advertised to employees and the public. This allows for someone to assist with questions and concerns regarding disability discrimination to be easily identified.

The City of Angleton has appointed Colleen Martin as ADA Coordinator for Title I and Title II. Below is the ADA Coordinator's contact information.

Colleen Martin, ADA Coordinator
Director of Human Resources and Risk Management
121 S. Velasco Street
Angleton, TX 77515
Office: 979-849-4364 ext. 2132
Texas Relay: 7-1-1
cmartin@angleton.tx.us

The ADA/504 Coordinator contact information must be provided to interested parties. The following distribution methods are recommended:

- Post on the City website;
- Prominently display in common areas that are accessible to all employees and areas open to the public;
- Provide in materials that are distributed by the City for meetings and events where requests for auxiliary aids or services for effective communication might be needed; and
- Provide in materials that are distributed by the City where ADA questions or concerns may arise.

3.1.2 Roles and Responsibilities of the ADA/504 Coordinator

Below is a list of qualifications for ADA Coordinators that are recommended by U.S. Department of Justice:

- Familiarity with the entity's structures, activities, and employees;
- Knowledge of the ADA and other laws addressing the rights of people with disabilities, such as Section 504 of the Rehabilitation Act;
- Experience with people with a broad range of disabilities;
- Knowledge of various alternative formats and alternative technologies that enable individuals with disabilities to communicate, participate, and perform tasks;
- Ability to work cooperatively with local entities and people with disabilities;
- Familiarity with any local disability advocacy groups or other disability groups;
- Skills and training in negotiation and mediation; and
- Organizational and analytical skills.

The responsibilities of the ADA/504 Coordinator include coordinating the City's efforts to comply with Title II and investigating any complaints related to potential violations of Title II. The role of the ADA Coordinator typically includes being the primary contact when members of the public request an auxiliary aid or service for effective communication, such as a sign language interpreter or documents in Braille. An effective ADA Coordinator will be able to efficiently assist people with disabilities with their questions. These roles and responsibilities are consistent with the Department of Justice's guidance for "An Effective ADA Coordinator" (<https://www.ada.gov/pccatoolkit/chap2toolkit.htm>).

3.1.3 ADA Grievance Policy, Procedure, and Form with Appeals Process for the ADA

Title I

Title I of the ADA prohibits private employers, state and local governments, employment agencies, and labor unions from discriminating against qualified individuals with disabilities in job application procedures, hiring, firing, advancement, compensation, job training, and other terms, conditions, and privileges of employment. The ADA covers employers with 15 or more employees based on an entity-wide employee total count, including state and local governments.

The purpose of the ADA grievance procedure is to provide a mechanism for the resolution of discrimination issues at the City level, rather than require the complainant to resort to resolution at the federal level.

The City of Angleton has incorporated the Title I ADA grievance policy, procedures, and form with appeals process into the Employee Policy Manual. Refer to Section 3.1.5 Employment Practice Review for Self-Evaluation findings and possible solutions related to this information.

Title II

Local governments with 50 or more employees are required to adopt and publish procedures for resolving grievances in a prompt and fair manner that may arise under Title II of the ADA. Per the Department of Justice's guidance for establishing and publishing grievance procedures (<https://www.ada.gov/pcatoolkit/chap2toolkit.htm>), the grievance procedure should include:

- A description of how and where a complaint under Title II may be filed;
- If a written complaint is required, a statement notifying potential complainants that alternative means of filing will be available to people with disabilities who require such an alternative;
- A description of the time frames and processes to be followed by the complainant and the government entity;
- Information on how to appeal an adverse decision; and
- A statement of how long compliant files will be retained.

ADA Grievance Policy, Procedure, and Form with Appeals Process for the ADA (Title II): Self-Evaluation Findings

- The City's ADA Grievance Procedure is available on the City website; however, both the current version and an outdated version are provided:
 - **Current:** ADA Grievance Process HR-28, Rev. 07/19, <http://www.angleton.tx.us/DocumentCenter/View/3508/City-of-Angleton-ADA-Grievance-Process-HR-28?bidId=>
 - **Outdated:** Grievance Procedures under the Americans with Disabilities Act (not dated), <http://www.angleton.tx.us/DocumentCenter/View/272/ADA-Grievance-Procedure-PDF?bidId=>
- The City's ADA Compliant Form is available on the City website but it's an outdated version:
 - **Current:** ADA Compliant Form HR-28, Rev. 04/21 (copy provided by City)
 - **Outdated:** ADA Compliant Form HR-28, Rev. 07/19, <http://www.angleton.tx.us/DocumentCenter/View/3507/ADAComplaint-Form-HR-28?bidId=>

ADA Grievance Policy, Procedure, and Form with Appeals Process for the ADA (Title II): Self-Evaluation Findings (cont.)

- The ADA Compliant Form states “...please contact the City’s ADA Coordinator Colleen Martin Monday – Friday, 8 a.m. – 5 p.m. via email at cmartin@angleton.tx.us or by calling 979-849-4364 x2132.” for effective communication requests; however, the way this statement reads is that emails should only be sent during those hours, in addition to when phone calls should be made.
- Question 8 on the ADA Compliant Form indicates there is an internal grievance procedure for each City of Angleton department; however, there should only be one Citywide ADA grievance procedure that all departments use.
- The ADA Grievance Form does ask the complainant what actions they want taken, but this information may better assist the City in resolving the complaint.

ADA Grievance Policy, Procedure, and Form with Appeals Process for the ADA (Title II): Possible Solutions

- Remove the outdated version of the ADA Grievance Process from the City website.
- Remove the outdated version of the ADA Grievance Form from the City website and add the current version.
- Update the effective communication request text on the ADA Grievance Form to state: “...please contact the City’s ADA Coordinator Colleen Martin via email at cmartin@angleton.tx.us or by calling 979-849-4364 x2132 during business hours (Monday – Friday, 8 a.m. – 5 p.m.).”
- Update Question 8 on the ADA Grievance Form to ask: Have attempts been made to resolve the complaint through a City department? If yes, please describe the efforts that have been made.
- Add a question to the ADA Grievance Form: “Remedy Sought. What action do you want taken?”

3.1.4 Public Notice Under the ADA

The ADA public notice requirement applies to all state and local governments covered by Title II, including entities with fewer than 50 employees. The target audience for the public notice includes applicants, beneficiaries, and other people interested in the entity’s PSAs. This notice is required to include information regarding Title II of the ADA and how it applies to the PSAs of the public entity. Publishing and publicizing the ADA notice is not a one-time requirement. State and local government entities should provide the information on an ongoing basis, whenever necessary. Per the Department of Justice’s guidance (<https://www.ada.gov/pcatoolkit/chap2toolkit.htm>), the notice should be a one-page document that includes brief statements about:

- Employment,
- Effective Communication,
- Making reasonable modifications to policies and programs,
- Not placing surcharges on modifications or auxiliary aids and services, and
- Filing complaints.

Public Notice Under the ADA: Self-Evaluation Findings

- The City's Public Notice Under the ADA is available on the City website; however, both the current version and an outdated version are provided:
 - **Current:** Notice Under the Americans with Disabilities Act (ADA), Rev. 07/19:
<http://www.angleton.tx.us/DocumentCenter/View/3577/Notice-Under-the-Americans-with-Disabilities-Act-072019?bidId=>
 - **Outdated:** Notice Under the Americans with Disabilities Act (not dated),
<http://www.angleton.tx.us/DocumentCenter/View/273/ADA-Notice-PDF?bidId=>
- Statements about employment, effective communication, marking reasonable modifications to policies and programs, and filing complaints; however, there is no statement about not placing surcharges on modifications or auxiliary aids and service.
- The ADA Coordinator's phone number is noted twice but has a different extension in both occurrences. Reference to Texas Relay (7-1-1) is also mentioned but is in a different paragraph than the ADA Coordinator's contact information.
- The ADA Coordinator's email address is not provided.
- The effective communication statement indicates, "The City will generally, upon request, provide appropriate auxiliary aids and services, including qualified sign language interpreters and assistive listening devices, and documents in Braille whenever necessary to ensure effective communication with members of the public who have hearing, sight, or speech impairments..." but the way this is written may be interpreted as limiting the effective communication options to only those listed.

Public Notice Under the ADA: Possible Solutions

- Remove the outdated version of the Notice Under the ADA from the City website.
- Add the following statement: "The City will not place a surcharge on a particular individual with a disability or any group of individuals with disabilities to cover the cost of providing auxiliary aids/services or reasonable modifications of policy, such as retrieving items from locations that are open to the public but are not accessible to persons who use wheelchairs."
- Update the ADA Coordinator's phone number extension for consistency and consider adding the Texas Relay (7-1-1) information in the same paragraphs as the office phone number.
- Consider adding the ADA Coordinator's email address.
- Consider revising the effective communication statement to: "The City will generally, upon request, provide appropriate auxiliary aids and services, including qualified sign language interpreters and assistive listening devices, documents in Braille, **and other ways of making information and communications accessible** whenever necessary to ensure effective communication with members of the public who have hearing, sight, or speech impairments".

3.1.5 Employment Practices Review

All public entities must ensure that no qualified individual with disabilities be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination under any program, service, or activity administered by that entity, including employment. Public entities must provide an equal opportunity for employment.

The following City documents were reviewed for consistency with current accessibility requirements and standards:

- ADA Request for Accommodation Form (dated 5/2019)
- ADA/ADAA Policy Number HR-12 (dated 5/6/2019)
- Employee Policy Manual (dated 1/1/2021)

Although there is no indication Angleton current uses hiring technologies, or software programs that use algorithms or artificial intelligence during the hiring process, it is a new technology that needs to be properly addressed if considered, especially when utilizing some of the websites that assist with hiring.

Often these sites use an algorithm, which is a set of steps for a computer to accomplish a task—for example, searching for certain words in a group of resumes. Artificial intelligence generally means that a computer is completing a task that was traditionally done by a person—for example, recognizing facial expressions during a video interview. While these technologies may be useful tools for some employers, they may also result in unlawful discrimination against certain groups of applicants, including people with disabilities.

The City is committed to communicating effectively with job applicants, which includes providing meaningful access to all parts of the application and hiring process to everyone, including people who need additional assistance to make this happen.

Employment Practices Review: Self-Evaluation Findings - ADA Request for Accommodation Form

- The form utilized for requesting an accommodation does not have a general disclosure statement that best protects the City.

Employment Practices Review: Self-Evaluation Findings - ADA Request for Accommodation Form

- It is recommended to add a statement similar to the one below:

“Americans with Disabilities Act (ADA) and Americans with Disabilities Act Amendments Act (ADAAA). The purpose of this form is to assist the City of Angleton in determining whether, or to what extent, a reasonable accommodation is required for an employee with a disability to perform the essential functions of their job safely and effectively. This form is filed separately from the employee’s personnel file and is treated confidentially.”

Employment Practices Review: Self-Evaluation Findings - ADA/ADAA Policy Number HR-12

- No issues were identified during the review.

Employment Practices Review: Self-Evaluation Findings – Employee Policy Manual

- Section 1.05 “Americans with Disabilities Act Amendment Act (ADAAA) Accommodation Policy” uses language regarding “reasonable accommodations” is less welcoming than it could be.
- Section 1.07 “Harassment-Free Work Environment Policy” does not mention retaliation against a person with a disability or the caregiver of a person with a disability. The subsection entitled “Complaint & Grievance Procedures” does not mention anything about the “ADA Grievance Procedure” or the form that is specifically developed for that purpose (HR-28).
- Section 1.11 “Emergency Conditions Personnel Policy” does not mention anything about people with disabilities during the emergency process.
- Section 2.07 “Medical Examinations” is discriminatory in nature. It allows the hiring manager to require a Medical Exam if they believe the employee is unfit to perform the essential functions of the job, and his/her presence at the workplace may place the employee or others at risk of injury or harm. This often causes a person with a disability to have to take additional screening that a non-disabled applicant or employee is not subject to do.
- Section 7.03 “Appeal of Disciplinary Action & Grievance Procedure” uses the verbiage “Grievance Procedure” without any reference to the required Grievance Procedure for employees with disabilities. This language is confusing.

Employment Practices Review: Possible Solutions – Employee Policy Manual

- Section 1.05 (pages 13 and 14) details the procedures to request a “Reasonable Accommodation,” however, the entire section is worded in a way that could deter someone from wanting to go through the process. Included in **Appendix B** is a document titled “Reasonable Accommodations in the Workplace” which is put out by the ADA National Network. The document calls for the interactive process, which the Employee Policy Manual mentions, but the process needs to be a positive exchange of ideas and suggestions. The way it is described in the Employee Policy Manual is presented with a more negative approach that could intimidate potential employees. Rewording this section is necessary.
- Section 1.07 should also mention RETALIATION FOR INVOKING THE AMERICANS WITH DISABILITIES ACT (ADA). In addition to mandating reasonable accommodation for disabled employees, the law also prohibits employers from retaliating against employees who request accommodation under the ADA. The Equal Employment Opportunity Commission (EEOC) defines retaliation as an adverse action against a covered individual because he or she engaged in a protected activity. In the case of ADA retaliation, a protected activity would be seeking reasonable accommodation under the ADA.
 - Examples of retaliation include:
 - Terminating or denying promotion
 - Threatening or conducting unjustified negative evaluations
 - Providing unjustified negative references
 - Conducting increased surveillance and monitoring of an employee
 - Making unfounded charges against employees that could deter them from exercising their rights under the ADA

Employment Practices Review: Possible Solutions – Employee Policy Manual (cont.)

- Examples of protected activity include:
 - Opposing a practice thought to constitute unlawful discrimination
 - Participating in an employment discrimination proceeding
 - Requesting reasonable accommodation based on religion or disability

The ADA requires a “grievance” process or procedure, which the City of Angleton has. There is nothing that says this process has to be exclusive to ADA complaints or grievances, but it is required to be easily found for that purpose and the people trying to file an ADA grievance (whether employees or public) need to have their issues addressed in a timely manner.

It is recommended that an “ADA Information Page” be added to the City website that is easy to find. All things ADA related should be on this page including a link to the ADA Grievance Procedure, online forms and other information, and instructions for people with disabilities. See also the steps necessary for a compliant Human Resources process provided in **Appendix B**.

- Section 1.11 addresses the emergency protocols but does not mention anything about how the City will handle people with disabilities during an emergency. This is further addressed in the evaluation of the “Emergency Plan” but should be mentioned in this section for planning purposes, and for employees with disabilities.
- Section 2.07 needs to be rewritten. It gives the discretion to managers to decide if an employee needs to do testing for a job that may or may not be imposed upon other employees. This is discriminatory in nature and needs to be reviewed and rewritten to ensure a determination that requires medical examinations or testing is not based on a belief that a person with a disability could not do the job.
- Section 7.03 should also mention the “appeal process” required by the ADA and have a link or instruction that will direct a person to that process. This should also be easy to find on the newly created “ADA Information Page” listed above.

3.1.6 Job Description Review

The ADA does not require an employer to develop or maintain job descriptions. Nevertheless, employers can certainly benefit from having well-written job descriptions that spell out the “essential functions” for each employment position. When job descriptions are written, they must be non-discriminatory.

A written job description can help employers identify whether an applicant will be able to perform the essential tasks required for a position. During the interview process, employers are not allowed to ask if an individual has a disability that would prevent them from performing certain job tasks. Employers may, however, ask applicants whether they can perform the “essential functions” of a position, such as the ability to meet attendance expectations or to operate a particular machine. If an applicant notifies the employer that he or she is unable to perform an essential job function because of a disability, the employer must then consider whether it is possible to reasonably accommodate the disability.

The following City job descriptions were reviewed: Firefighter, Municipal Court Technician, Maintenance Technician III, Maintenance Technician – Rec Center, Parks and Recreation Maintenance Technician, and Telecommunications Officer. The following section provides a summary of the findings and possible solutions. A complete summary of the job description reviews is provided in **Appendix B**.

Job Description Review: Self-Evaluation Findings

- Job descriptions are properly written with essential job functions well described.
- Discriminatory language is used in the “Physical Demands” Section and verbiage should be updated.
- Requirements and qualifications are well documented, but some assumptions are made which cause confusion.

Job Description Review: Possible Solutions

- Continue writing out the “Essential Job Functions” in detail as is currently done.
- Ensure anyone writing job descriptions follow the same format.
- Utilize the chart located in the “Job Description Review Summary” (see **Appendix B**) to make sure proper non-discriminatory language is utilized for each job description.

3.1.7 Emergency Management Documents Review

Emergency planning and management has become increasingly important today. All community emergency plans and emergency management teams must include the necessary information on how to properly assist citizens in the community who may have a disability. Identifying the citizens with disabilities is paramount to rescuing them. The City of Angleton should have an Emergency Management Plan in place that details how to help the citizens with disabilities in the event of a local emergency.

Disabilities manifest themselves in varying degrees and the functional implications of the variations are important for emergency evacuation. A person may have multiple disabilities, while another may have a disability whose symptoms fluctuate. Everyone needs to have a plan to be able to evacuate a building, regardless of his or her physical condition.

While planning for every situation that may occur in every type of an emergency is impossible, being as prepared as possible is important. One way to accomplish this is to consider the input of various people and entities, from executive management, human resources, and employees with disabilities to first responders and other businesses, occupants, and others nearby. Involving such people in the development of the City’s Emergency Management Plan will help everyone understand the evacuation plans and the challenges that businesses, building owners and managers, and people with disabilities face.

The following documents were reviewed:

- State Planning Standards Checklist for the Basic Plan (Version 2.0, dated 05/05)
- Emergency Management Plan for City of Angleton (Version 2.0, dated 10/12)

Emergency Management Plan Review: Self-Evaluation Findings

- State Planning Standards Checklist for the Basic Plan does not mention serving citizens with disabilities specifically.
- Emergency Management Plan for the City of Angleton does not mention serving citizens with disabilities specifically.

Emergency Management Plan Review: Possible Solutions

- Develop an emergency plan team to encourage communication between the City of Angleton and all other participating parties.
- Create an emergency plan that includes buildings and areas specific to the City of Angleton and how the City will respond and control emergencies. The U.S. Department of Justice and the Federal Emergency Management Agency provides guidance here:
 - <https://www.ada.gov/pcatoolkit/chap7emergencymgmtadd1.htm>
 - https://www.fema.gov/media-library-data/1437608810237-65bce1c81c720e99c260ea740e98901d/Language_Guidelines-Inclusive_Emergency_Preparedness.pdf
- Develop and implement internal policies and procedures with assignments for emergency responders to achieve that all emergency plan team members are provided guidance in the event of an emergency.
- Training should be provided to City staff, volunteers, and emergency plan team members to achieve that the emergency plan is thoroughly planned, strategically executed, achieves clear and proper communication to individuals with disabilities, and is effectively implemented in the event of an emergency. Training should include how to identify people wearing medical alert tags or bracelets, and various ways to communicate with people with visual, hearing, or cognitive impairments.
- The City should develop a support network with local disability organizations and include them in the emergency planning process.
- The City should create a voluntary registration process that identifies the location of individuals with disabilities, and the type of disability they have. The registry will help with the planning process for accessible transportation needs.
- The City should plan to have accessible transportation for evacuations or transporting people to a medical clinic. Accessible transportation options can be obtained by working with local or private services, public transportation, school districts or paratransit.
- Evacuation plans should include how to evacuate people with assistive equipment, how to replace assistive equipment if it is lost or destroyed, how to evacuate people who have service animals.
- The City should prepare alternative ways to help individuals who use medical equipment during a power outage.
- The City should identify the location and availability of more than one facility for dialysis for people who will need dialysis as part of a health maintenance plan or routine or other life-sustaining treatment. In addition, the City should develop a resource list that includes the location of all types of durable medical equipment (DME) available in the City, as well as qualified American Sign Language interpreters, wheelchair repair, therapeutic oxygen, hearing aids, and repair, medications, etc. The resource list should be comprehensive and should be included in the Emergency Management Plan.
- The City should host an "Emergency Planning Preparedness" class for individuals with disabilities. The class will teach them how to develop a "kit" they can keep for emergencies and allow them to sign up for the emergency registry.

Emergency Management Plan Review: Possible Solutions (cont.)

- The City should revise current department employee action plans to address all aspects of an emergency evacuation plan for employees and visitors. Evacuation plans should consider the impact of internal and external emergencies regarding the City's operations and should be tailored to the workplace environment. The Great Lakes ADA Center provides guidance on Emergency Preparedness and Using Employee Information here: <http://adagreatlakes.org/BusinessToolkit/?section=1&id=6>.

3.1.8 Meeting Agendas and Meeting Minutes Review

The ADA requires that all Title II entities communicate effectively with people who have communication disabilities by providing auxiliary aids and services. The goal is to achieve that communication with individuals with disabilities is equally effective as communication with people without disabilities.

Auxiliary aids and services are ways to communicate with individuals with disabilities. The type of auxiliary aids and services are assessed on a case-by-case basis. Auxiliary aids and services must be provided free of charge and provided in accessible formats, in a timely manner, and must be provided in a way that achieves individual privacy and independence. Examples of common auxiliary aids and services include, but are not limited to:

- Sign Language Interpreters
- Oral Interpreters
- Cued Speech Interpreters
- Video Remote Interpreting (VRI)
- Video Interpreting Services (VIS)
- Written materials
- Closed Captioning
- Real-time captioning
- Audio recordings
- Teletypewriters (TTYs)
- Telephone Relay Services
- Computer-aided Real-time Transcription (CART)
- Materials and displays in braille
- Large print materials
- Accessible electronic and information technology
- Assistive listening devices and systems

The following City meeting agendas and minutes were reviewed:

- SR Commission Agenda, Monday October 4, 2021
- P & Z Agenda, Thursday, November 4, 2021
- K and B Agenda, Monday, October 25, 2021
- Council Agenda, Monday November 15, 2021
- Board of Adjustments Agenda, Thursday, August 26, 2021
- ABLC Agenda, Monday October 18, 2021
- City Council Regular Meeting, Meeting Minutes, Tuesday, April 27, 2021

Meeting Agendas and Meeting Minutes Review: Self-Evaluation Findings

- The following statement is included on each of the agenda reviewed:

“In compliance with the Americans with Disabilities Act, the City of Angleton will provide reasonable accommodations for persons attending City Council meetings. The facility is wheelchair accessible and accessible parking spaces are available. Please contact the City Secretary at 979-849-4364, extension 2115 or email citysecretary@angleton.tx.us.”

- The statement provided is incomplete. Additional verbiage is required to ensure effective communication is offered and will be provided.
- “City Council meetings” was used in all meeting agendas, not just the City Council agenda.

Meeting Agendas and Meeting Minutes Review: Possible Solutions

- Update the statement on all City meeting agendas to:

“In compliance with the Americans with Disabilities Act, the City of Angleton will provide reasonable modifications and/or auxiliary aids for persons attending any City sponsored meetings. Please contact the City’s ADA Coordinator, Colleen Martin, at 979-849-4364, extension 2132 or email cmartin@angleton.tx.us to arrange auxiliary aides or accommodations necessary.”

3.1.9 Design Standard Review

The City of Angleton Parkland Dedication Ordinance Appendix B – Proposed Minimum Park Standards were reviewed for consistency with the 2010 Standards for Accessible Design and 2011 PROWAG.

Design Standard Review: Self-Evaluation Findings/Possible Solutions

Section A

- It is recommended that the City of Angleton adopt the “Outdoor Developed Areas” design guidelines and add the design guidelines to the Parkland Dedication Ordinance as a reference.
- Add ASTM F1292-99/04 - Standard Specification for Impact Attenuation of Surfacing Materials Within the Use Zone of Playground Equipment.
- Add ASTM F1951-99 - Standard Specification for Determination of Accessibility [Wheelchair Maneuverability] of Surface Systems Under and Around Playground Equipment.
- Add 2012 Texas Accessibility Standards for Accessible Design: <https://www.tdlr.texas.gov/ab/abtas.htm>.

Section B

- Ensure verbiage states that a curb ramp is required whenever an accessible route (i.e., sidewalk) crosses the curb.

Design Standard Review: Self-Evaluation Findings/Possible Solutions (cont.)

Section C

- No comments.

Section D

- Within the play area, the clear width of the ground level accessible routes shall be 60 inches minimum. Two exceptions may be applied:
 - In play areas less than 1000 square feet, the clear width of accessible routes shall be permitted to be 44 inches minimum, if at least one turning space is provided where the restricted accessible route exceeds 30 feet in length
 - The clear width of accessible routes shall be permitted to be 36 inches minimum for a distance of 60 inches maximum provided that multiple reduced width segments are separated by segments that are 60 inches wide minimum and 60 inches long minimum.
- It is recommended that the City of Angleton adopts the “Outdoor Developed Areas” design guidelines and follows these guidelines for the design and construction of trails.
- A “Registered Accessibility Specialist” is only allowed to approve design in accordance with the Texas Accessibility Standards. Compliance with Americans with Disabilities Act will need to be reviewed by an ADA Accessibility Specialist. Some consultants hold both titles, some do not.

Section E

- Add verbiage indicating none of the underground work will interfere with or interrupt any accessible pedestrian routes.

Section F

- Add verbiage indicating no overhead lighting is mounted with any part of lighting fixture below 80 inches if over a prepared pedestrian route.

Section G

- Add verbiage indicating none of the underground work will interfere with or interrupt any accessible pedestrian routes.

Section H

- It is recommended that more detail is provided with respect to grading. Grading for accessible routes should be less than 5% and recommended to be designed at no more than 4.5%. Grading for plaza areas or areas where pedestrians will be coming from more than one direction should be no more than 2% in any direction.

Section I

- Add verbiage indicating no overhead tree limbs extend below 80 inches if over a prepared pedestrian route. Depending on the type of tree, root structure, and branch structure, trees too close to pedestrian routes – whether in the ROW or not – can become a high maintenance item.

Section J

- Add verbiage to include the 2012 Texas Accessibility Standards as well as the locally adopted building code for accessibility.

Design Standard Review: Self-Evaluation Findings/Possible Solutions (cont.)

Section K

- More detail is required for accessibility requirements.

- Where accessible routes serve ground level play components:
 - The vertical clearance shall be 80 inches high minimum.
 - The running slope shall not be steeper than 1:16 or 6.25%.
 - The cross slope shall not be steeper than 1:48 or 2.08%.
 - Openings in floor or ground surfaces shall not allow passage of a sphere more than ½ inch.
 - Changes in level between ¼ inch high minimum and ½ inch high maximum shall be beveled with a slope not steeper than 1:2.

- For a playground surface to be compliant, both safe and accessible, the surface must meet the above-mentioned technical provisions for running slope, cross slope, openings, changes in level, and vertical clearance. Public playgrounds must also meet referenced standards set by the American Society for Testing Materials (ASTM) related to resiliency for falls (ASTM F1292-99/04) and accessibility (ASTM F1951-99) around accessible equipment. Some jurisdictions and municipalities require surface systems to have certificates of compliance with ASTM standards. The standards require the actual site-installed surface systems to comply with ASTM F1292-99/04 and ASTM F1951-99.

- Five categories of surfaces were studied for compliance: poured in place rubber (PIP), rubber tiles (TIL), engineered wood fiber (EWF), shredded rubber (SHR) and hybrid (HYB) systems. Nine critical areas were inspected within 12 months of installation and continued to be evaluated at least once a year for the longitudinal study:
 - Entry to playground where playground surface starts
 - Accessible route connecting accessible play elements
 - Egress point of slide(s)
 - Egress point of swing(s)
 - Entry point(s) to composite structure(s)/transfer stations
 - Climber(s)
 - Ground level play element(s) such as spring rockers, play tables, interactive panels, etc.
 - Sliding poles
 - Other areas (i.e., water play elements, etc.)

To maintain its compliance, engineered wood fiber must be raked almost daily and can become unsafe with hidden debris. While engineered wood fiber can be a compliant surface and may be recommended under certain circumstances, maintenance should be taken into consideration when a long-term surface material choice is made.

- For more information about accessible play surfaces, refer to: <https://www.access-board.gov/ada/guides/chapter-10-play-areas/>.

- Newly installed play structures must have compliant elements as part of the design. It's imperative that the experiences the City offers are offered to everyone. If a City playground has swinging, sliding, rocking, climbing then there needs to be at least one of each piece of equipment providing those experiences for kids with disabilities.

- If basketball courts, outdoor exercise stations, splash pads, etc., are installed, the facilities must also be fully compliant with all applicable accessibility requirements.

Design Standard Review: Self-Evaluation Findings/Possible Solutions (cont.)

Section L

- When picnic pavilions are provided on concrete pads, there are often level changes to get onto the concrete. Ensure there is an accessible route to the concrete pad that also connects the grills and trash cans, which are often mounted off the concrete pad.
- Ensure at least one (or 5%) of the picnic tables are accessible picnic tables.

Section M

- Where there is one drinking fountain there must be two, one at an accessible height for people in wheelchairs or people of short stature and one at standard height for people who have trouble bending or stooping. A minimum of 50% must be each type.

Section N

- At least one park bench serving each location (playground, sports fields, water, etc.) must be designed for a person in a wheelchair to sit next to an able-bodied companion.

3.2 Facilities Self-Evaluation Action Plan

The FHWA has provided guidance on the ADA Transition Plan process in their “INFORMATION: ADA Transition Plans” memo dated June 27, 2019 (see **Appendix C**). While this memo specifically addresses state departments of transportations, FHWA also recommends this guidance for local municipalities until municipality-specific guidance is developed by FHWA. Provided in the memo is a checklist for elements to be included in an ADA Transition Plan and other ADA requirements that agencies must fulfill.

Items included in the FHWA checklist related to the public rights-of-way are:

- **Inventory of Barriers** (identification of physical obstacles)
 - Identify intersection information, including curb ramps and other associated accessibility elements.
 - Require an Action Plan to develop an inventory of sidewalks (slopes, obstructions, protruding objects, changes in level, etc.), signals (including accessible pedestrian signals), bus stops (bus pads), buildings, parking, rest areas (tourist areas, picnic areas, visitor centers, etc.), mixed use trails, linkages to transit.
 - Discuss jurisdictional issues/responsibilities for sidewalks.
- **Schedule**
 - Show a strong commitment toward upgrading ADA elements identified in the inventory of barriers in the short-term (planned capital improvement projects).
 - Show a strong commitment over time toward prioritizing curb ramps at walkways serving entities covered by the ADA.
 - Schedule should include prioritization information, planning, and investments directed at eliminating other identified barriers over time.
 - Dedicate resources to eliminate identified ADA deficiencies.
- **Implementation Methods**
 - Describe the methods that will be used to make the facilities accessible and include the governing standard (e.g., 2010 ADA Standards, 2011 PROWAG).

The City of Angleton plans to evaluate all City-owned and/or maintained facilities for compliance with the 2010 ADA Standards and 2011 PROWAG. Facilities evaluated to date are included in **Section 3.3 Facilities Review**.

3.3 Facilities Review

3.3.1 Buildings

The Angleton Recreation Center and Natatorium were evaluated and are shown on the map in **Appendix D**.

Buildings: Self-Evaluation Findings

Areas that were evaluated included parking lots, path of travel from the parking lot to the building, access into the building, signage, drinking fountains, telephones, bathrooms, and counter heights. A complete list of issues is provided in the building facility report (see **Appendix E**). Common issues identified included:

- No accessible route to some of the work-out equipment
- Slopes along the accessible route
- Protruding objects
- Non-compliant benches

Buildings: Possible Solutions

A complete list of possible solutions is provided in the building facility report (see **Appendix E**).

3.3.2 Parks

Eight (8) parks within the City of Angleton were evaluated. All parks included in the evaluation are listed in **Table 1** and shown on the map in **Appendix D**.

Table 1. Summary of Parks Reviewed

Park Name	Park Address
1. Masterson Park	101 S. Arcola Street
2. BG Peck Soccer Complex	709 Kelly Boulevard
3. Dickey Park	813 W. Mulberry Street
4. Bates Park	700 Bates Park Road
5. Brushy Bayou Park	100 Meadow Creek Road
6. Freedom Park	3105 N. Downing Street
7. Officer Cash Memorial Dog Park	535 S. Anderson Street
8. Veterans Park	115 E. Magnolia Street

Parks: Self-Evaluation Findings

Areas that were evaluated for each park included parking lots, path of travel from the parking lot to the park amenities, access into facilities, signage, drinking fountains and restrooms. A complete list of issues is provided in the park facility reports (see **Appendix E**). Common issues identified included:

- Non-compliant parking
- Running slopes and cross slopes along accessible routes
- No access to amenities
- Non-compliant playground or playground equipment

Parks: Possible Solutions

A complete list of possible solutions is provided in the park facility reports (see **Appendix E**).

3.3.3 Sidewalk Corridors

Using aerial imagery, the City developed a GIS-based inventory of City-maintained sidewalk corridors and intersection locations along these corridors. A map of the identified pedestrian facilities in the public rights-of-way is provided in **Appendix F**. Based on the inventory, the City of Angleton maintains approximately 65 miles of sidewalk corridors, including pedestrian street and driveway crossings. There are approximately 245 unsignalized intersections and approximately 187 driveways along the City-maintained sidewalk corridors.

Approximately one (1) mile of City-maintained pedestrian paths of travel were evaluated for compliance with PROWAG based on the conditions and measurements along the pedestrian path of travel, which included the sidewalk, curb ramps, pedestrian driveway crossings, and pedestrian street crossings. The included sidewalk corridors was selected due to the high level of pedestrian activity as well as the proximity to pedestrian traffic generators. A map of the evaluated sidewalk corridor is provided in **Appendix D**.

At intersections where existing sidewalk does not cross the curb and curb ramps are not installed, no evaluations were needed. Locations where curb ramps are missing, but are required, were identified and included in the Transition Plan.

Sidewalk Corridors: Self-Evaluation Findings

Common issues along the sidewalk corridor were excessive sidewalk cross slopes, vertical surface discontinuities that caused excessive level changes, excessive driveway and cross street cross slopes, permanent obstructions in the sidewalk such as power poles or utilities, and temporary obstructions in the sidewalk or path of travel such as weeds and low hanging branches. Where excessive vegetation was present, field crews attempted to assess the condition of the underlying sidewalk. Where possible, the condition of the underlying sidewalk was recorded; however, the City of Angleton may find additional issues with the sidewalk once the temporary obstruction is removed.

Common curb ramp issues at unsignalized intersections along the sidewalk corridors included missing detectable warning surfaces, and curb ramps having excessive turning space (landing) cross slopes, excessive running slopes and cross slopes, and ponding in the curb ramp, turning space (landing), or flares. A summary of the unsignalized intersection curb ramp issues is provided in **Table 2**. Non-compliant curb ramps, sidewalk, and pedestrian paths of travel along driveways and street crossings at unsignalized interactions were recommended to be removed and replaced.

The ADA of 1990, Section 35.150, Existing Facilities, requires that the Transition Plan include a schedule for providing curb ramps or other sloped area at existing pedestrian walkways, which applies to all facilities constructed prior to

1992. For any sidewalk installations constructed from 1992 to March 15, 2012, the curb ramps should have been installed as part of the sidewalk construction project per the 1991 Standards for Accessible Design, Section 4.7 Curb Ramp, which states, “curb ramps complying with 4.7 shall be provided wherever an accessible route crosses a curb.” For sidewalk installations constructed on or after March 15, 2012, similar guidance is provided in the 2010 Standards for Accessible Design, Section 35.151 of 28 CFR Part 35, New Construction and Alterations, which states, “newly constructed or altered street level pedestrian walkways must contain curb ramps or other sloped area at any intersection having curb or other sloped area at intersections to streets, roads, or highways.”

Sidewalk Corridors: Possible Solutions

To meet the federal requirements for curb ramp installations, the following recommendations were made:

- Where sidewalk leads up to the curb at an intersection, both parallel and perpendicular to the project corridor, two (2) directional curb ramps were recommended to be installed where geometry permitted. PROWAG requires two (2) directional curb ramps be installed during modifications unless there are existing physical constraints.
- Where sidewalk parallel to the project corridor leads up to the curb at a driveway, directional curbs ramps were recommended to be installed to serve the driveway crossing.
- Where diagonal curb ramps were installed with the intent to serve a side-street crossing only, receiving curb ramps are still required to be installed on the opposite side of the major street. However, an engineering study should be performed prior to the installation of the receiving curb ramps to determine if the major street crossing is safe to accommodate. If the engineering study determines the major street crossing is unsafe to accommodate, the existing diagonal curb ramps should be removed and replaced with directional curb ramps in addition to the other requirements noted in **Section 3.5 Federal Highway Administration (FHWA) Guidance on Closing Pedestrian Crossings**.

The following possible solutions were made to improve pedestrian safety and are incorporated into the unsignalized intersection and driveway reports. These improvements are based on engineering judgement but are not required by federal accessibility standards.

- For all existing, unmarked pedestrian street crossings at unsignalized intersections, the installation of crosswalk markings is recommended. Pedestrian street crossings are defined by the curb ramp installation recommendations on the previous page. The 2009 MUTCD states that on approaches controlled by STOP or YIELD signs, crosswalk markings should be installed where engineering judgement dictates markings are needed to provide guidance for pedestrians who are crossing roadways by defining and delineating paths on approaches where traffic stops. Additionally, in conjunction with signs and other measures, crosswalk markings help to alert road users of a designated pedestrian crossing point across roadways at locations that are not controlled by traffic control signals or STOP or YIELD signs.
- For pedestrian crossings across commercial driveways, detectable warning surfaces are recommended to be installed on curb ramps or sidewalk approaches on either side of the driveway. PROWAG states that detectable warning surfaces should not be provided at crossings of residential driveways since the pedestrian right-of-way continues across residential driveway aprons. However, where commercial driveways are provided with yield or stop control, detectable warning surfaces should be provided at the junction between the pedestrian route and the vehicular route.

A complete list of possible solutions can be found in the sidewalk and unsignalized intersection facility reports provided in **Appendix E**.

Table 2. Summary of Curb Ramp Issues at Unsignalized Intersections

Curb Ramp Element	Number Evaluated	Number Compliant	Percent Compliant
Curb ramp lands in crosswalk	34	34	100%
48" crosswalk extension exists	17	17	100%
Curbed sides are 90°	32	32	100%
Cut-thru ramp running slope ≤ 5%	1	1	100%
Cut-thru ramp cross slope ≤ 2%	1	1	100%
Cut-thru ramp width ≥ 60"	1	1	100%
Curb ramp counter slope ≤ 5%	34	33	97.1%
Curb ramp does not have traversable sides	32	31	96.9%
No obstruction in curb ramp, turning space (landing), or flares	34	29	85.3%
Curb ramp turning space (landing) running slope ≤ 2%	18	15	83.3%
Curb ramp present where curb ramp is needed	41	34	82.9%
Flush transition to roadway exists	34	27	79.4%
Curb ramp width ≥ 48"	33	20	60.6%
Curb ramp running slope ≤ 8.3%	33	19	57.6%
Curb ramp turning space (landing) exists	34	18	52.9%
Curb ramp cross slope ≤ 2%	33	16	48.5%
No ponding in curb ramp, turning space (landing), or flares	34	14	41.2%
Curb ramp turning space (landing) cross slope ≤ 2%	18	7	38.9%
Detectable warning surface exists	32	3	9.4%
Flare cross slope ≤ 10%	2	0	0%
Detectable warning surface is compliant	3	0	0%

3.4 Maintenance Versus Alterations

The DOJ has issued a briefing memorandum on clarification of maintenance versus alteration projects. Information contained in the briefing memorandum is below. We recommend this clarification with regard to when curb ramp installation is required as part of a project be distributed to the appropriate City of Angleton staff.

The Americans with Disabilities Act of 1990 (ADA) is a civil rights statute prohibiting discrimination against persons with disabilities in all aspects of life, including transportation, based on regulations promulgated by the United States Department of Justice (DOJ). DOJ's regulations require accessible planning, design, and construction to integrate people with disabilities into mainstream society. Further, these laws require that public entities responsible for operating and maintaining the public rights-of-way do not discriminate in their programs and activities against persons with disabilities. FHWA's ADA program implements the DOJ regulations through delegated authority to ensure that pedestrians with disabilities have the opportunity to use the transportation system's pedestrian facilities in an accessible and safe manner.

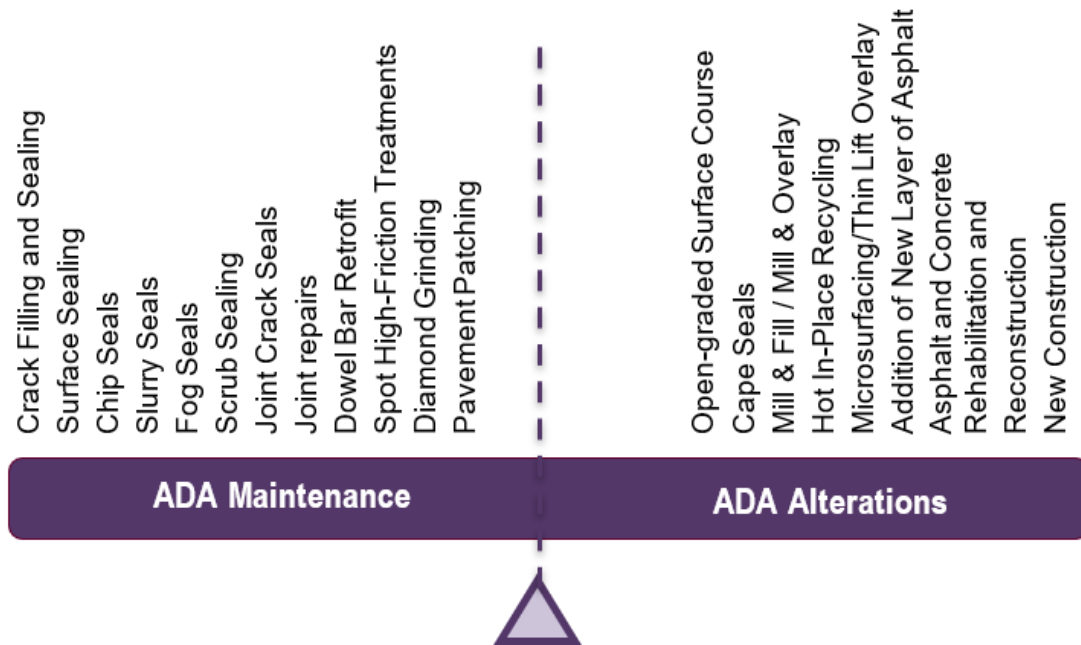
FHWA and DOJ met in March 2012 and March 2013 to clarify guidance on the ADA's requirements for constructing curb ramps on resurfacing projects. Projects deemed to be alterations must include curb ramps within the scope of the project.

This clarification provides a single Federal policy that identifies specific asphalt and concrete-pavement repair treatments that are considered to be alterations – requiring installation of curb ramps within the scope of the project – and those that are considered to be maintenance, which do not require curb ramps at the time of the improvement. Figure 1 provides a summary of the types of projects that fall within maintenance versus alterations.

This approach clearly identifies the types of structural treatments that both DOJ and FHWA agree require curb ramps (when there is a pedestrian walkway with a prepared surface for pedestrian use and a curb, elevation, or other barrier between the street and the walkway) and furthers the goal of the ADA to provide increased accessibility to the public right-of-way for persons with disabilities. This single Federal policy will provide for increased consistency and improved enforcement.

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Figure 1. Maintenance versus Alteration Projects



Source: DOJ Briefing Memorandum on Maintenance versus Alteration Projects

3.5 FHWA Guidance on Closing Pedestrian Crossings

An alteration that decreases or has the effect of decreasing the accessibility of a facility below the requirements for new construction at the time of the alteration is prohibited. For example, the removal of an existing curb ramp or sidewalk (without equivalent replacement) is prohibited. However, the FHWA has indicated a crossing may be closed if an engineering study (performed by the City and not included in the scope of this Transition Plan) determines the crossing is not safe for any user. The crossing should be closed by doing the following:

- A physical barrier is required to close a crossing at an intersection. FHWA has determined that a strip of grass between the sidewalk and the curb IS acceptable as a physical barrier.
- A sign should be used to communicate the closure.

Agencies wishing to close certain intersection crossings should have a reasonable and consistent policy on when to do so written in their Transition Plan or as a standalone document. If safety concerns are established by an engineering study, a pedestrian crossing should not be accommodated for any user. The City of Angleton will only consider closing an existing pedestrian crossing if it is determined to be unsafe by an engineering study.

3.6 Prioritization

The following sections outline the prioritization factors and results of the prioritization for buildings, parks, sidewalks, and unsignalized intersections. Each facility type has a different set of parameters to establish the prioritization for improvements. These prioritization factors were taken into consideration when developing the implementation plan for the proposed improvements.

3.6.1 Prioritization Factors for Facilities

Buildings and parks were prioritized on a 12-point scale, which is defined in **Table 3**. This prioritization methodology was developed by the Consultant Team to aid the City in determining how the buildings should be prioritized for improvements based on the severity of non-compliance with ADA.

Unsignalized intersections were prioritized on a 13-point scale. The 13-point scale, which is used to prioritize both signalized and unsignalized intersections, is defined in **Table 4**. This prioritization methodology was developed by the Consultant Team to aid the City in determining which signalized intersections should be prioritized for improvements over other signalized intersections based on the severity of non-compliance with ADA.

Sidewalk corridors were prioritized on a 3-point scale and were given a priority of either “High”, “Medium”, “Low” based on the severity of non-compliance, which is defined in **Table 5**. Compliant segments of the sidewalk corridor were given a priority label of “Compliant”.

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Table 3. Prioritization Factors for Buildings/Parks

Priority	Criteria
1 (high)	Complaint known or imminent danger present
2 (high)	<ul style="list-style-type: none"> Element is more than twice the allowable requirement. No known complaint. AND (for exterior conditions) location is near a hospital, school, transit stop, government building, or other pedestrian attractor.
3 (high)	<ul style="list-style-type: none"> Element is more than twice the allowable requirement. No known complaint. AND (for exterior conditions) location is not near a hospital, school, transit stop, government building, or other pedestrian attractor.
4 (high)	Issues with parking or exterior conditions (DOJ level 1) – moderately out of compliance
5 (medium)	Issues with access to goods and services (DOJ level 2) – severely out of compliance
6 (medium)	Issues with: <ul style="list-style-type: none"> Access to goods and services (DOJ level 2) – moderately out of compliance; Parking or exterior conditions (DOJ level 1) – minimally out of compliance; OR Restrooms (DOJ level 3) – severely out of compliance
7 (medium)	Issues with: <ul style="list-style-type: none"> Access to goods and services (DOJ level 2) – minimally out of compliance; Restrooms (DOJ level 3) – moderately out of compliance; OR Drinking fountains or public phones (DOJ level 4 & 5) – severely out of compliance
8 (medium)	Issues with drinking fountains or public phones (DOJ level 4 & 5) - moderately out of compliance
9 (low)	Issues with restrooms (DOJ level 3) – minimally out of compliance
10 (low)	Issues with drinking fountains or public phones (DOJ level 4 & 5) - minimally out of compliance
11 (low)	<ul style="list-style-type: none"> Client is a Title II agency; AND Elements out of compliance, but may be able to be handled programmatically or do not need to be handled unless or until the agency hires a person with a disability
12 (low)	Element is fully compliant with an older standard (safe-harbored), but will need to be brought into compliance with current standards if altered

Table 4. Prioritization Factors for Unsignalized Intersections

Priority	Criteria
1 (high)	Complaint filed on curb ramp or intersection or known accident/injury at site
2 (high)	Existing curb ramp with any of the following conditions: <ul style="list-style-type: none"> • Running slope > 12% • Cross slope > 7% • Obstruction to or in the curb ramp or landing • Level change > ¼ inch at the bottom of the curb ramp • No detectable warnings AND within a couple of blocks of a hospital, retirement facility, medical facility, parking garage, major employer, disability service provider, event facility, bus/transit stop, school, government facility, public facility, park, library, or church, based on field observations.
3 (high)	<ul style="list-style-type: none"> • No curb ramp where sidewalk or pedestrian path exists AND within a couple of blocks of a hospital, retirement facility, medical facility, parking garage, major employer, disability service provider, event facility, bus/transit stop, school, government facility, public facility, park, library, or church, based on field observations.
4 (high)	No curb ramps, but striped crosswalk exists
5 (medium)	Existing curb ramp with any of the following conditions: <ul style="list-style-type: none"> • Running slope > 12% • Cross slope > 7% • Obstruction to or in the curb ramp or landing • Level change > ¼ inch at the bottom of the curb ramp • No detectable warnings AND NOT within a couple of blocks of a hospital, retirement facility, medical facility, parking garage, major employer, disability service provider, event facility, bus/transit stop, school, government facility, public facility, park, library, or church, based on field observations.
6 (medium)	<ul style="list-style-type: none"> • No curb ramp where sidewalk or pedestrian path exists AND NOT within a couple of blocks of a hospital, retirement facility, medical facility, parking garage, major employer, disability service provider, event facility, bus/transit stop, school, government facility, public facility, park, library, or church, based on field observations.
7 (medium)	Existing diagonal curb ramp (serving both crossing directions on the corner) is non-compliant and should be replaced with two curb ramps, one serving each crossing direction on the corner.
8 (medium)	Existing curb ramp with any of the following conditions: <ul style="list-style-type: none"> • Cross slope > 5% • Width < 36 inches • Median/island crossings that are inaccessible
9 (low)	Existing curb ramp with either running slope between 8.3% and 11.9% or insufficient turning space
10 (low)	Existing diagonal curb ramp without a 48-inch extension into the crosswalk
11 (low)	Existing pedestrian push button is not accessible from the sidewalk and/or curb ramp
12 (low)	Existing curb ramp with returned curbs where pedestrian travel across the curb is not protected
13 (low)	All other intersections not prioritized above

Table 5. Prioritization Factors for Sidewalk Corridors

Criteria	Priority		
	1 (high)	2 (medium)	3 (low)
Cross slope of sidewalk is greater than 2%	Value > 3.5%	3.5% ≥ Value > 2.0%	
Width of sidewalk is less than 48 inches	Value ≤ 36.0"	36.0" < Value < 42.0"	42.0" < Value < 48.0"
Obstruction present along sidewalk	Obstruction - Permanent	Obstruction - Temporary	
Heaving, sinking, or cracking present on sidewalk	Heaving Sinking Cracking		
Ponding on sidewalk		Ponding	
Missing sidewalk			Missing Sidewalk
Signalized cross street cross slope is greater than 5%	Value > 9.0%	9.0% ≥ Value ≥ 7.0%	7.0% > Value > 5.0%
Unsignalized cross street cross slope is greater than 2%	Value > 6.0%	6.0% ≥ Value ≥ 4.0%	4.0% > Value > 2.0%
Cross street running slope is greater than 5%	Value > 7.0%	7.0% ≥ Value ≥ 6.0%	6.0% > Value > 5.0%
Driveway sidewalk width is less than 48 inches	Value ≤ 36.0"	36.0" < Value < 42.0"	42.0" < Value < 48.0"
Driveway (or sidewalk if applicable) cross slope is greater than 2%	Value > 6.0%	6.0% ≥ Value ≥ 4.0%	4.0% > Value > 2.0%
Driveway (or sidewalk if applicable) condition is poor or poor dangerous	Elevation change greater than 1/2 inch or gaps greater than 1 inch	Elevation change between 1/4 inch and 1/2 inch or gaps between 1/2 inch and 1 inch	
Railroad crossing excessive sidewalk vertical discontinuity	Elevation change greater than 1/4 inch or gaps greater than 1 inch)		
Railroad crossing pre-fabricated plate is plastic or does not exist	Yes – Plastic or No		
Railroad crossing flangeway gap > 3 inches (freight) or flangeway gap > 2.5 inches (non-fright)	Value > 3.0" (freight) or 2.5" (non-freight)		
Railroad crossing is missing detectable warning surface(s)	No – Neither Side or Yes – 1 Side Only		

Table 6 and **Table 7** provide summaries of the prioritization classifications for sidewalks and unsignalized intersections, respectively.

Table 6. Prioritization Summary for Sidewalk Corridors

Line type	Length (miles) by Priority				
	1 (high)	2 (medium)	3 (low)	Compliant	Total
Sidewalks	0.40	0.32	0.00	0.12	0.84
Driveways	0.04	0.04	0.00	0.01	0.09
Cross Streets	0.00	0.01	0.01	0.07	0.09
Total	0.44	0.37	0.01	0.20	1.02

Table 7. Prioritization Summary for Unsignalized Intersections

Priority	Number of Intersections
0 (compliant)	---
1 (high)	---
2 (high)	2
3 (high)	---
4 (high)	---
5 (medium)	9
6 (medium)	---
7 (medium)	---
8 (medium)	---
9 (low)	---
10 (low)	---
11 (low)	---
12 (low)	---
13 (low)	---
Total	11

3.7 Conclusion

This document serves as the ADA Transition Plan for the City of Angleton. In developing the Transition Plan, PSAs were reviewed for compliance with ADA guidelines and a Self-Evaluation was conducted on the following facilities:

- 1 building;
- 8 parks; and
- 1 mile of sidewalk and all unsignalized intersections and driveways along the sidewalk corridor.

The possible solutions were prioritized and an implementation plan was developed to provide guidance for the City's improvement projects in the coming years. Public outreach was also conducted to aid in the development of the plan.

The City is taking the actions referenced below and will continue to look for and remedy, barriers to access to ensure that Angleton citizens who are disabled are given access to the City's PSAs.

To confirm follow-up on corrective actions required under the Transition Plan, the City will institute an ADA Action Log, documenting its efforts at compliance with the ADA. At a minimum, the Action Log will identify items that are not ADA compliant and will include anticipated completion dates. After the adoption of the Transition Plan by the governing body of the City, the ADA Action Log will be updated on an annual basis. The ADA Action Log should be available upon request. See example of ADA Action Log provided in **Appendix G**.

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4.0 Facility Costs

4.1 Facilities Cost Projection Overview

To identify funding sources and develop a reasonable implementation schedule, cost projection summaries for only the facilities evaluated were developed for each facility type. To develop these summaries, recent bid tabulations from the TxDOT construction projects, along with Consultant Team experience with similar types of projects, were the basis for the unit prices used to calculate the improvement costs. A contingency percentage (20%) was added to the subtotal to account for increases in unit prices in the future in addition to an engineering design percentage (15%). All costs are in 2022 dollars. **Table 8** provides a summary of the estimated costs to bring each facility into compliance.

Table 8. Summary of Facility Costs

Facility Type	Priority			
	High	Medium	Low	Total*
Buildings	\$2,000	\$22,600	\$2,100	\$27,000
Parks	\$66,100	\$414,500	\$3,000	\$484,000
Public Rights-of-Way Sidewalk	\$146,500	\$110,400	\$500	\$258,000
Public Rights-of-Way Unsignalized Intersections	\$31,700	\$240,500	--	\$273,000
City Totals	\$246,300	\$788,000	\$5,600	\$1,042,000

*Table values are rounded for simplification

It is important to note that the facility cost estimates in **Table 8** only include the costs to remediate accessibility compliance issues as determined by a visual inspection of the facilities. Additional budget considerations should be given to the following:

- Aesthetic upgrades, such as remodeling/upgrading of outdated facilities;
- Current market conditions that may affect pricing of construction materials and labor, such as COVID-19;
- Construction challenges not visible during inspection, such as underground or in-wall utilities; and
- Other factors that may affect costs.

It is recommended that a design professional assist the City in determining the best overall design solutions with respect to various factors, including but not limited to, existing conditions, available construction budget, and consideration for all elements that are out of compliance in a particular area of a facility.

4.2 Implementation Schedule

Table 9 details the barrier removal costs and proposed implementation schedule by facility type for all City-owned facilities evaluated. Actual annual budgets will vary to accommodate project scopes. For example, all barriers at a single intersection are recommended to be removed within the same project scope. Because cost projections vary by intersection, the actual annual budget may vary to accommodate all improvements at an intersection. This 5-year plan will serve as the implementation schedule for the Transition Plan. The City of Angleton reserves the right to change the barrier removal priorities on an ongoing basis to allow flexibility in accommodating community requests, petitions for reasonable modifications from persons with disabilities, and changes in City programs.

It is the intent of the City to have its ADA Coordinator work together with department heads and budget staff to determine the funding sources for barrier removal projects. Once funding is identified, the ADA Coordinator will coordinate the placement of the projects in the CIP to be addressed on a fiscal year basis.

Table 9. Implementation Schedule

Facility Type	Estimated Cost	Implementation Schedule (years)	Approximate Annual Budget*
Buildings	\$27,000	5	\$6,000
Parks	\$484,000	5	\$97,000
Public Rights-of-Way Sidewalk	\$258,000	5	\$52,000
Public Rights-of-Way Unsignalized Intersections	\$273,000	5	\$55,000
City Total	\$1,042,000		
Total Annual Budget			\$210,000

*Table values are rounded for simplification

4.3 Funding Opportunities

Several alternative funding sources are available to the City to complete the improvements in this Transition Plan. The funding opportunities include applying for resources at the federal and state level, consideration of local options, and leveraging private resources. The following sections detail some different funding source options.

4.3.1 Federal and State Funding

Table 10 depicts the various types of federal and state funding available for the City to apply for funding for various improvements. The following agencies and funding options are represented in the chart.

- RAISE – Rebuilding American Infrastructure with Sustainability and Equity Discretionary Grants
- INFRA – Infrastructure for Rebuilding America Discretionary Grant Program
- TIFIA – Transportation Infrastructure Finance and Innovation Act (loans)
- FTA – Federal Transit Administration Capital Funds
- CMAQ – Congestion Mitigation and Air Quality Improvement Program
- HSIP – Highway Safety Improvement Program
- NHPP – National Highway Performance Program
- STBG – Surface Transportation Block Grant Program
- TA – Transportation Alternatives Set-Aside (formerly Transportation Alternatives Program)
- RTP – Recreational Trails Program
- SRTS – Safe Routes to School Program / Activities
- PLAN – Statewide Planning and Research (SPR) or Metropolitan Planning funds
- NHTSA 405 – National Priority Safety Programs (Nonmotorized safety)
- FLTTP – Federal Lands and Tribal Transportation Programs (Federal Lands Access Program, Federal Lands Transportation Program, Tribal Transportation Program, Nationally Significant Federal Lands and Tribal Projects)
- SS4A – Safe Streets and Roads for All Grant Program

Most of these programs are competitive type grants; therefore, the City of Angleton is not guaranteed to receive these funds. It will be important for the City to track these programs to apply for the funds. Federal-aid funding programs have specific requirements that projects must meet, and eligibility must be determined on a case-by-case basis.

Table 10. Funding Opportunities

ACTIVITY	RAISE	INFRA	TIFIA	FTA	CMAQ	HSIP	NHPP	STBG	TA	RTP	SRTS	PLAN	NHTS	FLTPP	SS4A
Access enhancements to public transportation	X	X	X	X	X		X	X	X					X	X
ADA/504 Self-Evaluation / Transition Plan								X	X	X		X		X	X
Bus shelters and benches	X	X	X	X	X		X	X	X					X	X
Coordinator positions (state or local)					X			X	X		X				
Crosswalks (new or retrofit)	X	X	X	X	X	X	X	X	X	X	X			X	X
Curb cut and ramps	X	X	X	X	X	X	X	X	X	X	X			X	X
Paved shoulders for pedestrian use	X	X	X		X	X	X	X	X		X			X	X
Pedestrian plans				X				X	X		X	X		X	X
Recreational trails	X	X	X					X	X	X				X	X
Shared use paths / transportation trails	X	X	X	X	X	X	X	X	X	X	X			X	X
Sidewalk (new or retrofit)	X	X	X	X	X	X	X	X	X	X	X			X	X
Signs / signals / signal improvements	X	X	X	X	X	X	X	X	X		X			X	X
Signed pedestrian routes	X	X	X	X	X		X	X	X		X			X	X
Spot improvement programs	X	X	X	X		X	X	X	X	X	X			X	X
Stormwater impacts related to pedestrian projects	X	X	X	X		X	X	X	X	X	X			X	X
Trail bridges	X	X	X		X	X	X	X	X	X	X			X	X
Trail / highway intersections	X	X	X		X	X	X	X	X	X	X			X	X
Trailside and trailhead facilities	X	X	X					X	X	X				X	
Training					X	X		X	X	X	X	X	X		X
Tunnels / undercrossings for pedestrians	X	X	X	X	X	X	X	X	X	X	X			X	X

Adapted from FHWA Pedestrian and Bicycle Funding Opportunities, January 21, 2021:
https://www.fhwa.dot.gov/environment/bicycle_pedestrian/funding/funding_opportunities.cfm

4.3.2 Local Funding

There are several local funding options for the City to consider, including:

- Community Development Block Grants (CDBG)
- Public Improvement District (PID) – A geographically defined area established to provide specific types of improvements or maintenance, which are financed by assessments against the property owners within the area. PIDs provide a city with a development tool that allocates costs according to the benefits received. A PID can provide funding for supplemental services and improvements that meet the needs of the community, that could not otherwise be constructed or provided.
- General fund (sales tax and bond issue)
- Scheduled/funded CIP projects that are funded through bonds
- Sidewalk or Access Improvement Fee
- Tax Increment Reinvestment Zone (TIRZ) – A TIRZ is an area designated by a city to address infrastructure needs in order to promote and allow development or redevelopment that assists a city to flourish and grow. The purpose of a TIRZ is to promote development or redevelopment of the area where growth would not occur solely through private investment. The infrastructure is paid for by the collection of a tax increment, either property tax or sales tax or both, from the benefitted area and placed in a Tax Increment Fund (TIF). For property tax, the increment is only taken from the increase in value of the zone, comparing the value in the base year (year of TIRZ creation) to the value each subsequent year. Bonds and other financial tools can be based on this tax increment.
- Transportation Reinvestment Zone (TRZ) – The city can designate a zone in which it will promote a transportation project. Once the zone is created, a base year is established, and the incremental increase in property tax revenue collected inside the zone is used to finance a project in the zone.
- Street Maintenance Fee

4.3.3 Private Funding

Private funding may include local and national foundations, endowments, private development, and private individuals. While obtaining private funding to provide improvements along entire corridors might be difficult, it is important for the City to require private developers to improve pedestrian facilities to current ADA requirements, whether it by new development or redevelopment of an existing property.

4.4 Next Steps

The City will begin internal coordination to address the programmatic barriers identified in the Transition Plan.

The City will develop a budget to include the next 5 fiscal years. Projects identified in the ADA Transition Plan will be programmed within the 5-year budget based on prioritization provided (see **Section 3.6 Prioritization**) and other factors determined by the City, such as how barrier removal can be incorporated into existing City projects identified for capital improvements.

The City also intends to adopt 2011 PROWAG to enable City enforcement of these guidelines throughout the design and construction process of pedestrian facilities in the public rights-of-way.

Appendix

Appendix A: Public Outreach

- ADA Advisory Committee Meeting Notes
- Web Survey Feedback Summary
- Web Map Feedback Summary

Appendix B: Programs, Services, and Activities Review

- Reasonable Accommodations in the Workplace
- Step-by-Step Approach to an ADA Compliant Human Resources Process
- Job Description Review

Appendix C: FHWA ADA Transition Plan Process Memo

Appendix D: Evaluated Facility Maps

- Buildings
- Parks
- Public Rights-of-Way Sidewalk Corridors

Appendix E: Facility Reports

- Buildings
- Parks
- Public Rights-of-Way Sidewalk Corridors
- Public Rights-of-Way Unsignalized Intersections

Appendix F: Facility Inventory Map

- Public Rights-of-Way Sidewalk Corridors

Appendix G: ADA Action Log

Appendix A: Public Outreach

ADA Advisory Committee Meeting Notes

Web Survey Feedback Summary

Web Map Feedback Summary

ADA Advisory Committee Meeting Notes

Date: 7/18/22
Time: 5:30 – 7:30 PM
Location: 120 S. Chenango Street, Angleton, Texas 77515

Public Input/Discussion

- **Public Question:** One of the things I was looking at is one of the elementary schools having, rather lacking, ramps and so forth along there. Is that a City function or is that now the school board's responsibility? For example, sidewalks along the street might be the City's responsibility where once it gets onto school property it's the responsibility of the school. Can you give an example or whatever you can tell us? Curb ramps near Central Elementary - they've got what looks like a lot of sidewalks for students but students with a wheelchair have to go all the way to the end of the sidewalk to find a ramp. They are not where they need to be.

Consultant Team Response: Pedestrian facilities in the public rights-of-way are the City's responsibility and those on the school property are the school district's responsibility.

- **Public Question/Comment:** So, I understood whenever [the Consultant Team] was speaking about the parks and the different ways to go into the restroom, the BBQ pit, and all of that but what about the actual playgrounds for the children to play on?

Consultant Team Response: Yes, all elements of the playgrounds were evaluated.

- **Public Comment:** Whenever I've been to several of the playgrounds, there are not a lot of accommodations in Angleton. Freedom Park has a little ramp (it's not much fun) and then there's the big chair that someone could get in. But as far as if someone is in a wheelchair (and maybe it's hard to get them from the wheelchair to the swing) we could have one where the wheelchair went right up on to the swing and attach. And just more fun things at our parks for children not just in wheelchairs, but other disabilities, to do. Our parks are really for typical developing children in this area.
- **Public Question:** We're talking about the City, but then what about a commercial business that has some limitations? My perspective changed because I was in a wheelchair and going into one particular fast-food restaurant was dicey because you come out and there's a drop of about 6 inches and you had to carefully position yourself to go in the door and then once you're in the door you're okay and then coming out again is the same thing. Yes, they have a ramp that gets you from the level of the building. So, where does that lie in this? Does the City say hey, you have to look at this?

Consultant Team Response: Restaurants within the City are not the City's responsibility. The public should contact those businesses directly with your concerns as the business owners may be unaware of the issues.

- **Public Comment:** I know y'all touched on this about the sidewalks. Say for instance over by the library. I didn't hear anything about Valderas. But Valderas has some great issues going on with their sidewalks. The library may be accessible, but the sidewalks I've literally had to stop and help a lady get out of the cracks and she didn't want the help, but I said no y'all are in great need. They literally couldn't even get out of the cracks. And they were coming from Henderson. So, when y'all talk about going to places you need to think

about travel too. Some people are literally using the sidewalks to travel from Henderson Road into town because of the apartments on Henderson are accessible apartments. So, the lack of sidewalks on Henderson is a big issue as well as maintaining the existing sidewalks. Also, on Westside Elementary that's a big issue as far as lack of sidewalks for any children or parents that needed to walk their children to school. Yes, they could use accessible bussing, but just say they wanted to walk their children to school. There are no sidewalks. So, not only do we need to maintain the sidewalks that we have, but we also need to add sidewalks we don't have and think about the population of people with disabilities.

City Response (Chris Whittaker, City Manager): Regarding Henderson Road, the cost estimate was originally at \$30M and now it's up to \$52M to fill in the culvert, expand the road, and put sidewalks on there for walkability. The City is pursuing a grant through HGAC, which is an 80/20 match or 75/25 of \$52M that the City would have to come up with to do that. Because all that drainage needs to be put in, fill it with culverts, and fill it over with road base and some of the intersections need to be reengineered and there may have to be soundwalls because now it's a boulevard, and all those kinds of things.

Switching to other sidewalks, the City started last year with America's Rescue Plan Act. The City got \$2.4M last year, of which, we designated \$200K for sidewalks so that was new sidewalks, old sidewalks, and there's a \$180K project going in at Miller and Parrish Street. If you've seen that, there's brand new sidewalks over there and the City hopes to expand on that and we're just baby stepping. City staff is going back to council next month to talk about the \$2.4M we're going to get so that will be water, sewer, and more sidewalks. We put in the budget for sidewalks in the budget, which is the first time we've done this since [Chris Whittaker, City Manager] has been here so that the City would have a sidewalk plan. The City has a lot of needs between existing sidewalks and some of those pictures are classic the way there are, but like over at Miller Parrish, there's nothing over there. So, the City is starting a program so that we can expand the streets. Megan Mainer has led a Hike and Bike Committee and it's the same sort of connectivity issues of how do we get from Henderson Road to the library or how to we get to the parks. So, the committee is addressing that navigation piece so that City staff can go back to the council and let them know what the community wants. The City takes all the nefarious costs of what it is today and try to chuck it into a program or we borrow money for roads this year and maybe some of that becomes for sidewalks. So y'all can help us out. I walk my dog and I've got my route and I know exactly where I'm going to trip. With this new app "Text My Gov" you can take your phone when you're walking around and if you see an issue, you can take a picture and text the City's number, so it goes into our work order system. This app is brand new, and it goes into our work order system. It helps us identify the areas that need improvement. Y'all can help us out by using that app.

City Comment (Travis Townsend, City Council): TxDOT presents to the City annually and I believe Maria Ponce is our local rep. I brought this to her attention, it's a wish list and we probably aren't going to get it any time soon but on 35 I asked for a sidewalk from the corner of 274 all the way out to 288, specifically for the purpose of the parks, the schools that are over there, and for people to access it. I asked for something similar to what you see in the City of West Columbia. She took it down and I believe she is sincere but there's a lot of money and they have a lot of projects their working on and when she comes back again this year, I'll raise the issue again. But it will just keep putting a bug in her ear. Maybe someday TxDOT will get around to funding that project. But that's their road and we can't touch it.

City Comment: If you look at Miller and Parrish, the City had to put all of that drainage in storm sewers and so just about every street in Angleton has that same issue that doesn't have a sidewalk. So, it's not just getting a contractor to lay a sidewalk, that drainage must be installed underground in order to be able to build that sidewalk. My second point, last year we applied for a TxDOT Transportation Alternative Grant (75/25 or so match) to redo downtown from near City Hall up to the Courthouse. You've all traveled to Dirty

South or the boutique where you have to step down two curbs into the gutter, back up onto the street, and all that kind of stuff. Step 1, this summer TxDOT will mill it down a little, so it won't be as ground and high. The City has applied for the grant since we didn't get it last year. The City reevaluated the engineering on it and resubmitted that package. It will address all of those issues that are going on. The City did this in Rockdale and it's still going on. They look at all slopes, match it to the road, and work the drainage, etc. We will have to replace all of the 1940s water pipes and 1930s sewer lines that are under the existing stuff. If the City gets that grant, it will fix all those problems that everyone complains about, beautify the downtown area, and create greater accessibility.

Consultant Team Comment: Maintenance of existing sidewalks is an ADA requirement but installing new sidewalks is not.

- **Public Question:** Who did the checking of the facilities and stuff? I thought that there was going to be an advisory committee to do that. Was it only City employees that did all this initial work?

Consultant Response: Kimley-Horn and Accessology were the consultant team that did the evaluations.

City Response: This is the first initial meeting for the ADA Advisory Committee, so a lot and of the self-assessment and evaluation was done. That is what we're presenting to you tonight so that we can get some feedback from you all on where we are, what has been collected, and there's going to be a couple of things after this that the Consultant Team is going to ask you to do essentially as a homework thing so that you can help us identify some other key areas that you specifically feel are issues throughout the city. So, it's going to be highly interactive and will require your attention. So, we're going to implement those key components, any comments that you make tonight, those components where you give us feedback. Also, electronically and we will have subsequent meetings on updates before we get this approved and adopted through the City Council.

- **Public Question:** Obviously, we want our city to be more accessible to folks. For folks online that are listening and those in the room, what are the consequences of not moving forward with ADA compliance? What kind of punitive measures are triggered?

Consultant Team Response: Litigation is always a fact and the number of cases filed has increased each year until COVID hit, but it only decreased by 1%. There are currently at 11,000 cases nationwide per year. The increase in access related litigation is a big deal and that's private litigation. There's also the Department of Justice (DOJ) that is broken into 10 different divisions. Each division is responsible for reviewing issues within their jurisdiction. When the DOJ finds non-compliance, the first thing they do is contact the entity and ask for the ADA Coordinator. Then, they ask to see the ADA Transition Plan and when the ADA Transition Plan was completed. DOJ will determine how much time has passed and what's been done since the plan was first completed. If the entity is updating the ADA Transition Plan and it is a living document, that will go a long way with the DOJ. ADA itself does not have punitive or compensatory damages, but Section 504 of the Rehabilitation Act (Section 504) does. Section 504 calls for compliance for programs, services, and activities and sidewalks and curb ramps are part of the pedestrian program, so they fall under Section 504 and complainants can get some monetary relief under that.

- **Public Question:** My next question I had is you mentioned playgrounds earlier and the different experiences you can have on them. So, would part of a Transition Plan be making sure that every single playground has those experiences in the most inclusive way possible? Or I've seen other cities where they have one or two main parks that are designated as inclusive, so what is a good protocol to follow there?

Consultant Team Response: As new playgrounds are built, they are required to comply. As new pieces of equipment are added, those are required to comply. The playground surface is required to comply, so there are elements that are required to comply. As the City updates the playgrounds, they need to make improvements.

- **Public Comment:** My daughter grew up in this town and is 38. She was born before the ADA and the parks were not very accessible and I could not put her in a swing or anything and I worked with Glenn for a long time. I worked for the Center for Independent Living that Pam works at now and we work with people with disabilities so that they can be as independent as they want to be in our community. Glenn and I worked to make sure people with disabilities were involved in emergency planning back in the older days. I'm very pleased to be here and to see this plan going in place. I remember coming down to City Hall about 20 years ago to talk about the Transition Plan and they couldn't even find a paper plan. We talked about the sidewalks, and I was very proactive because I really wanted my daughter to be included in our community. It's very wonderful to see all of us here tonight to discuss making Angleton as accessible and inclusive as it can be. Not just because of the ADA, but because we all care deeply about making sure all citizens can get around our community and enjoy our community. I just want to say thank you for your efforts.
- **City Comment:** Sidewalks are actually in the budget now, "ADA Sidewalks" and "ADA Transition for Parks." What level it gets funded is a big piece. We recognize that it's something we need to do as a city and that we're responsible for it. Part of that is showing that we have a budgeted line item for ADA whether it's \$100K for sidewalks or \$500K. I don't know what it's going to be but we're attempting to show that and move towards it. As Parks & Recreation develops their budgets in the future and their capital improvement program, which are things that don't go in the budget but get spread over the next 5 years, we will take the Parks & Recreation amount and chunk it into over 5 years. Whether it gets funded or not, the City is at least identifying that it's a priority and we will have those frank conversations with Council.
- **Public Question:** So, is that HGAC grant that you were talking about, is that part of that funding that you're referring to or is that separate?

City Comment: The Henderson Road project is not in the City budget, so that's money the City would have to go borrow to meet that 25% or 20%. Same thing with the downtown TxDOT project, we'd have to go with that. In the City's last budget meeting, Patty gave a quick TxDOT update and TxDOT offered to do sidewalks on 274 and sidewalks going east and west. We're not quite there - it was \$11M and the City's share would have been 25% of that. Limited funds, not raising taxes, the City is focused on the downtown piece because it's a better bang for our buck.

- **City Comment (Christiene Daniel, City Council):** I had a few people reach out to me they mentioned Henderson - wanting a sidewalk from the apartments so people could get into town easier. Also, by Central and along Erskine coming into Arcola. There is construction right now with the Courthouse across the street being constructed, but that little intersection is really overgrown, and it was hard for them to get down. And, then along North Walker (between 35 and W. Live Oak) there's only one sidewalk on that street and it's just in poor condition with the transitions to the streets and onto the sidewalk. There's a lot of residents in that area that use that pathway to go to the light to cross the street to the little grocery store that's right there on the corner. Not necessarily sidewalks, but to keep in mind the small lots that we have coming in and the short driveways and cars that don't fit in the driveways. One man reached out to me and said he cancelled his contract in one of the new subdivisions because when he pulled in with his work truck it blocked the sidewalk. He said he can't even park in the driveway and can't have that house.

- **Public Question:** Is there a set number of ADA Advisory Committee meetings?

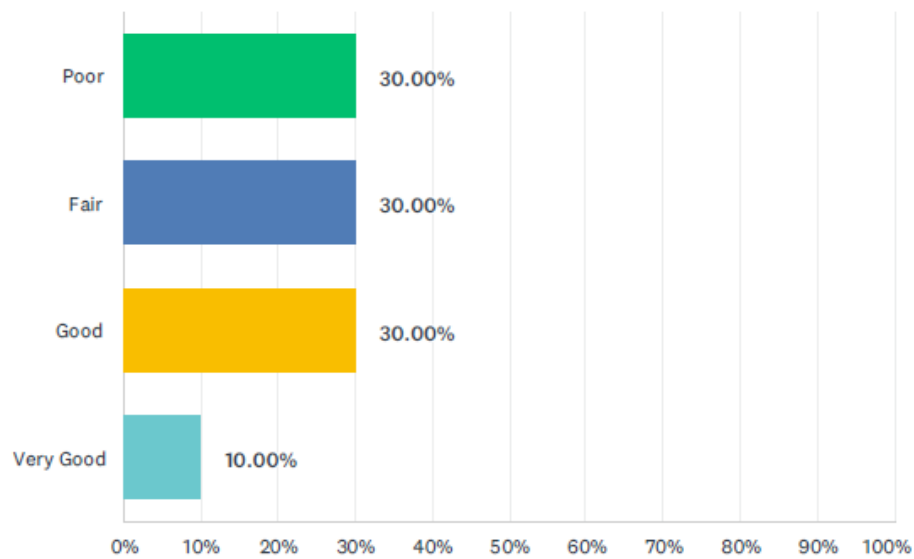
City Response: When we hit key points, we will have meetings to get additional feedback. A timeline will be sent out.

Web Survey Feedback Summary

Question #1

Q1 How would you rate the overall accessibility of the City of Angleton's programs and facilities?

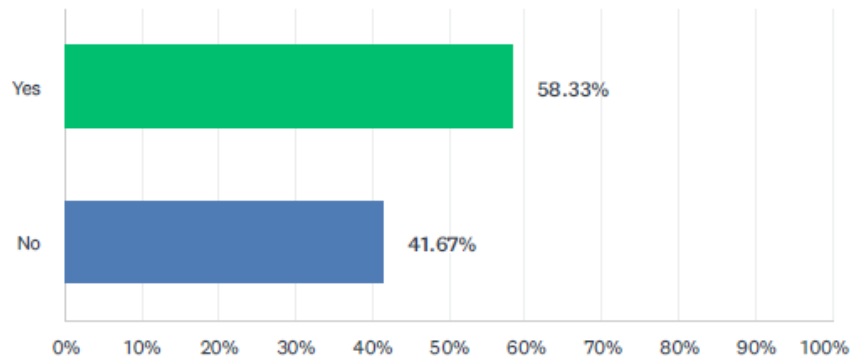
Answered: 10 Skipped: 2



Question #2

Q2 Do you believe the City is accepting/accommodating of persons with disabilities?

Answered: 12 Skipped: 0



Question #2 (cont.)

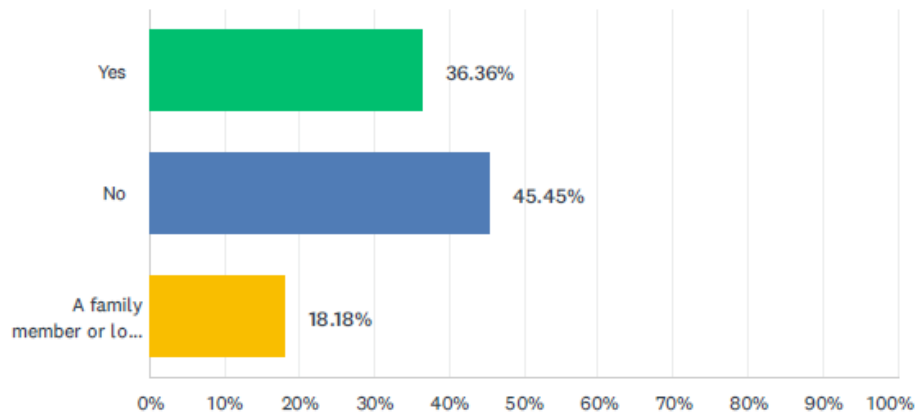
Do you believe the City is accepting/accommodating of persons with disabilities? - Please Explain

Response No.	Response
1	Down town and thru out can't cross 288 area ,so safe cross overs, city can't even keep painted what's there now,light signal to short plus crossing over 35 un even road big dip to get safely on to side walk.plus 35 has storage of side walk and 95 percent of light don't have cross walks signs
2	All new sidewalks are installed ADA compatible. Older versions need a lot of work.
3	Most things are good but there is a problem with garbage services. I have two elderly friends on walkers and it is almost impossible for them to get those heavy trash cans to the curb. Unless friends help, they just skip garbage pick-up. I like the big cans and have no problem but this is definitely a problem for many of the elderly in Angleton. The city says requests can be made to have the trash truck drivers get out and move the cans. We tried that with one friend - called, wrote letters, filled out forms, got approval. It worked once or twice several times. We gave up. This only works if the cans are kept in front of the house, which is unsightly. My other friend keeps her cans behind her garage on a long driveway. Drivers are not going to stop and go get those cans. I do not know the answer - extra worker, allowing bags on the lawn instead of cans - but I do know this is a real problem for people with physical issues.
4	There are disability signs in area, but at times need to be unforced.
5	It's not a yes or no question. In some areas the city shines, in others we have a ways to go. Begin with our parks and then address these giant curbs we have downtown.
6	Sidewalks are lacking in the lower income areas of town. Lower income residents with disabilities have very little safe options in the area of gifford rd in order to get to and from home and accessible pla es to find food etc
7	Lots of sidewalks that need repair around the city and not accessible. Needs to be a city budget item to rapidly address

Question #3

Q3 Have you experienced physical barriers or constraints on a pedestrian path or in a facility you currently use or would like to use?

Answered: 11 Skipped: 1



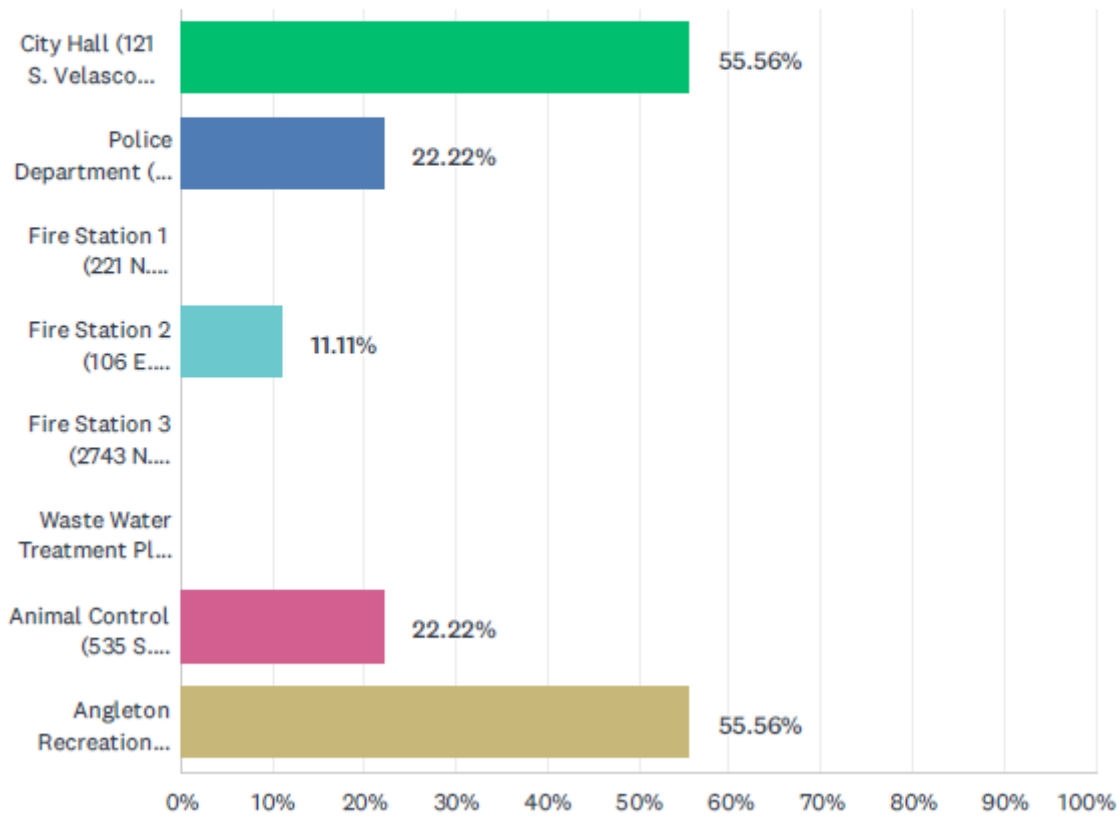
Have you experienced physical barriers or constraints on a pedestrian path or in a facility you currently use or would like to use? – Please identify location or locations below.

Response No.	Response
1	N Valasco at Tigner/ Cannon. No landing or curbing for wheel chair bound people to safely cross the street. There are wheel chair bound residences in the apartments behind Kroger. They wheel themselves to the bank and Walmart and to the restaurants. Greatly needed.
2	City buildings city streets stores restaurants in the city,cross roads, yall know All this already but yall never do anything about but survey.
3	walkability from fire dept. to Veteran's park
4	using a wheelchair on unlevel sidewalks ends up using electric wheelchair in middle of the road
5	The chamber of commerce
6	Wilkins St, N Tinsley, Downing St

Question #4

Q4 Which City buildings or facilities do you visit most often?

Answered: 9 Skipped: 3



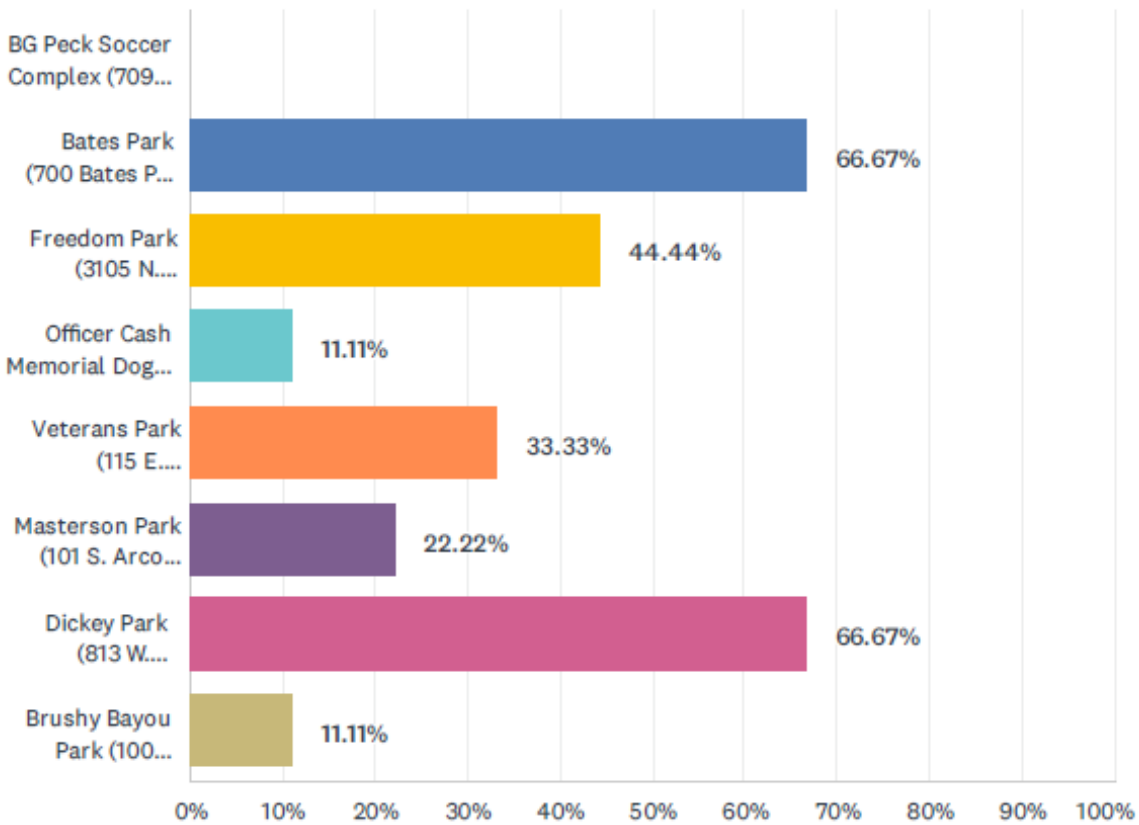
Which City buildings or facilities do you visit most often? – Please identify other facilities or parks below.

Response No.	Response
1	A lot of places in the city.
2	Freedom Park
3	Public library, grocery stores

Question #5

Q5 Which City parks do you visit most often?

Answered: 9 Skipped: 3



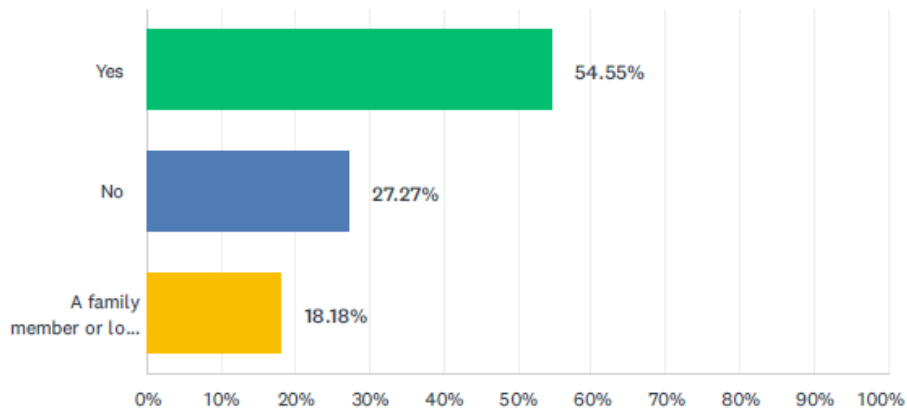
Which City parks do you visit most often? – Please identify other facilities or parks below.

Response No.	Response
1	Don't go very often.

Question #6

Q6 Have you encountered inaccessible sections or poor conditions related to parks and/or sidewalks?

Answered: 11 Skipped: 1



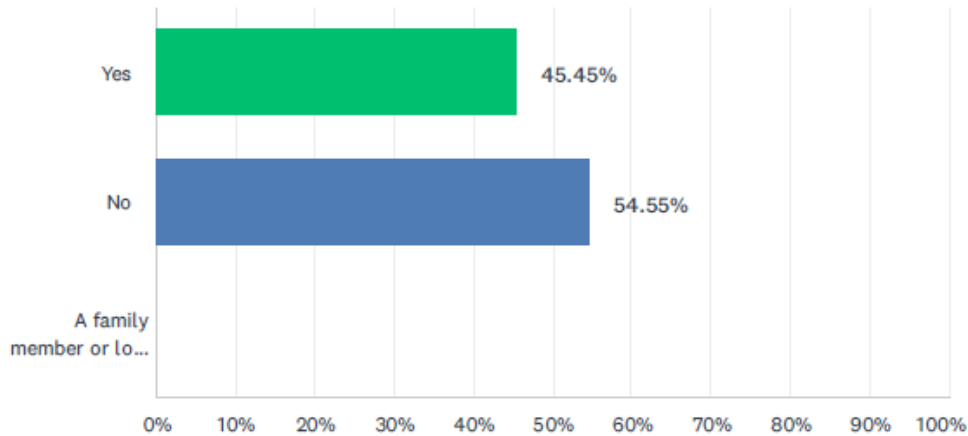
Have you encountered inaccessible sections or poor conditions related to parks and/or sidewalks? – Please identify location or locations below.

Response No.	Response
1	N Valasco at Tigner/ Cannon. No landing or curbing for wheel chair bound people to safely cross the street. There are wheel chair bound residences in the apartments behind Kroger. They wheel themselves to the bank and Walmart and to the restaurants. Greatly needed.
2	Veteran's Park
3	uneven or level sidewalks end up using the road to Ride the wheelchair in
4	There are several areas that need sidewalks. I know we're we live on Angle we don't have any. It would be good so we can walk instead of the danger on the street.
5	Drive around town, bad or non existing sidewalk are everywhere
6	No sidewalks on gifford in order to get to the dog park or fire station
7	Wilkins St, N Tinsley, Downing St

Question #7

Q7 Have you encountered locations where curb ramps are missing or inaccessible?

Answered: 11 Skipped: 1



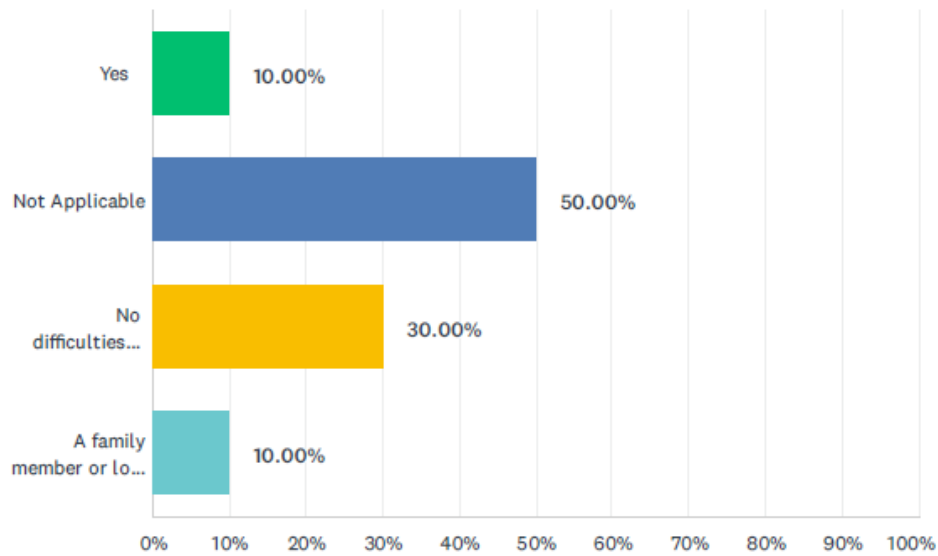
Have you encountered locations where curb ramps are missing or inaccessible? – Please identify location or locations below.

Response No.	Response
1	N Valasco at Tigner/ Cannon. No landing or curbing for wheel chair bound people to safely cross the street. There are wheel chair bound residences in the apartments behind Kroger. They wheel themselves to the bank and Walmart and to the restaurants. Greatly needed.
2	Thru out city
3	Fire Dept.
4	these have gotten much better down downing and to the library they used to be weird 90° angles now they're much better and they were put into the library
5	Wilkins St, N Tinsley, Downing St

Question #8

Q8 Do you have difficulties accessing public schools within the City of Angleton due to inaccessibility of sidewalks or curb ramps in front of the school?

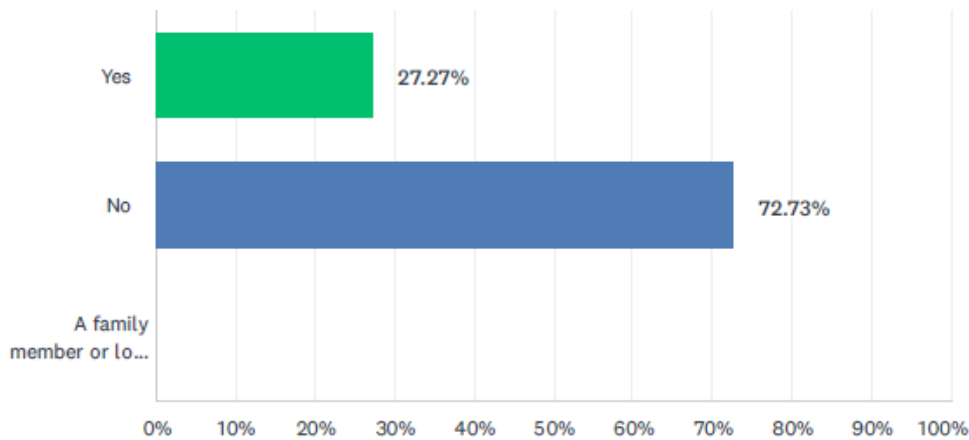
Answered: 10 Skipped: 2



Question #9

Q9 Have you encountered street or intersection crossings near a City building or park where lack of pedestrian crossing signals or medians affect your ability to cross the street?

Answered: 11 Skipped: 1



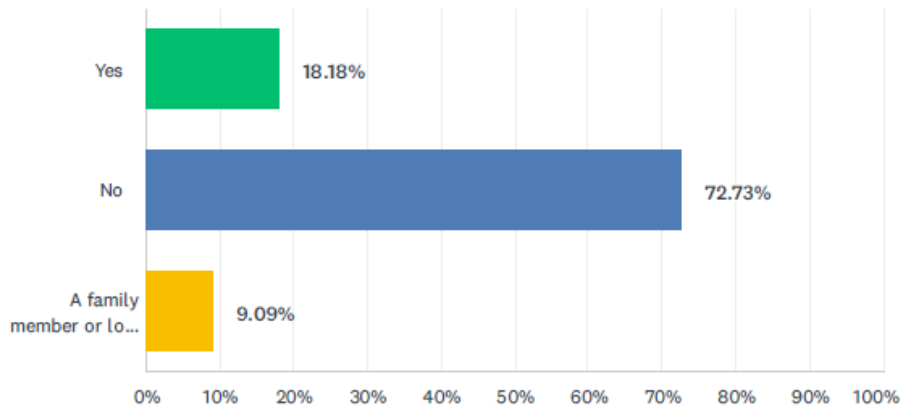
Have you encountered street or intersection crossings near a City building or park where lack of pedestrian crossing signals or medians affect your ability to cross the street? – Please identify location or locations below.

Response No.	Response
1	N Valasco at Tigner/ Cannon. No landing or curbing for wheel chair bound people to safely cross the street. There are wheel chair bound residences in the apartments behind Kroger. They wheel themselves to the bank and Walmart and to the restaurants. Greatly needed.
2	Every where

Question #10

Q10 Are there any City programs, services, or activities that you would like to participate in or utilize but cannot due to accessibility challenges?

Answered: 11 Skipped: 1



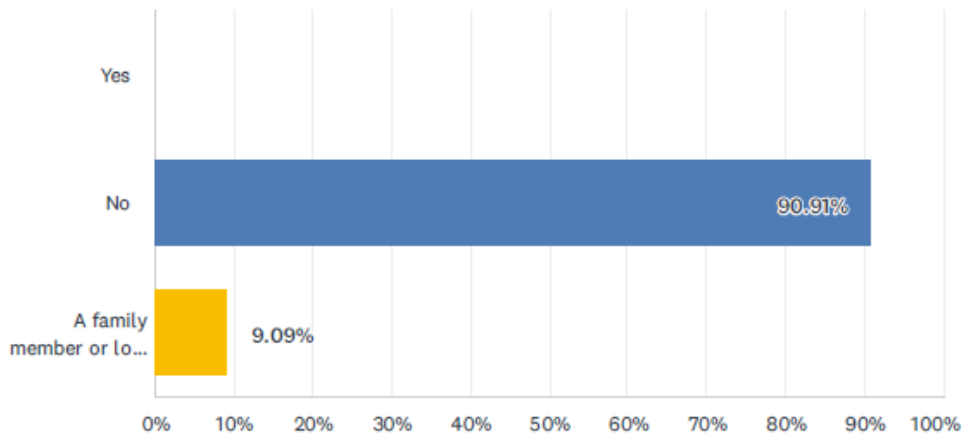
Are there any City programs, services, or activities that you would like to participate in or utilize but cannot due to accessibility challenges? – Please identify the specific City program, service or activity and describe challenges below.

Response No.	Response
1	Angleton
2	I do wish there were better bus stops North downing

Question #11

Q11 Have you encountered any communication barriers within a City building or park which prevented you from utilizing or participating in a program, service, or activity?

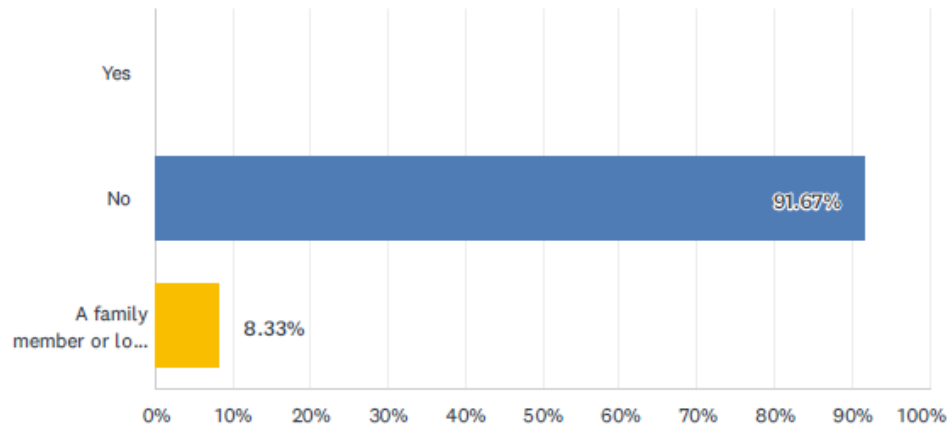
Answered: 11 Skipped: 1



Question #12

Q12 Have you encountered any physical barriers or obstructions within a City building which prevented you from utilizing or participating in a program, service, or activity?

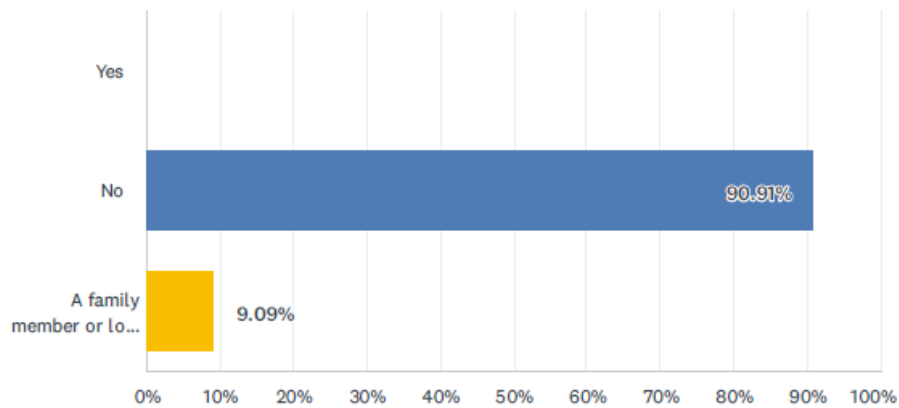
Answered: 12 Skipped: 0



Question #13

Q13 Have you encountered any physical barriers or obstructions within a City park which prevented you from utilizing or participating in a program, service, or activity?

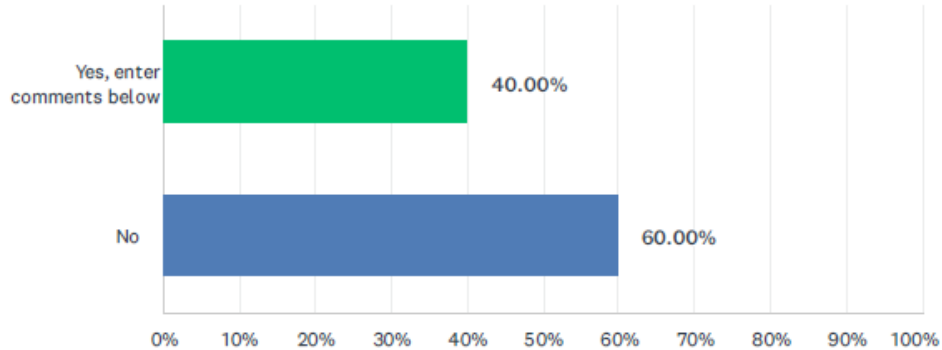
Answered: 11 Skipped: 1



Question #14

Q14 Do you have any general comments or items regarding accessibility that you would like us to be aware of?

Answered: 10 Skipped: 2



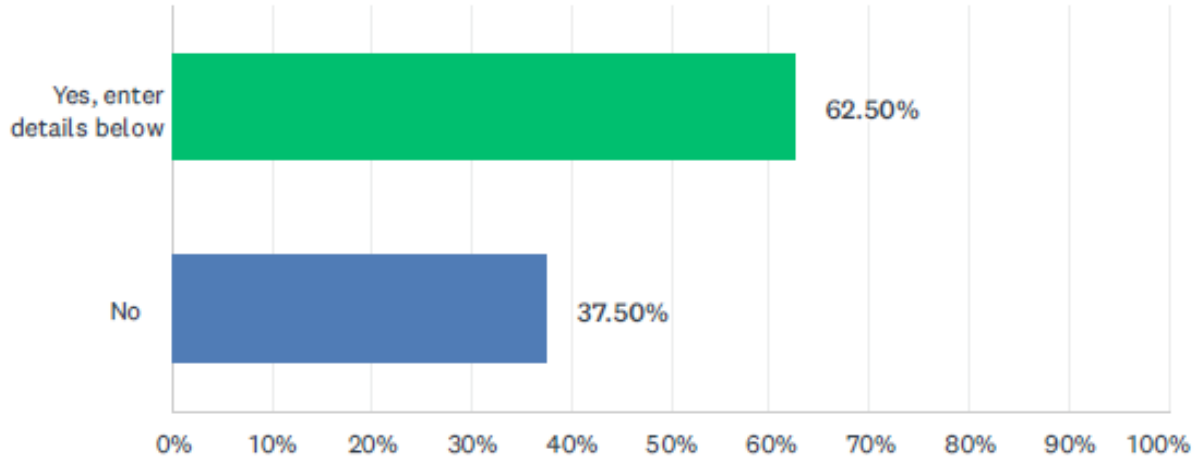
Do you have any general comments or items regarding accessibility that you would like us to be aware of? – Yes, enter comments below.

Response No.	Response
1	How many years does it take for yall to fix the issue besides waste money on rec and parks
2	While residential walkability is important, I believe focus should be placed on areas better served for public use. I.E. downtown and major thorough fares, like 288B and State Hwy 35.
3	I really wish these improvements I have seen around the city had come about 10 years ago when my mom was still alive but late than never
4	YES, WE LIVE OFF OF COUNTY RD 44. THE SPEED THERE IS 30 MPH. AND I WOULD SAY THAT 98% DO NOT ABIDE BY IT! THE NOISE FROM EMERGENCY 🚒 VEHICLES, AMBULANCES IS SEVERAL TIMES A better DAY. IT WOULD BE NICE IF THERE WAS ANOTHER ROUTE FOR THEM. THE SPEEDING VEHICLES IS RIDICULOUS, LOUD, LOUD MUSIC, MOTORCYCLES ETC.

Question #15

Q15 Do you have a disability? (Optional)

Answered: 8 Skipped: 4

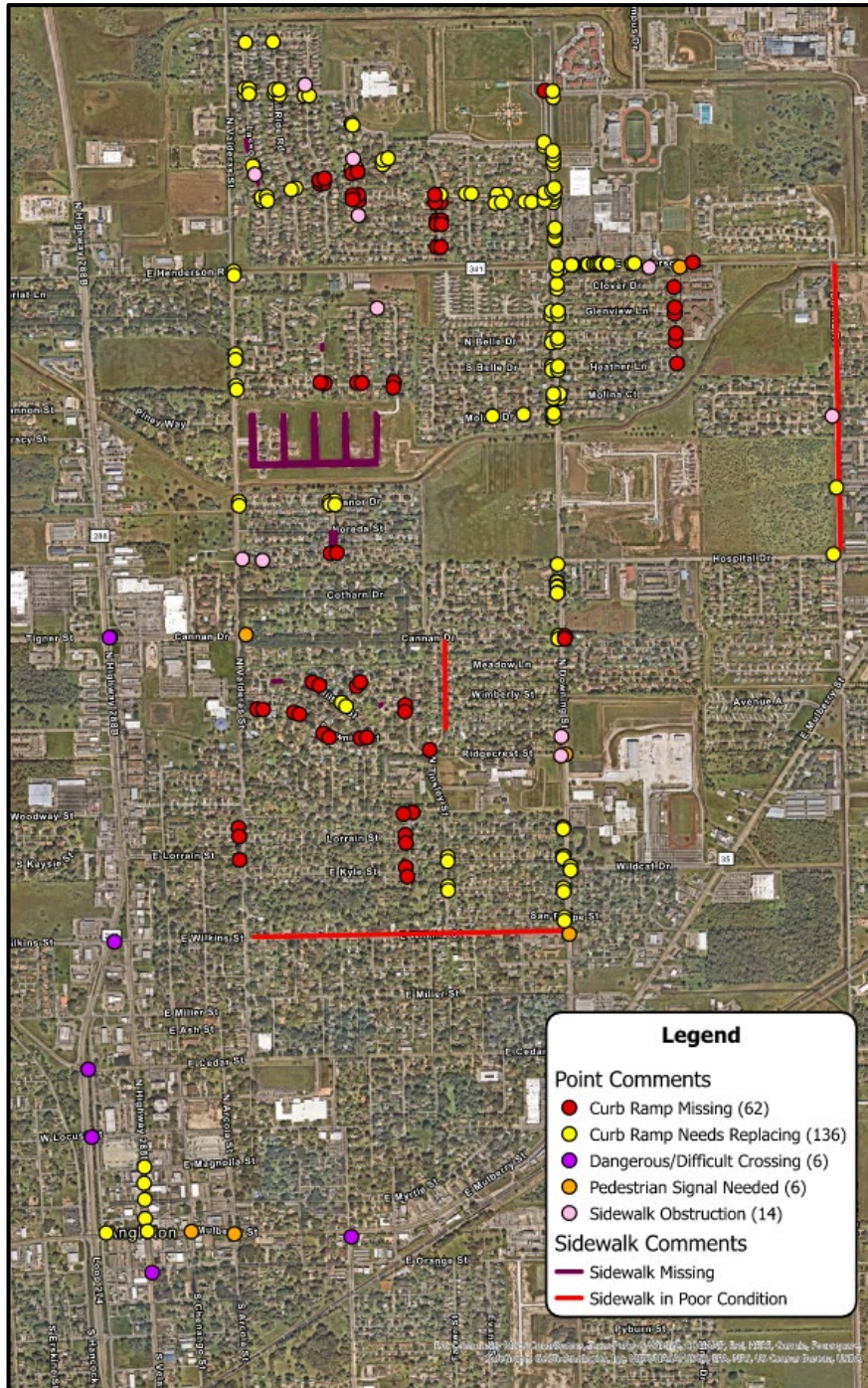


Do you have a disability? (optional) – Yes, Please identify the type(s) of disabilities.

Response No.	Response
1	Several to many to list
2	I'm partially deaf, but can hear wonderfully with my hearing aid.
3	Rheumatoid arthritis

Web Map Feedback Summary

The City of Angleton received 25 sidewalk corridor comments indicating the sidewalk either missing or in poor condition and 224 comments for other locations across the City indicating missing curb ramps, curb ramps that need to be replaced, dangerous/difficult crossings, locations where pedestrian signals are needed, and sidewalk obstructions. The comments are summarized in the map below. The sidewalk corridor comments are along segments of E. Wilkins Street, N. Tinsley Street, and Buchta Road. The remaining comments were spread across the City with the majority of comments indicating curb ramps that are in poor condition or missing entirely.



Appendix B: Programs, Services, and Activities Review

Reasonable Accommodations in the Workplace

Step-by-Step Approach to an ADA Compliant Human Resources Process

Job Description Review



Reasonable Accommodations in the Workplace

This fact sheet serves as a basic overview of reasonable accommodations in the workplace and includes some examples and a brief review of the reasonable accommodation process. This document has information that may be useful for employees, employers, human resources staff, and others. Because this is a very general, baseline document, more specific questions may be answered by the reader's local ADA Center.

Key Definitions

What is a reasonable accommodation?

A reasonable accommodation is any change to the application or hiring process, to the job, to the way the job is done, or the work environment that allows a person with a disability who is qualified for the job to perform the essential functions of that job and enjoy equal employment opportunities. Accommodations are considered "reasonable" if they do not create an undue hardship or a direct threat.

Who is an "individual with a disability?"

An individual meets the Americans with Disabilities with Act definition act of "disability" that would qualify them for reasonable accommodations if they have "a physical or mental impairment that substantially limits one or more major life activities (sometimes referred to in the regulations as an "actual disability")." If a disability is not obvious to an employer, they can ask for medical documentation from a health care provider to confirm the need for an accommodation.

Individuals who solely are "regarded as" having a disability but do not have a disability, are not qualified to receive reasonable accommodations.

What are "essential functions?"

In order to be qualified for a position, an applicant or employee must be able to perform essential job functions. Essential functions are job duties that are fundamental to the position, they are the reason the job exists. Some of the factors for determining essential functions of a job include:

- Whether the position exists specifically to perform these essential functions.
- The number of other employees who are available to perform the same job duties.
- The expertise or skills required to perform the essential functions.



Obligations of Employers

What types of employers are required to provide reasonable accommodations?

Under the Americans with Disabilities Act, employers who have 15 or more employees are usually required to provide reasonable accommodations. Some state and local laws may require that employers with fewer employees provide reasonable accommodations.

Reasonable accommodations come in many forms.

In order to determine what is reasonable, an employer must look at the request made by the applicant or employee with a disability. Whether or not an accommodation is reasonable will vary according to the position the employee holds, the way their disability affects their ability to do their job, and the environment that they work in.

What types of accommodations are generally considered reasonable?

- Change job tasks.
- Provide reserved parking.
- Improve accessibility in a work area.
- Change the presentation of tests and training materials.
- Provide or adjust a product, equipment, or software.
- Allow a flexible work schedule.
- Provide an aid or a service to increase access.
- Reassign to a vacant position.

What are some examples of reasonable accommodation?

Provide Alternative Formats: A supervisor gives feedback in writing, rather than verbally, for an employee who communicates better through written materials.

Accessible Parking: An employer changes its practice of only offering parking to upper management to allow an employee who is unable to walk long distances access to a reserved parking spot close to the building.

Service Animals: An employer reasonably changes their office's "no animals" policy, in order to welcome an employee's service animal.

Equipment Change: An employer purchases software that magnifies the computer screen to allow an employee with low vision to correctly enter and read information on the computer.

Reorganization of the Job: The employer provides a checklist to ensure task completion for an employee who has an intellectual disability.

Reassignment: Reassignment is the reasonable accommodation in some situations. An employer may reassign an employee to an open position if the employee can no longer perform the essential functions of their current job. **The employer does not have to create a new position, no other employees need be transferred or terminated in order to make a position vacant for the purpose of reassignment, and the individual with a disability should be qualified for the new position.**



Reasonable Accommodation Process

According to the Equal Employment Opportunity Commission (EEOC) and Title I of the ADA, each request for a reasonable accommodation must be considered on a case-by-case basis. This section reviews the phases of the reasonable accommodation process. The first step in the reasonable accommodation process is disclosure of a disability, as employers are only required to accommodate disabilities of which they are aware. It is important to note that the process must be interactive, with participation by both the person with a disability and the employer, so that an effective solution may be agreed upon.

Get the process started.

After an employee discloses a disability to their manager or to human resources, it is important to initiate whatever reasonable accommodation process that the employer has in place. Disclosure usually takes the form of: because of my disability(s), I am having trouble with X job duty or benefit or privilege of employment. For an employee to disclose that they have a disability without also saying that it is impacting their work is usually not sufficient to begin the accommodation process. Disability disclosure should never be ignored.

Initiate an interactive dialogue between the employer and the employee.

The goal of this dialogue is to understand what barrier the person is experiencing and why. It is also helpful to see if the person has any ideas about what might be useful for them. At this point, the employer can also provide an overview of the process, so the person who requested an accommodation understands what will happen next and who will have access to the information shared. All participants involved must agree to maintain confidentiality when discussing accommodations; reasonable accommodation information may only be shared on a need-to-know basis, will never go in a personnel file, and will not be shared with coworkers. Co-workers who may need to do something differently as a result of an accommodation may be told of the change required, but not the reasons why the change was made.

If necessary, obtain preliminary documentation.

If the need for an accommodation is not obvious, the employee may be required to provide documentation of a disability from the appropriate health or rehabilitation professional.

The accommodation must be effective.

Both the employer and the employee are important participants in the process of finding an effective accommodation. The employee often knows what accommodation(s) will work best, because they know the barriers presented by their disability. The employer should participate, as they are familiar with the systems, policies, and practices in place within the organization. In the end, it is the employer who decides what accommodation is put into place, but it must be effective in resolving the functional limitation(s) presented by the disability.

Implement the agreed upon reasonable accommodation.

Once the employer identifies an effective accommodation, make a plan to put it into effect on the job, including any necessary training for the employee. If an employer plans to deny an accommodation request, they should have a prepared reason for denying the request to give to the employee.



Reasonable Accommodations in the Workplace

The interactive accommodation process should be ongoing.

The employer and the employee should continue communication to determine if the accommodations are working and make adjustments accordingly.

Document dates, actions taken, and adjustments made to assure continued success.

All parties involved should document information about the reasonable accommodation process in order to maintain an accurate record and so that they can review the process and know what they have done to act on the accommodation.

Resources

ADA National Network

800-949-4232

www.adata.org

The Job Accommodation Network (JAN)

800-526-7234

www.askjan.org

Equal Employment Opportunity Commission (EEOC) ADA Information Line

800-669-4000 (Voice)

800-669-6820 (TTY)

www.eeoc.gov

Content was developed by the Northwest ADA Center, and is based on professional consensus of ADA experts and the ADA National Network.



<http://www.adainfo.org/>

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STEP-BY-STEP APPROACH TO ADA COMPLIANT HUMAN RESOURCE PROCESS

Human Resource (HR) professionals are key players in organizations' implementation of the employment provisions of the Americans with Disabilities Act of 1990 (ADA), which prohibits, among other things, discrimination based on disability in the workplace. HR professionals are involved with recruitment, pre-employment screening and testing, benefits, performance management, disability leave, and other parts of the employment process. Because of this broad involvement, they are in a key position to help their organization realize the intent of the ADA and minimize disability employment discrimination.

Many individuals that have a disability are unemployed or underemployed, compared to their non-disabled peers, and represent a significant and untapped U.S. labor pool. This step-by-step approach was created to examine barriers to employment for individuals with disabilities and to offer suggestions for maximizing ADA compliance.

Implementation of the ADA program within your HR process will take time and effort. Taking a proactive approach by outlining your plan is much more effective than reacting later to specific issues or problems.

The following steps may assist employers in developing and maintaining an ADA compliant HR processes:

STEP ONE: ENCOURAGE APPLICANTS WITH DISABILITIES AND MINIMIZE NEEDLESS DISCRIMINATION IN THE APPLICATION, PRE-EMPLOYMENT SCREENING, AND TESTING PROCESSES.

- Encourage and facilitate applications by individuals with disabilities for open positions by making sure that local agencies that provide rehabilitation services are aware of job openings.
- Minimize pre-employment screening and testing. Job applications and job interviews should not include medical or disability-related inquiries, nor inquiries about prior workers' compensation claims. The ADA bans such inquiries before making a conditional job offer. Any pre-employment medical screening must occur post-offer, and other pre-employment screening that does occur should be consistent with actual job needs and business necessity. Also, the recruitment, application, and interview processes must be made accessible to candidates with mobility, visual, and hearing disabilities. Having recruitment materials and application forms in alternate formats and knowing where to access sign language interpreters in your community are examples of providing access to individuals with disabilities.

STEP TWO: REVIEW ALL EMPLOYMENT PROCESS POLICIES, PROCEDURES AND FORMS FOR DISABILITY DISCRIMINATION AND ACCESS CONSIDERATIONS

- The recruitment and application process is a good place to start your assessment of the organization's policies and procedures regarding effective outreach to individuals with disabilities, and minimizing barriers in the application and screening processes. However, the ADA applies to the employment process as a whole. Therefore, HR professionals must screen the entire employment process with disability nondiscrimination in mind. All benefit programs and employee benefit plans that the agency offers should be examined to assure equity for individuals with disabilities. Although employers can use actuarial data as approved by their state insurance boards, disability-specific exclusions, or limitations are prohibited.
- An examination for equitable access to other benefits of employment, such as the use of the work out facilities for employee use and other periodic recreational and social activities should occur to ensure accessibility to employees with disabilities. Organizations should determine whether facilities are accessible to individuals who are mobility-impaired and whether appropriate signage is in place for individuals with visual impairment.
- Employee training and other career development opportunities must be equitably available to the organization's employees with disabilities. Opportunities for advancement should be made available to all

STEP-BY-STEP APPROACH TO ADA COMPLIANT HUMAN RESOURCE PROCESS

employees, and facilities and training approaches must be examined to ensure accessibility for employees with disabilities. The examination also includes any training material purchased from an outside entity or having an outside entity come onsite to provide training. Consider if the training material is accessible to individuals with disabilities such as visual and hearing impairments. Also, consider the facility for accessibility to individuals who may have a mobile impairment.

- An examination of the grievance, lay-off, termination, and discharge processes should occur to ensure that individuals with disabilities do not receive disparate treatment in these processes.

STEP THREE: HAVE GOOD COMMUNICATION WITH YOUR ADA COORDINATOR

- Your ADA Coordinator is the key and ultimately responsible for the organizations overall ADA compliance. Having a good working relationship and communication will help to ensure that all HR functions, policies, and procedures are created and maintained in ADA compliance.
- Meet with your ADA Coordinator to review all other ADA policies, including reasonable accommodations. Keeping the ADA Coordinator and HR in the loop for all processes, including those that do not reside with HR, will result in a better product regarding compliance.
- Utilize your internal and external diversity programs. The Civil Rights Division can provide an abundance of assistance including training, resources, and support to assist in removing attitudinal barriers in the workplace resulting in discrimination.

STEP FOUR: TOP MANAGEMENT COMMITMENT TO DISABILITY NONDISCRIMINATION

- No significant changes can occur without a commitment from agency leadership. Leadership must affirm and effectively communicate the importance of recruiting and retaining individuals with disabilities to ensure effective recruitment, hiring, integration, and accommodation of individuals with disabilities. Conveying the leadership's stance on ADA issues not only ensures compliance but also sends the right message to employees.

STEP FIVE: TRAINING FOR CONTINUING COMMUNICATION ON ADA REQUIREMENTS

- Training is important for all levels and employees of the agency, and not just interviewers, hiring supervisors, or administrators. The ADA is not just a law to provide equal access to individuals with disabilities. It is also about sensitivity and looking at our behaviors and attitudes to determine whether we may be part of the problem in ensuring equal access. Training and education allow employees to make sure they are part of the solution in providing equal employment opportunities. As previously stated, utilize your organization's internal and/ external diversity programs. These programs can provide an abundance of assistance including training, resources, and support in assisting the removal of attitudinal barriers in the workplace resulting in discrimination.

CITY OF ANGLETON JOB DESCRIPTION REVIEW SUMMARY

The ADA does not require an employer to develop or maintain job descriptions. Nevertheless, employers can certainly benefit from having well-written job descriptions that spell out the “essential functions” for each employment position. When job descriptions are written, they must be non-discriminatory.

A written job description can help employers identify whether an applicant will be able to perform the essential tasks required for a position. During the interview process, employers are not allowed to ask if an individual has a disability that would prevent them from performing certain job tasks. Employers may, however, ask applicants whether they can perform the “essential functions” of a position, such as the ability to meet attendance expectations or to operate a particular machine. If an applicant notifies the employer that he or she is unable to perform an essential job function because of a disability, the employer must then consider whether it is possible to reasonably accommodate the disability.

A written job description is also useful in defending a claim of disability discrimination. When defending a charge of discrimination under the ADA, an initial issue will be whether the disabled individual could perform the essential functions of the position, with or without reasonable accommodations. A well-written job description that was prepared before advertising or interviewing applicants is evidence of a position’s essential functions and the basis for establishing the defense. Likewise, employers will have an effective defense against charges of ADA discrimination if they can readily establish the disabled individual could not perform one or more of the position’s essential functions, even with a reasonable accommodation.

The City of Angleton has nearly 70 job descriptions. The following were reviewed in their entirety and the rest were spot checked:

- Firefighter
- Municipal Court Technician
- Maintenance Technician III
- Maintenance Technician – Rec Center
- Parks and Recreation Maintenance Technician
- Telecommunications Officer

Discriminatory language was found in all job descriptions and will need to be updated using the language provided in the chart located in the section “Verbiage Use” on the following page.

UNDERSTANDING ESSENTIAL JOB FUNCTIONS

The City of Angleton has a very good understanding of the “Essential Job Functions” for each written job description. This function is imperative to the success of any employment program.

The essential functions of a job are not synonymous with all the functions of that job. A disabled person’s inability to perform a nonessential function is not a valid basis for disqualifying that person from employment. It is important that essential functions be defined and job descriptions are prepared before advertising or interviewing applicants. Job descriptions written after advertising or interviewing applicants will not stand as evidence of essential functions in the case of a discrimination charge.

CITY OF ANGLETON JOB DESCRIPTION REVIEW SUMMARY

Essential functions “are those functions that the individual who holds or desires the position must be able to perform unaided or with the assistance of reasonable accommodations.” To be considered an essential job function the function must:

1. The position exists for the performance of the function;
2. A limited number of employees can perform the function, and it, therefore cannot be reassigned; or
3. The function is specialized and requires certain expertise to perform it.

In determining essential functions, one must consider whether removal or redistribution of certain tasks is possible. Would removal of the task fundamentally alter the position? What about reassigning the task? Seasonal and fluctuating workloads might make the same function essential during the offseason, and the workforce is low, but nonessential during the busy season, and the workforce is high. Time spent performing a function is another consideration. For example, the ability to operate a cash register might be an essential function for a cashier but a non-essential function for an individual working in the library.

On the other hand, a function rarely needing completion may still be essential depending upon the consequences of failing to perform that function. A firefighter, for instance, may not regularly have to carry an unconscious adult from a burning building, but that function is still essential.

Qualitative and quantitative standards for essential functions are permissible under the ADA and will not be “second-guessed” as long as they are necessary and required for a particular position. The HR Department in Angleton has a clear understanding of this requirement and has developed the job descriptions appropriately.

VERBIAGE USE

The use of proper verbiage is very important. Sometimes there is no intent to discriminate but the verbiage used communicates something different than intended. This is the most concerning weakness of the City of Angleton’s job descriptions.

Below is a statement from the City of Angleton job description for the Municipal Court Technician. Other job descriptions have the following (or similar) statements:

*“While performing the duties of this job, the employee is Frequently required to **talk; hear and listen**; ability to **hear over telephone; stand; walk**; sit for long periods of time; and **use hands to fingers** for operating computer and calculator. Must have good **vision** to accomplish general office work and accurate filing; ability to read required. Occasionally reach, stoop, bend and lift up to 30 lbs.”*

The City needs to discern if the functions noted in **RED** above are necessary or discriminatory for each position. While being able to “speak” may be what we’re used to, what is the essential function of what the job needs? In some jobs, like Police dispatcher, “speaking” is essential. In an office setting, such as the Municipal Court Technician position “communicate” might be more in line with the needs of the job.

When choosing words to describe the essential functions of the job, do not exclude individuals with disabilities. The table on the following page provides examples of words that tend to be exclusionary and substitutions for these words.

CITY OF ANGLETON JOB DESCRIPTION REVIEW SUMMARY

Physical Demand	ADA-Compliant Equivalent	Language Example
Stand, Sit	Stationary position	Must be able to remain in a stationary position 50% of the specified workday.
Walk	Gait, Pace, Tread, Move, Traverse, Go, Promenade	The employee must be able to move about inside the office to access file cabinets, office machinery, etc.
Use hands/fingers to handle or feel	Operate, Work, Activate, Use, Control, Maneuver, Prepare, Inspect, Place, Detect, Position, Manage, Direct, Conduct	Constantly operating heavy machinery, such as a Motor Graders, Excavators, and Backhoe Loaders.
Climb (stairs / ladders)	Ascend/Descend, Work atop, Traverse, Scale	Occasionally ascending/descending a ladder to perform building maintenance.
Stoop, Kneel, Crouch, or Crawl	Position Self (to), Move, Changing your body direction, Repositioning	Constantly repositioning self to perform roadway maintenance, including mowing, weed eating, and maintenance of heavy equipment.
Speak, Talk, Hear	Communicate, Conversate, Convey, Express oneself, Exchange information, Apprehend, Become aware	The person in this position frequently communicates with other employees within the agency regarding time-sensitive projects. Must be able to exchange accurate information in these situations.
See	Notice, Examine, Identify, Observe, Detect, Recognize, Inspect, Assess	Must be able to stay aware and detect a traffic hazard when on a project site.
Taste, Smell	Detect, Distinguish, Determine	Occasionally must be able to distinguish the smell of chemicals when working in the Materials Lab.
Carry, Lift	Move, Transport, Position, Install, Remove, Hoist, Transfer	Must be able to transport computer equipment and requested supplies weighing up to 75 pounds to training events held by the agency.
Type 40 WPM	Input 40 WPM	Applicant must be able to input 40 WPM into the IOS Oracle System.

ADDITIONAL LANGUAGE

Employers should consider adding disclaimer language to job descriptions to remind employees and applicants that the description is subject to change. Examples include:

- Nothing in this job description restricts the agency's right to assign or reassign duties and responsibilities to this job at any time;
- This description reflects the agency's assignment of essential functions; it does not exclude or limit the tasks that may be assigned; or
- This job description is subject to change at any time.

CITY OF ANGLETON JOB DESCRIPTION REVIEW SUMMARY

Employers should also consider additional ADA compliant language to ensure that you do not discriminate based on a disability and reasonable accommodations are available upon request. For example:

The City of Angleton ensures that no person or groups of persons shall, on the grounds of race, color, sex, religion, national origin, age, disability, retaliation or genetic information, be excluded from participation

Appendix C: FHWA ADA Transition Plan Process Memo



U.S. Department
of Transportation
Federal Highway
Administration

Memorandum

Subject: **INFORMATION:** ADA Transition
Plans

Date: JUN 27 2019

From: Irene Rico 
Associate Administrator

In Reply Refer To:
HCR-40

To: Division Administrators
Civil Rights Specialist

THIS MEMORANDUM SUPERSEDES THE OFFICE OF CIVIL RIGHTS' (HCR) NOVEMBER 12, 2015 MEMORANDUM IN ITS ENTIRETY.

PURPOSE: To explain new process for review of submitted ADA transition plans (TPs). The TP review process is being delegated to Division Administrators in the 14 States that do not have either a self-certified TP or a TP that was found to meet the regulatory minimum attributes by the FHWA TP Review Team.

BACKGROUND: Over the last three years, FHWA has worked to ensure that every State, along with the District of Columbia and Puerto Rico, has an ADA Transition Plan (TP) that meets the minimum attributes provided in the Department of Justice's ADA Title II regulations, found at 28 CFR 35.150(d). In November of 2015, HCR issued guidance laying out the process for reviews of submitted TPs by an FHWA national review team. To date, 38 States (including DC) have a transition plan in place. Of these, 14 TPs have been vetted by the Team and found to have met the minimum regulatory attributes, and 24 TPs are self-certified plans. Over the course of the last year, that number has held steady at 38.

STATUS: The 38 jurisdictions that already have TPs in place, including the 24 self-certified States, can implement those TPs while continuing to update and improve them. Of the 14 remaining jurisdictions, only two have not yet submitted any plan. The other 12 have submitted plans that have not yet been deemed to meet the minimum attributes. Those 12 States can continue to update and improve those TPs before submitting them to the Division Offices in their States for review. The Resource Center is available to assist any of the 50 jurisdictions with submitted plans in updating and improving their TPs. The two jurisdictions that have not yet submitted TPs will be offered individual TA visits to assist them with getting plans in place so they can be submitted to the Division Offices in those States for review.

BENEFITS: FHWA's efforts over the last three years to assist States in developing and improving their TPs have been successful, but the process has sometimes been cumbersome. By delegating the remaining TP review to DAs and continuing plan

improvement efforts, we can continue to work collaboratively with States in a more productive way than under the current process. FHWA can maintain positive working relationships with the States through a more streamlined process that leverages the Division Offices' working relationships with the State DOTs. The DAs have local knowledge and relationships in their States to ease collaboration efforts to better implement TPs.

MINIMUM REQUIREMENTS:

The U.S. Department of Justice's (DOJ's) ADA Title II regulations at 28 CFR 35.150(d) set forth a list of minimum transition plan requirements as follows:

1. Identification of the official responsible for implementation of the transition plan (See 28 CFR 35.150(d)(3)(iv));
2. An inventory of barriers (i.e., identification of physical obstacles) (See 28 CFR 35.150(d)(3)(i) & 28 CFR 35.105(a));
3. A prioritized schedule of when barriers will be eliminated and deficiencies corrected (See 28 CFR 35.150(d)(2) & 28 CFR 35.150(d)(3)(iii)); and
4. A description of the methods that will be used to make facilities accessible (See 28 CFR 35.150(d)(3)(ii)).

More details about each requirement are available in the attached tools, "State DOT Transition Plan Attributes Review Guide" (Review Guide) and "Transition Plan Review Tool" (Tool). These tools are provided to assist Division Administrators in their review of TPs in States that do not have either a self-certified TP or a TP that was found to meet the regulatory minimum attributes by the FHWA TP Review Team. If you believe that the State's TP does not meet the minimum attributes, you should work with the State DOT to address the identified deficiencies. When the deficiencies, if any, are sufficiently addressed, the Division Administrator will notify the State DOT. HCR and the Resource Center are available to provide technical assistance upon request.

LOCAL PUBLIC AGENCIES (LPAs): LPAs are required to conduct self-evaluations of the accessibility of pedestrian facilities in their public rights-of-way and to correct deficiencies by making necessary modifications. In addition, LPAs with fifty or more employees are required to have a TP. FHWA will not review TPs from LPAs as a matter of course. When FHWA investigates a complaint filed against an LPA, FHWA will review the LPA's compliance with the self-evaluation and TP requirements as part of its investigation. While FHWA review of an LPA's TP is not required, a Division Office may assist LPAs with TPs and/or review LPA TPs if it wishes to do so.

POINTS OF CONTACT: If you have any questions related to this memorandum, please contact Sharon Field at sharon.field@dot.gov or Patrick Gomez at patrick.gomez@dot.gov

State _____

State DOT Transition Plan Attributes Review Guide:

All Elements posted conspicuously on website, for internal and external use

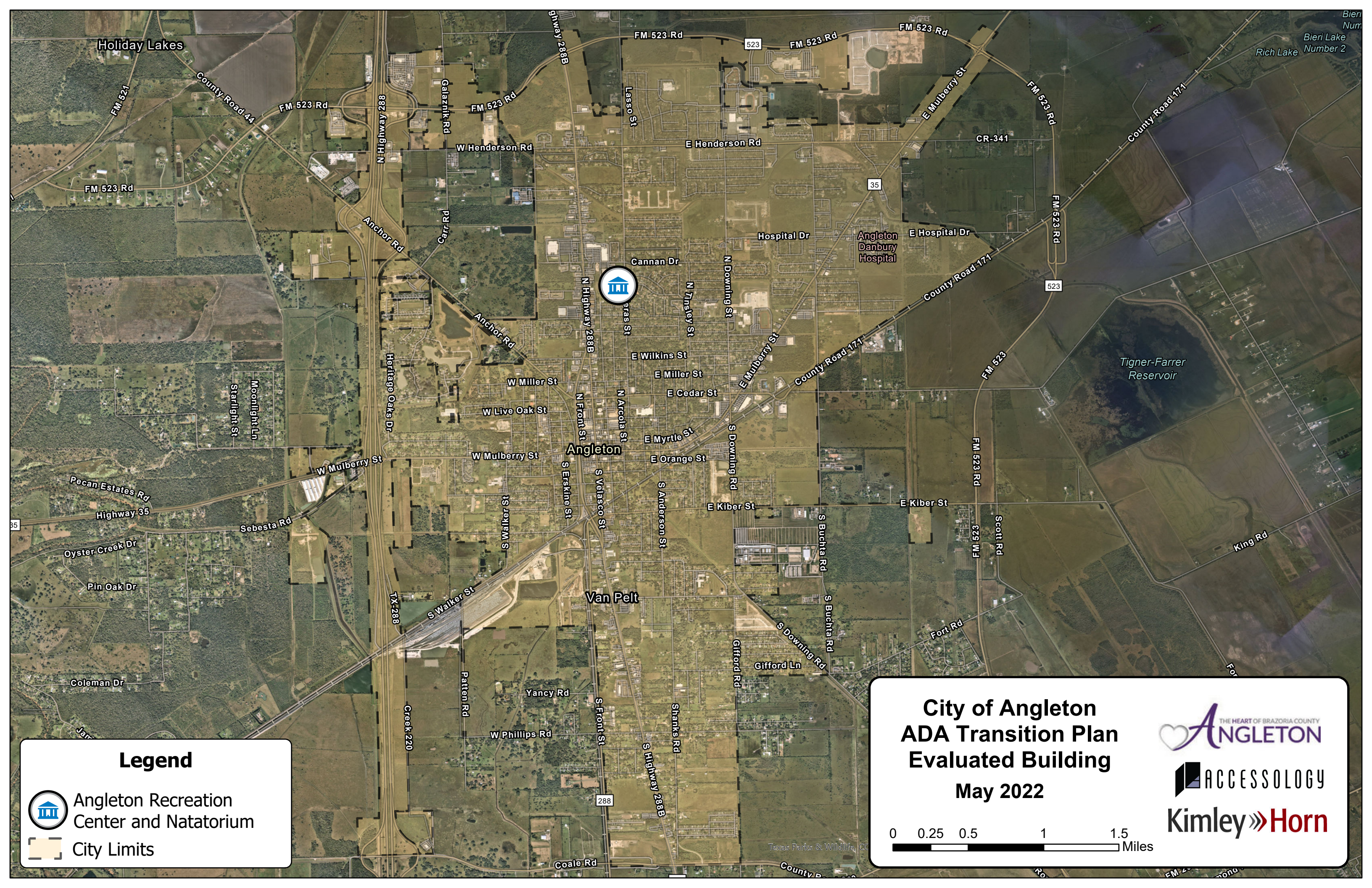
Transition Plan Attribute	Review Comments
<p>Official responsible for implementation of the TP, i.e., Executive Director, Secretary, Commissioner, Chief Engineer, etc. 28 CFR 35.150(d)(3)(iv)</p>	
<p>Inventory of barriers (identification of physical obstacles) 28 CFR 35.150(d)(3)(i); 28 CFR 35.105 (a) – State demonstrates good faith by identifying intersection information, including curb ramps and other associated accessibility elements, as a starting point and showing movement and commitment toward developing a full inventory.</p> <p>Require an Action Plan to develop an inventory of sidewalks (slopes, obstructions, protruding objects, changes in levels, etc.), signals (APS), bus stops (bus pads), buildings, parking, rest areas (tourist areas, picnic areas, visitor centers, etc.), mixed use trails, linkages to transit.</p> <p>Best practice - have discussion of jurisdictional issues/responsibilities for sidewalks</p>	
<p>Schedule – Show a strong commitment toward upgrading ADA elements identified in the inventory of barriers in the short term (planned capital improvement projects) and a strong commitment over time toward prioritizing curb ramps at walkways serving entities covered by the ADA. 28 CFR 35.150(d)(2) This would also include prioritization information, planning, and investments directed at eliminating other identified barriers over time. 28 CFR 35.150(d)(3)</p> <p>Best practice - dedicate resources to eliminate identified ADA deficiencies</p>	
<p>Describe in detail the Methods that will be used to make the facilities accessible. 28 CFR 35.150(d)(3)(ii)</p> <p>Best practice – include the Standard that the STA is following (i.e., 2010 ADAAG, 2011 PROWAG)</p>	
Other ADA Requirements	Review Comments
<p>Public Involvement – Description of process to allow public to readily access and submit comments for both self-evaluation and transition plan. 28 CFR 35.150(d)(1); 28 CFR 35.105(b)</p> <p>Best practices: a) detailed list of individuals consulted posted conspicuously on website, does not have to be in actual TP, but must be documented and available; b) have both electronic and hard copy notice. 28 CFR 35.105(c)</p>	
<p>ADA policy statement is a requirement of State Agencies, but does not have to be in the TP per se, but it is a good practice and needs to be easily accessible by the public. 28 CFR 35.106</p> <p>Best practice - post conspicuously on website, for internal and external use</p>	
<p>Clear identification of the ADA Coordinator (dedicated trained staff) with contact information (i.e., name, office address, telephone number, email address, fax number) 28 CFR 35.107(a)</p>	
<p>Clear Complaint/Grievance Process to receive and address complaints/grievances from the public (is a requirement of State Agencies, but does not have to be in the TP per se, but it is a good practice and needs to be easily accessible by the public). 28 CFR 35.107(b)</p>	
<p>REVIEWER _____</p>	<p>DATE _____</p>

Appendix D: Evaluated Facility Maps



Buildings

Parks


Public Rights-of-Way Sidewalk Corridors





Legend

-  Angleton Recreation Center and Natatorium
-  City Limits

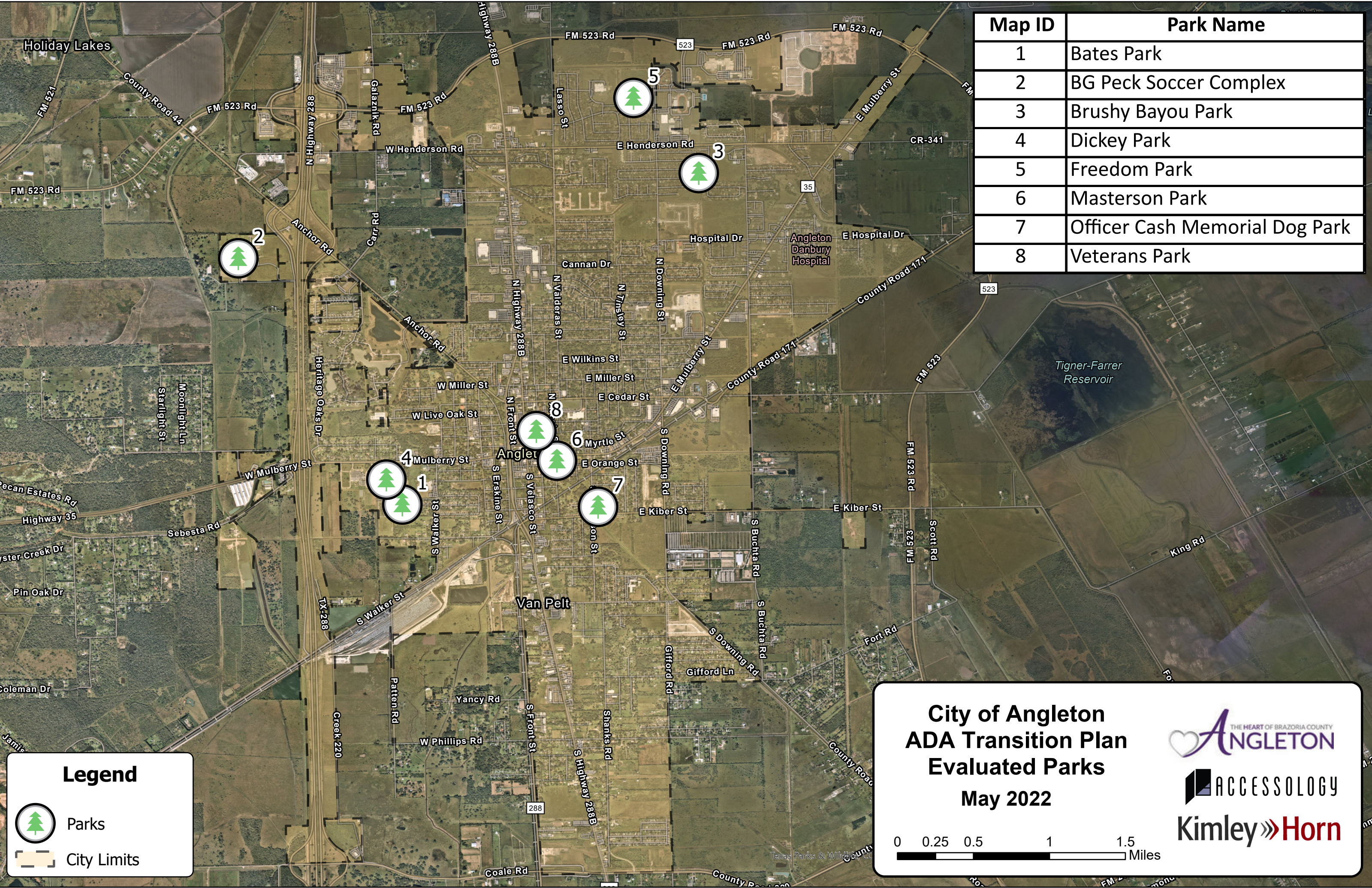
**City of Angleton
ADA Transition Plan
Evaluated Building
May 2022**



0 0.25 0.5 1 1.5 Miles

Map ID	Park Name
1	Bates Park
2	BG Peck Soccer Complex
3	Brushy Bayou Park
4	Dickey Park
5	Freedom Park
6	Masterson Park
7	Officer Cash Memorial Dog Park
8	Veterans Park



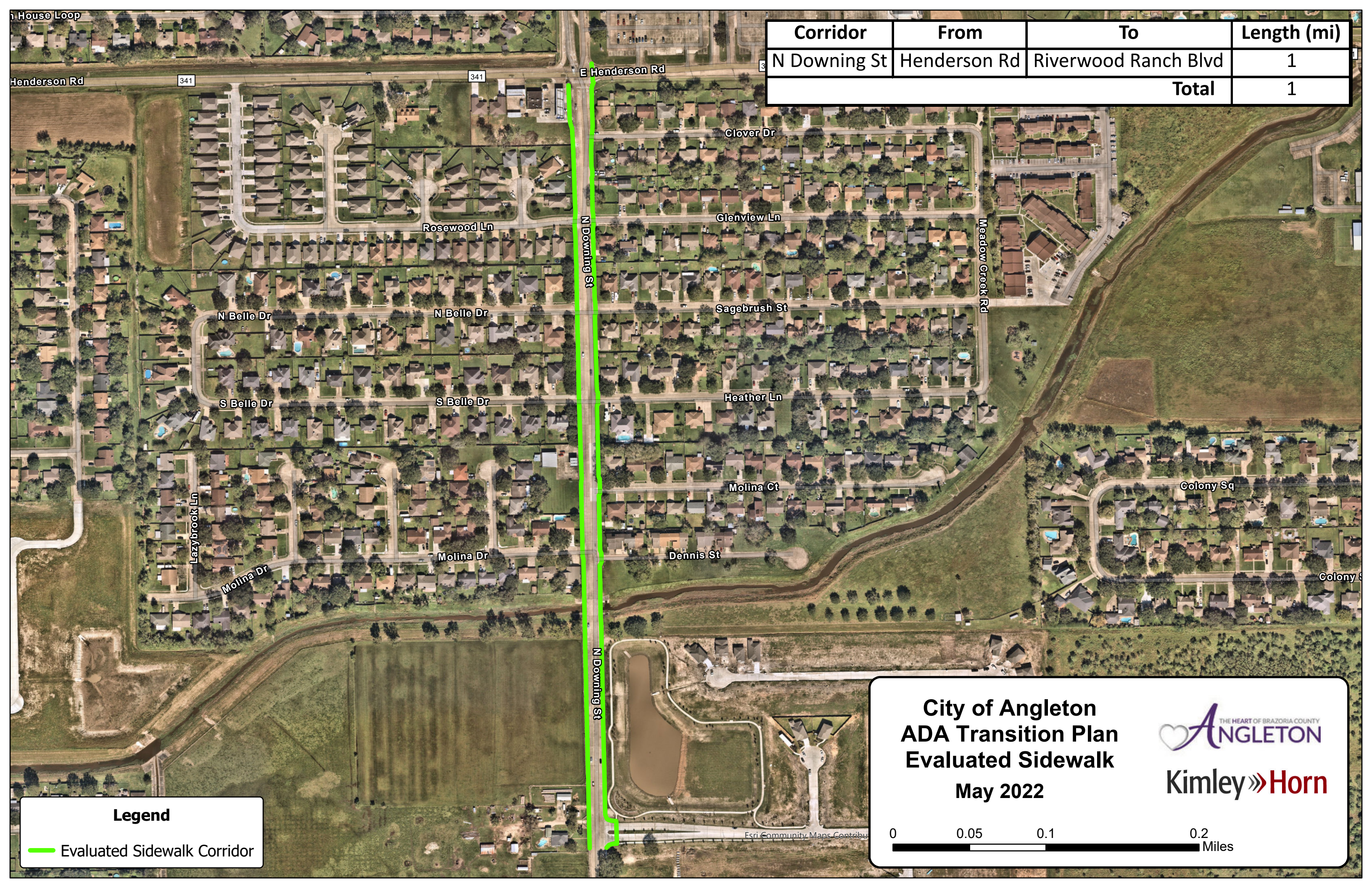
Legend

- Parks
- City Limits

City of Angleton
ADA Transition Plan
Evaluated Parks
 May 2022

0 0.25 0.5 1 1.5 Miles

Corridor	From	To	Length (mi)
N Downing St	Henderson Rd	Riverwood Ranch Blvd	1
Total			1



Legend

 Evaluated Sidewalk Corridor

**City of Angleton
ADA Transition Plan
Evaluated Sidewalk
May 2022**




0 0.05 0.1 0.2
Miles



Appendix E: Facility Reports

Buildings

Parks

Public Rights-of-Way Sidewalk Corridors

Public Rights-of-Way Unsignalized Intersections

Angleton, TX
ADA Self-Evaluation and Transition Plan Update
Buildings Cost Projection Summary
May 2022

GPS ID	Facility Name	Cost Projection
1	Angleton Recreation Center & Natatorium	\$26,700
TOTAL		\$26,700

Site Accessibility Evaluation



Angleton Recreation Center & Natatorium

1601 N Valderas St

Angleton, TX 77515

Accessibility Evaluation

Evaluation Date: 03/24/2022

Evaluators: Kristi Avalos

Prepared By



(972) 434 - 0068

www.accessology.com



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Main Floor: Kitchen

Barrier: 1

The sink drain pipes are exposed.

Hot water and drain pipes exposed under sinks shall be insulated or otherwise configured so as to protect against contact. There shall be no sharp or abrasive surfaces under sinks.

Citation:

2010 ADAS Section: 606.5

Current Condition:

Drain pipes are not insulated.

Budget Cost:

Base Cost: \$0.00
Contingency Cost: \$0.00
Design Cost: \$0.00
Total Cost: \$0.00

Possible Solutions:

Insulate drain pipes.

Barrier Priority:

Level 7 (Medium): Access to goods and services (DOJ Level 2) – minimally out of compliance

Restrooms (DOJ Level 3) – moderately out of compliance

Drinking fountains and public phones (DOJ Level 4 & 5) – severely out of compliance

Notes:

N/A



Main Floor: Kitchen

Barrier: 2

Knee and toe space has not been provided at the sink.

Kitchen sinks must be provided with a clear floor space positioned for a forward approach including knee and toe clearance.

Citation:

2010 ADAS Section: 606.2,
804.4

Current Condition:

There is a stool under the
sink

Budget Cost:

Base Cost: \$0.00
Contingency Cost: \$0.00
Design Cost: \$0.00
Total Cost: \$0.00

Possible Solutions:

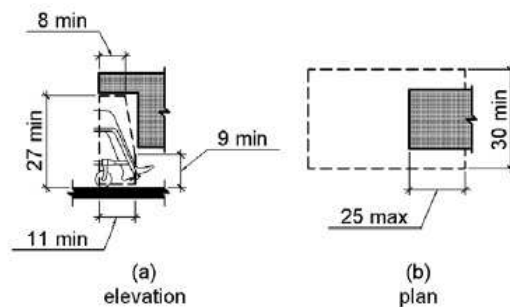
Remove stool under the sink to allow proper knee and toe clearance.

Barrier Priority:

Level 6 (Medium): Parking or exterior accessible routes (DOJ Level 1) – minimally out of compliance
Access to goods and services (DOJ Level 2) – moderately out of compliance
Restrooms (DOJ Level 3) – severely out of compliance

Notes:

N/A



Main Floor: Weight Room

Barrier: 3

The locker box projects more than 4 inches into the circulation path.

Wall-mounted objects that have leading edges between 27 inches and 80 inches from the floor must not project more than 4 inches into the circulation path. Protruding objects that extend to the floor or within 27 inches of the floor are cane detectable and are therefore not hazardous. Where it is necessary or desirable to have objects protrude from the wall, a manner of cane detection must be provided.

Citation:

2010 ADAS Section: 307.2

Current Condition:

The locker box protrudes more than 4 inches into the path of travel.

Budget Cost:

Base Cost: \$750.00
Contingency Cost: \$150.00
Design Cost: \$100.00
Total Cost: \$1,000.00

Possible Solutions:

Move the locker box to an area outside the circulation path OR

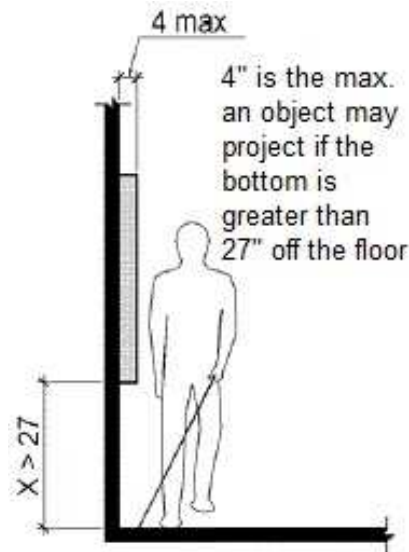
Install something permanently below it.

Barrier Priority:

Level 9 (Low): Restrooms (DOJ Level 3) – minimally out of compliance

Notes:

N/A



Main Floor: Weight Room

Barrier: 4

The exercise machine or equipment does not provide compliant clear floor space for transfer.

Exercise machines and equipment shall have a clear floor space positioned for transfer or for use by an individual seated in a wheelchair. Clear floor or ground spaces required at exercise machines and equipment is be permitted to overlap.

Citation:

2010 ADAS Section: 206.2.13

Current Condition:

Some of the exercise equipment does not have the required clear floor space next to it.

Budget Cost:

Base Cost: \$250.00
Contingency Cost: \$100.00
Design Cost: \$50.00
Total Cost: \$400.00

Possible Solutions:

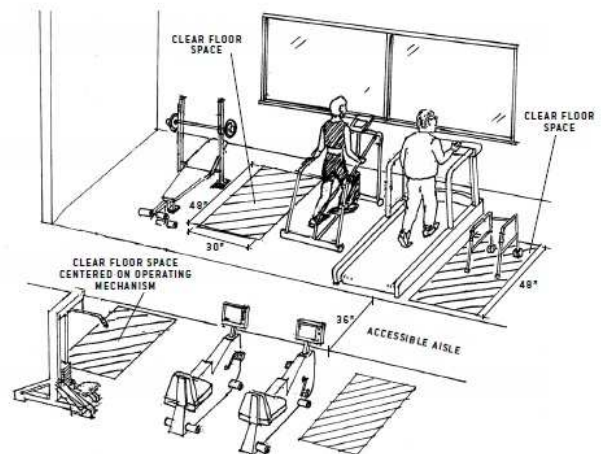
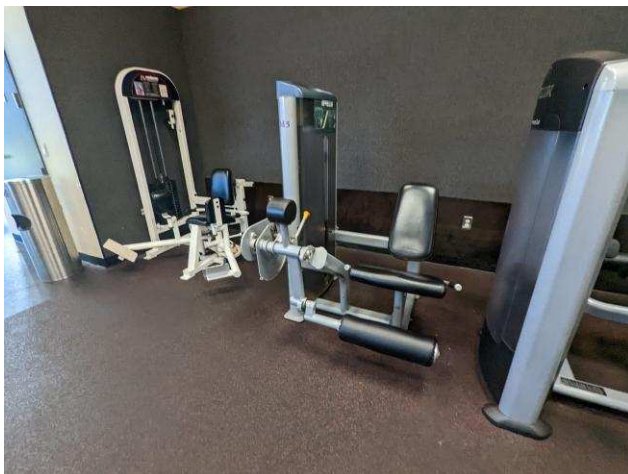
Move exercise equipment around to ensure each type of equipment has a minimum of 30 inches by 48 inches next to at least one.

Barrier Priority:

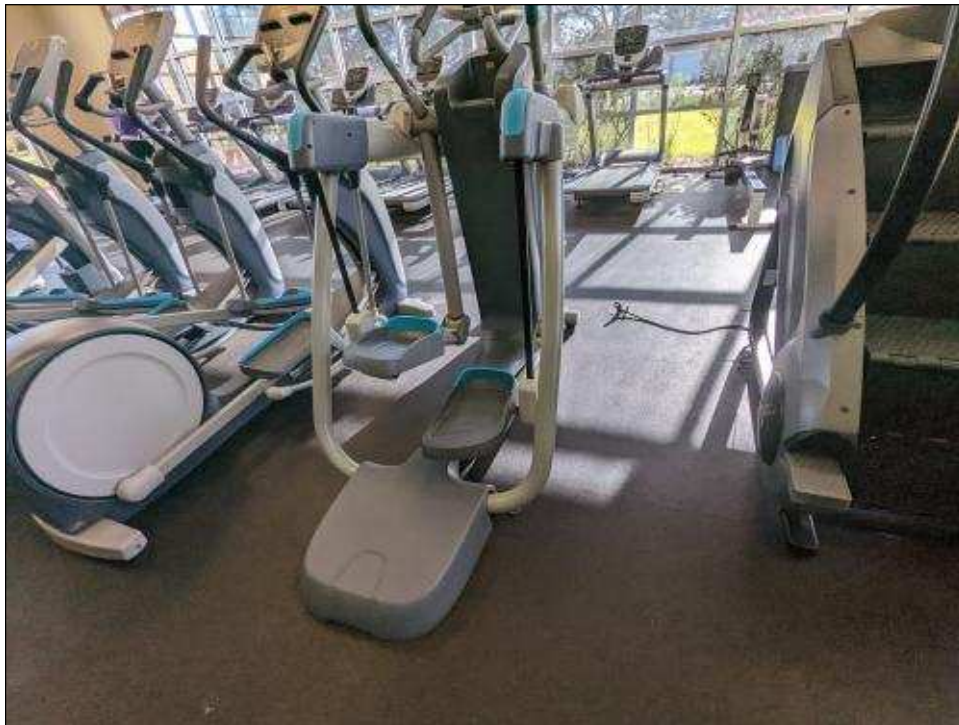
Level 7 (Medium): Access to goods and services (DOJ Level 2) – minimally out of compliance
Restrooms (DOJ Level 3) – moderately out of compliance
Drinking fountains and public phones (DOJ Level 4 & 5) – severely out of compliance

Notes:

N/A



Barrier #4 Additional Barrier Photos



Restrooms: Men's Restrooms

Barrier: 5

The water and drain pipes under the lavatory are not adequately insulated.

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.

Citation:

2010 ADAS Section: 606.5

Current Condition:

There were three lavatories. One was being serviced by the plumbers, and the other two were partially insulated.

Budget Cost:

Base Cost: \$200.00
Contingency Cost: \$50.00
Design Cost: \$50.00
Total Cost: \$300.00

Possible Solutions:

Provide insulation to all drain pipes and waterlines.

Barrier Priority:

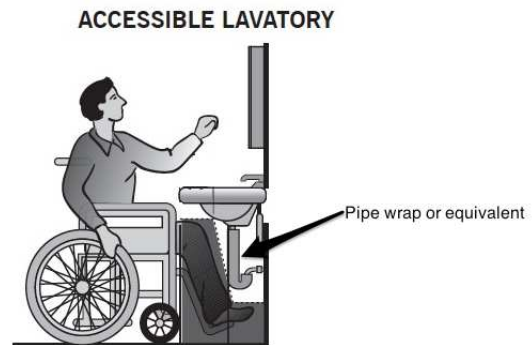
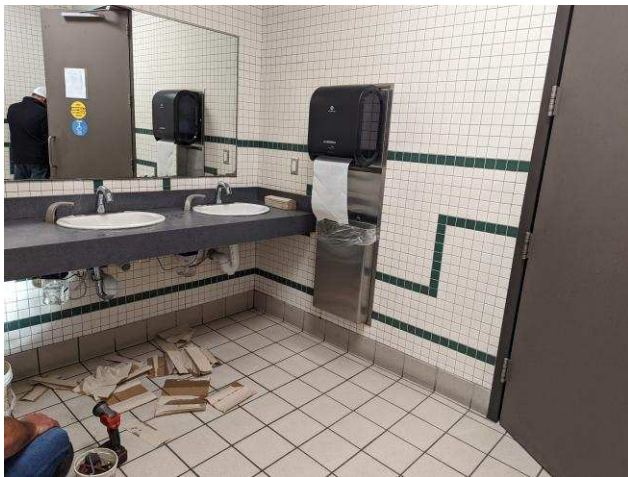
Level 7 (Medium): Access to goods and services (DOJ Level 2) – minimally out of compliance

Restrooms (DOJ Level 3) – moderately out of compliance

Drinking fountains and public phones (DOJ Level 4 & 5) – severely out of compliance

Notes:

N/A



Restrooms: Men's Restrooms

Barrier: 6

The toilet paper is not installed within the compliant range.

Toilet paper dispensers shall be 7 inches minimum and 9 inches maximum in front of the water closet measured to the centerline of the dispenser. The outlet of the dispenser shall be 15 inches minimum and 48 inches maximum above the finish floor and shall not be located behind grab bars. Dispensers shall not be of a type that controls delivery or that does not allow continuous paper flow. There shall be a clearance of 1 1/2 inches minimum below the grab bar.

Citation:

2010 ADAS Section: 604.7

Current Condition:

Toilet paper dispenser is approximately 13 inches from the toilet.

Budget Cost:

Base Cost: \$250.00
Contingency Cost: \$25.00
Design Cost: \$25.00
Total Cost: \$300.00

Possible Solutions:

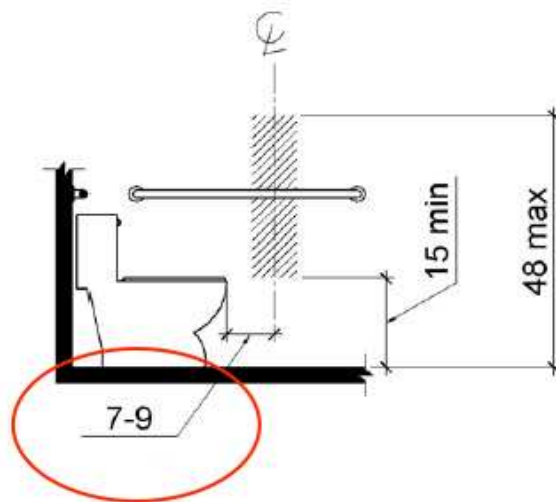
Adjust the toilet paper dispenser to be 7 inches minimum or 9 inches maximum from the toilet to the center of the dispenser.

Barrier Priority:

Level 9 (Low): Restrooms (DOJ Level 3) – minimally out of compliance

Notes:

N/A



Restrooms: Men's Restrooms

Barrier: 7

The (baby changing table projects more than 4 inches into the circulation path.

Wall-mounted objects that have leading edges between 27 inches and 80 inches from the floor must not project more than 4 inches into the circulation path. Protruding objects that extend to the floor or within 27 inches of the floor are cane detectable and are therefore not hazardous. Where it is necessary or desirable to have objects protrude from the wall, a manner of cane detection must be provided.

Citation:

2010 ADAS Section: 307.2

Current Condition:

The baby changing station is a protruding object when in the down position.

Budget Cost:

Base Cost: \$1,500.00
Contingency Cost: \$300.00
Design Cost: \$200.00
Total Cost: \$2,000.00

Possible Solutions:

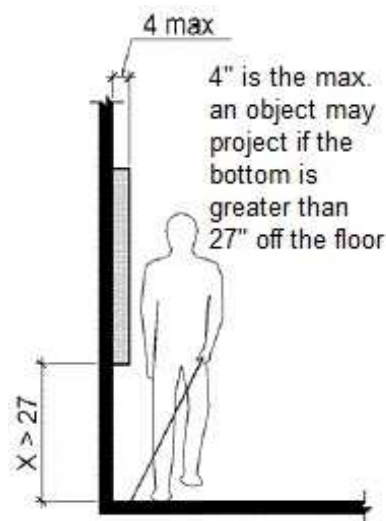
Install wing walls or other barriers to ensure proper detection for baby changing station in the down position.

Barrier Priority:

Level 7 (Medium): Access to goods and services (DOJ Level 2) – minimally out of compliance
Restrooms (DOJ Level 3) – moderately out of compliance
Drinking fountains and public phones (DOJ Level 4 & 5) – severely out of compliance

Notes:

N/A



Barrier #7 Additional Barrier Photos



Restrooms: Women's Restrooms

Barrier: 8

The baby changing station projects more than 4 inches into the circulation path.

Wall-mounted objects that have leading edges between 27 inches and 80 inches from the floor must not project more than 4 inches into the circulation path. Protruding objects that extend to the floor or within 27 inches of the floor are cane detectable and are therefore not hazardous. Where it is necessary or desirable to have objects protrude from the wall, a manner of cane detection must be provided.

Citation:

2010 ADAS Section: 307.2

Current Condition:

The baby changing station is a protruding object when in the down position,

Budget Cost:

Base Cost: \$1,500.00
Contingency Cost: \$300.00
Design Cost: \$200.00
Total Cost: \$2,000.00

Possible Solutions:

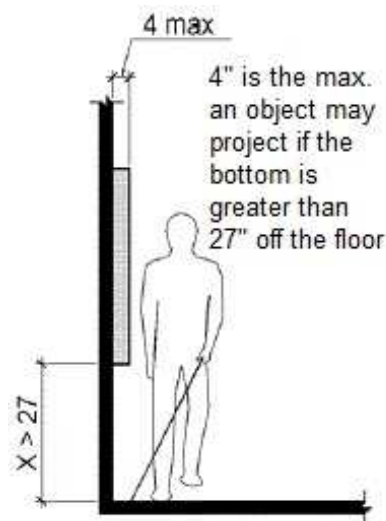
Install wing walls or other barriers to ensure proper detection for baby changing station in the down position.

Barrier Priority:

Level 7 (Medium): Access to goods and services (DOJ Level 2) – minimally out of compliance
Restrooms (DOJ Level 3) – moderately out of compliance
Drinking fountains and public phones (DOJ Level 4 & 5) – severely out of compliance

Notes:

N/A



Barrier #8 Additional Barrier Photos



Restrooms: Women's Restrooms

Barrier: 9

The toilet paper is not installed within the compliant range.

Toilet paper dispensers shall be 7 inches minimum and 9 inches maximum in front of the water closet measured to the centerline of the dispenser. The outlet of the dispenser shall be 15 inches minimum and 48 inches maximum above the finish floor and shall not be located behind grab bars. Dispensers shall not be of a type that controls delivery or that does not allow continuous paper flow. There shall be a clearance of 1 1/2 inches minimum below the grab bar.

Citation:

2010 ADAS Section: 604.7

Current Condition:

Toilet paper dispenser is approximately 13 inches from the toilet.

Budget Cost:

Base Cost: \$300.00
Contingency Cost: \$60.00
Design Cost: \$40.00
Total Cost: \$400.00

Possible Solutions:

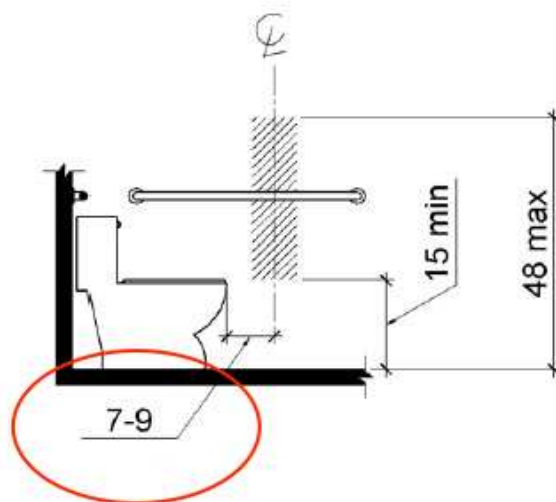
Adjust the toilet paper dispenser to be 7 inches minimum or 9 inches maximum from the toilet to the center of the dispenser.

Barrier Priority:

Level 9 (Low): Restrooms (DOJ Level 3) – minimally out of compliance

Notes:

N/A



Restrooms: Family Restroom

Barrier: 10

The toilet paper is not installed within the compliant range.

Toilet paper dispensers shall be 7 inches minimum and 9 inches maximum in front of the water closet measured to the centerline of the dispenser. The outlet of the dispenser shall be 15 inches minimum and 48 inches maximum above the finish floor and shall not be located behind grab bars. Dispensers shall not be of a type that controls delivery or that does not allow continuous paper flow. There shall be a clearance of 1 1/2 inches minimum below the grab bar.

Citation:

2010 ADAS Section: 604.7

Current Condition:

Toilet paper dispenser is approximately 15 inches from the toilet.

Budget Cost:

Base Cost: \$300.00
Contingency Cost: \$60.00
Design Cost: \$40.00
Total Cost: \$400.00

Possible Solutions:

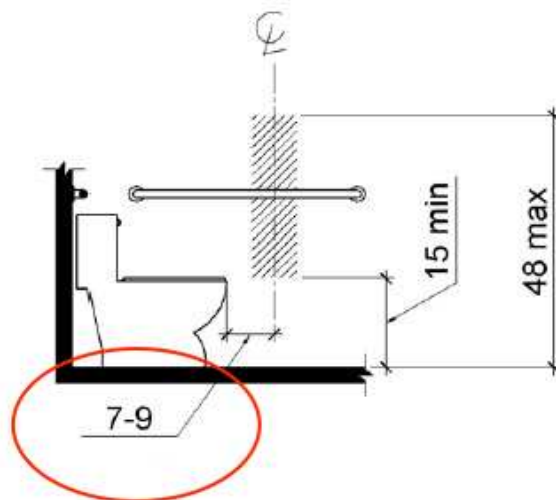
Adjust the toilet paper dispenser to be 7 inches minimum or 9 inches maximum from the toilet to the center of the dispenser.

Barrier Priority:

Level 9 (Low): Restrooms (DOJ Level 3) – minimally out of compliance

Notes:

N/A



Restrooms: Women's Locker Rooms

Barrier: 11

A portable seat is not allowed in a roll-in type shower.

A seat in a standard roll-in shower compartment shall be a folding type, shall be installed on the side wall adjacent to the controls, and shall extend from the back wall to a point within 3 inches of the compartment entry. A seat in an alternate roll-in type shower compartment shall be a folding type, shall be installed on the front wall opposite the back wall, and shall extend from the adjacent side wall to a point within 3 inches of the compartment entry. The top of the seat shall be 17 inches minimum and 19 inches maximum above the bathroom finish floor.

Citation:

2010 ADAS Section: 610.3

Current Condition:

There is a portable seat outside the shower.

Budget Cost:

Base Cost: \$1,500.00
Contingency Cost: \$300.00
Design Cost: \$200.00
Total Cost: \$2,000.00

Possible Solutions:

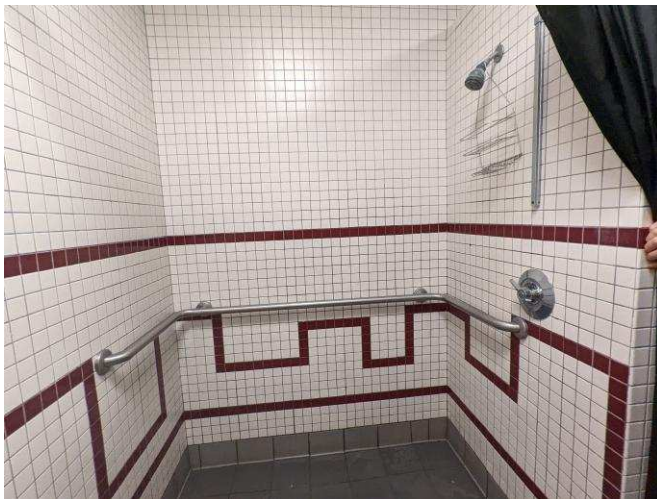
Install a compliant folding chair to the wall adjacent to the controls.

Barrier Priority:

Level 6 (Medium): Parking or exterior accessible routes (DOJ Level 1) – minimally out of compliance
Access to goods and services (DOJ Level 2) – moderately out of compliance
Restrooms (DOJ Level 3) – severely out of compliance

Notes:

N/A



Barrier #11 Additional Barrier Photos



Restrooms: Women's Locker Rooms

Barrier: 12

The toilet paper is not installed within the compliant range.

Toilet paper dispensers shall be 7 inches minimum and 9 inches maximum in front of the water closet measured to the centerline of the dispenser. The outlet of the dispenser shall be 15 inches minimum and 48 inches maximum above the finish floor and shall not be located behind grab bars. Dispensers shall not be of a type that controls delivery or that does not allow continuous paper flow. There shall be a clearance of 1 1/2 inches minimum below the grab bar.

Citation:

2010 ADAS Section: 604.7

Current Condition:

Toilet paper dispenser is approximately 15 inches from the toilet.

Budget Cost:

Base Cost: \$300.00
Contingency Cost: \$60.00
Design Cost: \$40.00
Total Cost: \$400.00

Possible Solutions:

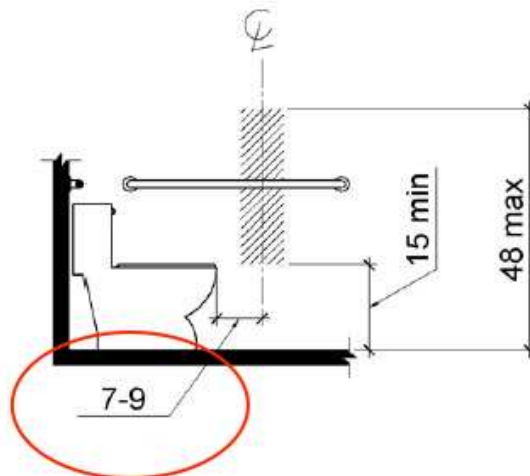
Adjust the toilet paper dispenser to be 7 inches minimum or 9 inches maximum from the toilet to the center of the dispenser.

Barrier Priority:

Level 7 (Medium): Access to goods and services (DOJ Level 2) – minimally out of compliance
Restrooms (DOJ Level 3) – moderately out of compliance
Drinking fountains and public phones (DOJ Level 4 & 5) – severely out of compliance

Notes:

N/A



Restrooms: Women's Locker Rooms

Barrier: 13

The water and drain pipes under the lavatory are not adequately insulated.

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.

Citation:

2010 ADAS Section: 606.5

Current Condition:

Not all the drain pipes were insulated.

Budget Cost:

Base Cost: \$150.00
Contingency Cost: \$30.00
Design Cost: \$20.00
Total Cost: \$200.00

Possible Solutions:

Provide insulation to all drain pipes and waterlines.

Barrier Priority:

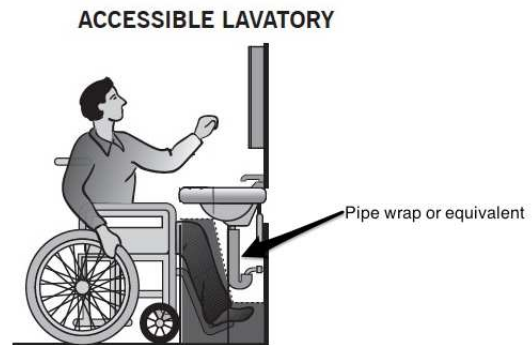
Level 7 (Medium): Access to goods and services (DOJ Level 2) – minimally out of compliance

Restrooms (DOJ Level 3) – moderately out of compliance

Drinking fountains and public phones (DOJ Level 4 & 5) – severely out of compliance

Notes:

N/A



Restrooms: Women's Locker Rooms

Barrier: 14

The clear floor space for the lockers is obstructed.

The clear floor or ground space shall be 30 inches minimum by 48 inches minimum and free of obstructions.

Citation:

2010 ADAS Section: 305.3

Current Condition:

The clear floor space for the lockers is obstructed by the door.

Budget Cost:

Base Cost: \$2,000.00
Contingency Cost: \$400.00
Design Cost: \$300.00
Total Cost: \$2,700.00

Possible Solutions:

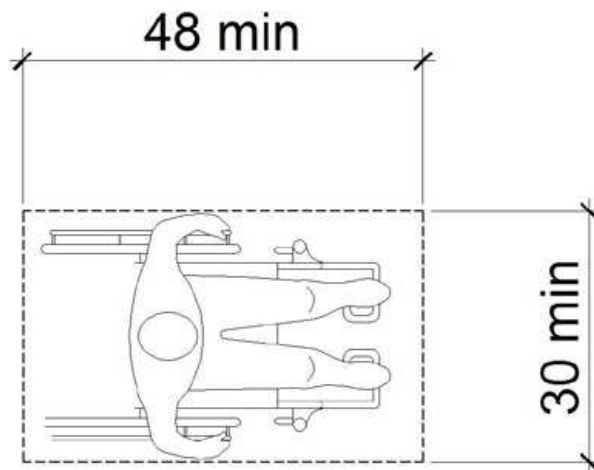
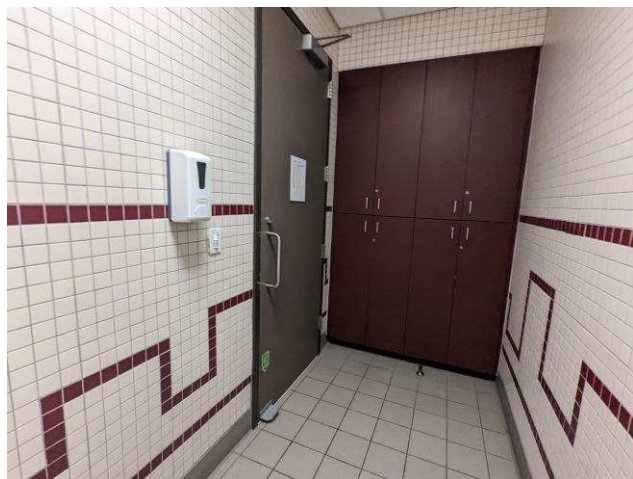
Install lockers in a more accessible location or add additional lockers in a compliant location.

Barrier Priority:

Level 7 (Medium): Access to goods and services (DOJ Level 2) – minimally out of compliance
Restrooms (DOJ Level 3) – moderately out of compliance
Drinking fountains and public phones (DOJ Level 4 & 5) – severely out of compliance

Notes:

N/A



Restrooms: Men's Locker Rooms

Barrier: 15

No seat provided in the shower.

A seat in a standard roll-in shower compartment shall be a folding type, shall be installed on the side wall adjacent to the controls, and shall extend from the back wall to a point within 3 inches of the compartment entry. A seat in an alternate roll-in type shower compartment shall be a folding type, shall be installed on the front wall opposite the back wall, and shall extend from the adjacent side wall to a point within 3 inches of the compartment entry. The top of the seat shall be 17 inches minimum and 19 inches maximum above the bathroom finish floor.

Citation:

2010 ADAS Section: 610.3

Current Condition:

There is no seat provided.

Budget Cost:

Base Cost: \$1,500.00
Contingency Cost: \$300.00
Design Cost: \$200.00
Total Cost: \$2,000.00

Possible Solutions:

Install a compliant folding chair to the wall adjacent to the controls.

Barrier Priority:

Level 6 (Medium): Parking or exterior accessible routes (DOJ Level 1) – minimally out of compliance
Access to goods and services (DOJ Level 2) – moderately out of compliance
Restrooms (DOJ Level 3) – severely out of compliance

Notes:

N/A



Restrooms: Men's Locker Rooms

Barrier: 16

The toilet paper is not installed within the compliant range.

Toilet paper dispensers shall be 7 inches minimum and 9 inches maximum in front of the water closet measured to the centerline of the dispenser. The outlet of the dispenser shall be 15 inches minimum and 48 inches maximum above the finish floor and shall not be located behind grab bars. Dispensers shall not be of a type that controls delivery or that does not allow continuous paper flow. There shall be a clearance of 1 1/2 inches minimum below the grab bar.

Citation:

2010 ADAS Section: 604.7

Current Condition:

Toilet paper dispenser is approximately 15 inches from the toilet.

Budget Cost:

Base Cost: \$300.00
Contingency Cost: \$60.00
Design Cost: \$40.00
Total Cost: \$400.00

Possible Solutions:

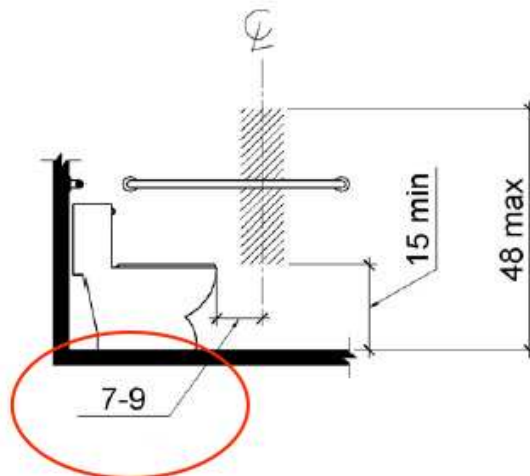
Adjust the toilet paper dispenser to be 7 inches minimum or 9 inches maximum from the toilet to the center of the dispenser.

Barrier Priority:

Level 7 (Medium): Access to goods and services (DOJ Level 2) – minimally out of compliance
Restrooms (DOJ Level 3) – moderately out of compliance
Drinking fountains and public phones (DOJ Level 4 & 5) – severely out of compliance

Notes:

N/A



Pool Area: Path of Travel

Barrier: 17

The accessible route of travel contains cross slopes greater than 2%.

Surface cross slopes shall not exceed 1 unit vertical in 48 units horizontal (2-percent slope). When the slope in the direction of travel of any walk exceeds 1 unit vertical in 20 units horizontal (5-percent slope), it must be constructed as ramp.

Citation:

2010 ADAS Section: 206.2.4,
403.3

Current Condition:

Pool deck has a slope of
5.2% from the main pool
drain to the secondary drain.

Budget Cost:

Base Cost: \$1,500.00
Contingency Cost: \$300.00
Design Cost: \$200.00
Total Cost: \$2,000.00

Possible Solutions:

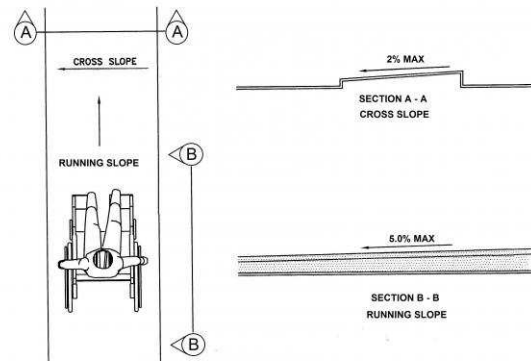
Provide a slope not greater than 2%

Barrier Priority:

Level 6 (Medium): Parking or exterior accessible routes (DOJ Level 1) – minimally out of compliance
Access to goods and services (DOJ Level 2) – moderately out of compliance
Restrooms (DOJ Level 3) – severely out of compliance

Notes:

N/A



Barrier #17 Additional Barrier Photos



Pool Area: Path of Travel

Barrier: 18

The water slide extends down too close to the route of travel.

Any obstruction that overhangs a circulation route must be a minimum of 80 inches above the walking surface as measured from the bottom of the obstruction.

Citation:

2010 ADAS Section: 307.3

Current Condition:

The water slide is a protruding object.

Budget Cost:

Base Cost: \$1,500.00
Contingency Cost: \$300.00
Design Cost: \$200.00
Total Cost: \$2,000.00

Possible Solutions:

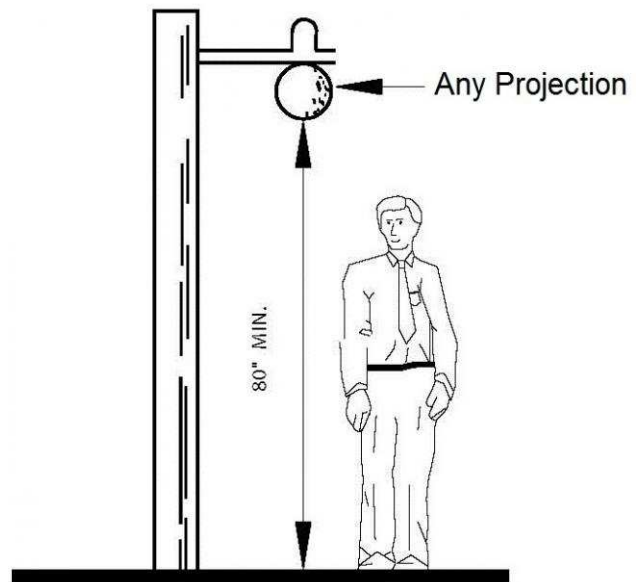
Install barriers to prevent anyone from being able to travel behind the slide.

Barrier Priority:

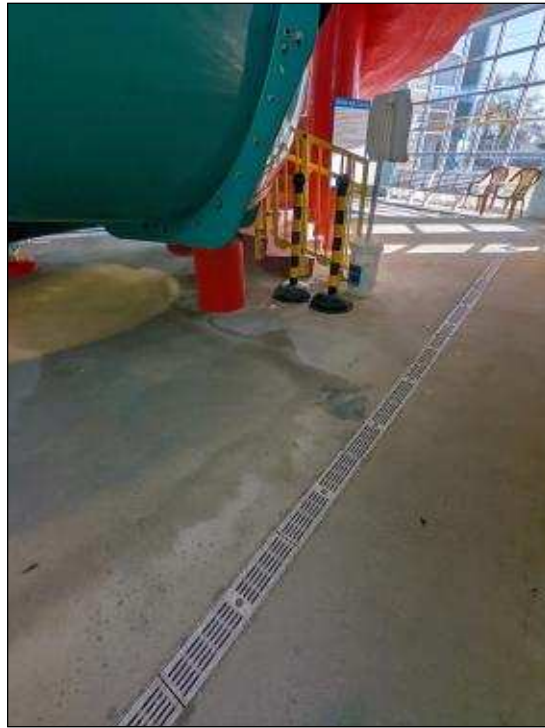
Level 7 (Medium): Access to goods and services (DOJ Level 2) – minimally out of compliance
Restrooms (DOJ Level 3) – moderately out of compliance
Drinking fountains and public phones (DOJ Level 4 & 5) – severely out of compliance

Notes:

N/A



Barrier #18 Additional Barrier Photos



Pool Area: Path of Travel

Barrier: 19

The accessible route of travel contains cross slopes greater than 2%.

Surface cross slopes shall not exceed 1 unit vertical in 48 units horizontal (2-percent slope). When the slope in the direction of travel of any walk exceeds 1 unit vertical in 20 units horizontal (5-percent slope), it must be constructed as ramp.

Citation:

2010 ADAS Section: 206.2.4,
403.3

Current Condition:

Pool deck has a slope of
5.2% from the main pool
drain to the secondary drain.

Budget Cost:

Base Cost: \$1,500.00
Contingency Cost: \$300.00
Design Cost: \$200.00
Total Cost: \$2,000.00

Possible Solutions:

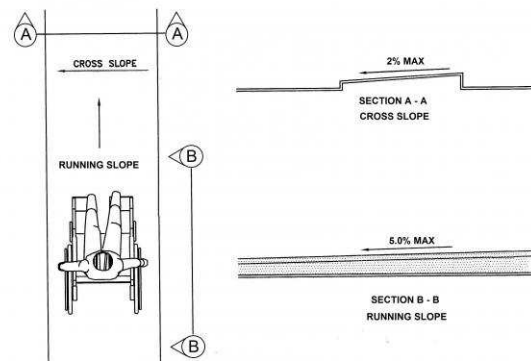
Provide a slope not greater than 2%

Barrier Priority:

Level 6 (Medium): Parking or exterior accessible routes (DOJ Level 1) – minimally out of compliance
Access to goods and services (DOJ Level 2) – moderately out of compliance
Restrooms (DOJ Level 3) – severely out of compliance

Notes:

N/A



Barrier #19 Additional Barrier Photos



Pool Area: Path of Travel

Barrier: 20

The accessible route of travel contains cross slopes greater than 2%.

Surface cross slopes shall not exceed 1 unit vertical in 48 units horizontal (2-percent slope). When the slope in the direction of travel of any walk exceeds 1 unit vertical in 20 units horizontal (5-percent slope), it must be constructed as ramp.

Citation:

2010 ADAS Section: 206.2.4,
403.3

Current Condition:

Pool deck has a slope of
4.8% from the main pool
drain to the secondary drain.

Budget Cost:

Base Cost: \$1,500.00
Contingency Cost: \$300.00
Design Cost: \$200.00
Total Cost: \$2,000.00

Possible Solutions:

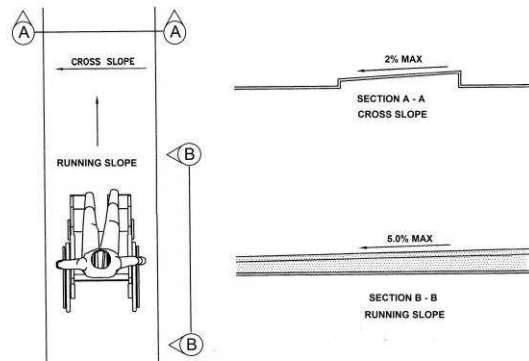
Provide a slope not greater than 2%

Barrier Priority:

Level 6 (Medium): Parking or exterior accessible routes (DOJ Level 1) – minimally out of compliance
Access to goods and services (DOJ Level 2) – moderately out of compliance
Restrooms (DOJ Level 3) – severely out of compliance

Notes:

N/A



Barrier #20 Additional Barrier Photos



Pool Area: Path of Travel

Barrier: 21

The accessible route of travel contains cross slopes greater than 2%.

Surface cross slopes shall not exceed 1 unit vertical in 48 units horizontal (2-percent slope). When the slope in the direction of travel of any walk exceeds 1 unit vertical in 20 units horizontal (5-percent slope), it must be constructed as ramp.

Citation:

2010 ADAS Section: 206.2.4,
403.3

Current Condition:

Pool deck has a slope of
3.8% from the main pool
drain to the secondary drain.

Budget Cost:

Base Cost: \$1,500.00
Contingency Cost: \$300.00
Design Cost: \$200.00
Total Cost: \$2,000.00

Possible Solutions:

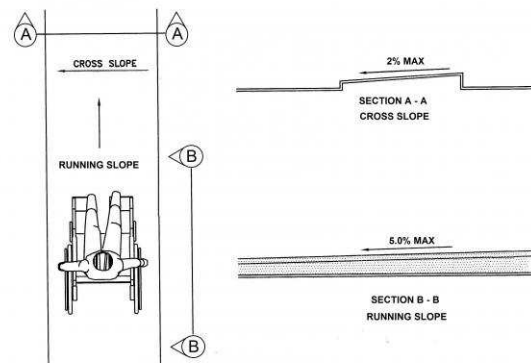
Provide a slope not greater than 2%

Barrier Priority:

Level 6 (Medium): Parking or exterior accessible routes (DOJ Level 1) – minimally out of compliance
Access to goods and services (DOJ Level 2) – moderately out of compliance
Restrooms (DOJ Level 3) – severely out of compliance

Notes:

N/A



Barrier #21 Additional Barrier Photos



Exterior: Parking Lot

Barrier: 22

The parking sign is mounted too low.

Parking space identification signs shall include the International Symbol of Accessibility. Signs identifying van parking spaces shall contain the designation "van accessible." Signs shall be 60 inches minimum above the finish floor or ground surface measured to the bottom of the sign.

Citation:

2010 ADAS Section: 502.6

Current Condition:

All accessible signs are not in compliance to the minimum required height of 60 inches.

Budget Cost:

Base Cost: \$150.00
Contingency Cost: \$30.00
Design Cost: \$20.00
Total Cost: \$200.00

Possible Solutions:

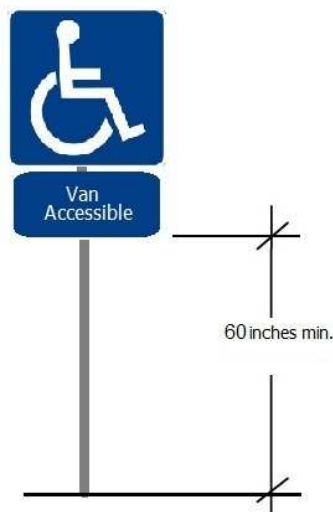
Adjust all the signs to the proper height of 60 inches.

Barrier Priority:

Level 6 (Medium): Parking or exterior accessible routes (DOJ Level 1) – minimally out of compliance
Access to goods and services (DOJ Level 2) – moderately out of compliance
Restrooms (DOJ Level 3) – severely out of compliance

Notes:

N/A



Barrier #22 Additional Barrier Photos



Exterior: Parking Lot

Barrier: 23

The accessible route between the building entrance and the accessible parking has running slopes greater than 5% and has not been constructed as a ramp (i.e. handrails, edge protection, etc.).

When the slope in the direction of travel of any walk exceeds 1 unit vertical in 20 units horizontal (5-percent slope), it must be constructed as a ramp. Surface cross slopes must not exceed one unit vertical in 48 units horizontal (2-percent slope).

Citation:

2010 ADAS Section: 403.3

Current Condition:

There is a 9.5% slope on the path of travel.

Budget Cost:

Base Cost: \$1,500.00
Contingency Cost: \$300.00
Design Cost: \$200.00
Total Cost: \$2,000.00

Possible Solutions:

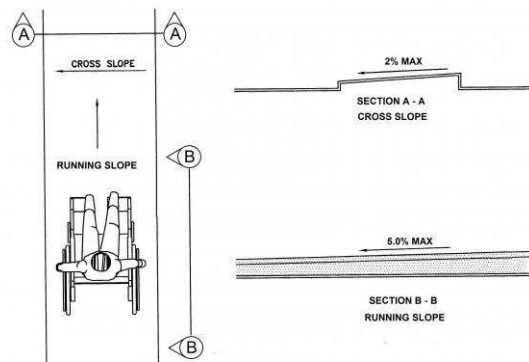
Provide a path of travel with a slope not greater than 5% or a ramp with a slope not greater than 8.33%

Barrier Priority:

Level 4 (High): Parking and exterior accessible routes (DOJ Level 1) – moderately out of compliance

Notes:

N/A



Barrier #23 Additional Barrier Photos



Cost Summary

Item	# of Barriers	Total Item Cost
High Priority	1	\$2,000.00
Level 1	0	\$0.00
Level 2	0	\$0.00
Level 3	0	\$0.00
Level 4	1	\$2,000.00
Medium Priority	18	\$22,600.00
Level 5	0	\$0.00
Level 6	8	\$12,200.00
Level 7	10	\$10,400.00
Level 8	0	\$0.00
Low Priority	4	\$2,100.00
Level 9	4	\$2,100.00
Level 10	0	\$0.00
Level 11	0	\$0.00
Level 12	0	\$0.00
Priority Total	23	\$26,700.00

Angleton, TX
ADA Self-Evaluation and Transition Plan Update
Parks Cost Projection Summary
May 2022

GPS ID	Facility Name	Cost Projection
1	Masterson Park	\$51,000
2	BG Peck Soccer Complex	\$260,600
3	Dickey Park	\$25,700
4	Bates Park	\$51,300
5	Brushy Bayou Park	\$20,500
6	Freedom Park	\$35,800
7	Officer Cash Memorial Dog Park	\$11,200
8	Veterans Park	\$27,500
	TOTAL	\$483,600

Site Accessibility Evaluation



Masterson Park
101 S Arcola St
Angleton, TX 77515
Accessibility Evaluation
Evaluation Date: 04/14/2022
Evaluators: Thomas Avalos

Prepared By



(972) 434 - 0068

www.accessology.com



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Parking: Parking

Barrier: 1

The running slope (long dimension) of the accessible parking stall exceeds 2%.

The running slope in an accessible parking stall and the access aisle must not exceed 2%.

Citation:

2010 ADAS Section: 502.4

Current Condition:

7.7% Running slope

Budget Cost:

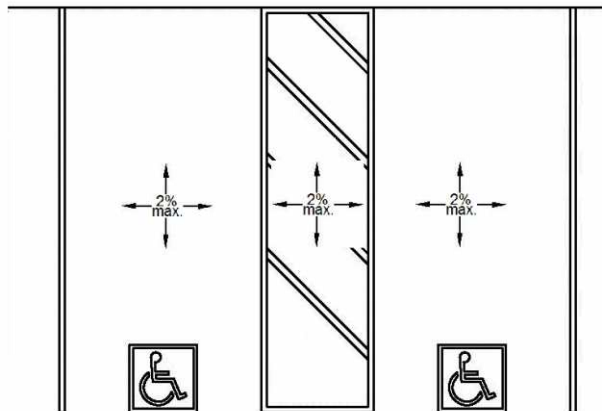
Base Cost: \$2,500.00
Contingency Cost: \$500.00
Design Cost: \$400.00
Total Cost: \$3,400.00

Possible Solutions:

Regrade the accessible parking space to achieve a 1:48 (2.08%) maximum slope in all directions.

Barrier Priority:

Level 2 (High): Parking and exterior accessible routes (DOJ Level 1) – severely out of compliance; near a hospital, school, transit stop, govt. bldg., or other pedestrian attractor



Barrier #1 Additional Barrier Photos



Parking: Parking

Barrier: 2

The cross slope (narrow dimension) of the parking stall exceeds 2%.

The running and cross slope in an accessible parking stall and the access aisle must not exceed 2%.

Citation:

2010 ADAS Section: 502.4

Current Condition:

Cross slope is at 2.2%

Budget Cost:

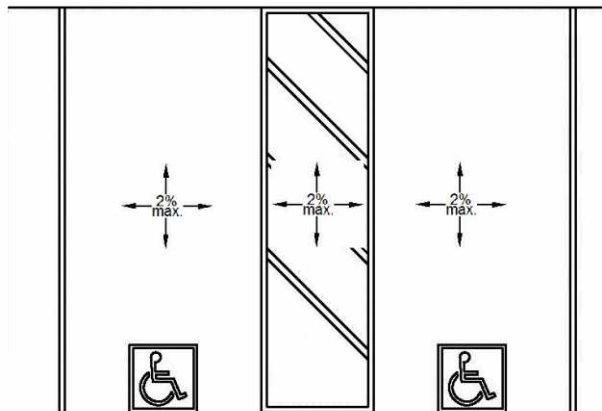
Base Cost: \$2,500.00
Contingency Cost: \$500.00
Design Cost: \$400.00
Total Cost: \$3,400.00

Possible Solutions:

Regrade the accessible parking space to achieve a 1:48 (2.08%) maximum slope in all directions.

Barrier Priority:

Level 2 (High): Parking and exterior accessible routes (DOJ Level 1) – severely out of compliance; near a hospital, school, transit stop, govt. bldg., or other pedestrian attractor



Barrier #2 Additional Barrier Photos



Parking: Parking

Barrier: 3

The parking sign is mounted too low.

Parking space identification signs shall include the International Symbol of Accessibility. Signs identifying van parking spaces shall contain the designation "van accessible." Signs shall be 60 inches minimum above the finish floor or ground surface measured to the bottom of the sign.

Citation:

2010 ADAS Section: 502.6

Current Condition:

The accessible parking sign is mounted at 36.75 inches above the ground.

Budget Cost:

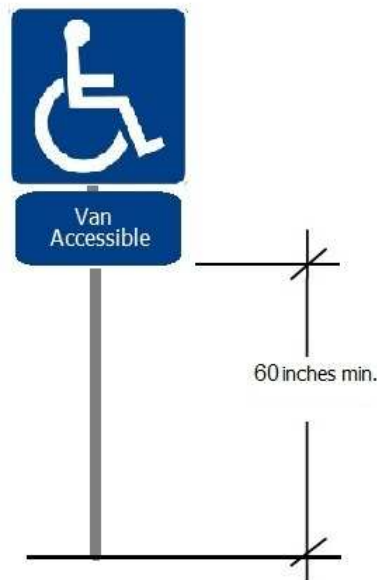
Base Cost: \$200.00
Contingency Cost: \$50.00
Design Cost: \$50.00
Total Cost: \$300.00

Possible Solutions:

Raise signage so the bottom of the sign is a minimum of 60" above ground to the bottom of the sign.

Barrier Priority:

Level 6 (Medium): Parking or exterior accessible routes (DOJ Level 1) – minimally out of compliance
Access to goods and services (DOJ Level 2) – moderately out of compliance
Restrooms (DOJ Level 3) – severely out of compliance



Parking: Parking

Barrier: 4

There are no van accessible parking stalls.

1 in every 6, minimum of one, required accessible stalls must be a van accessible stall.

There are a total of 23 parking stalls in the parking lot that could be reasonably associated with this facility. There should be a minimum of 1 accessible stalls with a minimum of 1 being designed as van accessible.

Citation:

2010 ADAS Section: 208.2,
208.2.4

Current Condition:

23 parking spaces with 2
non compliant accessible
spaces

Budget Cost:

Base Cost: \$2,500.00
Contingency Cost: \$500.00
Design Cost: \$400.00
Total Cost: \$3,400.00

Possible Solutions:

Provide a van accessible parking space with an access aisle and signage.

Barrier Priority:

Level 2 (High): Parking and exterior accessible routes (DOJ Level 1) – severely out of compliance; near a hospital, school, transit stop, govt. bldg., or other pedestrian attractor



Total Number of Parking Spaces Provided in Parking Facility	Minimum Number of Required Accessible Parking Spaces
1 to 25	1
26 to 50	2
51 to 75	3
76 to 100	4
101 to 150	5
151 to 200	6
201 to 300	7
301 to 400	8
401 to 500	9
501 to 1000	2 percent of total
1001 and over	20, plus 1 for each 100, or fraction thereof, over 1000

Barrier #4 Additional Barrier Photos



Parking: Parking

Barrier: 5

The running slope (long dimension) of the accessible parking stall exceeds 2%.

The running slope in an accessible parking stall and the access aisle must not exceed 2%.

Citation:

2010 ADAS Section: 502.4

Current Condition:

Running slope 7.1%

Budget Cost:

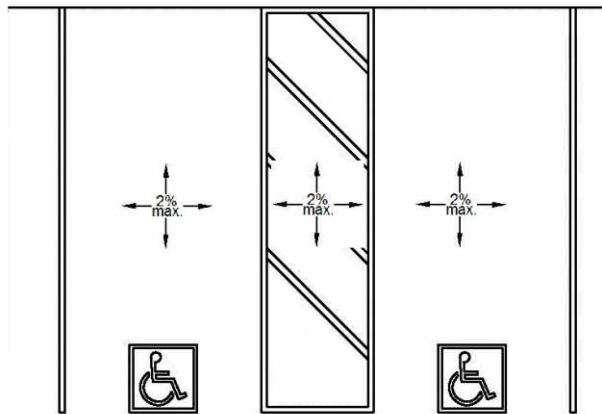
Base Cost: \$2,500.00
Contingency Cost: \$500.00
Design Cost: \$400.00
Total Cost: \$3,400.00

Possible Solutions:

Regrade the accessible parking space to achieve a 1:48 (2.08%) maximum slope in all directions.

Barrier Priority:

Level 2 (High): Parking and exterior accessible routes (DOJ Level 1) – severely out of compliance; near a hospital, school, transit stop, govt. bldg., or other pedestrian attractor



Barrier #5 Additional Barrier Photos



Parking: Parking

Barrier: 6

The parking sign is mounted too low.

Parking space identification signs shall include the International Symbol of Accessibility. Signs identifying van parking spaces shall contain the designation "van accessible." Signs shall be 60 inches minimum above the finish floor or ground surface measured to the bottom of the sign.

Citation:

2010 ADAS Section: 502.6

Current Condition:

Height 34.5 inches and facing wrong direction.

Budget Cost:

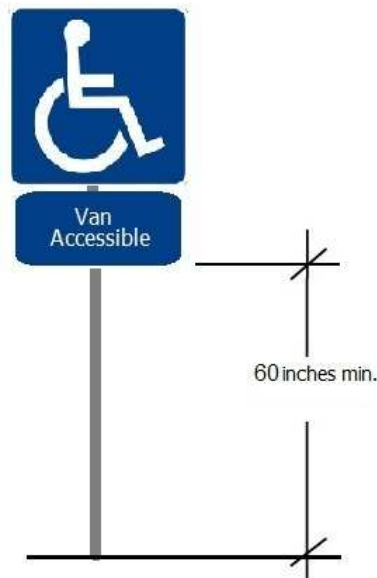
Base Cost: \$200.00
Contingency Cost: \$60.00
Design Cost: \$40.00
Total Cost: \$300.00

Possible Solutions:

Raise signage so the bottom of the sign is a minimum of 60" above ground to the bottom of the sign.

Barrier Priority:

Level 6 (Medium): Parking or exterior accessible routes (DOJ Level 1) – minimally out of compliance
Access to goods and services (DOJ Level 2) – moderately out of compliance
Restrooms (DOJ Level 3) – severely out of compliance



Parking: Parking

Barrier: 7

The striping for the accessible parking stalls loading/unloading access aisle is missing.

Access aisles shall be marked so as to discourage parking in them.

Citation:

2010 ADAS Section: 502.3.3

Current Condition:

The words "NO PARKING" is missing from the access aisle adjacent to the parking space per Texas Administrative Code.

Budget Cost:

Base Cost: \$150.00
Contingency Cost: \$100.00
Design Cost: \$50.00
Total Cost: \$300.00

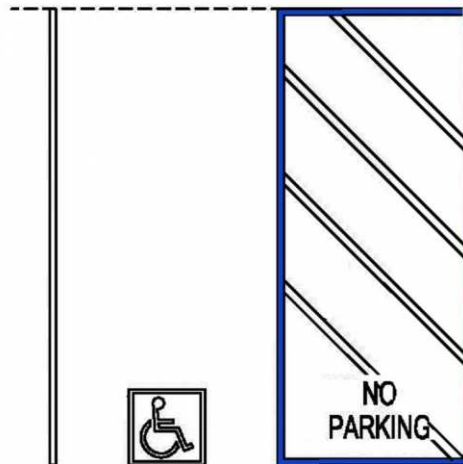
Possible Solutions:

The words "NO PARKING" painted on any access aisle adjacent to the parking space. The words must be painted:

- (1) in all capital letters;
- (2) with a letter height of at least twelve inches, and a stroke width of at least two inches; and
- (3) centered within each access aisle adjacent to the parking space.

Barrier Priority:

Level 5 (Medium): Access to goods and services issues (DOJ Level 2) – severely out of compliance



Parking: Parking

Barrier: 8

The running slope of the access aisle (long dimension) exceeds 2%.

The running slope in an accessible parking stall and the access aisle must not exceed 2%.

Citation:

2010 ADAS Section: 502.4

Current Condition:

The running slope 8.6%.

Budget Cost:

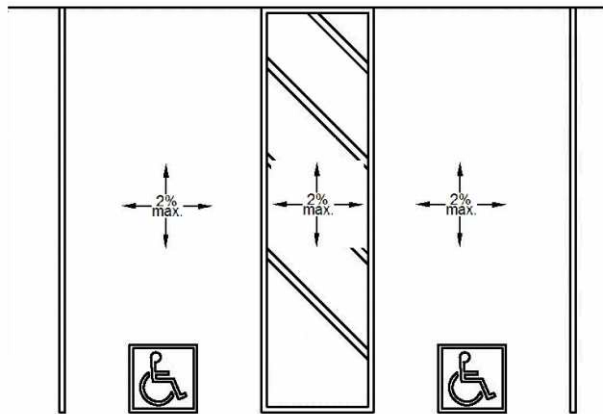
Base Cost: \$2,500.00
Contingency Cost: \$500.00
Design Cost: \$400.00
Total Cost: \$3,400.00

Possible Solutions:

Re-grade the access aisle to achieve a 1:48 (2.08%) maximum slope in all directions.

Barrier Priority:

Level 2 (High): Parking and exterior accessible routes (DOJ Level 1) – severely out of compliance; near a hospital, school, transit stop, govt. bldg., or other pedestrian attractor



Barrier #8 Additional Barrier Photos



Parking: Parking

Barrier: 9

The curb ramp on the accessible route has cross slopes greater than 2 percent and running slopes greater than 8.33 percent.

Surface cross slopes shall not exceed one unit vertical in 48 units horizontal (2-percent slope). Surface running slopes shall not exceed one unit vertical in 12 units horizontal (8.33-percent slope).

Citation:

2010 ADAS Section: 405.3,
405.2, 406.1

Current Condition:

Running slope exceeds
8.33%

Budget Cost:

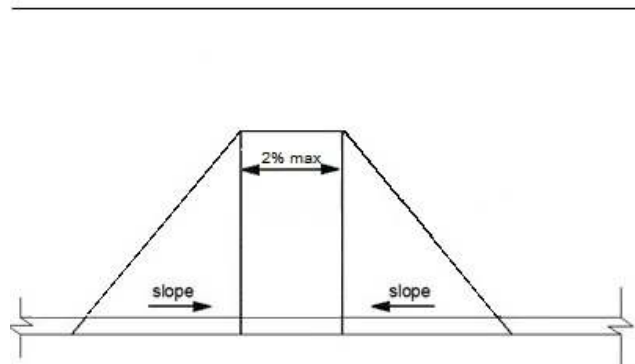
Base Cost: \$3,000.00
Contingency Cost: \$600.00
Design Cost: \$400.00
Total Cost: \$4,000.00

Possible Solutions:

Remove and replace curb ramp.

Barrier Priority:

Level 2 (High): Parking and exterior accessible routes (DOJ Level 1) – severely out of compliance; near a hospital, school, transit stop, govt. bldg., or other pedestrian attractor



Accessible Route: Accessible Route

Barrier: 10

There is no accessible route to the amenities offered in the park.

At least one accessible route shall connect accessible buildings, accessible facilities, accessible elements, and accessible spaces that are on the same site.

Citation:

2010 ADAS Section: 206.2.2

Current Condition:

Only a grass surface is provided to the volleyball and picnic areas.

Budget Cost:

Base Cost: \$15,000.00
Contingency Cost: \$3,000.00
Design Cost: \$2,300.00
Total Cost: \$20,300.00

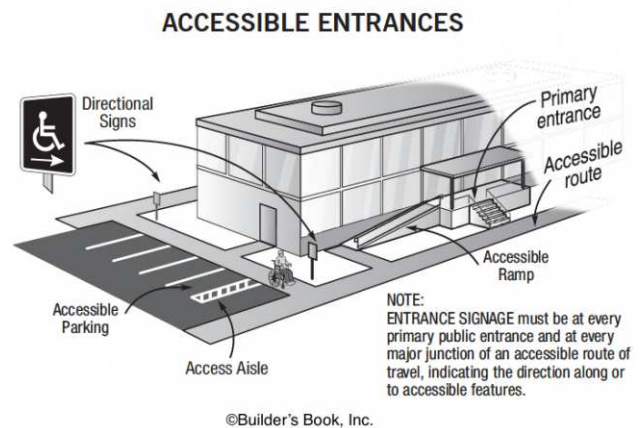
Possible Solutions:

Provide a level, stable and slip resistant ground surface route to each amenity through out park.

This does not have to be a concrete sidewalk, but needs to be a compliant route.

Barrier Priority:

Level 6 (Medium): Parking or exterior accessible routes (DOJ Level 1) – minimally out of compliance
Access to goods and services (DOJ Level 2) – moderately out of compliance
Restrooms (DOJ Level 3) – severely out of compliance



Barrier #10 Additional Barrier Photos



Barrier #10 Additional Barrier Photos



Restrooms: Restrooms

Barrier: 11

The toilet paper is not installed within the compliant range in front of the toilet.

Toilet paper dispensers shall be 7 inches minimum and 9 inches maximum in front of the water closet measured to the centerline of the dispenser. The outlet of the dispenser shall be 15 inches minimum and 48 inches maximum above the finish floor and shall not be located behind grab bars. Dispensers shall not be of a type that controls delivery or that does not allow continuous paper flow. There shall be a clearance of 1 1/2 inches minimum below the grab bar.

Citation:

2010 ADAS Section: 604.7

Current Condition:

Toilet paper dispenser is not installed within compliant range.

Budget Cost:

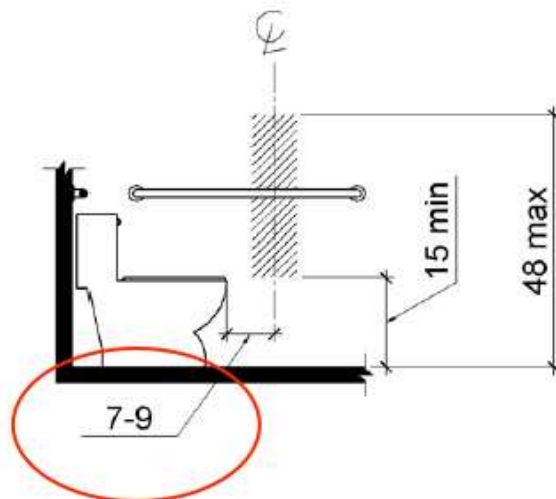
Base Cost: \$200.00
Contingency Cost: \$60.00
Design Cost: \$40.00
Total Cost: \$300.00

Possible Solutions:

Remove and reinstall the toilet paper dispenser to be 7 to 9 inches in front of the water closet measured to the centerline of the dispenser.

Barrier Priority:

Level 9 (Low): Restrooms (DOJ Level 3) – minimally out of compliance



Restrooms: Restrooms

Barrier: 12

The element is positioned less than 12 inches from the top of the grab bar.

Elements adjacent to the grab bar shall be positioned to provide unobstructed use of grab bars. The space between the grab bar and projecting objects below and at the ends shall be 1-1/2 inches minimum. The space between the grab bar and projecting objects above shall be 12 inches minimum.

Citation:

2010 ADAS Section: 609.3

Current Condition:

Toilet paper dispenser located 9 inches above grab bar.

Budget Cost:

Base Cost: \$0.00
Contingency Cost: \$0.00
Design Cost: \$0.00
Total Cost: \$0.00

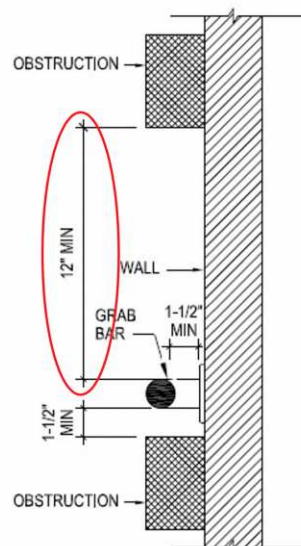
Possible Solutions:

Remove and relocate the dispenser to a compliant range either 12 inches above or 1 1/2 inches below the grab bar.

Remediation cost included in barrier 12.

Barrier Priority:

Level 9 (Low): Restrooms (DOJ Level 3) – minimally out of compliance



Drinking Fountain: Drinking Fountain

Barrier: 13

The required types of drinking fountains are not provided.

Where drinking fountains are provided, a minimum of one must be designed for wheelchair users and one must be designed for standing persons unless a single fountain meets the requirements for both.

Citation:

2010 ADAS Section: 211.2

Current Condition:

Drinking fountain for standing person not provided.

Budget Cost:

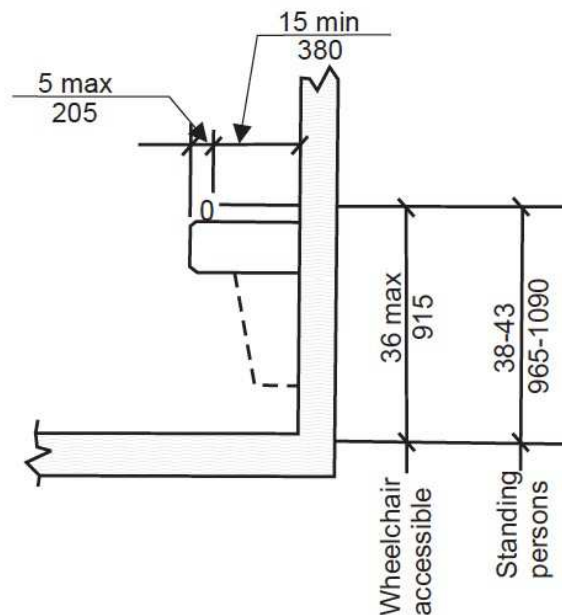
Base Cost: \$3,800.00
Contingency Cost: \$760.00
Design Cost: \$540.00
Total Cost: \$5,100.00

Possible Solutions:

Install an additional unit for standing persons.

Barrier Priority:

Level 7 (Medium): Access to goods and services (DOJ Level 2) – minimally out of compliance
Restrooms (DOJ Level 3) – moderately out of compliance
Drinking fountains and public phones (DOJ Level 4 & 5) – severely out of compliance



Playground: Play Area

Barrier: 14

Compliance with ASTM F1951 for accessibility for ground surfaces on accessible routes, clear floor or ground spaces, and turning spaces has not been determined.

Ground surfaces shall comply with ASTM F 1951. Ground surfaces shall be inspected and maintained regularly and frequently to ensure continued compliance with ASTM F 1951.

Citation:

2010 ADAS Section:
1008.2.6.1

Current Condition:

Playground surface is wavy
and uneven.

Budget Cost:

Base Cost: \$2,500.00
Contingency Cost: \$500.00
Design Cost: \$400.00
Total Cost: \$3,400.00

Possible Solutions:

Ensure surface is maintained in compliance.

Barrier Priority:

Level 8 (Medium): Drinking fountains and public phones (DOJ Level 4 & 5) – moderately out of compliance



Cost Summary

Item	# of Barriers	Total Item Cost
High Priority	6	\$21,000.00
Level 1	0	\$0.00
Level 2	6	\$21,000.00
Level 3	0	\$0.00
Level 4	0	\$0.00
Medium Priority	6	\$29,700.00
Level 5	1	\$300.00
Level 6	3	\$20,900.00
Level 7	1	\$5,100.00
Level 8	1	\$3,400.00
Low Priority	2	\$300.00
Level 9	2	\$300.00
Level 10	0	\$0.00
Level 11	0	\$0.00
Level 12	0	\$0.00
Priority Total	14	\$51,000.00

Site Accessibility Evaluation



BG Peck Soccer Complex
709 Kelly Blvd
Angleton, TX 77515
Accessibility Evaluation
Evaluation Date: 03/24/2022
Evaluators: Kristi Avalos

Prepared By



(972) 434 - 0068

www.accessology.com

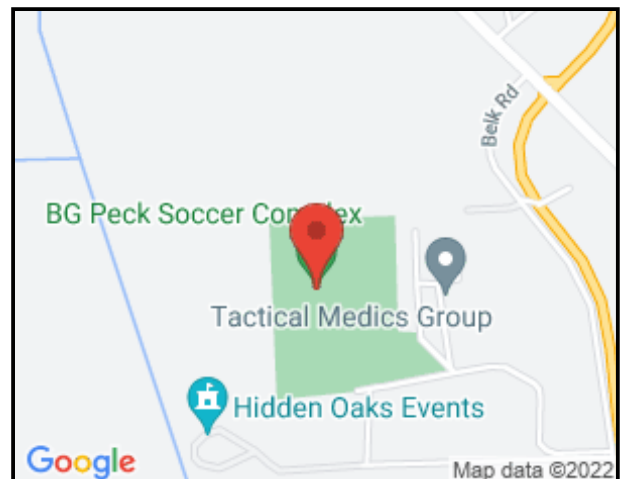


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Parking: Parking

Barrier: 1

The access aisle is missing at the majority of the accessible parking stalls.

Access aisles serving parking spaces shall adjoin an accessible route. Two parking spaces shall be permitted to share a common access aisle.

Citation:

2010 ADAS Section: 502.2

Current Condition:

Only the parking spaces on the ends have access aisles. The majority do not.

Budget Cost:

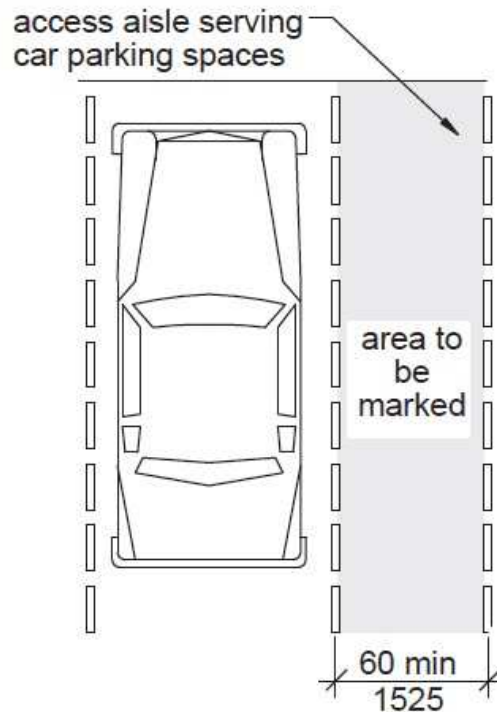
Base Cost: \$1,500.00
Contingency Cost: \$300.00
Design Cost: \$200.00
Total Cost: \$2,000.00

Possible Solutions:

Restripe accessible parking spaces to ensure each space is served by an access aisle.

Barrier Priority:

Level 3 (High): Parking and exterior accessible routes (DOJ Level 1) – severely out of compliance; NOT near a hospital, school, transit stop, govt. bldg., or other pedestrian attractor



Parking: Parking

Barrier: 2

There is no accessible route to the soccer fields.

At least one accessible route shall connect accessible buildings, accessible facilities, accessible elements, and accessible spaces that are on the same site.

Citation:

2010 ADAS Section: 206.2.2

Current Condition:

No accessible route is provided from accessible parking to the soccer fields.

Budget Cost:

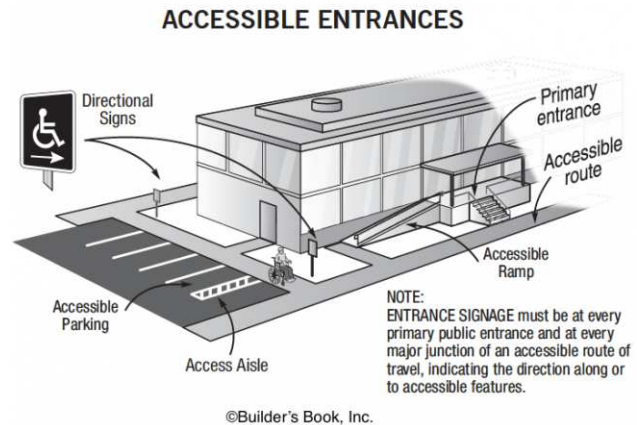
Base Cost: \$5,000.00
Contingency Cost: \$1,000.00
Design Cost: \$800.00
Total Cost: \$6,800.00

Possible Solutions:

When the accessible parking areas are restriped, create an accessible route leading to the soccer fields.

Barrier Priority:

Level 3 (High): Parking and exterior accessible routes (DOJ Level 1) – severely out of compliance; NOT near a hospital, school, transit stop, govt. bldg., or other pedestrian attractor



Accessible Route: Path of Travel

Barrier: 3

The pedestrian bridge contains changes in level greater than a 1/2 inch high that should be ramped.

Changes in level greater than 1/2 inch high shall be constructed as a ramp or curb ramp.

Citation:

2010 ADAS Section: 303.4

Current Condition:

There is a change of level on both ends of the pedestrian bridge between the accessible parking and soccer field 3.

Budget Cost:

Base Cost: \$5,000.00
Contingency Cost: \$1,000.00
Design Cost: \$800.00
Total Cost: \$6,800.00

Possible Solutions:

Replace the pedestrian bridge with a fully compliant accessible route.

Barrier Priority:

Level 5 (Medium): Access to goods and services issues (DOJ Level 2) – severely out of compliance



Barrier #3 Additional Barrier Photos



Accessible Route: Path of Travel

Barrier: 4

The accessible route has running slopes greater than 5 percent across the width of the walk and has not been constructed as a ramp (i.e. handrails, edge protection, etc.).

When the slope in the direction of travel of any walk exceeds 1 unit vertical in 20 units horizontal (5-percent slope), it must be constructed as a ramp. Surface cross slopes must not exceed one unit vertical in 48 units horizontal (2-percent slope).

Citation:

2010 ADAS Section: 403.3

Current Condition:

Ramp to the pedestrian bridge has a 13.9% running slope.

Budget Cost:

Base Cost: \$0.00
Contingency Cost: \$0.00
Design Cost: \$0.00
Total Cost: \$0.00

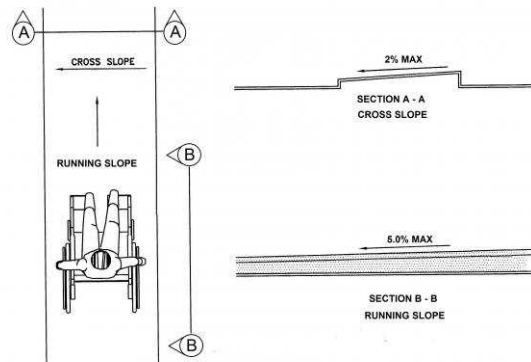
Possible Solutions:

This should be removed completely when the new pedestrian route is developed.

Cost is figured in barrier #3.

Barrier Priority:

Level 4 (High): Parking and exterior accessible routes (DOJ Level 1) – moderately out of compliance



Barrier #4 Additional Barrier Photos



Accessible Route: Path of Travel

Barrier: 5

There is no accessible route to the soccer fields and/or seating areas.

At least one accessible route shall connect accessible buildings, accessible facilities, accessible elements, and accessible spaces that are on the same site.

Citation:

2010 ADAS Section: 206.2.2

Current Condition:

At the time of the evaluation the path of travel was under construction and is not accessible to other fields.

Budget Cost:

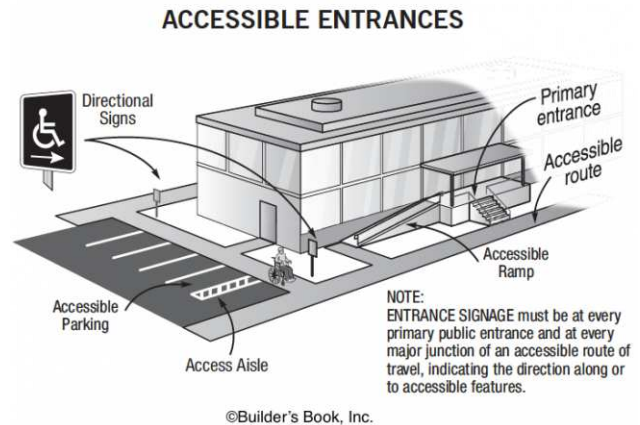
Base Cost: \$150,000.00
Contingency Cost: \$30,000.00
Design Cost: \$22,500.00
Total Cost: \$202,500.00

Possible Solutions:

Provide path of travel that the running slope is no greater than 1:20 (5%) and a cross slope that is no greater than 1:48 (2.08%).

Barrier Priority:

Level 5 (Medium): Access to goods and services issues (DOJ Level 2) – severely out of compliance



Barrier #5 Additional Barrier Photos



Barrier #5 Additional Barrier Photos



Restrooms: Women's Restrooms

Barrier: 6

The walkway contains abrupt vertical edges and/or variations over a 1/2 inch.

1/4 inch is the maximum vertical rise. Changes in level between 1/4 inch and 1/2 inch must be beveled at 1:2 or less.

Changes in level greater than 1/2 inch must be by way of a ramp.

Citation:

2010 ADAS Section: 303.3,
303.2

Current Condition:

There is a change of elevation of 1 inch at the entrance of the women's restroom.

Budget Cost:

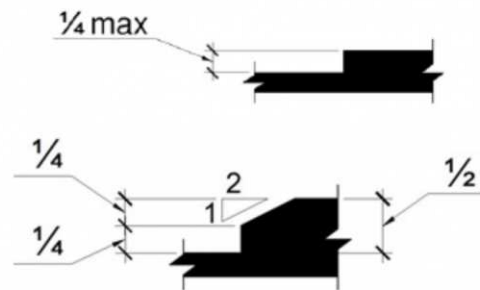
Base Cost: \$1,500.00
Contingency Cost: \$300.00
Design Cost: \$200.00
Total Cost: \$2,000.00

Possible Solutions:

Modify the path of travel to provide a smooth level surface.

Barrier Priority:

Level 6 (Medium): Parking or exterior accessible routes (DOJ Level 1) – minimally out of compliance
Access to goods and services (DOJ Level 2) – moderately out of compliance
Restrooms (DOJ Level 3) – severely out of compliance



Restrooms: Women's Restrooms

Barrier: 7

The water and drain pipes under the lavatory are not adequately insulated.

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.

Citation:

2010 ADAS Section: 606.5

Current Condition:

No pipe insulation is provided.

Budget Cost:

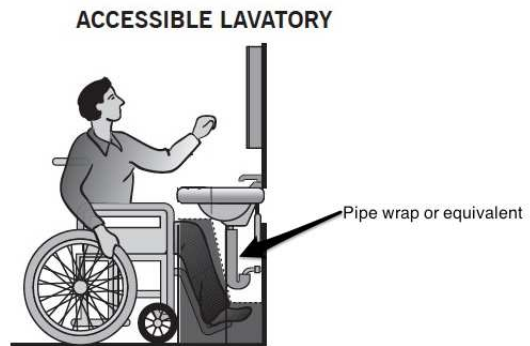
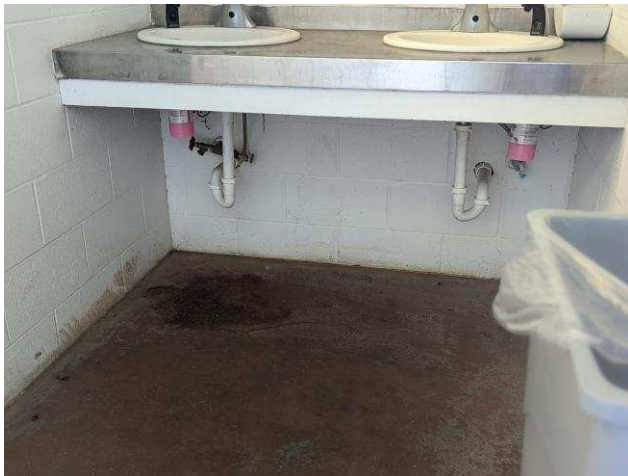
Base Cost: \$650.00
Contingency Cost: \$150.00
Design Cost: \$100.00
Total Cost: \$900.00

Possible Solutions:

Install insulation around at least one of the lavatory pipes or otherwise protect against contact.

Barrier Priority:

Level 8 (Medium): Drinking fountains and public phones (DOJ Level 4 & 5) – moderately out of compliance



Restrooms: Women's Restrooms

Barrier: 8

The compartment door is not self closing.

The water closet compartment shall be equipped with a door that has an automatic-closing device.

Citation:

2010 ADAS Section:
604.8.1.2

Current Condition:

Neither the accessible stall
nor the ambulatory stall
have self-closing hinges.

Budget Cost:

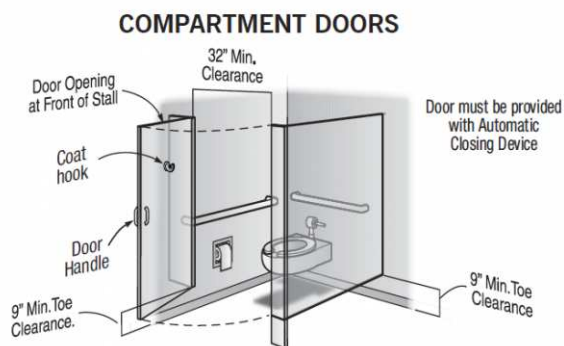
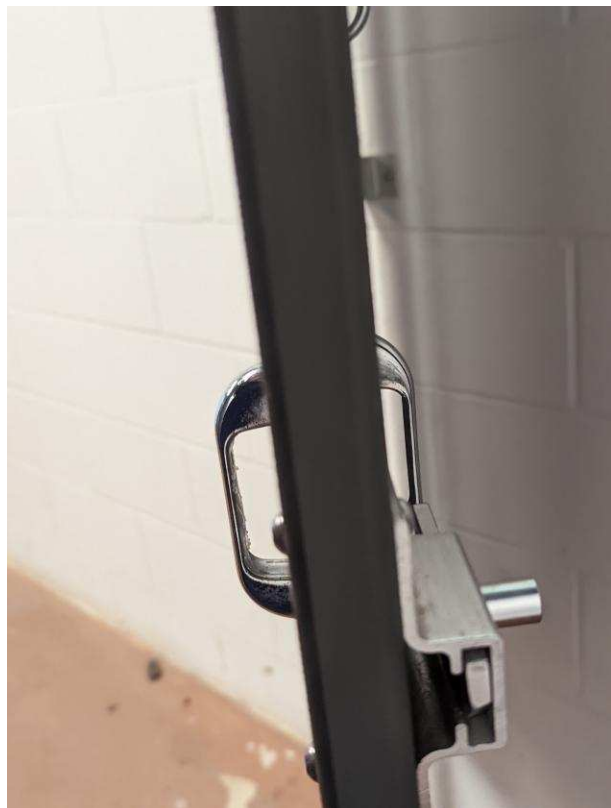
Base Cost: \$650.00
Contingency Cost: \$150.00
Design Cost: \$100.00
Total Cost: \$900.00

Possible Solutions:

Install self-closing hinges on both doors.

Barrier Priority:

Level 9 (Low): Restrooms (DOJ Level 3) – minimally out of compliance



Restrooms: Men's Restroom

Barrier: 9

The compartment door is not self closing.

The water closet compartment shall be equipped with a door that has an automatic-closing device.

Citation:

2010 ADAS Section:
604.8.1.2

Current Condition:

Neither the accessible stall
nor the ambulatory stall
have self-closing hinges.

Budget Cost:

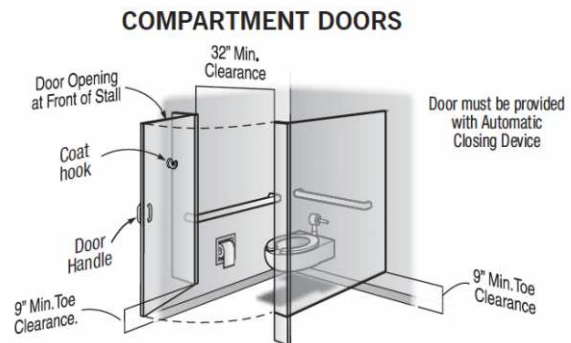
Base Cost: \$650.00
Contingency Cost: \$150.00
Design Cost: \$100.00
Total Cost: \$900.00

Possible Solutions:

Install self-closing hinges on both doors.

Barrier Priority:

Level 9 (Low): Restrooms (DOJ Level 3) – minimally out of compliance



Restrooms: Men's Restroom

Barrier: 10

The water and drain pipes under the lavatory are not adequately insulated.

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.

Citation:

2010 ADAS Section: 606.5

Current Condition:

No pipe insulation is provided.

Budget Cost:

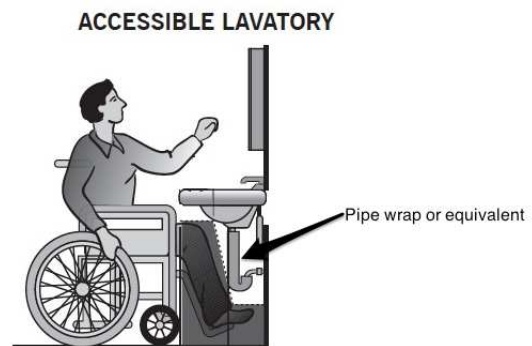
Base Cost: \$650.00
Contingency Cost: \$150.00
Design Cost: \$100.00
Total Cost: \$900.00

Possible Solutions:

Install insulation around at least one of the lavatory pipes or otherwise protect against skin contact.

Barrier Priority:

Level 8 (Medium): Drinking fountains and public phones (DOJ Level 4 & 5) – moderately out of compliance



Concession: Doors

Barrier: 11

The maneuvering clearance at the entrance door exceeds 2% slope.

Exterior doors with a front approach must have a landing on the pull side that is a minimum of 60 inches in depth perpendicular to the door in a close position by a minimum width dimension of 18 inches plus the door width. The additional 18 inches must extend past the door on the latch side. The entire maneuvering clearance must be free of obstructions and must be flat (2% max. slope is considered flat in any direction).

Citation:

2010 ADAS Section:
404.2.4.4

Current Condition:

Slope into the concession
building is at 7.1%.

Budget Cost:

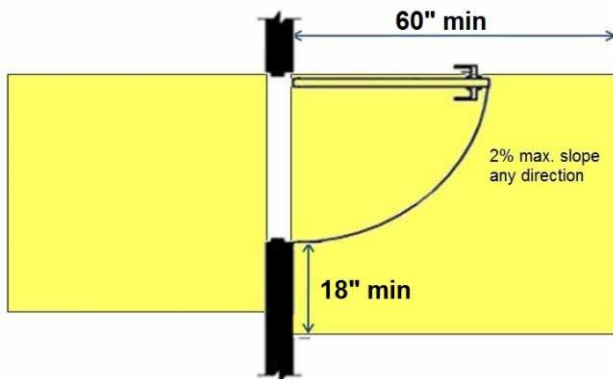
Base Cost: \$25,000.00
Contingency Cost: \$5,000.00
Design Cost: \$3,800.00
Total Cost: \$33,800.00

Possible Solutions:

The exterior sidewalk around the building has a cross slope. The areas serving entry doors need to be altered for compliance.

Barrier Priority:

Level 6 (Medium): Parking or exterior accessible routes (DOJ Level 1) – minimally out of compliance
Access to goods and services (DOJ Level 2) – moderately out of compliance
Restrooms (DOJ Level 3) – severely out of compliance



Concession: Counters

Barrier: 12

The counter is too high.

A portion of the counter surface that is 30 inches long minimum and 36 inches high maximum shall be provided. Knee and toe space shall be provided under the counter. A clear floor or ground space shall be positioned for a forward approach to the counter.

Citation:

2010 ADAS Section: 904.4.2

Current Condition:

The lower concession counter is mounted at 41 inches.

Budget Cost:

Base Cost: \$2,300.00
Contingency Cost: \$450.00
Design Cost: \$350.00
Total Cost: \$3,100.00

Possible Solutions:

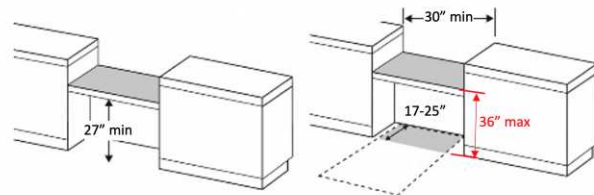
Lower at least one of the concession counters so it's no more than 36 inches high.

Barrier Priority:

Level 7 (Medium): Access to goods and services (DOJ Level 2) – minimally out of compliance

Restrooms (DOJ Level 3) – moderately out of compliance

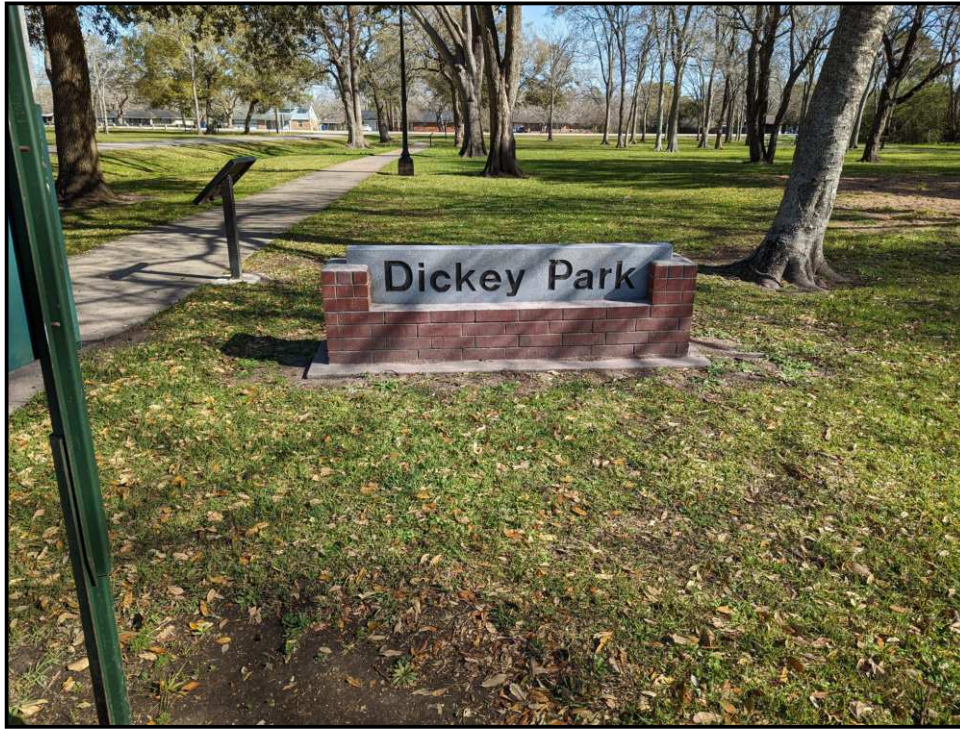
Drinking fountains and public phones (DOJ Level 4 & 5) – severely out of compliance



Cost Summary

Item	# of Barriers	Total Item Cost
High Priority	3	\$8,800.00
Level 1	0	\$0.00
Level 2	0	\$0.00
Level 3	2	\$8,800.00
Level 4	1	\$0.00
Medium Priority	7	\$250,000.00
Level 5	2	\$209,300.00
Level 6	2	\$35,800.00
Level 7	1	\$3,100.00
Level 8	2	\$1,800.00
Low Priority	2	\$1,800.00
Level 9	2	\$1,800.00
Level 10	0	\$0.00
Level 11	0	\$0.00
Level 12	0	\$0.00
Priority Total	12	\$260,600.00

Site Accessibility Evaluation



Dickey Park
813 W Mulberry St
Angleton, TX 77515
Accessibility Evaluation
Evaluation Date: 03/24/2022
Evaluators: Kristi Avalos

Prepared By

 **ACCESSOLOGY**

(972) 434 - 0068

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Pavillion: Picnic Table

Barrier: 1

The knee clearance is not compliant.

The knee clearance shall be 11 inches deep minimum at 9 inches above the finish floor or ground, and 8 inches deep minimum at 27 inches above the finish floor or ground and 30 inches wide minimum.

Citation:

2010 ADAS Section: 306.3.3

Current Condition:

Picnic tables throughout the park do not have the proper knee and toe clearance.

Budget Cost:

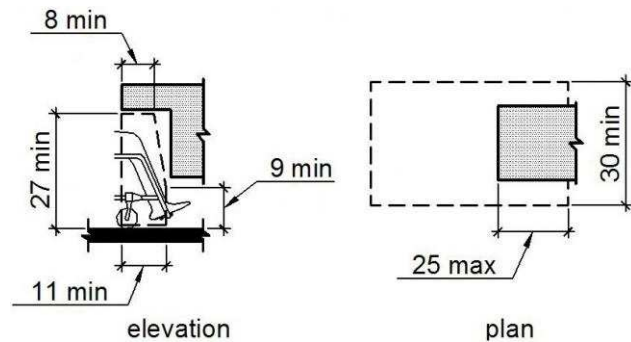
Base Cost: \$1,200.00
Contingency Cost: \$240.00
Design Cost: \$160.00
Total Cost: \$1,600.00

Possible Solutions:

Provide at least one accessible picnic table under the pavilion.

Barrier Priority:

Level 5 (Medium): Access to goods and services issues (DOJ Level 2) – severely out of compliance



Playground: Playground Equipment

Barrier: 2

The transfer platform has not been provided with support for transferring.

Where play components require transfer to entry points or seats, at least one means of support for transferring shall be provided.

Citation:

2010 ADAS Section: 1008.4.5

Current Condition:

Transfer support missing.

Budget Cost:

Base Cost: \$1,000.00
Contingency Cost: \$225.00
Design Cost: \$175.00
Total Cost: \$1,400.00

Possible Solutions:

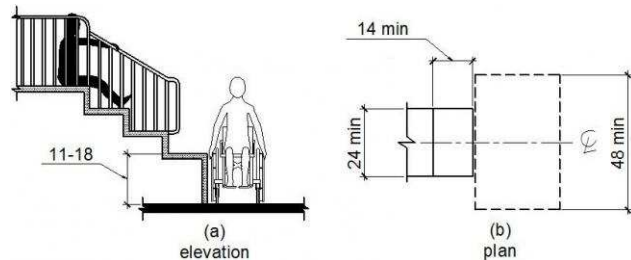
Add transfer support to transfer platform.

Barrier Priority:

Level 6 (Medium): Parking or exterior accessible routes (DOJ Level 1) – minimally out of compliance

Access to goods and services (DOJ Level 2) – moderately out of compliance

Restrooms (DOJ Level 3) – severely out of compliance



Playground: Playground Equipment

Barrier: 3

The clear floor space required at the bench has a change in elevation..

Changes in level are not permitted at required clear floor or ground space except that slopes not steeper than 1:48 shall be permitted.

Citation:

2010 ADAS Section: 305.2

Current Condition:

The area that required for clear floor space next to the bench has a change in elevation due to transition from sidewalk to ground surface.

Budget Cost:

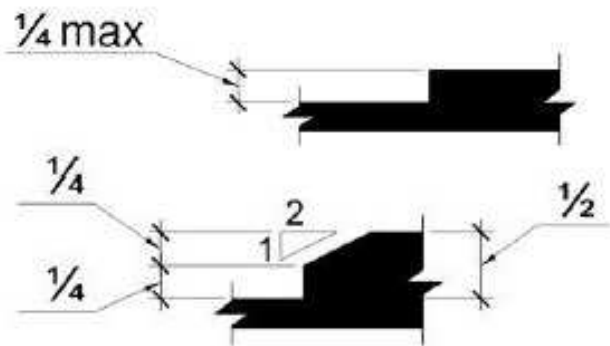
Base Cost: \$1,800.00
Contingency Cost: \$350.00
Design Cost: \$250.00
Total Cost: \$2,400.00

Possible Solutions:

Install bench and companion seating area on a concrete or otherwise prepared pad with a firm, stable and slip resistant uninterrupted surface.

Barrier Priority:

Level 6 (Medium): Parking or exterior accessible routes (DOJ Level 1) – minimally out of compliance
Access to goods and services (DOJ Level 2) – moderately out of compliance
Restrooms (DOJ Level 3) – severely out of compliance



Barrier #3 Additional Barrier Photos



Playground: Playground Equipment

Barrier: 4

The walkway contains abrupt vertical edges and/or variations over a 1/2 inch.

1/4 inch is the maximum vertical rise. Changes in level between 1/4 inch and 1/2 inch must be beveled at 1:2 or less.

Changes in level greater than 1/2 inch must be by way of a ramp.

Citation:

2010 ADAS Section: 303.3,
303.2

Current Condition:

Level change at entrance to
the playground

Budget Cost:

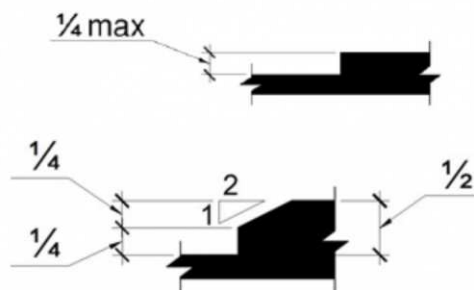
Base Cost: \$750.00
Contingency Cost: \$150.00
Design Cost: \$100.00
Total Cost: \$1,000.00

Possible Solutions:

Ensure a fully compliant path of travel into the playground area.

Barrier Priority:

Level 5 (Medium): Access to goods and services issues (DOJ Level 2) – severely out of compliance



Barrier #4 Additional Barrier Photos



Playground: Playground Equipment

Barrier: 5

Compliance with ASTM F1951 for accessibility for ground surfaces on accessible routes, clear floor or ground spaces, and turning spaces has not been determined.

Ground surfaces shall comply with ASTM F 1951. Ground surfaces shall be inspected and maintained regularly and frequently to ensure continued compliance with ASTM F 1951.

Citation:

2010 ADAS Section:
1008.2.6.1

Current Condition:

Playground surface is
uneven.

Budget Cost:

Base Cost: \$2,500.00
Contingency Cost: \$525.00
Design Cost: \$375.00
Total Cost: \$3,400.00

Possible Solutions:

Engineered wood fiber requires proper maintenance for compliance. It needs to be regularly raked to ensure a compliant surface.

Barrier Priority:

Level 8 (Medium): Drinking fountains and public phones (DOJ Level 4 & 5) – moderately out of compliance



Playground: Amenities

Barrier: 6

The walkway contains abrupt vertical edges and/or variations over a 1/2 inch.

1/4 inch is the maximum vertical rise. Changes in level between 1/4 inch and 1/2 inch must be beveled at 1:2 or less.

Changes in level greater than 1/2 inch must be by way of a ramp.

Citation:

2010 ADAS Section: 303.3,
303.2

Current Condition:

1.5 inch level change to the
grill.

Budget Cost:

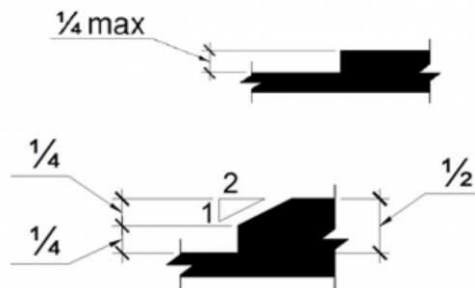
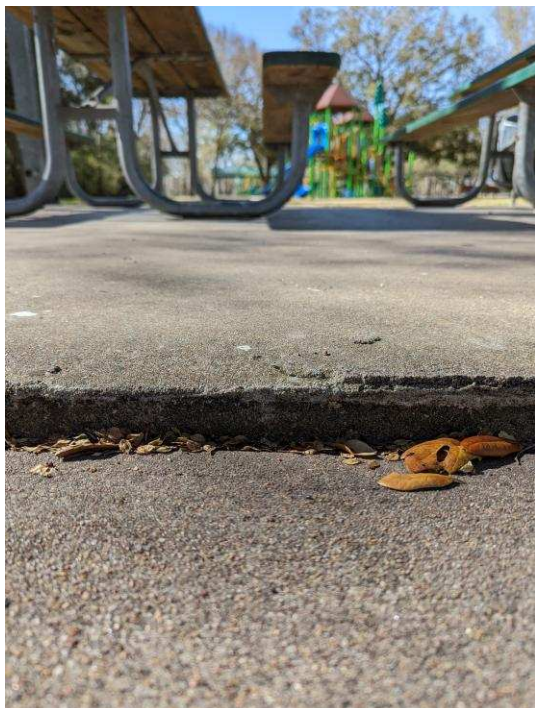
Base Cost: \$1,000.00
Contingency Cost: \$225.00
Design Cost: \$175.00
Total Cost: \$1,400.00

Possible Solutions:

Repair ground surface to provide a smooth transition to the grill.

Barrier Priority:

Level 5 (Medium): Access to goods and services issues (DOJ Level 2) – severely out of compliance



Barrier #6 Additional Barrier Photos



Playground: Amenities

Barrier: 7

There is no accessible route to any of the horseshoe pits.

At least one accessible route shall connect accessible buildings, accessible facilities, accessible elements, and accessible spaces that are on the same site.

Citation:

2010 ADAS Section: 206.2.2

Current Condition:

No accessible route to any horseshoe pit.

Budget Cost:

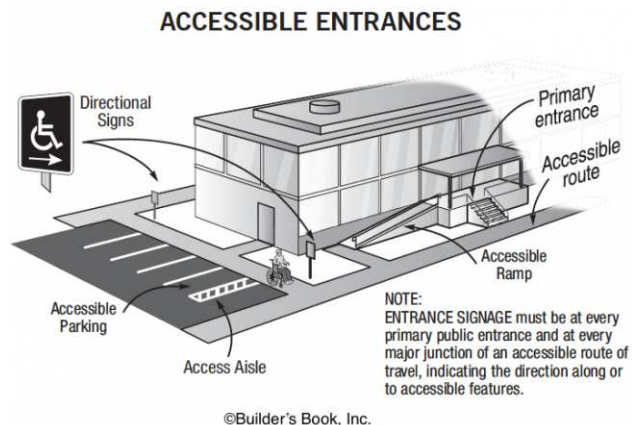
Base Cost: \$3,000.00
Contingency Cost: \$650.00
Design Cost: \$450.00
Total Cost: \$4,100.00

Possible Solutions:

Provide a concrete or otherwise prepared path to at least one horseshoe pit. Ensure it has a firm, stable and slip resistant uninterrupted surface.

Barrier Priority:

Level 5 (Medium): Access to goods and services issues (DOJ Level 2) – severely out of compliance



Playground: Amenities

Barrier: 8

There is no accessible route to the element.

At least one accessible route shall connect accessible buildings, accessible facilities, accessible elements, and accessible spaces that are on the same site.

Citation:

2010 ADAS Section: 206.2.2

Current Condition:

No accessible route to trash cans.

Budget Cost:

Base Cost: \$1,500.00
Contingency Cost: \$300.00
Design Cost: \$200.00
Total Cost: \$2,000.00

Possible Solutions:

Provide a concrete or otherwise prepared path to the trash can. Ensure it has a firm, stable and slip resistant uninterrupted surface.

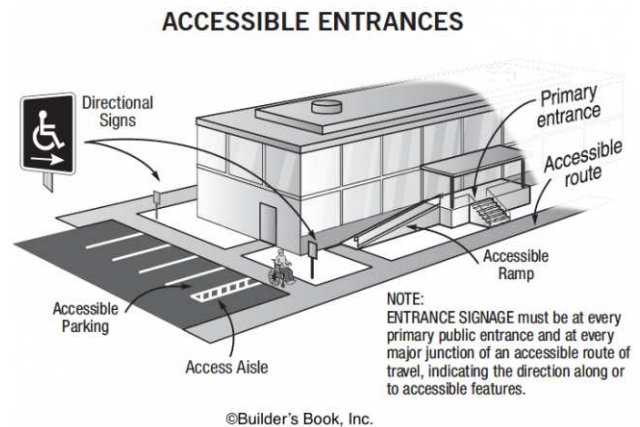
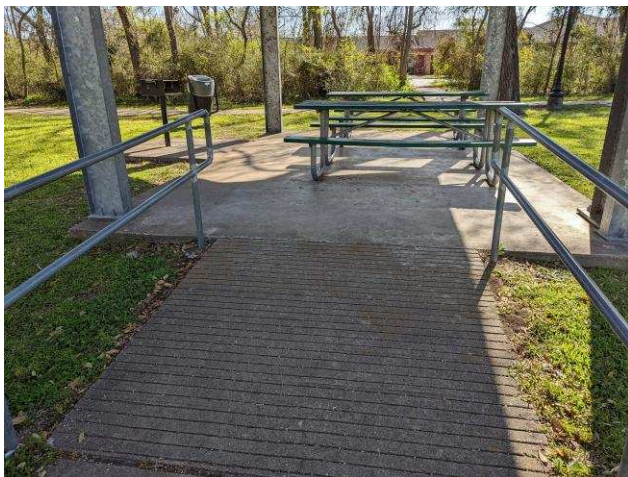
Alternatively relocate the trash can so it is served by the existing pad and is within reach ranges.

Barrier Priority:

Level 6 (Medium): Parking or exterior accessible routes (DOJ Level 1) – minimally out of compliance

Access to goods and services (DOJ Level 2) – moderately out of compliance

Restrooms (DOJ Level 3) – severely out of compliance



Barrier #8 Additional Barrier Photos



Playground: Amenities

Barrier: 9

An accessible route is not provided to the start of play for each basket.

Disc golf courses shall be configured so that the accessible start of play areas are consecutive.

Citation:

2010 ADAS Section: 239.3

Current Condition:

No accessible route is provided for the start of play tee station through out the entire course.

Budget Cost:

Base Cost: \$3,500.00
Contingency Cost: \$700.00
Design Cost: \$500.00
Total Cost: \$4,700.00

Possible Solutions:

Provide a level, stable and slip resistant ground surface route to at least 50% of the start of play tees.

Barrier Priority:

Level 6 (Medium): Parking or exterior accessible routes (DOJ Level 1) – minimally out of compliance
Access to goods and services (DOJ Level 2) – moderately out of compliance
Restrooms (DOJ Level 3) – severely out of compliance



Barrier #9 Additional Barrier Photos



Playground: Amenities

Barrier: 10

The concrete expansion joint is spaced greater than 1/2 inch.

Openings in floor or ground surfaces shall not allow passage of a sphere more than 1/2 inch diameter. Elongated openings shall be placed so that the long dimension is perpendicular to the dominant direction of travel.

Citation:

2010 ADAS Section: 302.3

Current Condition:

The concrete expansion joint is spaced greater than 1/2 inch.

Budget Cost:

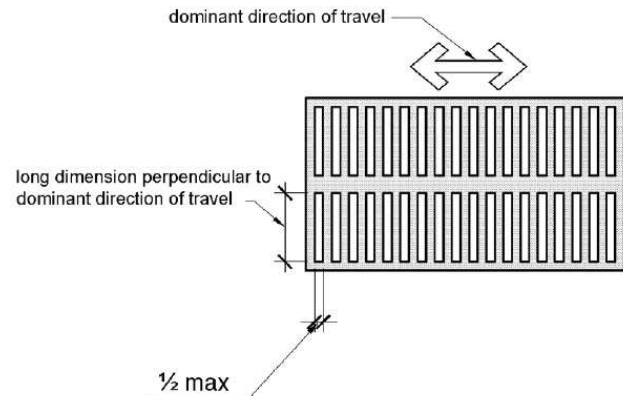
Base Cost: \$750.00
Contingency Cost: \$150.00
Design Cost: \$100.00
Total Cost: \$1,000.00

Possible Solutions:

Fill or treat expansion joints to alleviate gap.

Barrier Priority:

Level 6 (Medium): Parking or exterior accessible routes (DOJ Level 1) – minimally out of compliance
Access to goods and services (DOJ Level 2) – moderately out of compliance
Restrooms (DOJ Level 3) – severely out of compliance



Barrier #10 Additional Barrier Photos



Playground: Amenities

Barrier: 11

There is no accessible route to the element.

At least one accessible route shall connect accessible buildings, accessible facilities, accessible elements, and accessible spaces that are on the same site.

Citation:

2010 ADAS Section: 206.2.2

Current Condition:

No accessible route to the park bench.

Budget Cost:

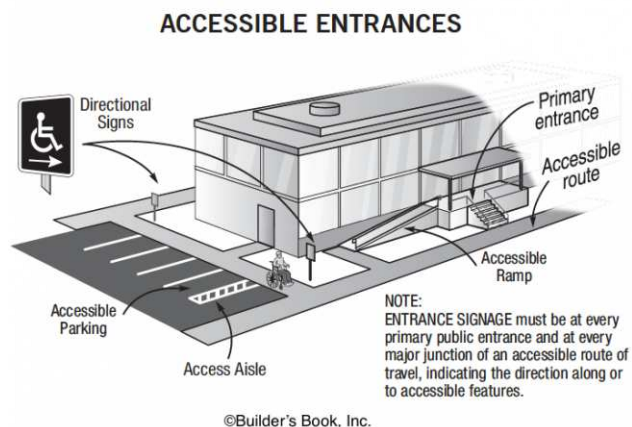
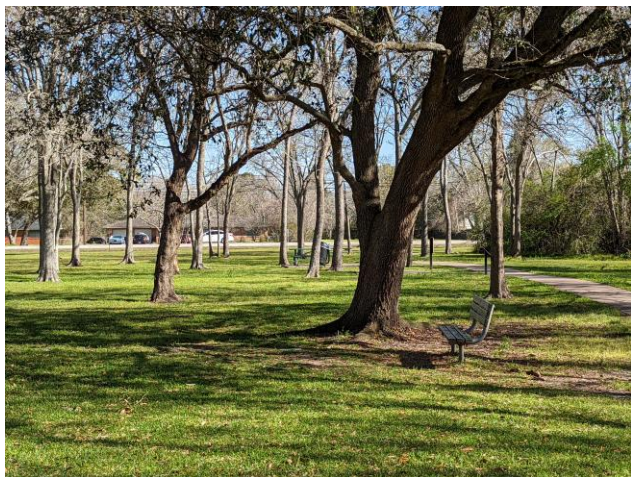
Base Cost: \$1,500.00
Contingency Cost: \$300.00
Design Cost: \$200.00
Total Cost: \$2,000.00

Possible Solutions:

Provide a level, stable and slip resistant ground surface route to bench and provide a level 30" x 48" wheelchair space with slopes no greater than 1:48 (2.08%).

Barrier Priority:

Level 6 (Medium): Parking or exterior accessible routes (DOJ Level 1) – minimally out of compliance
Access to goods and services (DOJ Level 2) – moderately out of compliance
Restrooms (DOJ Level 3) – severely out of compliance



Restrooms: Restrooms

Barrier: 12

The toilet paper is not installed within the compliant range in front of the toilet.

Toilet paper dispensers shall be 7 inches minimum and 9 inches maximum in front of the water closet measured to the centerline of the dispenser. The outlet of the dispenser shall be 15 inches minimum and 48 inches maximum above the finish floor and shall not be located behind grab bars. Dispensers shall not be of a type that controls delivery or that does not allow continuous paper flow. There shall be a clearance of 1 1/2 inches minimum below the grab bar.

Citation:

2010 ADAS Section: 604.7

Current Condition:

Both toilet paper dispensers are installed outside compliant range.

Budget Cost:

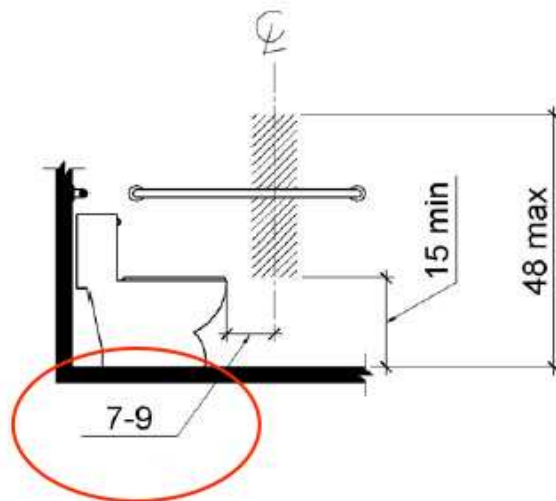
Base Cost: \$500.00
Contingency Cost: \$100.00
Design Cost: \$100.00
Total Cost: \$700.00

Possible Solutions:

Remove and reinstall the toilet paper dispenser to be 7 to 9 inches in front of the water closet measured to the centerline of the dispenser.

Barrier Priority:

Level 9 (Low): Restrooms (DOJ Level 3) – minimally out of compliance



Cost Summary

Item	# of Barriers	Total Item Cost
High Priority	0	\$0.00
Level 1	0	\$0.00
Level 2	0	\$0.00
Level 3	0	\$0.00
Level 4	0	\$0.00
Medium Priority	11	\$25,000.00
Level 5	4	\$8,100.00
Level 6	6	\$13,500.00
Level 7	0	\$0.00
Level 8	1	\$3,400.00
Low Priority	1	\$700.00
Level 9	1	\$700.00
Level 10	0	\$0.00
Level 11	0	\$0.00
Level 12	0	\$0.00
Priority Total	12	\$25,700.00

Site Accessibility Evaluation



Bates Park
700 Bates Park Rd
Angleton, TX 77515
Accessibility Evaluation
Evaluation Date: 03/24/2022
Evaluators: Kristi Avalos

Prepared By



(972) 434 - 0068

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Parking: Signage

Barrier: 1

The parking sign is mounted too low.

Parking space identification signs shall include the International Symbol of Accessibility. Signs identifying van parking spaces shall contain the designation "van accessible." Signs shall be 60 inches minimum above the finish floor or ground surface measured to the bottom of the sign.

Citation:

2010 ADAS Section: 502.6

Current Condition:

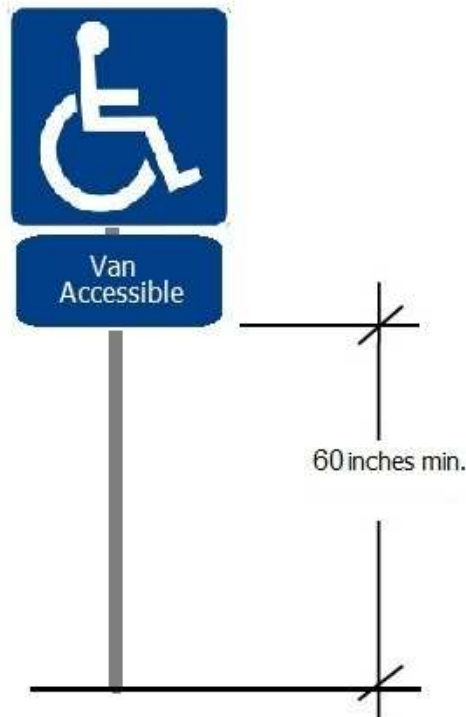
All accessible parking signs are mounted too low.

Budget Cost:

Base Cost: \$1,000.00
Contingency Cost: \$250.00
Design Cost: \$150.00
Total Cost: \$1,400.00

Possible Solutions:

Raise all accessible signage so the bottom of the sign is a minimum of 60 inches above ground to the bottom of the sign.



Pavillion: Accessible Route

Barrier: 2

There is no accessible route to the dog waste bags, hand sanitizer, or the library box.

At least one accessible route shall connect accessible buildings, accessible facilities, accessible elements, and accessible spaces that are on the same site.

Citation:

2010 ADAS Section: 206.2.2

Current Condition:

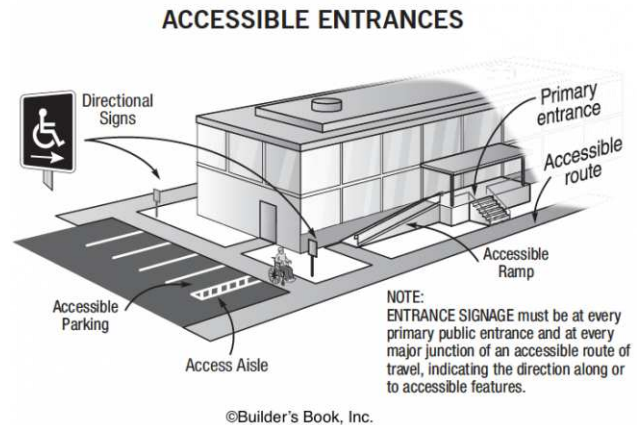
There is no prepared accessible route throughout the entire park, the surface is comprised of grass, and no wheel stops are present to protect the clear floor space of dispensers.

Budget Cost:

Base Cost: \$1,500.00
Contingency Cost: \$300.00
Design Cost: \$200.00
Total Cost: \$2,000.00

Possible Solutions:

Provide a level, stable and slip resistant ground surface route to each amenity throughout the park. Also add a wheel stop to protect the clear floor space.



Pavillion: Accessible Route

Barrier: 3

There is no accessible route to the picnic tables and pavilion.

At least one accessible route shall connect accessible buildings, accessible facilities, accessible elements, and accessible spaces that are on the same site.

Citation:

2010 ADAS Section: 206.2.2

Current Condition:

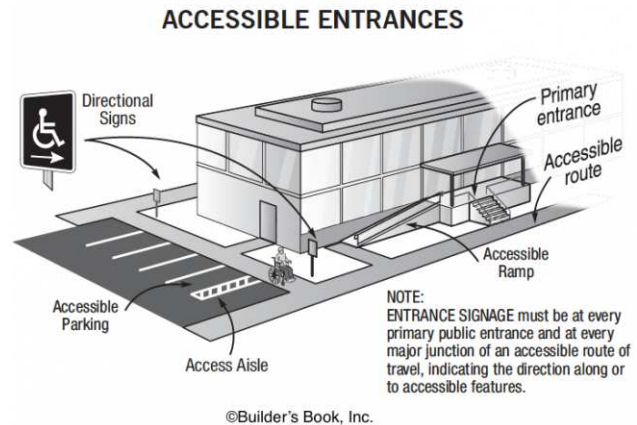
There is no prepared accessible route throughout the entire park. All surfacing is comprised of grass and dirt.

Budget Cost:

Base Cost: \$1,500.00
Contingency Cost: \$300.00
Design Cost: \$200.00
Total Cost: \$2,000.00

Possible Solutions:

Provide a firm, stable and slip-resistant connection to the pavilion and picnic tables.



Pavillion: Accessible Route

Barrier: 4

There are no accessible tables.

At least 5% of each type in each functional area of dining surfaces must be accessible and must be dispersed throughout the space or facility containing dining surfaces. An accessible table must be on an accessible route (36 inches minimum) and have knee and toe spaces at least 27 inches high, 30 inches wide and 17 inches deep. The tops of tables and counters shall be 28 inches to 34 inches from the floor or ground.

Citation:

2010 ADAS Section: 226.1

Current Condition:

There are no accessible picnic tables provided nor are any located on an accessible route.

Budget Cost:

Base Cost: \$1,500.00
Contingency Cost: \$300.00
Design Cost: \$200.00
Total Cost: \$2,000.00

Possible Solutions:

Add at least 5% (minimum of 1) fully accessible picnic tables at each area where picnic tables are offered. Provide an accessible route that has a level, firm, stable, and slip resistant ground surface, and provide proper connection to any areas with a level change.



Pavillion: Accessible Route

Barrier: 5

There is no accessible route to the grill or trash can.

At least one accessible route shall connect accessible buildings, accessible facilities, accessible elements, and accessible spaces that are on the same site.

Citation:

2010 ADAS Section: 206.2.2

Current Condition:

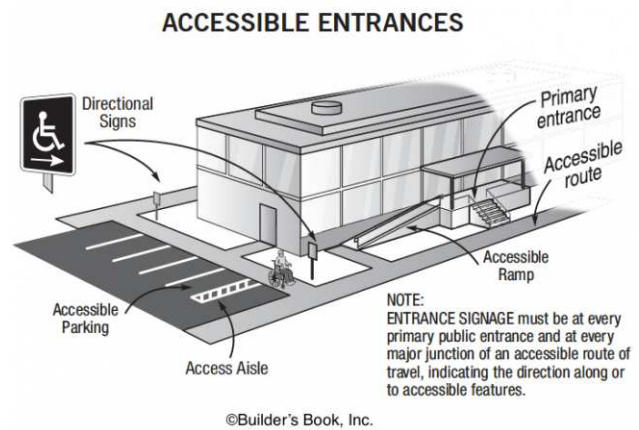
Grill and trash can are not located on an accessible route.

Budget Cost:

Base Cost: \$1,500.00
Contingency Cost: \$300.00
Design Cost: \$200.00
Total Cost: \$2,000.00

Possible Solutions:

Provide an accessible route to the trash can and grill or relocate the elements to an accessible location.



Pavillion: Accessible Route

Barrier: 6

The ramps exceeds the maximum running slope (direction of travel) allowable of 8.33%.

Ramps should have the least possible slope but in no case more than 8.3% (1:12).

Citation:

2010 ADAS Section: 405.2

Current Condition:

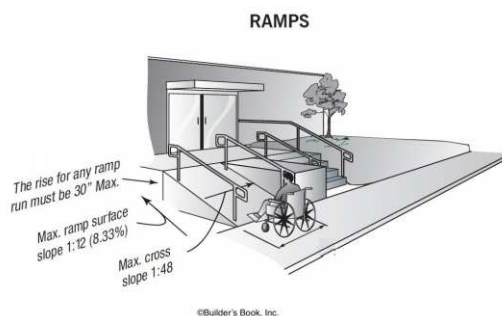
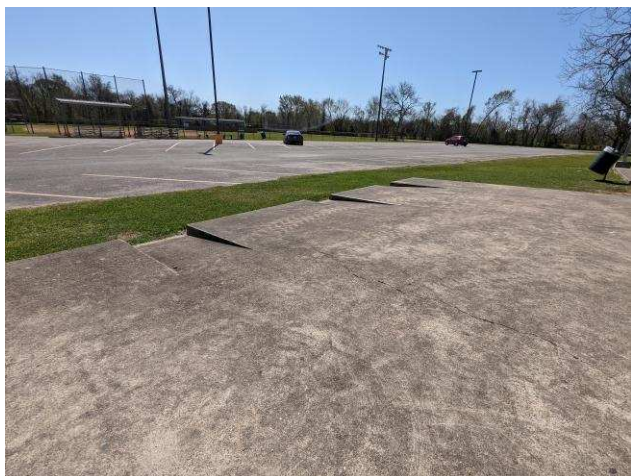
The ramp to the basketball pavilion has a running slope of 13.3% percent.

Budget Cost:

Base Cost: \$3,000.00
Contingency Cost: \$600.00
Design Cost: \$500.00
Total Cost: \$4,100.00

Possible Solutions:

Modify ramps to obtain no greater than 8.33% running slope with handrails on both sides.



Barrier #6 Additional Barrier Photos



Playground: Amenities

Barrier: 7

An accessible route is not provided from the last accessible hole to the course entrance or exit.

Miniature golf courses shall be configured so that the accessible holes are consecutive. Miniature golf courses shall provide an accessible route from the last accessible hole to the course entrance or exit without requiring travel through any other holes on the course.

Citation:

2010 ADAS Section: 239.3

Current Condition:

There is no accessible route provided for any of the start of play tee stations throughout the entire course.

Budget Cost:

Base Cost: \$3,500.00
Contingency Cost: \$700.00
Design Cost: \$500.00
Total Cost: \$4,700.00

Possible Solutions:

Provide a level, stable and slip resistant ground surface route to at least 50% of start of play tees.



Barrier #7 Additional Barrier Photos



Playground: Amenities

Barrier: 8

Compliance with ASTM F1951 for accessibility for ground surfaces on accessible routes, clear floor or ground spaces, and turning spaces has not been determined.

Ground surfaces shall comply with ASTM F 1951. Ground surfaces shall be inspected and maintained regularly and frequently to ensure continued compliance with ASTM F 1951.

Citation:

2010 ADAS Section:
1008.2.6.1

Current Condition:

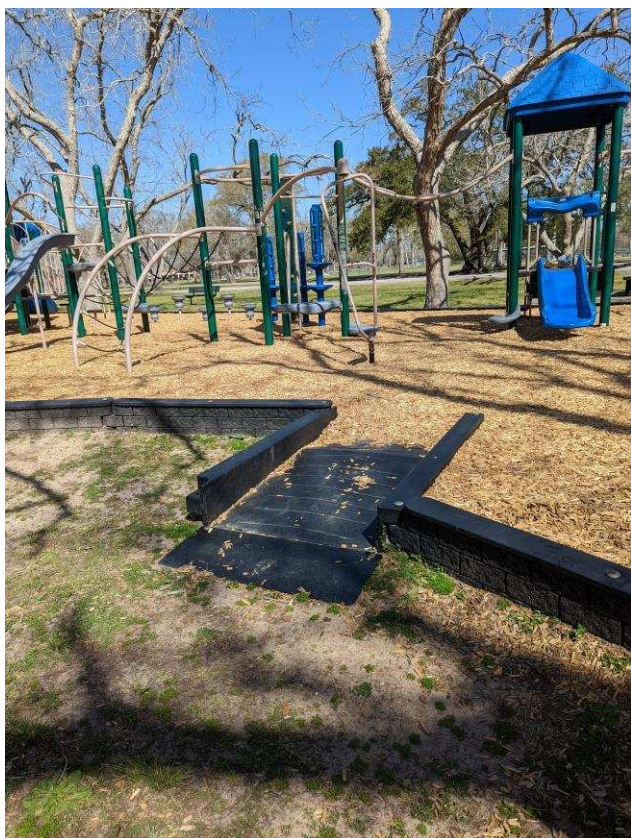
Engineered wood fiber.
Compliance with ASTM
F1951 and ASTM 1292 has
not been determined.

Budget Cost:

Base Cost: \$2,500.00
Contingency Cost: \$500.00
Design Cost: \$400.00
Total Cost: \$3,400.00

Possible Solutions:

Engineered wood fiber is an acceptable surface if properly maintained. Proper maintenance requires raking the surface to ensure the integrity is maintained.



Barrier #8 Additional Barrier Photos



Baseball Fields: Dugouts

Barrier: 9

The walkway contains abrupt vertical edges and/or variations over a 1/2 inch.

1/4 inch is the maximum vertical rise. Changes in level between 1/4 inch and 1/2 inch must be beveled at 1:2 or less.

Changes in level greater than 1/2 inch must be by way of a ramp.

Citation:

2010 ADAS Section: 303.3,
303.2

Current Condition:

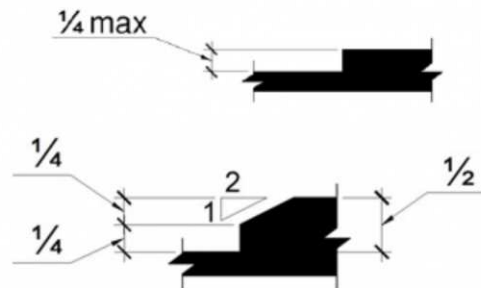
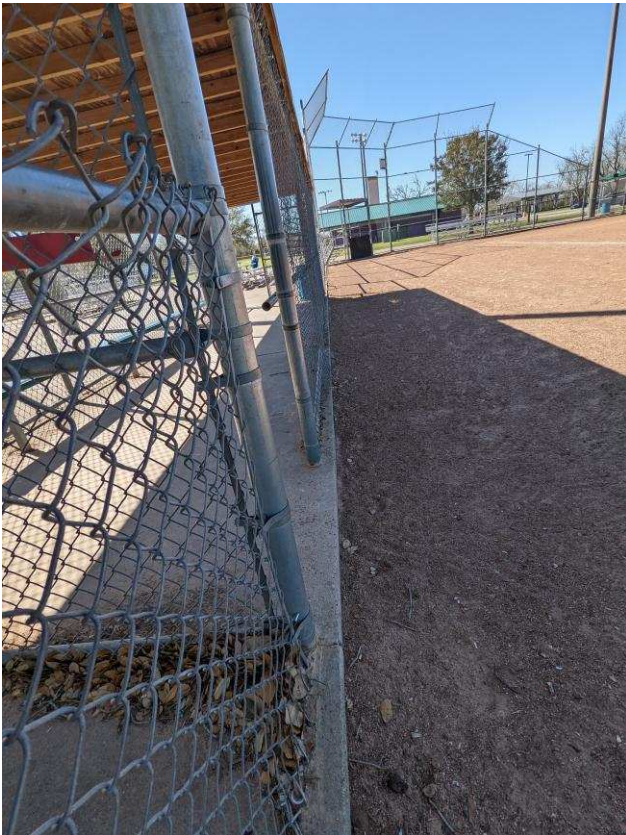
Each of the dugouts, for all 5 of the fields, has a level change both at the entry and at the exit onto the field.

Budget Cost:

Base Cost: \$6,500.00
Contingency Cost: \$1,300.00
Design Cost: \$1,000.00
Total Cost: \$8,800.00

Possible Solutions:

Remove level changes at both the entry and exit points of each dugout.



Barrier #9 Additional Barrier Photos



Concession Stand: Access

Barrier: 10

The transaction counter provides for a parallel approach and is not within the required height range.

Transaction counters shall be 36 inches high maximum and a minimum of 36 inches wide and should extend the same depth as the sales or service counter tops.

Citation:

2010 ADAS Section: 904.4.1

Current Condition:

The concession counter measures at 46 inches.

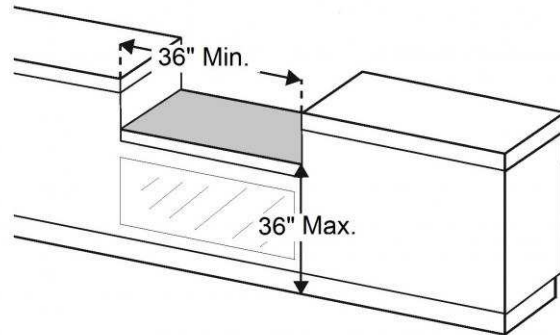
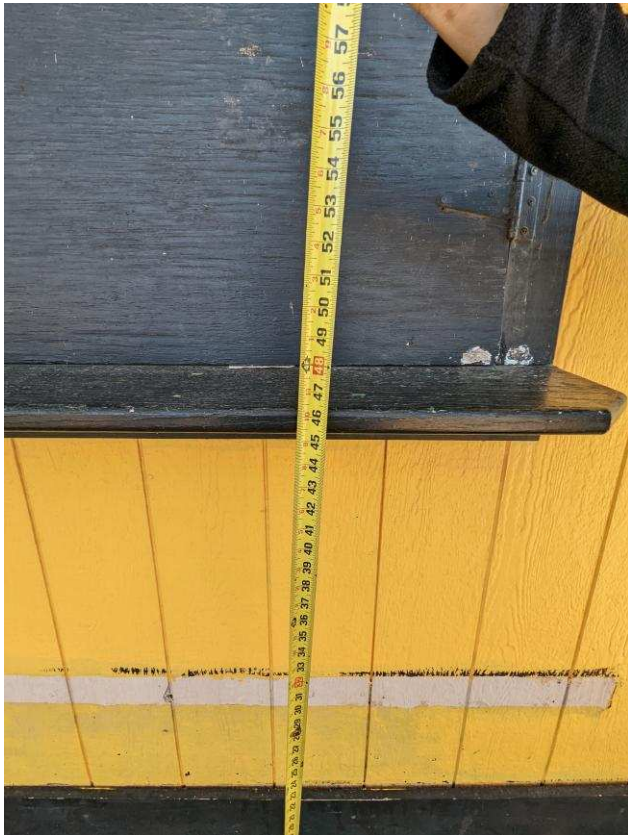
Budget Cost:

Base Cost: \$2,500.00
Contingency Cost: \$500.00
Design Cost: \$300.00
Total Cost: \$3,300.00

Possible Solutions:

Lower the transaction counter to 36 inches maximum.

It was uncertain if this concession building is being used as storage or for service.



Concession Stand: Access

Barrier: 11

The accessible route of travel exceeds 5% running slope and therefore must be considered a ramp.

Where the slope is greater than one unit vertical in 20 units horizontal (5-percent slope), ramps shall be used.

Citation:

2010 ADAS Section: 403.3

Current Condition:

The running slope of the ramp is 22.5% and it goes all the way to the entry door.

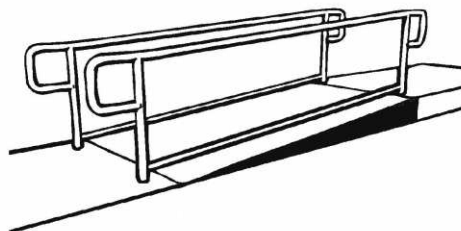
Budget Cost:

Base Cost: \$3,500.00
Contingency Cost: \$700.00
Design Cost: \$500.00
Total Cost: \$4,700.00

Possible Solutions:

Modify the entry path to the concession building to include a compliant slope, level landing, and proper door maneuvering clearances. Ensure the running slope is no greater than 1:20 (5%), or 1:12 (8.33%) with handrails and edge protection.

Same comment as the previous barrier: uncertain of the use of this building: is it used for concessions or only for storage?.



Barrier #11 Additional Barrier Photos



Concession Stand: Access

Barrier: 12

The accessible path of travel has cross slopes greater than 2%.

Surface cross slopes shall not exceed one unit vertical in 48 units horizontal (2-percent slope). When the slope in the direction of travel of any walk exceeds 1 unit vertical in 20 units horizontal (5-percent slope), it must be constructed as a ramp.

Citation:

2010 ADAS Section: 403.3

Current Condition:

Grate drain is set too low which causes a slope over 2%

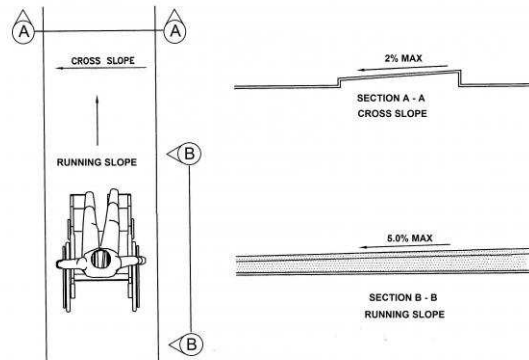
Budget Cost:

Base Cost: \$5,000.00
Contingency Cost: \$1,000.00
Design Cost: \$800.00
Total Cost: \$6,800.00

Possible Solutions:

Replace the plaza area between the fields to ensure the slope does not exceed 2% in any direction.

Alternatively, the area around the drain can be blocked so it's not part of the accessible route and the route around it can be made compliant.



Restrooms: Drinking Fountain

Barrier: 13

The drinking fountain projects from the wall into the pedestrian way with its leading edge above 27 inches from the floor.

Objects may protrude no more than 4 inches into circulation route when located between 27 and 80 inches above the floor. All drinking fountains shall be positioned so as not to encroach into pedestrian ways.

Citation:

2010 ADAS Section: 307.2

Current Condition:

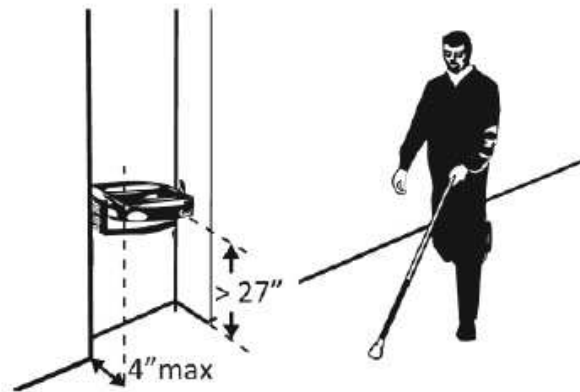
The standard height drinking fountain projects more than 4 inches into circulation path

Budget Cost:

Base Cost: \$1,000.00
Contingency Cost: \$200.00
Design Cost: \$100.00
Total Cost: \$1,300.00

Possible Solutions:

Provide a skirt for cane detection, replace, or relocate standard drinking fountain out of the circulation path.



Barrier #13 Additional Barrier Photos



Restrooms: Women's

Barrier: 14

The water and drain pipes under the lavatory are not adequately insulated.

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.

Citation:

2010 ADAS Section: 606.5

Current Condition:

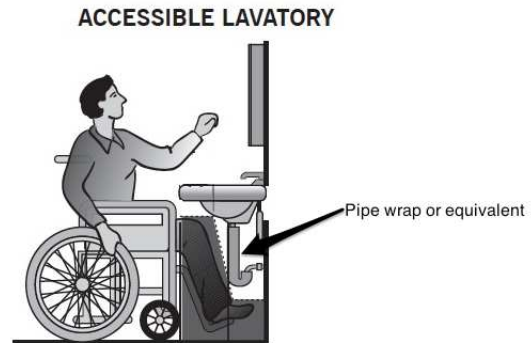
Lavatory drain pipes are not protected.

Budget Cost:

Base Cost: \$250.00
Contingency Cost: \$100.00
Design Cost: \$50.00
Total Cost: \$400.00

Possible Solutions:

Wrap the pipes under at least one sink to protect against skin contact.



Restrooms: Women's

Barrier: 15

The force required to operate the element exceeds the maximum allowable force.

The force required to activate operable parts is 5 pounds maximum.

Citation:

2010 ADAS Section: 309.4

Current Condition:

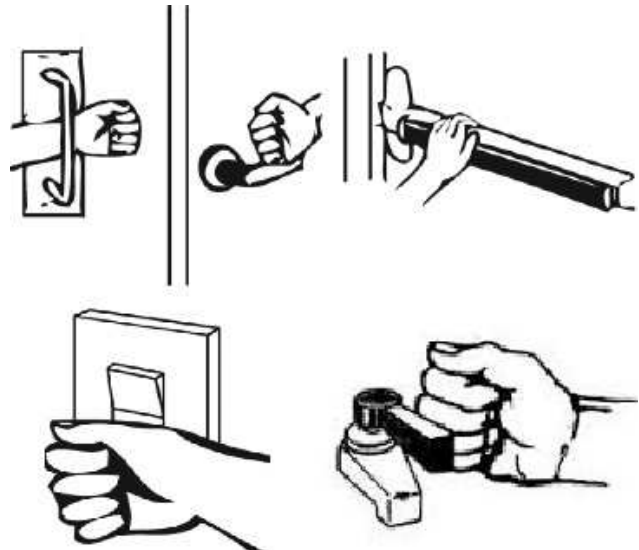
Flush control is flush with wall and requires more than 5 lbs to operate.

Budget Cost:

Base Cost: \$1,000.00
Contingency Cost: \$175.00
Design Cost: \$125.00
Total Cost: \$1,300.00

Possible Solutions:

Modify flush control to meet the required force of 5 lbs or less to activate it. Ensure the control protrudes from the wall so it can be activated with the side of a hand.



Restrooms: Women's

Barrier: 16

The toilet paper dispenser is positioned less than 12 inches from the top of the grab bar.

Elements adjacent to the grab bar shall be positioned to provide unobstructed use of grab bars. The space between the grab bar and projecting objects below and at the ends shall be 1-1/2 inches minimum. The space between the grab bar and projecting objects above shall be 12 inches minimum.

Citation:

2010 ADAS Section: 609.3

Current Condition:

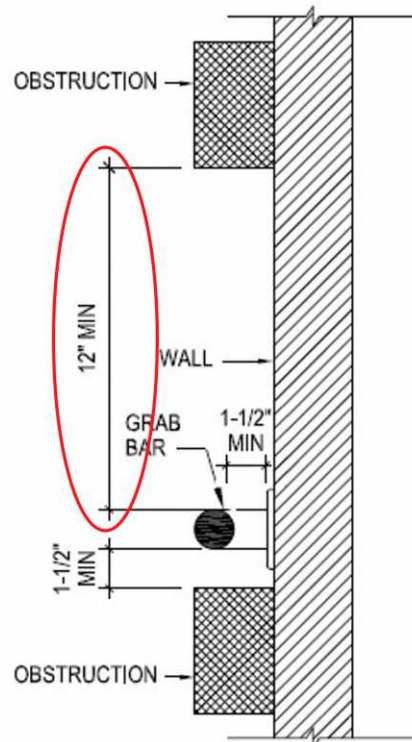
Toilet paper dispenser is located less than 12" above side grab bar

Budget Cost:

Base Cost: \$500.00
Contingency Cost: \$100.00
Design Cost: \$100.00
Total Cost: \$700.00

Possible Solutions:

Relocate the dispenser so it is a minimum of 12" above the side grab bar or place it at least 1 1/2" below.



Restrooms: Men's

Barrier: 17

The water and drain pipes under the lavatory are not adequately insulated.

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.

Citation:

2010 ADAS Section: 606.5

Current Condition:

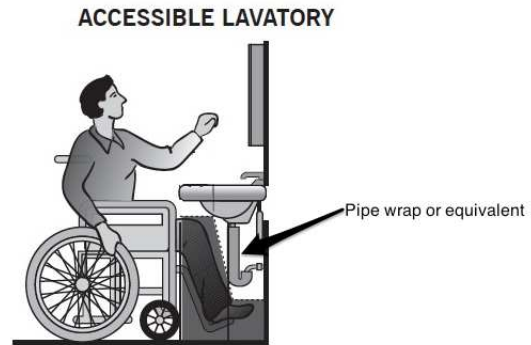
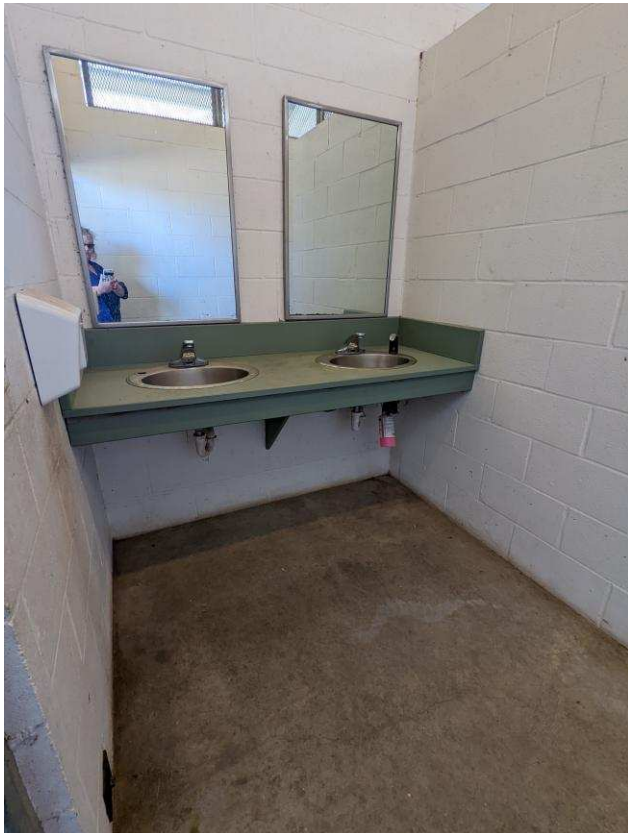
Lavatory drain pipes are not protected.

Budget Cost:

Base Cost: \$250.00
Contingency Cost: \$100.00
Design Cost: \$50.00
Total Cost: \$400.00

Possible Solutions:

Wrap the pipes under at least one sink to protect against skin contact.



Restrooms: Men's

Barrier: 18

The force required to operate the element exceeds the maximum allowable force.

The force required to activate operable parts is 5 pounds maximum.

Citation:

2010 ADAS Section: 309.4

Current Condition:

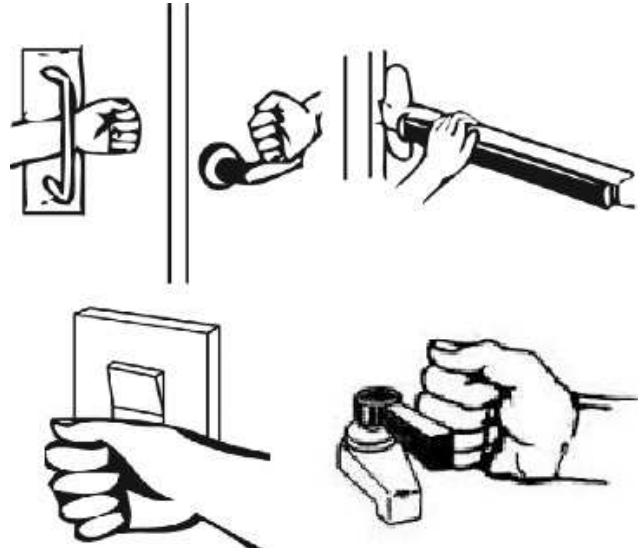
Flush control is flush with wall and requires more than 5 lbs to operate.

Budget Cost:

Base Cost: \$1,000.00
Contingency Cost: \$200.00
Design Cost: \$100.00
Total Cost: \$1,300.00

Possible Solutions:

Modify flush control to meet the required force of 5 lbs or less to activate it. Ensure the control protrudes from the wall so it can be activated with the side of a hand.



Restrooms: Men's

Barrier: 19

The element is positioned less than 12 inches from the top of the grab bar.

Elements adjacent to the grab bar shall be positioned to provide unobstructed use of grab bars. The space between the grab bar and projecting objects below and at the ends shall be 1-1/2 inches minimum. The space between the grab bar and projecting objects above shall be 12 inches minimum.

Citation:

2010 ADAS Section: 609.3

Current Condition:

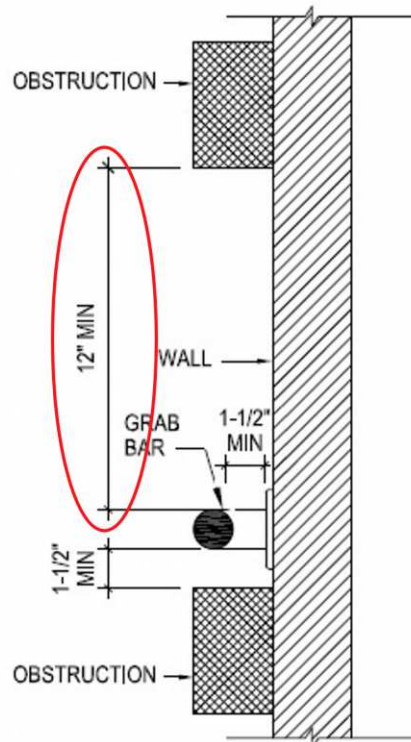
Toilet paper dispenser is located less than 12" above side grab bar

Budget Cost:

Base Cost: \$500.00
Contingency Cost: \$100.00
Design Cost: \$100.00
Total Cost: \$700.00

Possible Solutions:

Relocate the dispenser so it is a minimum of 12" above the side grab bar or place it at least 1 1/2" below.



Cost Summary

Item	# of Barriers	Total Item Cost
High Priority	0	\$0.00
Level 1	0	\$0.00
Level 2	0	\$0.00
Level 3	0	\$0.00
Level 4	0	\$0.00
Medium Priority	19	\$51,300.00
Level 5	6	\$28,400.00
Level 6	11	\$22,100.00
Level 7	2	\$800.00
Level 8	0	\$0.00
Low Priority	0	\$0.00
Level 9	0	\$0.00
Level 10	0	\$0.00
Level 11	0	\$0.00
Level 12	0	\$0.00
Priority Total	19	\$51,300.00

Site Accessibility Evaluation



Brushy Bayou Park
100 Meadow Creek Rd
Angleton, TX 77515
Accessibility Evaluation
Evaluation Date: 04/14/2022
Evaluators: Thomas Avalos

Prepared By



(972) 434 - 0068

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Parking: Parking

Barrier: 1

There are no on-street accessible parking stalls.

Where on-street parking is provided on the block perimeter and the parking is marked or metered, accessible parking spaces shall be provided.

There is a total of 0 marked or metered parking stalls on the block perimeter. There should be a minimum of 1 accessible stalls designed as van accessible.

Advisory R214 On-Street Parking Spaces. The MUTCD contains provisions for marking on-street parking spaces (see Section 3B.19). Metered parking includes parking metered by parking pay stations. Where parking on part of the block perimeter is altered, the minimum number of accessible parking spaces required is based on the total number of marked or metered parking spaces on the block perimeter.

Citation:

2011 PROWAG Section: R214

Current Condition:

No accessible parking spaces and no accessible route from street to any element in the park

Budget Cost:

Base Cost: \$5,000.00
 Contingency Cost: \$1,000.00
 Design Cost: \$800.00
 Total Cost: \$6,800.00

Possible Solutions:

Provide a van accessible parking space with an access aisle, signage, and curb ramp.

Barrier Priority:

Level 2 (High): Parking and exterior accessible routes (DOJ Level 1) – severely out of compliance; near a hospital, school, transit stop, govt. bldg., or other pedestrian attractor



Table R214 On-Street Parking Spaces

Total Number of Marked or Metered Parking Spaces on the Block Perimeter	Minimum Required Number of Accessible Parking Spaces
1 to 25	1
26 to 50	2
51 to 75	3
76 to 100	4
101 to 150	5
151 to 200	6
201 and over	4 percent of total

Barrier #1 Additional Barrier Photos



Playground: Equipment

Barrier: 2

The transfer platform has not been provided with support for transferring.

Where play components require transfer to entry points or seats, at least one means of support for transferring shall be provided.

Citation:

2010 ADAS Section: 1008.4.5

Current Condition:

No support for transfer onto the transfer platform.

Budget Cost:

Base Cost: \$750.00
Contingency Cost: \$150.00
Design Cost: \$100.00
Total Cost: \$1,000.00

Possible Solutions:

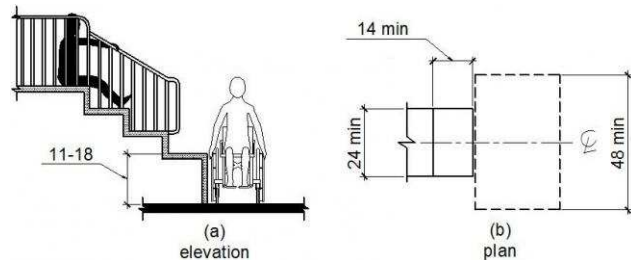
Add a transfer support to the transfer platform.

Barrier Priority:

Level 7 (Medium): Access to goods and services (DOJ Level 2) – minimally out of compliance

Restrooms (DOJ Level 3) – moderately out of compliance

Drinking fountains and public phones (DOJ Level 4 & 5) – severely out of compliance



Playground: Equipment

Barrier: 3

There is no accessible route to the element.

At least one accessible route shall connect accessible buildings, accessible facilities, accessible elements, and accessible spaces that are on the same site.

Citation:

2010 ADAS Section: 206.2.2

Current Condition:

No accessible route / No access

Budget Cost:

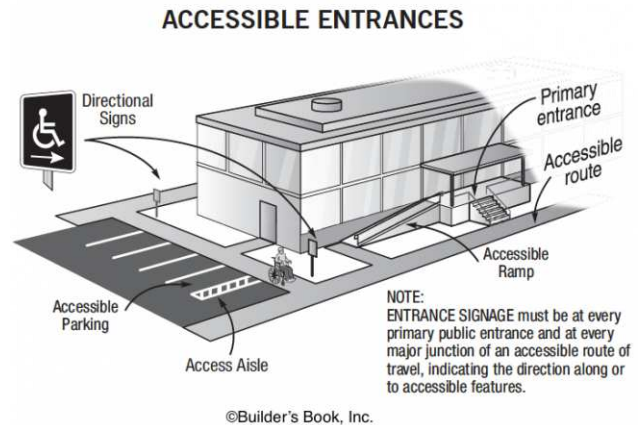
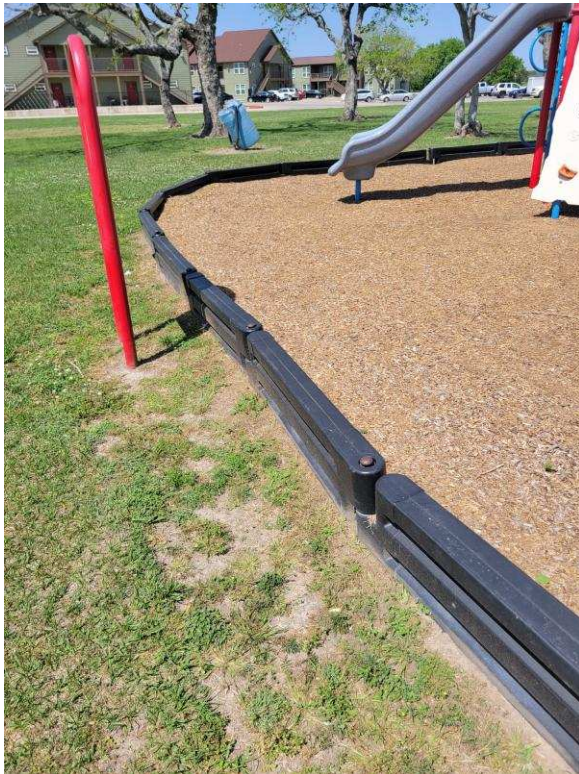
Base Cost: \$1,500.00
Contingency Cost: \$300.00
Design Cost: \$200.00
Total Cost: \$2,000.00

Possible Solutions:

provide proper connection to level change area.

Barrier Priority:

Level 5 (Medium): Access to goods and services issues (DOJ Level 2) – severely out of compliance



Barrier #3 Additional Barrier Photos



Playground: Equipment

Barrier: 4

The accessible path of travel has cross slopes greater than 2%.

Surface cross slopes shall not exceed one unit vertical in 48 units horizontal (2-percent slope). When the slope in the direction of travel of any walk exceeds 1 unit vertical in 20 units horizontal (5-percent slope), it must be constructed as a ramp.

Citation:

2010 ADAS Section: 403.3

Current Condition:

Slope exceeding 2% due to the water meter and not on an accessible route.

Budget Cost:

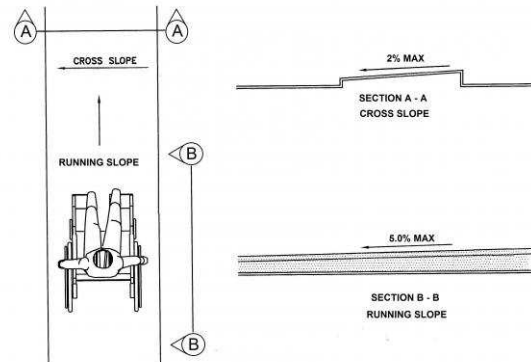
Base Cost: \$1,500.00
Contingency Cost: \$300.00
Design Cost: \$200.00
Total Cost: \$2,000.00

Possible Solutions:

Provide a level, stable, slip resistant ground surface for animal relief dispenser.

Barrier Priority:

Level 5 (Medium): Access to goods and services issues (DOJ Level 2) – severely out of compliance



Playground: Equipment

Barrier: 5

Compliance with ASTM F1951 for accessibility for ground surfaces on accessible routes, clear floor or ground spaces, and turning spaces has not been determined.

Ground surfaces shall comply with ASTM F 1951. Ground surfaces shall be inspected and maintained regularly and frequently to ensure continued compliance with ASTM F 1951.

Citation:

2010 ADAS Section:
1008.2.6.1

Current Condition:

Playground surface is wavy
and uneven.

Budget Cost:

Base Cost: \$2,500.00
Contingency Cost: \$500.00
Design Cost: \$400.00
Total Cost: \$3,400.00

Possible Solutions:

Ensure surface is maintained in compliance.

Barrier Priority:

Level 8 (Medium): Drinking fountains and public phones (DOJ Level 4 & 5) – moderately out of compliance



Pavillion: Accessible Route

Barrier: 6

There is no accessible route to the element.

At least one accessible route shall connect accessible buildings, accessible facilities, accessible elements, and accessible spaces that are on the same site.

Citation:

2010 ADAS Section: 206.2.2

Current Condition:

1 inch or more level change,
no accessible route.

Budget Cost:

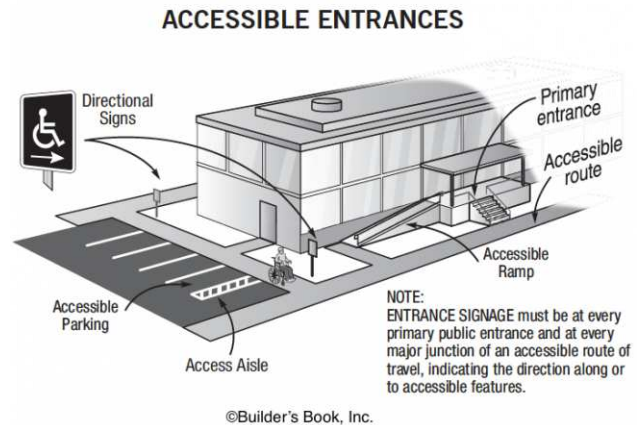
Base Cost: \$1,500.00
Contingency Cost: \$300.00
Design Cost: \$200.00
Total Cost: \$2,000.00

Possible Solutions:

No prepared accessible route through out the entire park. Surface comprised of grass. Provide proper connection to level change area.

Barrier Priority:

Level 5 (Medium): Access to goods and services issues (DOJ Level 2) – severely out of compliance



Pavillion: Accessible Route

Barrier: 7

The knee clearance is not compliant.

The knee clearance shall be 11 inches deep minimum at 9 inches above the finish floor or ground, and 8 inches deep minimum at 27 inches above the finish floor or ground and 30 inches wide minimum.

Citation:

2010 ADAS Section: 306.3.3

Current Condition:

Picnic table does not have the proper knee and toe clearance.

Budget Cost:

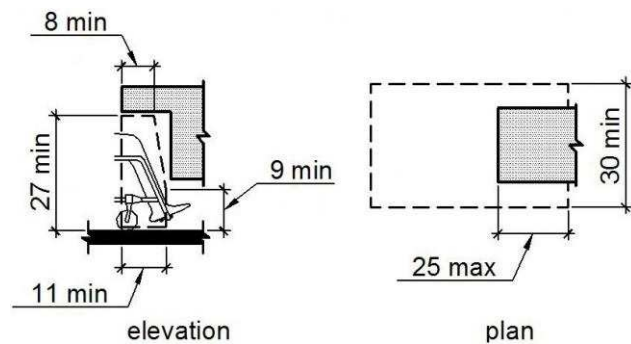
Base Cost: \$400.00
Contingency Cost: \$120.00
Design Cost: \$80.00
Total Cost: \$600.00

Possible Solutions:

Provide accessible picnic table.

Barrier Priority:

Level 5 (Medium): Access to goods and services issues (DOJ Level 2) – severely out of compliance



Pavillion: Accessible Route

Barrier: 8

There is no accessible route to the element.

At least one accessible route shall connect accessible buildings, accessible facilities, accessible elements, and accessible spaces that are on the same site.

Citation:

2010 ADAS Section: 206.2.2

Current Condition:

Grill is 48 inches from pavilion pad.

Budget Cost:

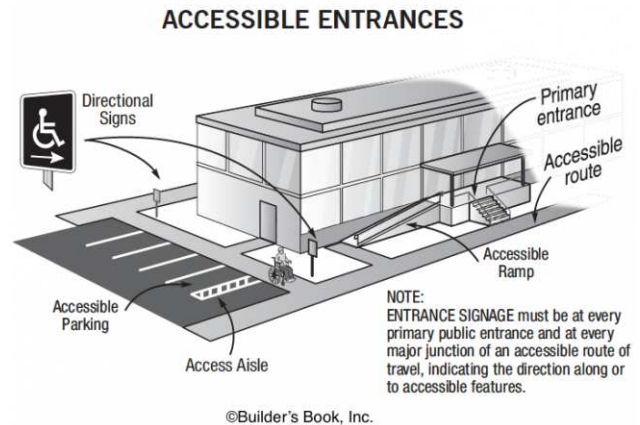
Base Cost: \$2,000.00
Contingency Cost: \$400.00
Design Cost: \$300.00
Total Cost: \$2,700.00

Possible Solutions:

No prepared accessible route through out the entire park. Surface comprised of grass. Provide a level, stable and slip resistant ground surface route to each amenity through out park. provide proper connection to level change area and extend concrete to grill.

Barrier Priority:

Level 5 (Medium): Access to goods and services issues (DOJ Level 2) – severely out of compliance



Cost Summary

Item	# of Barriers	Total Item Cost
High Priority	1	\$6,800.00
Level 1	0	\$0.00
Level 2	1	\$6,800.00
Level 3	0	\$0.00
Level 4	0	\$0.00
Medium Priority	7	\$13,700.00
Level 5	5	\$9,300.00
Level 6	0	\$0.00
Level 7	1	\$1,000.00
Level 8	1	\$3,400.00
Low Priority	0	\$0.00
Level 9	0	\$0.00
Level 10	0	\$0.00
Level 11	0	\$0.00
Level 12	0	\$0.00
Priority Total	8	\$20,500.00

Site Accessibility Evaluation



Freedom Park
3105 N Downing St
Angleton, TX 77515
Accessibility Evaluation
Evaluation Date: 03/24/2022
Evaluators: Kristi Avalos

Prepared By



(972) 434 - 0068

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Parking Lots: Baseball Fields and Playground Parking

Barrier: 1

The running slope of the access aisle (long dimension) exceeds 2%.

The running slope in an accessible parking stall and the access aisle must not exceed 2%.

Citation:

2010 ADAS Section: 502.4

1991 ADAAG Section: 4.6.3

Current Condition:

The access aisle has a 6.5 percent running slope.

Budget Cost:

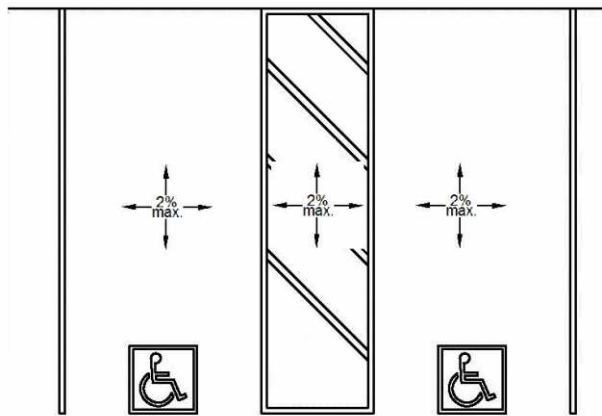
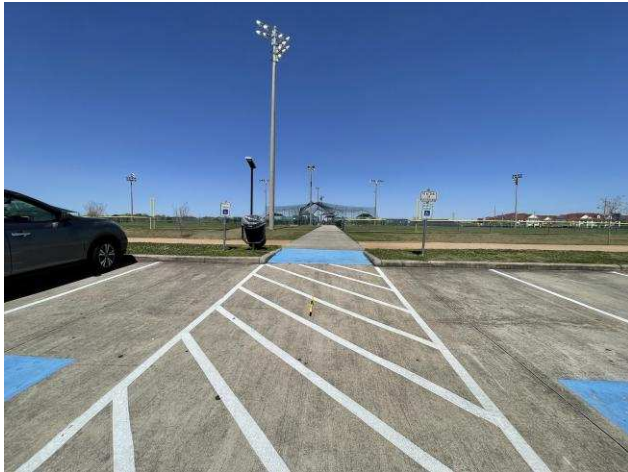
Base Cost: \$2,500.00
Contingency Cost: \$500.00
Design Cost: \$400.00
Total Cost: \$3,400.00

Possible Solutions:

Regrade the access aisle to achieve a 1:48 (2.08 percent) maximum slope.

Barrier Priority:

Level 4 (High): Parking and exterior accessible routes (DOJ Level 1) – moderately out of compliance



Barrier #1 Additional Barrier Photos



Parking Lots: Baseball Fields and Playground Parking

Barrier: 2

The running slope of the access aisle (long dimension) exceeds 2%.

The running slope in an accessible parking stall and the access aisle must not exceed 2%.

Citation:

2010 ADAS Section: 502.4

1991 ADAAG Section: 4.6.3

Current Condition:

The access aisle has a 3.2 percent running slope.

Budget Cost:

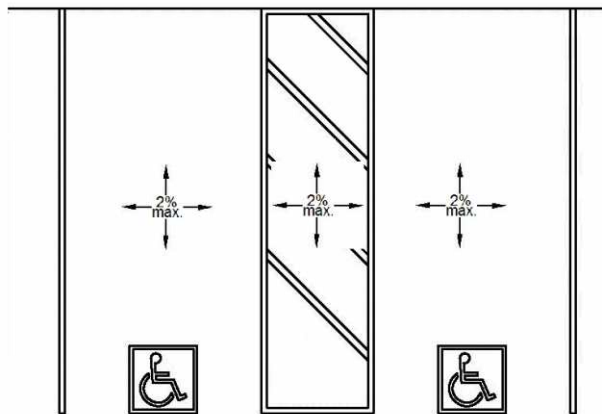
Base Cost: \$2,500.00
Contingency Cost: \$500.00
Design Cost: \$400.00
Total Cost: \$3,400.00

Possible Solutions:

Regrade the access aisle to achieve a 1:48 (2.08 percent) maximum slope in all directions.

Barrier Priority:

Level 4 (High): Parking and exterior accessible routes (DOJ Level 1) – moderately out of compliance



Barrier #2 Additional Barrier Photos



Parking Lots: Baseball Fields and Playground Parking

Barrier: 3

The access aisle is in not nearly compliant.

The access ai the minimum width. The access aisle is not as long as the parking space it serves. There are no markings to discourage parking. The floor or ground surface is not firm stable or slip resistant. The parking space contains changes in level and/or gaps that exceed the maximum allowable requirements.

Citation:

2010 ADAS Section: 502.3

Current Condition:

There are no markings to discourage parking on any access aisle.

Budget Cost:

Base Cost: \$1,250.00
Contingency Cost: \$250.00
Design Cost: \$200.00
Total Cost: \$1,700.00

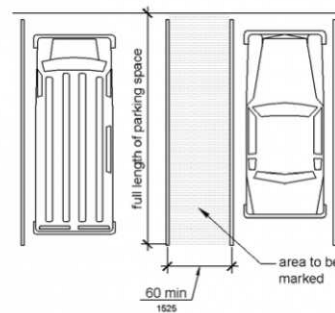
Possible Solutions:

the words "NO PARKING" painted on access aisle adjacent to the parking space. The words must be painted:

- (1) in all capital letters;
- (2) with a letter height of at least twelve inches, and a stroke width of at least two inches; and
- (3) centered within each access aisle adjacent to the parking space.

Barrier Priority:

Level 6 (Medium): Parking or exterior accessible routes (DOJ Level 1) – minimally out of compliance
Access to goods and services (DOJ Level 2) – moderately out of compliance
Restrooms (DOJ Level 3) – severely out of compliance



Barrier #3 Additional Barrier Photos



Parking Lots: Baseball Fields and Playground Parking

Barrier: 4

The parking sign is mounted too low.

Parking space identification signs shall include the International Symbol of Accessibility. Signs identifying van parking spaces shall contain the designation "van accessible." Signs shall be 60 inches minimum above the finish floor or ground surface measured to the bottom of the sign.

Citation:

2010 ADAS Section: 502.6

Current Condition:

All signs are at 40 inches from the ground to the bottom of the signs.

Budget Cost:

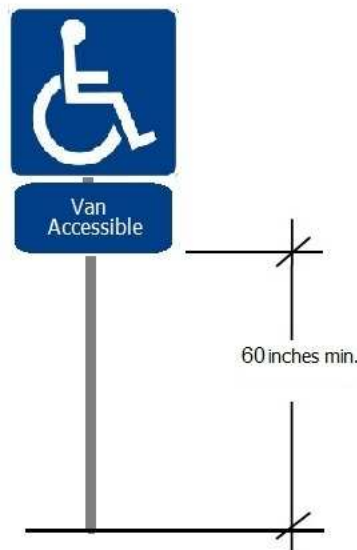
Base Cost: \$1,500.00
Contingency Cost: \$300.00
Design Cost: \$200.00
Total Cost: \$2,000.00

Possible Solutions:

Raise signage so the bottom of the sign is a minimum of 60 inches above ground to the bottom of the sign.

Barrier Priority:

Level 6 (Medium): Parking or exterior accessible routes (DOJ Level 1) – minimally out of compliance
Access to goods and services (DOJ Level 2) – moderately out of compliance
Restrooms (DOJ Level 3) – severely out of compliance



Barrier #4 Additional Barrier Photos



Baseball Fields: Baseball Fields

Barrier: 5

The walkway contains abrupt vertical edges and/or variations over a 1/2 inch.

Citation:

2010 ADAS Section: 303.3,
303.2

1991 ADAAG Section: 4.5.2

Current Condition:

All dugouts have a change
of elevation greater than 1/2
inch going to the fields.

Budget Cost:

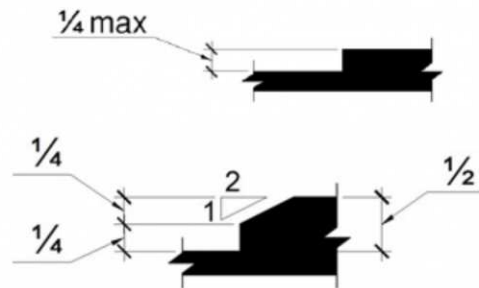
Base Cost: \$2,000.00
Contingency Cost: \$400.00
Design Cost: \$300.00
Total Cost: \$2,700.00

Possible Solutions:

Provide a level, stable, and slip resistant ground surface route to pavilion and provide proper connection to level change area.

Barrier Priority:

Level 2 (High): Parking and exterior accessible routes (DOJ Level 1) – severely out of compliance; near a hospital, school, transit stop, govt. bldg., or other pedestrian attractor



Baseball Fields: Baseball Fields

Barrier: 6

There is no accessible route to the dugout.

At least one accessible route shall connect accessible buildings, accessible facilities, accessible elements, and accessible spaces that are on the same site.

Citation:

2010 ADAS Section: 206.2.2

1991 ADAAG Section:
4.1.2(1)

Current Condition:

No prepared accessible route to dugout. Surface comprised of gravel and grass.

Budget Cost:

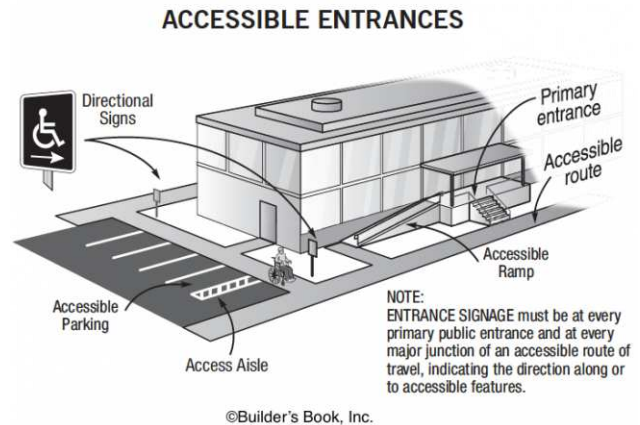
Base Cost: \$2,000.00
Contingency Cost: \$400.00
Design Cost: \$300.00
Total Cost: \$2,700.00

Possible Solutions:

Provide a level, stable, and slip resistant ground surface route to pavilion and provide proper connection to level change area.

Barrier Priority:

Level 5 (Medium): Access to goods and services issues (DOJ Level 2) – severely out of compliance



Restrooms: Playground Restrooms

Barrier: 7

The toilet paper dispenser does not allow a continuous flow.

Toilet paper dispensers shall be 7 inches minimum and 9 inches maximum in front of the water closet measured to the centerline of the dispenser. The outlet of the dispenser shall be 15 inches minimum and 48 inches maximum above the finish floor and shall not be located behind grab bars. Dispensers shall not be of a type that controls delivery or that does not allow continuous paper flow. There shall be a clearance of 1 1/2 inches minimum below the grab bar.

Citation:

2010 ADAS Section: 604.7

1991 ADAAG Section: 4.16.6

Current Condition:

Currently the dispenser in both accessible toilets are approximately 5 inches to the center.

Budget Cost:

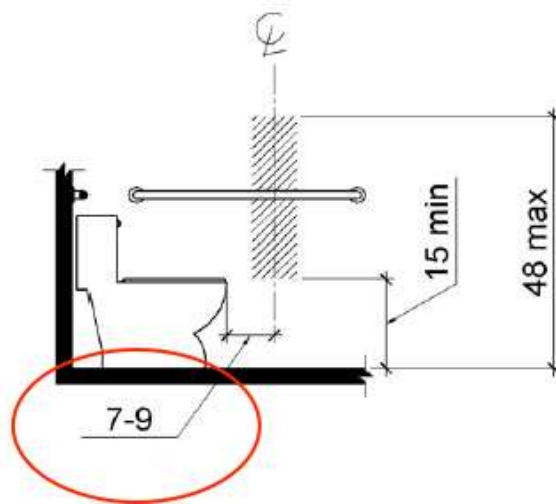
Base Cost: \$150.00
Contingency Cost: \$30.00
Design Cost: \$20.00
Total Cost: \$200.00

Possible Solutions:

Remove and relocate the dispenser at least 7 inches to the center of the dispenser from the front of the water closet.

Barrier Priority:

Level 9 (Low): Restrooms (DOJ Level 3) – minimally out of compliance



Barrier #7 Additional Barrier Photos



Path of Travel: Pavillion

Barrier: 8

There is no accessible route to the trash can.

At least one accessible route shall connect accessible buildings, accessible facilities, accessible elements, and accessible spaces that are on the same site.

Citation:

2010 ADAS Section: 206.2.2

1991 ADAAG Section:
4.1.2(1)

Current Condition:

No accessible route to trash can

Budget Cost:

Base Cost: \$500.00
Contingency Cost: \$125.00
Design Cost: \$75.00
Total Cost: \$700.00

Possible Solutions:

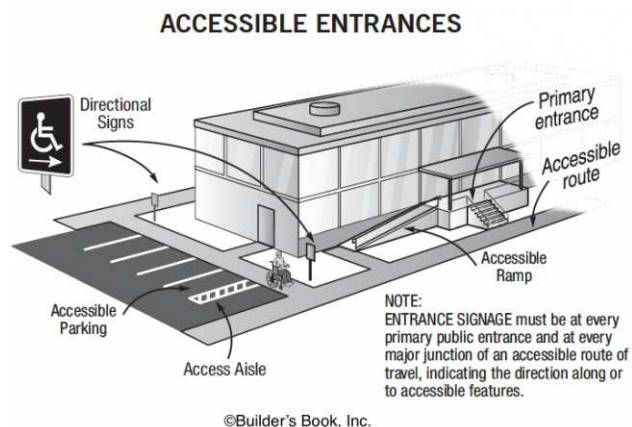
Relocate trash can so it is close enough to be served by the accessible route.

Barrier Priority:

Level 7 (Medium): Access to goods and services (DOJ Level 2) – minimally out of compliance

Restrooms (DOJ Level 3) – moderately out of compliance

Drinking fountains and public phones (DOJ Level 4 & 5) – severely out of compliance



Path of Travel: Pavillion

Barrier: 9

There is no accessible route to the picnic table pavilion.

At least one accessible route shall connect accessible buildings, accessible facilities, accessible elements, and accessible spaces that are on the same site.

Citation:

2010 ADAS Section: 206.2.2

1991 ADAAG Section:
4.1.2(1)

Current Condition:

No accessible route to picnic table

Budget Cost:

Base Cost: \$3,500.00
Contingency Cost: \$700.00
Design Cost: \$500.00
Total Cost: \$4,700.00

Possible Solutions:

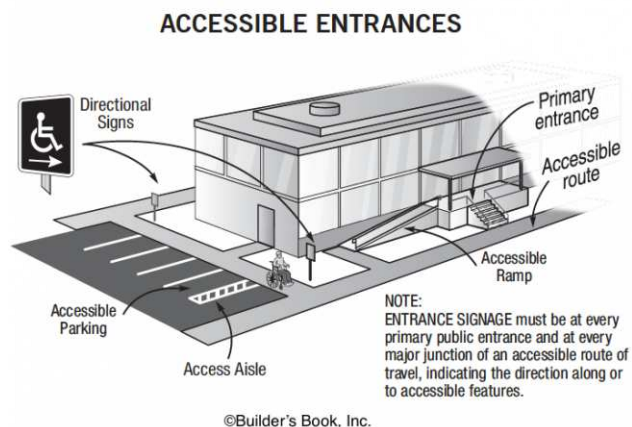
Provide a level, stable and slip resistant ground surface route to each amenity

Barrier Priority:

Level 7 (Medium): Access to goods and services (DOJ Level 2) – minimally out of compliance

Restrooms (DOJ Level 3) – moderately out of compliance

Drinking fountains and public phones (DOJ Level 4 & 5) – severely out of compliance



Path of Travel: Pavillion

Barrier: 10

There is no accessible route to either the trash can or the picnic table.

At least one accessible route shall connect accessible buildings, accessible facilities, accessible elements, and accessible spaces that are on the same site.

Citation:

2010 ADAS Section: 206.2.2

1991 ADAAG Section:
4.1.2(1)

Current Condition:

No accessible route to picnic table and trash can

Budget Cost:

Base Cost: \$1,500.00
Contingency Cost: \$300.00
Design Cost: \$200.00
Total Cost: \$2,000.00

Possible Solutions:

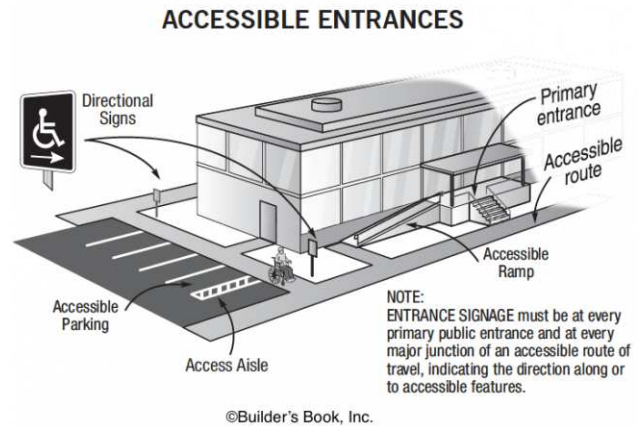
Provide a level, stable and slip resistant ground surface route to each amenity. Relocate trash can so it is reach ranges of accessible route.

Barrier Priority:

Level 7 (Medium): Access to goods and services (DOJ Level 2) – minimally out of compliance

Restrooms (DOJ Level 3) – moderately out of compliance

Drinking fountains and public phones (DOJ Level 4 & 5) – severely out of compliance



Barrier #10 Additional Barrier Photos



Path of Travel: Pavillion

Barrier: 11

There is no accessible route to the trash can from the pavilion.

At least one accessible route shall connect accessible buildings, accessible facilities, accessible elements, and accessible spaces that are on the same site.

Citation:

2010 ADAS Section: 206.2.2

1991 ADAAG Section:
4.1.2(1)

Current Condition:

No accessible route to trash can

Budget Cost:

Base Cost: \$500.00
Contingency Cost: \$100.00
Design Cost: \$100.00
Total Cost: \$700.00

Possible Solutions:

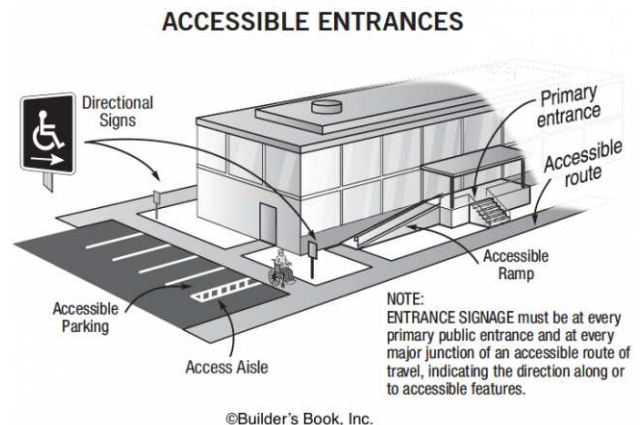
Relocate trash can so it is close enough to be served by the accessible route.

Barrier Priority:

Level 7 (Medium): Access to goods and services (DOJ Level 2) – minimally out of compliance

Restrooms (DOJ Level 3) – moderately out of compliance

Drinking fountains and public phones (DOJ Level 4 & 5) – severely out of compliance



Path of Travel: Pavillion

Barrier: 12

There is no accessible route to the trash can.

At least one accessible route shall connect accessible buildings, accessible facilities, accessible elements, and accessible spaces that are on the same site.

Citation:

2010 ADAS Section: 206.2.2

1991 ADAAG Section:
4.1.2(1)

Current Condition:

No accessible route is provided to the trash can.

Budget Cost:

Base Cost: \$500.00
Contingency Cost: \$100.00
Design Cost: \$100.00
Total Cost: \$700.00

Possible Solutions:

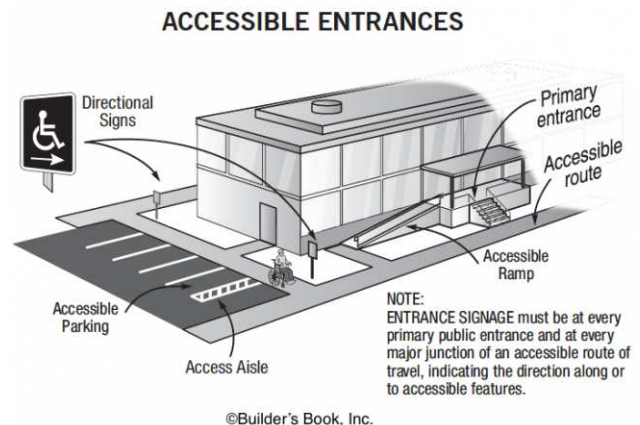
Relocate trash can so it is close enough to be served by the accessible route.

Barrier Priority:

Level 7 (Medium): Access to goods and services (DOJ Level 2) – minimally out of compliance

Restrooms (DOJ Level 3) – moderately out of compliance

Drinking fountains and public phones (DOJ Level 4 & 5) – severely out of compliance



Drinking Fountain: Drinking Fountain

Barrier: 13

The drinking fountain has multiple violations.

Drinking fountains must be on an accessible route that provides a 30 inch by 48 inch clear floor space centered on the low unit, allowing a forward approach.

Spout outlets shall be 30 inches maximum above the finish floor or ground if the drinking fountain is design for children.

Citation:

2010 ADAS Section: 403.5.1,
602.1

1991 ADAAG Section: 4.15.1

Current Condition:

Drinking fountain is not compliant.

Budget Cost:

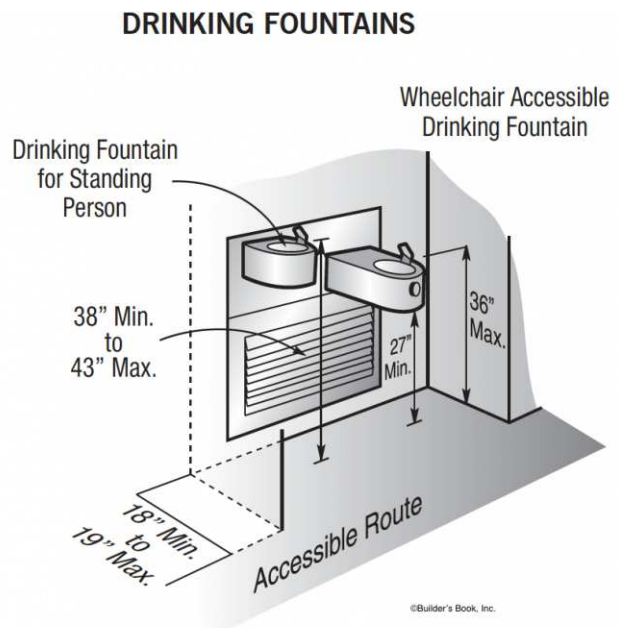
Base Cost: \$2,500.00
Contingency Cost: \$500.00
Design Cost: \$400.00
Total Cost: \$3,400.00

Possible Solutions:

Install a compliant drinking fountain.

Barrier Priority:

Level 5 (Medium): Access to goods and services issues (DOJ Level 2) – severely out of compliance



Barrier #13 Additional Barrier Photos



Drinking Fountain: Drinking Fountain

Barrier: 14

The spout is greater than 5 inches away from the leading edge of the drinking fountain.

The spout shall be located 15 inches minimum from the vertical support and 5 inches maximum from the front edge of the unit, including bumpers.

Citation:

2010 ADAS Section: 602.5

Current Condition:

Spout is located more than 5 inches from the edge of the fountain.

Budget Cost:

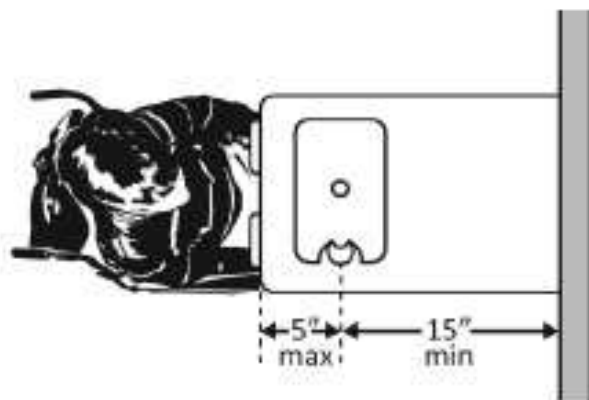
Base Cost: \$2,500.00
Contingency Cost: \$500.00
Design Cost: \$400.00
Total Cost: \$3,400.00

Possible Solutions:

Replace the drinking fountain with a compliant fountain.

Barrier Priority:

Level 8 (Medium): Drinking fountains and public phones (DOJ Level 4 & 5) – moderately out of compliance



Playground: Playground

Barrier: 15

There is no accessible route to the element.

At least one accessible route shall connect accessible buildings, accessible facilities, accessible elements, and accessible spaces that are on the same site.

Citation:

2010 ADAS Section: 206.2.2

1991 ADAAG Section:
4.1.2(1)

Current Condition:

No accessible route is provided to the swing set.

Budget Cost:

Base Cost: \$3,000.00
Contingency Cost: \$600.00
Design Cost: \$500.00
Total Cost: \$4,100.00

Possible Solutions:

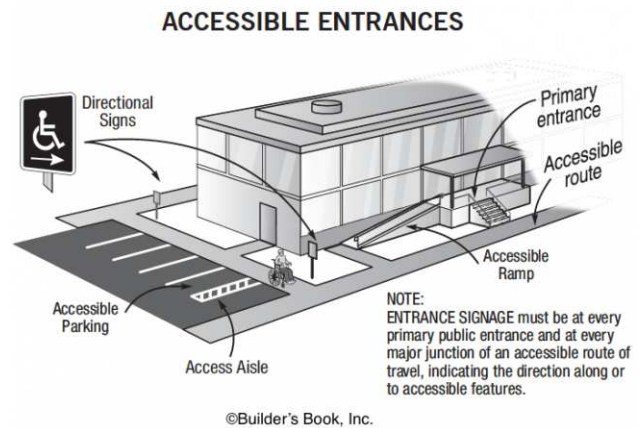
Provide proper connection to level change area, and a level, stable and slip resistant ground surface route to each amenity

Barrier Priority:

Level 7 (Medium): Access to goods and services (DOJ Level 2) – minimally out of compliance

Restrooms (DOJ Level 3) – moderately out of compliance

Drinking fountains and public phones (DOJ Level 4 & 5) – severely out of compliance



Barrier #15 Additional Barrier Photos



Cost Summary

Item	# of Barriers	Total Item Cost
High Priority	3	\$9,500.00
Level 1	0	\$0.00
Level 2	1	\$2,700.00
Level 3	0	\$0.00
Level 4	2	\$6,800.00
Medium Priority	11	\$26,100.00
Level 5	2	\$6,100.00
Level 6	2	\$3,700.00
Level 7	6	\$12,900.00
Level 8	1	\$3,400.00
Low Priority	1	\$200.00
Level 9	1	\$200.00
Level 10	0	\$0.00
Level 11	0	\$0.00
Level 12	0	\$0.00
Priority Total	15	\$35,800.00

Site Accessibility Evaluation



Officer Cash Memorial Dog Park
535 S Anderson St
Angleton, TX 77515
Accessibility Evaluation
Evaluation Date: 04/14/2022
Evaluators: Thomas Avalos

Prepared By



(972) 434 - 0068

www.accessology.com

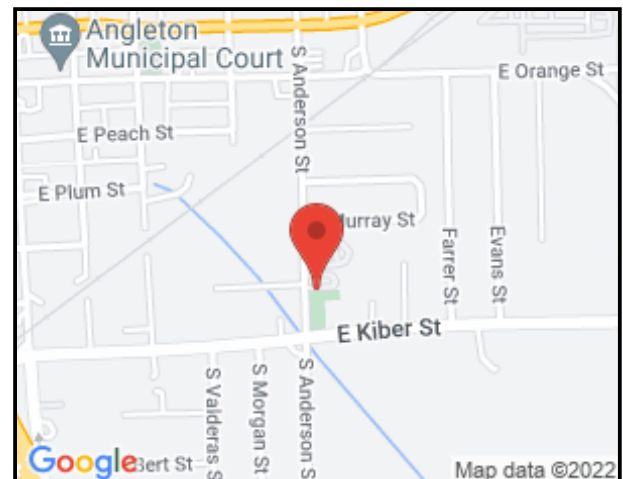


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Accessible Route: Entrance

Barrier: 1

There is no accessible route to the dog park entrance.

At least one accessible route shall connect accessible buildings, accessible facilities, accessible elements, and accessible spaces that are on the same site.

Citation:

2010 ADAS Section: 206.2.2

Current Condition:

No prepared accessible route through out the entire park. Surface comprised of gravel and grass.

Budget Cost:

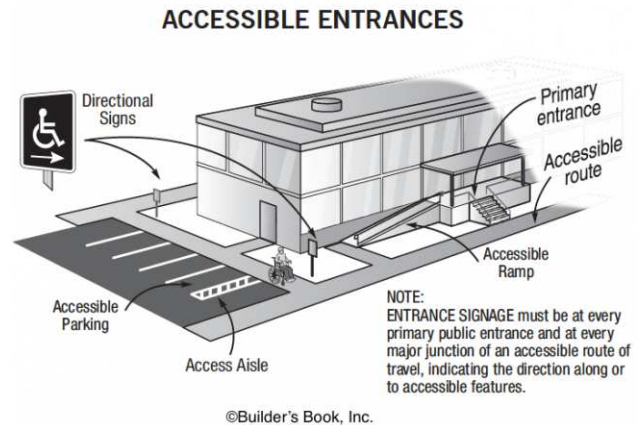
Base Cost: \$6,000.00
Contingency Cost: \$1,200.00
Design Cost: \$900.00
Total Cost: \$8,100.00

Possible Solutions:

Provide a level, stable and slip resistant ground surface route to each amenity through out park.

Barrier Priority:

Level 5 (Medium): Access to goods and services issues (DOJ Level 2) – severely out of compliance



Barrier #1 Additional Barrier Photos



Barrier #1 Additional Barrier Photos



Barrier #1 Additional Barrier Photos



Barrier #1 Additional Barrier Photos



Pavillion: Picnic Table

Barrier: 2

There is no accessible route to the element.

At least one accessible route shall connect accessible buildings, accessible facilities, accessible elements, and accessible spaces that are on the same site.

Citation:

2010 ADAS Section: 206.2.2

Current Condition:

No prepared accessible route through out the entire park. Surface comprised of gravel and grass. pavilion has 1 or more level change to access.

Budget Cost:

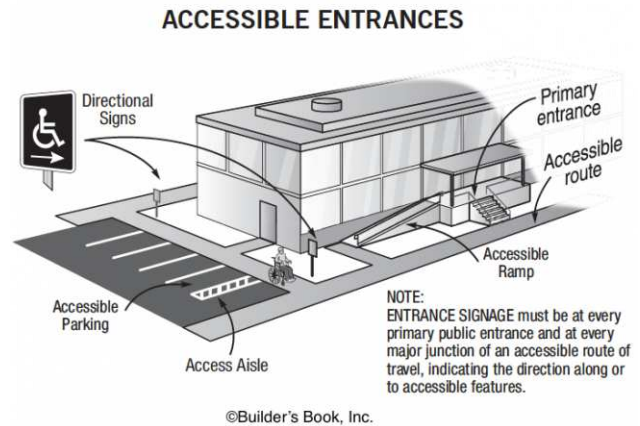
Base Cost: \$1,500.00
Contingency Cost: \$300.00
Design Cost: \$200.00
Total Cost: \$2,000.00

Possible Solutions:

Provide a level, stable, and slip resistant ground surface route to pavilion and provide proper connection to level change area.

Barrier Priority:

Level 5 (Medium): Access to goods and services issues (DOJ Level 2) – severely out of compliance



Pavillion: Picnic Table

Barrier: 3

The knee clearance is not compliant.

The knee clearance shall be 11 inches deep minimum at 9 inches above the finish floor or ground, and 8 inches deep minimum at 27 inches above the finish floor or ground and 30 inches wide minimum.

Citation:

2010 ADAS Section: 306.3.3

Current Condition:

There is no accessible seating. Picnic tables are not compliant.

Budget Cost:

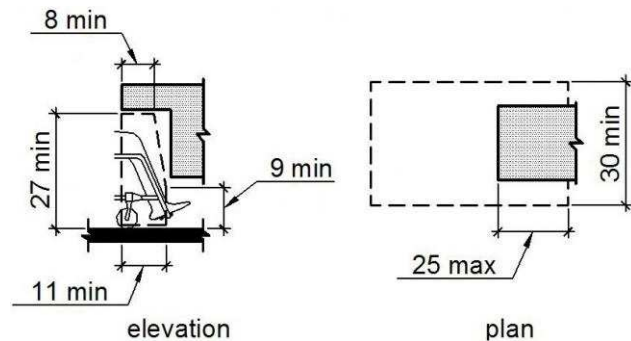
Base Cost: \$800.00
Contingency Cost: \$170.00
Design Cost: \$130.00
Total Cost: \$1,100.00

Possible Solutions:

Provide accessible picnic tables.

Barrier Priority:

Level 6 (Medium): Parking or exterior accessible routes (DOJ Level 1) – minimally out of compliance
Access to goods and services (DOJ Level 2) – moderately out of compliance
Restrooms (DOJ Level 3) – severely out of compliance



Cost Summary

Item	# of Barriers	Total Item Cost
High Priority	0	\$0.00
Level 1	0	\$0.00
Level 2	0	\$0.00
Level 3	0	\$0.00
Level 4	0	\$0.00
Medium Priority	3	\$11,200.00
Level 5	2	\$10,100.00
Level 6	1	\$1,100.00
Level 7	0	\$0.00
Level 8	0	\$0.00
Low Priority	0	\$0.00
Level 9	0	\$0.00
Level 10	0	\$0.00
Level 11	0	\$0.00
Level 12	0	\$0.00
Priority Total	3	\$11,200.00

Site Accessibility Evaluation



Veterans Park
115 E Magnolia St
Angleton, TX 77515
Accessibility Evaluation
Evaluation Date: 04/14/2022
Evaluators: Thomas Avalos

Prepared By



(972) 434 - 0068

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Barriers	3
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Parking: Parking

Barrier: 1

There are no on-street accessible parking stalls.

Where on-street parking is provided on the block perimeter and the parking is marked or metered, accessible parking spaces shall be provided.

There is a total of 6 marked or metered parking stalls on the block perimeter. There should be a minimum of 1 accessible stalls designed as van accessible.

Advisory R214 On-Street Parking Spaces. The MUTCD contains provisions for marking on-street parking spaces (see Section 3B.19). Metered parking includes parking metered by parking pay stations. Where parking on part of the block perimeter is altered, the minimum number of accessible parking spaces required is based on the total number of marked or metered parking spaces on the block perimeter.

Citation:

2011 PROWAG Section:
R214

Current Condition:

6 total spaces are provided
on street.

Budget Cost:

Base Cost: \$5,000.00
Contingency Cost: \$1,000.00
Design Cost: \$700.00
Total Cost: \$6,700.00

Possible Solutions:

Provide a van accessible parking space with an access aisle and signage.

Barrier Priority:

Level 2 (High): Parking and exterior accessible routes (DOJ Level 1) – severely out of compliance; near a hospital, school, transit stop, govt. bldg., or other pedestrian attractor



Table R214 On-Street Parking Spaces

Total Number of Marked or Metered Parking Spaces on the Block Perimeter	Minimum Required Number of Accessible Parking Spaces
1 to 25	1
26 to 50	2
51 to 75	3
76 to 100	4
101 to 150	5
151 to 200	6
201 and over	4 percent of total

Barrier #1 Additional Barrier Photos



Parking: Parking

Barrier: 2

There are no accessible parking stalls.

Each lot where parking is provided for the public as clients, guests or employees, shall provide accessible parking and shall be located on the shortest accessible route of travel from adjacent parking to an accessible entrance.

A minimum of one accessible stall is required and it must be sized and designated as a van accessible stall.

Citation:

2010 ADAS Section: 208.2.4

Current Condition:

Gravel lot has a possible area for 14 parking spaces with access aisles. There are no marked or striped spaces.

Budget Cost:

Base Cost: \$3,000.00
 Contingency Cost: \$600.00
 Design Cost: \$500.00
 Total Cost: \$4,100.00

Possible Solutions:

Provide a van accessible parking space with an access aisle and signage. Re-grade at least one space to achieve a 1:48 (2.08%) maximum slope in all directions if needed.

Barrier Priority:

Level 2 (High): Parking and exterior accessible routes (DOJ Level 1) – severely out of compliance; near a hospital, school, transit stop, govt. bldg., or other pedestrian attractor



Total Number of Parking Spaces Provided in Parking Facility	Minimum Number of Required Accessible Parking Spaces
1 to 25	1
26 to 50	2
51 to 75	3
76 to 100	4
101 to 150	5
151 to 200	6
201 to 300	7
301 to 400	8
401 to 500	9
501 to 1000	2 percent of total
1001 and over	20, plus 1 for each 100, or fraction thereof, over 1000

Accessible Route: Accessible Route

Barrier: 3

The concrete expansion joint is spaced greater than 1/2 inch.

Openings in floor or ground surfaces shall not allow passage of a sphere more than 1/2 inch diameter. Elongated openings shall be placed so that the long dimension is perpendicular to the dominant direction of travel.

Citation:

2010 ADAS Section: 302.3

Current Condition:

Expansion joints have gaps greater than 1/2 inch.

Budget Cost:

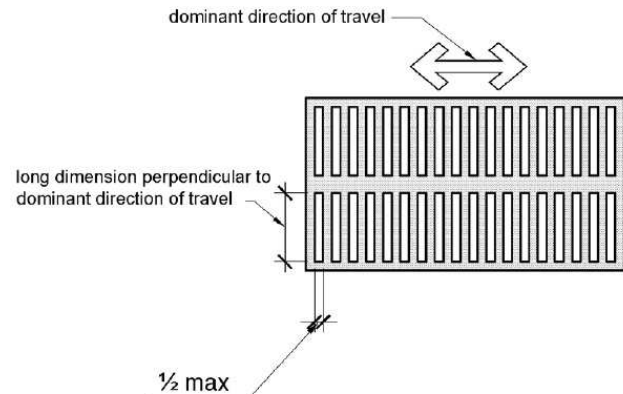
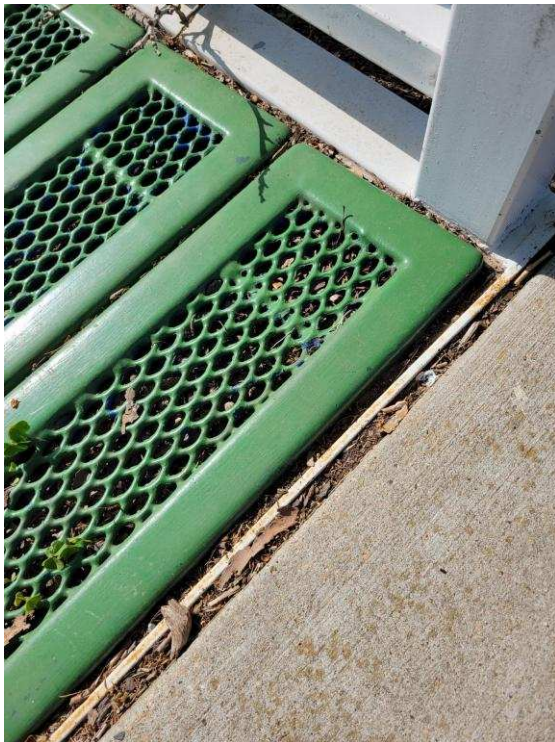
Base Cost: \$300.00
Contingency Cost: \$60.00
Design Cost: \$40.00
Total Cost: \$400.00

Possible Solutions:

Fill expansion joints to alleviate gaps.

Barrier Priority:

Level 4 (High): Parking and exterior accessible routes (DOJ Level 1) – moderately out of compliance



Accessible Route: Accessible Route

Barrier: 4

The concrete expansion joint is spaced greater than 1/2 inch.

Openings in floor or ground surfaces shall not allow passage of a sphere more than 1/2 inch diameter. Elongated openings shall be placed so that the long dimension is perpendicular to the dominant direction of travel.

Citation:

2010 ADAS Section: 302.3

Current Condition:

Expansion joint is spaced greater than 1/2 inch.

Budget Cost:

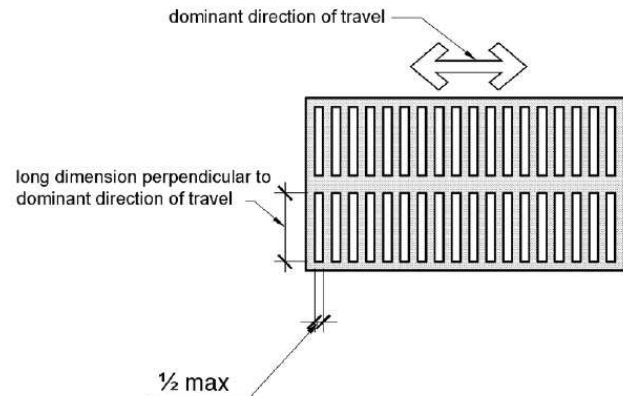
Base Cost: \$300.00
Contingency Cost: \$60.00
Design Cost: \$40.00
Total Cost: \$400.00

Possible Solutions:

Fill expansion joint to alleviate gap.

Barrier Priority:

Level 4 (High): Parking and exterior accessible routes (DOJ Level 1) – moderately out of compliance



Barrier #4 Additional Barrier Photos



Accessible Route: Accessible Route

Barrier: 5

The top of the curb ramp does not have a level landing.

A level landing 36 inches in length shall be provided at the upper end of each curb. The landing clear width shall be at least as wide as the curb ramp, excluding flared sides, leading to the landing.

Citation:

2010 ADAS Section: 406.4

Current Condition:

Curb ramp running slope is 8.4%. There is no 36 inch level landing area provided.

Budget Cost:

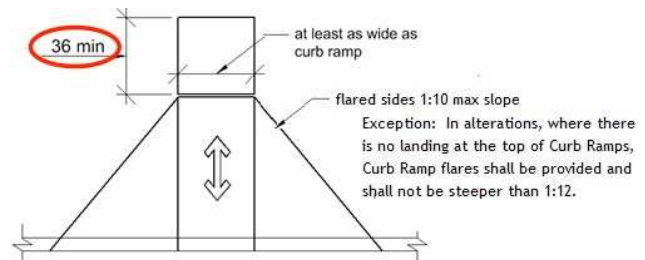
Base Cost: \$3,000.00
Contingency Cost: \$600.00
Design Cost: \$500.00
Total Cost: \$4,100.00

Possible Solutions:

Replace the curb ramp with a fully compliant curb ramp that includes a level landing area at the top.

Barrier Priority:

Level 4 (High): Parking and exterior accessible routes (DOJ Level 1) – moderately out of compliance



Barrier #5 Additional Barrier Photos



Accessible Route: Accessible Route

Barrier: 6

The walkway contains abrupt vertical edges and/or variations over a 1/2 inch.

1/4 inch is the maximum vertical rise. Changes in level between 1/4 inch and 1/2 inch must be beveled at 1:2 or less.

Changes in level greater than 1/2 inch must be by way of a ramp.

Citation:

2010 ADAS Section: 303.3,
303.2

Current Condition:

A section of the sidewalk
has a 1.5 inch level change.

Budget Cost:

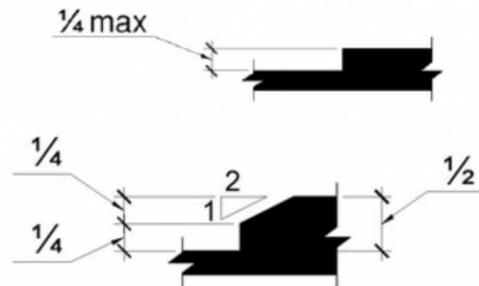
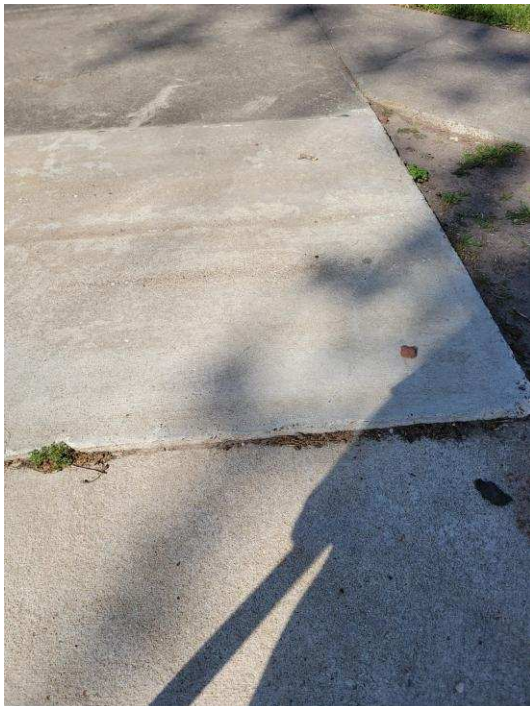
Base Cost: \$750.00
Contingency Cost: \$225.00
Design Cost: \$125.00
Total Cost: \$1,100.00

Possible Solutions:

Remove and replace the section of concrete that has the level change.

Barrier Priority:

Level 4 (High): Parking and exterior accessible routes (DOJ Level 1) – moderately out of compliance



Barrier #6 Additional Barrier Photos



Accessible Route: Accessible Route

Barrier: 7

The concrete expansion joint is spaced greater than 1/2 inch.

Openings in floor or ground surfaces shall not allow passage of a sphere more than 1/2 inch diameter. Elongated openings shall be placed so that the long dimension is perpendicular to the dominant direction of travel.

Citation:

2010 ADAS Section: 302.3

Current Condition:

Expansion joint is spaced greater than 1/2 inch.

Budget Cost:

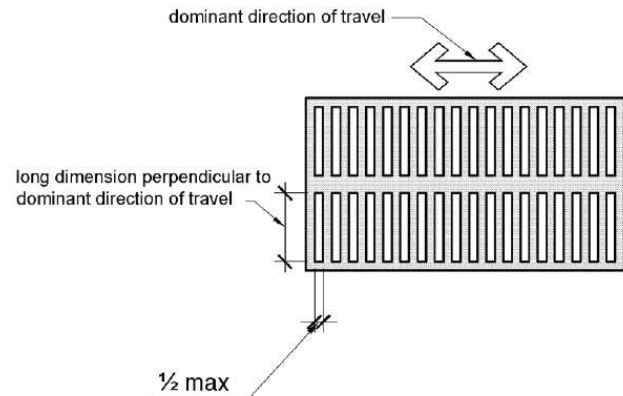
Base Cost: \$300.00
Contingency Cost: \$60.00
Design Cost: \$40.00
Total Cost: \$400.00

Possible Solutions:

Fill expansion joint to alleviate gap.

Barrier Priority:

Level 4 (High): Parking and exterior accessible routes (DOJ Level 1) – moderately out of compliance



Barrier #7 Additional Barrier Photos



Accessible Route: Accessible Route

Barrier: 8

The concrete expansion joint is spaced greater than 1/2 inch.

Openings in floor or ground surfaces shall not allow passage of a sphere more than 1/2 inch diameter. Elongated openings shall be placed so that the long dimension is perpendicular to the dominant direction of travel.

Citation:

2010 ADAS Section: 302.3

Current Condition:

Expansion joint is spaced greater than 1/2 inch.

Budget Cost:

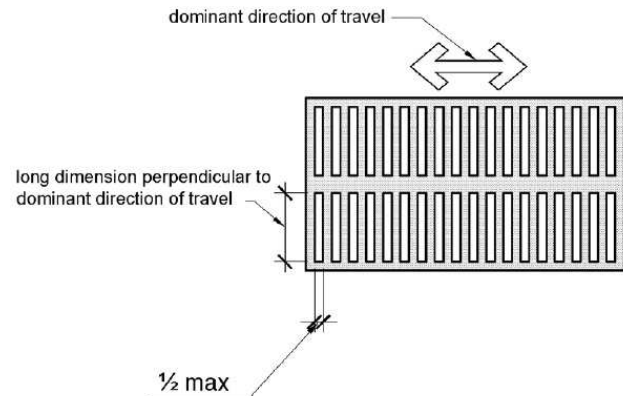
Base Cost: \$300.00
Contingency Cost: \$60.00
Design Cost: \$40.00
Total Cost: \$400.00

Possible Solutions:

Fill expansion joint to alleviate gap.

Barrier Priority:

Level 4 (High): Parking and exterior accessible routes (DOJ Level 1) – moderately out of compliance



Barrier #8 Additional Barrier Photos



Accessible Route: Accessible Route

Barrier: 9

The walkway contains abrupt vertical edges and/or variations over a 1/2 inch.

1/4 inch is the maximum vertical rise. Changes in level between 1/4 inch and 1/2 inch must be beveled at 1:2 or less.

Changes in level greater than 1/2 inch must be by way of a ramp.

Citation:

2010 ADAS Section: 303.3,
303.2

Current Condition:

Expansion joint is spaced
greater than 1/2 inch.

Budget Cost:

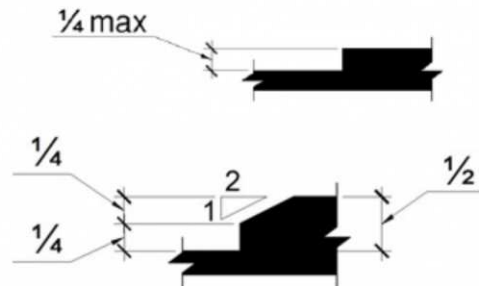
Base Cost: \$300.00
Contingency Cost: \$60.00
Design Cost: \$40.00
Total Cost: \$400.00

Possible Solutions:

Fill expansion joint to alleviate gap.

Barrier Priority:

Level 4 (High): Parking and exterior accessible routes (DOJ Level 1) – moderately out of compliance



Barrier #9 Additional Barrier Photos



Accessible Route: Accessible Route

Barrier: 10

The concrete expansion joint is spaced greater than 1/2 inch.

Openings in floor or ground surfaces shall not allow passage of a sphere more than 1/2 inch diameter. Elongated openings shall be placed so that the long dimension is perpendicular to the dominant direction of travel.

Citation:

2010 ADAS Section: 302.3

Current Condition:

Expansion joint is spaced greater than 1/2 inch.

Budget Cost:

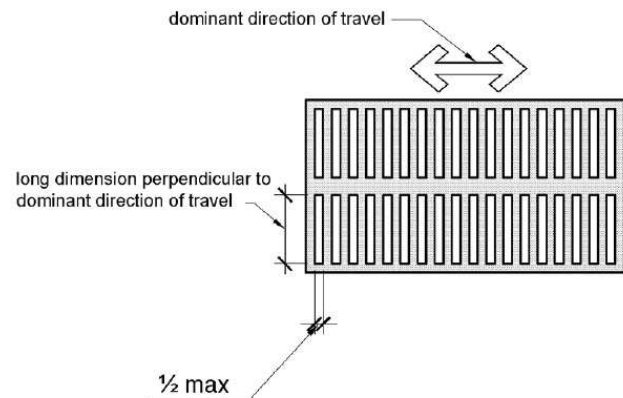
Base Cost: \$300.00
Contingency Cost: \$60.00
Design Cost: \$40.00
Total Cost: \$400.00

Possible Solutions:

Fill expansion joint to alleviate gap.

Barrier Priority:

Level 4 (High): Parking and exterior accessible routes (DOJ Level 1) – moderately out of compliance



Barrier #10 Additional Barrier Photos



Accessible Route: Accessible Route

Barrier: 11

The concrete expansion joint is spaced greater than 1/2 inch.

Openings in floor or ground surfaces shall not allow passage of a sphere more than 1/2 inch diameter. Elongated openings shall be placed so that the long dimension is perpendicular to the dominant direction of travel.

Citation:

2010 ADAS Section: 302.3

Current Condition:

Expansion joint is spaced greater than 1/2 inch.

Budget Cost:

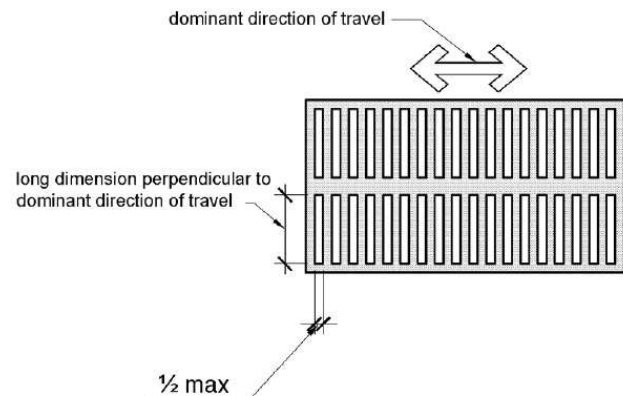
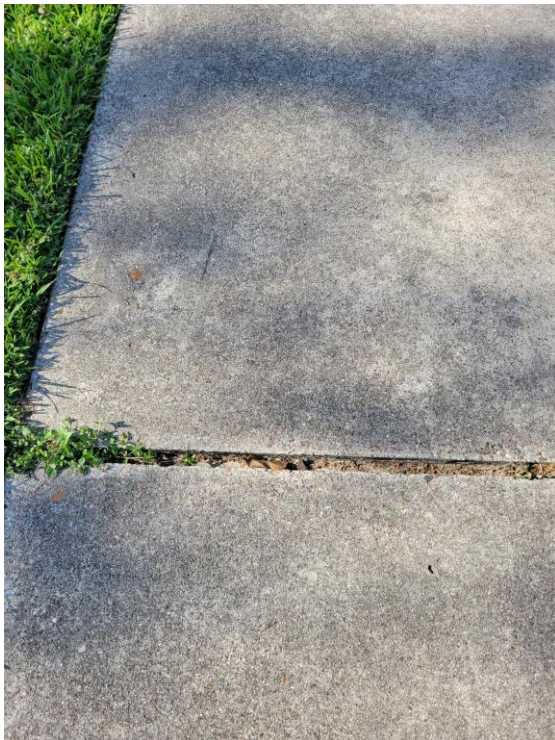
Base Cost: \$300.00
Contingency Cost: \$60.00
Design Cost: \$40.00
Total Cost: \$400.00

Possible Solutions:

Fill expansion joint to alleviate gap.

Barrier Priority:

Level 4 (High): Parking and exterior accessible routes (DOJ Level 1) – moderately out of compliance



Barrier #11 Additional Barrier Photos



Accessible Route: Accessible Route

Barrier: 12

The concrete expansion joint is spaced greater than 1/2 inch.

Openings in floor or ground surfaces shall not allow passage of a sphere more than 1/2 inch diameter. Elongated openings shall be placed so that the long dimension is perpendicular to the dominant direction of travel.

Citation:

2010 ADAS Section: 302.3

Current Condition:

Expansion joint is spaced greater than 1/2 inch.

Budget Cost:

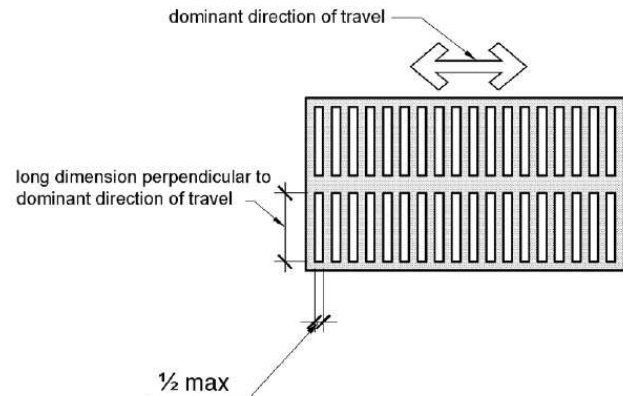
Base Cost: \$300.00
Contingency Cost: \$60.00
Design Cost: \$40.00
Total Cost: \$400.00

Possible Solutions:

Fill expansion joint to alleviate gap.

Barrier Priority:

Level 4 (High): Parking and exterior accessible routes (DOJ Level 1) – moderately out of compliance



Barrier #12 Additional Barrier Photos



Accessible Route: Accessible Route

Barrier: 13

The concrete expansion joint is spaced greater than 1/2 inch.

Openings in floor or ground surfaces shall not allow passage of a sphere more than 1/2 inch diameter. Elongated openings shall be placed so that the long dimension is perpendicular to the dominant direction of travel.

Citation:

2010 ADAS Section: 302.3

Current Condition:

Expansion joint is spaced greater than 1/2 inch.

Budget Cost:

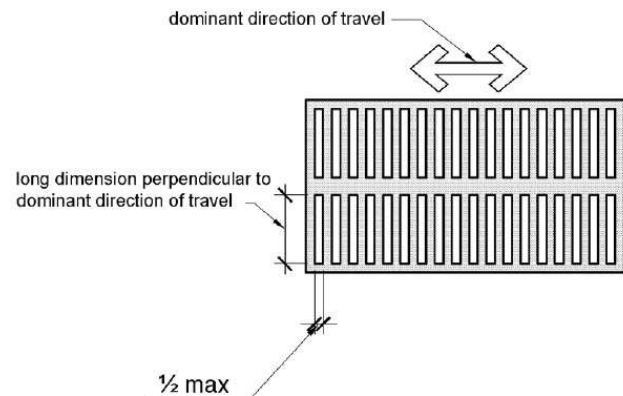
Base Cost: \$300.00
Contingency Cost: \$60.00
Design Cost: \$40.00
Total Cost: \$400.00

Possible Solutions:

Fill expansion joint to alleviate gap.

Barrier Priority:

Level 4 (High): Parking and exterior accessible routes (DOJ Level 1) – moderately out of compliance



Barrier #13 Additional Barrier Photos



Accessible Route: Accessible Route

Barrier: 14

The outdoor seating area is not on an accessible route.

At least 5% of the seating in each functional area must be accessible. An accessible table must be on an accessible route (36 inches minimum) and have knee spaces at least 27 inches high, 30 inches wide and 19 inches deep. The tops of tables and counters must be 28 inches to 34 inches from the floor or ground.

Citation:

2010 ADAS Section: 226.1

Current Condition:

2 picnic tables are provided with no accessible route.

Budget Cost:

Base Cost: \$5,500.00
Contingency Cost: \$1,100.00
Design Cost: \$900.00
Total Cost: \$7,500.00

Possible Solutions:

Provide a level, stable, and slip resistant ground surface to the picnic tables.

Barrier Priority:

Level 6 (Medium): Parking or exterior accessible routes (DOJ Level 1) – minimally out of compliance
Access to goods and services (DOJ Level 2) – moderately out of compliance
Restrooms (DOJ Level 3) – severely out of compliance



Accessible Route: Accessible Route

Barrier: 15

The concrete expansion joint is spaced greater than 1/2 inch.

Openings in floor or ground surfaces shall not allow passage of a sphere more than 1/2 inch diameter. Elongated openings shall be placed so that the long dimension is perpendicular to the dominant direction of travel.

Citation:

2010 ADAS Section: 302.3

Current Condition:

Expansion joint is spaced greater than 1/2 inch.

Budget Cost:

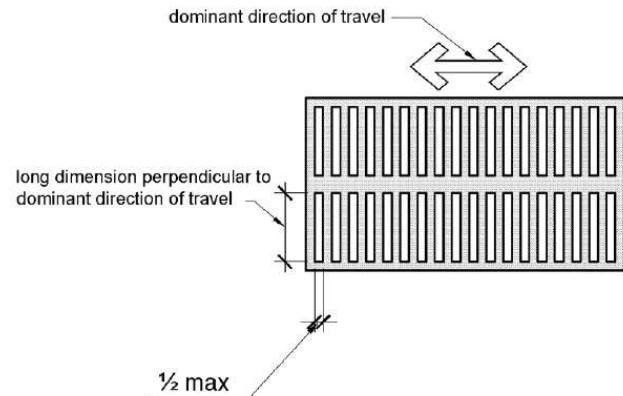
Base Cost: \$300.00
Contingency Cost: \$60.00
Design Cost: \$40.00
Total Cost: \$400.00

Possible Solutions:

Fill expansion joint to alleviate gap.

Barrier Priority:

Level 4 (High): Parking and exterior accessible routes (DOJ Level 1) – moderately out of compliance



Cost Summary

Item	# of Barriers	Total Item Cost
High Priority	14	\$20,000.00
Level 1	0	\$0.00
Level 2	2	\$10,800.00
Level 3	0	\$0.00
Level 4	12	\$9,200.00
Medium Priority	1	\$7,500.00
Level 5	0	\$0.00
Level 6	1	\$7,500.00
Level 7	0	\$0.00
Level 8	0	\$0.00
Low Priority	0	\$0.00
Level 9	0	\$0.00
Level 10	0	\$0.00
Level 11	0	\$0.00
Level 12	0	\$0.00
Priority Total	15	\$27,500.00

City of Angleton
ADA Self-Evaluation and Transition Plan
Sidewalk Cost Projection Summary
 4/18/2022

Corridor ID	Project Name	Limit 1	Limit 2	Cost Projection
1	N Downing St	Henderson Rd	Riverwood Ranch Blvd	\$ 257,300
TOTAL				\$ 257,300

Kimley-Horn and Associates, Inc.
Project Description for Sidewalk Corridor

Client: City of Angleton **Date:** 04/18/22
Program: ADA Self-Evaluation and Transition Plan
KHA No.: 068921101

Corridor: N Downing St **Corridor ID:** 1
Limits: Henderson Rd - Riverwood Ranch Blvd
City: Angleton

Item No.	Item Description	Quantity	Unit	Unit Price	Includes Engineering (15%) and Contingency (20%)
TxDOT 450-6003	Rail (Handrail)	0	LF	\$ 200.00	\$ -
TxDOT 531-6001	Conc Sidewalks (4")	2,104	SY	\$ 55.00	\$ 156,211.34
TxDOT 530-6004	Driveways (Conc)	463	SY	\$ 80.00	\$ 50,035.89
TxDOT 104-6017	Removing Conc (Driveways)	463	SY	\$ 15.00	\$ 9,381.73
TxDOT 104-6015	Removing Conc (Sidewalks)	1,684	SY	\$ 10.00	\$ 22,735.50
TxDOT 5003-6005	Retrofit Det Warn Surf (Cast In Place)	0	SF	\$ 925.00	\$ -
--	Concrete Railroad Panel	0	LS	\$ 36,000.00	\$ -
TxDOT 530-6005	Driveways (Asphalt Conc Pav)	0	SY	\$ 40.00	\$ -
--	Welded Steel Grate	0	EA	\$ 1,300.00	\$ -
--	Relocate Fire Hydrant	0	LS	\$ 2,000.00	\$ -
--	Adjust Utility Elevation	9	LS	\$ 1,000.00	\$ 12,150.00
--	Remove Obstruction	5	LS	\$ 1,000.00	\$ 6,750.00
--	Remove Temporary Obstruction	0	LS	\$ 500.00	\$ -
--	Railroad Company Flagger	0	Day(s)	\$ 1,000.00	\$ -
--	Remove Concrete Railroad Panel	0	LS	\$ 2,000.00	\$ -
TxDOT 105-6008	Removing Stab Base And Asph Pav (6")	0	SY	\$ 4.50	\$ -
--	Installation Of Asphalt Pavement (6")	0	SY	\$ 80.00	\$ -

Basis for Cost Projection

- No Design Completed
- Preliminary Design
- Final Design

Subtotal:	\$	257,264.45
Estimated Project Cost:	\$	257,300.00
<i>Engineering: (% +/-)</i>	15%	\$ 28,584.94
<i>Contingency: (% +/-)</i>	20%	\$ 38,113.25

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Sidewalk Summary

Priority	Length (LF)*	Cost
High	2,313	\$ 146,466.74
Medium	1,940	\$ 110,347.62
Low	56	\$ 450.09
Compliant	1,062	
Not Prioritized	0	
Subtotal	5,371	\$ 257,264.45
Sidewalk Total		\$ 257,300.00

* Totals rounded for simplification

Corridor Summary

Facility	Cost
Sidewalk Total	\$ 257,300.00
Unsignalized Intersection Total	\$ 272,200.00
Corridor Total	\$ 529,500.00

End of Project Description for Project 1 N Downing St

City of Angleton
ADA Self-Evaluation and Transition Plan
Unsignalized Intersection Cost Projection Summary
4/18/2022

GPS ID	Project Name	Cost Projection	Priority
1000	Intersection of N Downing St and Henderson Rd	\$ 26,900	2
1001	Intersection of N Downing St and Clover Dr	\$ 30,100	5
1002	Intersection of N Downing St and Glenview Ln / Rosewood Ln	\$ 36,200	5
1003	Intersection of N Downing St and Sagebrush St / N Belle Dr	\$ 31,500	5
1004	Intersection of N Downing St and Heather Ln / S Belle Dr	\$ 31,200	5
1005	Intersection of N Downing St and Molina Ct	\$ 18,100	5
1006	Intersection of N Downing St and Dennis St / Molina Dr	\$ 34,800	5
1007	Intersection of N Downing St and Riverwood Ranch Blvd	\$ 29,900	5
90000	Intersection of N Downing St and driveway (Lat. 29.1902; Long. -95.4193)	\$ 13,000	5
90001	Intersection of N Downing St and driveway (Lat. 29.1936; Long. -95.4194)	\$ 4,800	2
90002	Intersection of N Downing St and driveway (Lat. 29.1887; Long. -95.4193)	\$ 15,700	5
	TOTAL	\$ 272,200	

Client: City of Angleton Date: 4/18/22
 Program: ADA Self-Evaluation and Transition Plan
 KHA No.: 068921101

Corridor : N Downing St GPS ID: 1000
 Project Name: Intersection of N Downing St and Henderson Rd
 City: Angleton

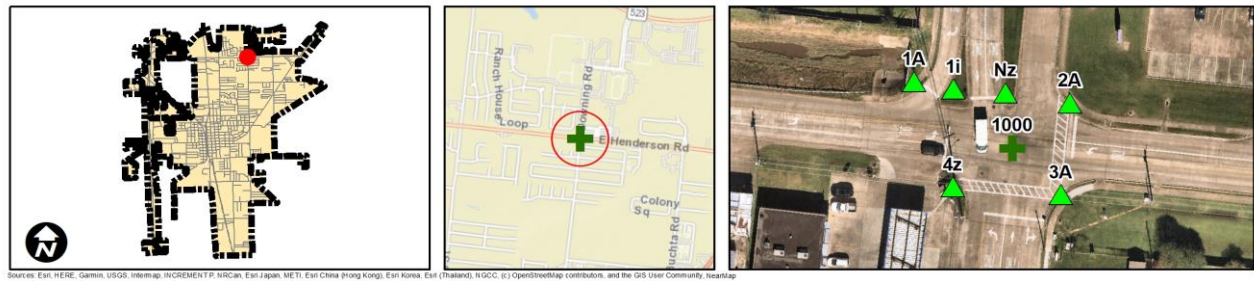
Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
TxDOT 110-6001	Excavation (Roadway)	0	CY	\$ 8.00	\$ -
TxDOT 529-6002	Conc Curb (Ty II)	0	LF	\$ 15.00	\$ -
TxDOT 531-6001	Conc Sidewalks (4")	0	SY	\$ 55.00	\$ -
TxDOT 531-6004	Curb Ramps (Ty 1)	8	EA	see page 2	\$ 15,550.00
TxDOT 5003-6005	Retrofit Det Warn Surf (Cast In Place)	0	SF	\$ 925.00	\$ -
TxDOT 104-6015	Removing Conc (Sidewalks)	31	SY	\$ 10.00	\$ 310.00
TxDOT 677-6007	Elim Ext Pav Mrk & Mrks	0	LF	\$ 3.50	\$ -
TxDOT 666/678	Refl Pav Mrk Prep, Ty I & Ty II (W) 24"(Sld)	0	LF	\$ 7.00	\$ -
---	Repave Roadway	0	LS	\$ 5,000.00	\$ -
---	Fix Ponding	2	LS	\$ 2,000.00	\$ 4,000.00
---	Fix Curb Ramp Transition	0	LS	\$ 2,000.00	\$ -
---	Median Nose Modification	0	LS	\$ 5,000.00	\$ -
---	Remove Temporary Obstruction	0	LS	\$ 500.00	\$ -
---	Fix Curb Ramp Counter Slope	0	LS	\$ 2,000.00	\$ -

Basis for Cost Projection

- No Design Completed
- Preliminary Design
- Final Design

Subtotal:	\$	19,860.00
Engineering: (% +/-)	15%	3,017.14
Contingency: (% +/-)	20%	4,022.86
Estimated Project Cost:	\$	26,900.00

Project Location



Field Observations

Intersection Issues	Crosswalk				Possible Solutions
	N	E	S	W	
Path of travel pavement condition	Good	Good	Good	N/A	
Path of travel running slope is greater than 5%				N/A	
Path of travel cross slope is greater than 2% for stop control approaches	N/A		N/A	N/A	
Path of travel cross slope is greater than 5% for free-flow approaches		N/A		N/A	
Crosswalk width is less than 6'	N/A			N/A	
Crosswalk striping condition	None	Good	Good	N/A	Install crosswalk pavement markings

Curb Ramp Issues	Curb Ramp ID ('z', 'i', or 'CN' in ramp label indicates no existing ramp)						Possible Solutions
	Nz	1A	1i	2A	3A	4z	
Curb ramp does not exist and is needed	X		X			X	Install curb ramp; if median improvement, see shapefile
Curb ramp does not land in crosswalk							
No 4' x 4' clear space at base of curb ramp							
Curbed side is not 90° or has traversable adjacent surface							
Flare cross slope is greater than 10%							
Curb ramp running slope is greater than 8.3%		X		X	X		
Blended transition running slope is greater than 5%							
Cut-thru ramp running slope is greater than 5%							
Curb ramp cross slope is greater than 2%							
Cut-thru ramp cross slope is greater than 2%							
Curb ramp width is less than 48"		X		X	X		
Cut-thru ramp width is less than 60"							
Permanent obstruction (>0.25') in curb ramp/landings/flares				X	X		
Turning space does not exist and is needed							
Turning space length is less than 4' (or 5' when constrained)							
Turning space width is less than 4' (or 5' when constrained)							
Turning space running slope is greater than 2%		X					
Turning space cross slope greater than 2%		X					
Temporary obstruction (>0.25') in curb ramp/landings/flares							
Non-compliant detectable warning surface (DWS)							
No detectable warning surface (DWS)							
Curb ramp transition onto roadway is greater than 0.25"							
Counter slope of the gutter or street at the foot of the curb ramp is greater than 5%							
Ponding occurs at base of curb ramp				X	X		

Comment: Existing sidewalk, curb ramp, and/or striping configurations permit pedestrians to cross the major street. An Engineering study is needed to confirm crossing should be accommodated at this location and the current crossing treatment is appropriate.



North Median No Ramp (Nz)



Ramp 1A



Island 1 No Ramp (1i)



Ramp 2A



Ramp 3A



Corner 4 No Ramp (4z)

Curb Ramp Recommendation Details:	Quantity	Unit	Unit Price
Types 1-11 (Standard Corner Ramp)	6	EA	\$1,700
Type 20 (Median Ramps with Shared Landing)	0	EA	\$2,525
Type 21 (Median Cut-thru Ramp)	1	EA	\$2,275
Type 22 (Channelizing Island Cut-thru Ramp)	1	EA	\$3,075

Opinion of Probable Construction Cost Disclaimer:

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Project Location Map Sources:

Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013, DigitalGlobe, GeoEye, i-cubed, USDA, AEX, Getmapping, Aerogrip, IGN, IGP, swisstopo, and the GIS User Community

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
TxDOT 110-6001	Excavation (Roadway)	0	CY	\$ 8.00	\$ -
TxDOT 529-6002	Conc Curb (Ty II)	0	LF	\$ 15.00	\$ -
TxDOT 531-6001	Conc Sidewalks (4")	6	SY	\$ 55.00	\$ 330.00
TxDOT 531-6004	Curb Ramps (Ty 1)	6	EA	see page 2	\$ 10,200.00
TxDOT 5003-6005	Retrofit Det Warn Surf (Cast In Place)	0	SF	\$ 925.00	\$ -
TxDOT 104-6015	Removing Conc (Sidewalks)	25	SY	\$ 10.00	\$ 250.00
TxDOT 677-6007	Elim Ext Pav Mrk & Mrks	0	LF	\$ 3.50	\$ -
TxDOT 666/678	Refl Pav Mrk Prep, Ty I & Ty II (W) 24"(Sld)	0	LF	\$ 7.00	\$ -
---	Repave Roadway	1	LS	\$ 5,000.00	\$ 5,000.00
---	Fix Ponding	2	LS	\$ 2,000.00	\$ 4,000.00
---	Fix Curb Ramp Transition	0	LS	\$ 2,000.00	\$ -
---	Median Nose Modification	0	LS	\$ 5,000.00	\$ -
---	Remove Temporary Obstruction	1	LS	\$ 500.00	\$ 500.00
---	Fix Curb Ramp Counter Slope	1	LS	\$ 2,000.00	\$ 2,000.00
				Subtotal:	\$ 22,280.00
				Engineering: (% +/-)	15% \$ 3,351.43
				Contingency: (% +/-)	20% \$ 4,468.57
				Estimated Project Cost:	\$ 30,100.00

- Basis for Cost Projection**
- No Design Completed
 - Preliminary Design
 - Final Design

Project Location



Field Observations

Intersection Issues	Crosswalk				Possible Solutions
	N	E	S	W	
Path of travel pavement condition	Good	Poor	Good	N/A	Repave roadway and install crosswalk pavement markings
Path of travel running slope is greater than 5%				N/A	
Path of travel cross slope is greater than 2% for stop control approaches	N/A	X	N/A	N/A	
Path of travel cross slope is greater than 5% for free-flow approaches		N/A		N/A	Install crosswalk pavement markings
Crosswalk width is less than 6'	N/A	N/A	N/A	N/A	
Crosswalk striping condition	None	None	None	N/A	

Curb Ramp Issues	Curb Ramp ID ('z', 'i', or 'CN' in ramp label indicates no existing ramp)				Possible Solutions
	1z	2A	3A	4z	
Curb ramp does not exist and is needed	X			X	Install curb ramp; if median improvement, see shapefile
Curb ramp does not land in crosswalk					
No 4' x 4' clear space at base of curb ramp					
Curbed side is not 90° or has traversable adjacent surface					
Flare cross slope is greater than 10%					
Curb ramp running slope is greater than 8.3%		X	X		
Blended transition running slope is greater than 5%					
Cut-thru ramp running slope is greater than 5%					
Curb ramp cross slope is greater than 2%					
Cut-thru ramp cross slope is greater than 2%					
Curb ramp width is less than 48"					Remove and replace curb ramp
Cut-thru ramp width is less than 60"					
Permanent obstruction (>0.25') in curb ramp/landing/flares		X			
Turning space does not exist and is needed		X	X		
Turning space length is less than 4' (or 5' when constrained)					
Turning space width is less than 4' (or 5' when constrained)					
Turning space running slope is greater than 2%					
Turning space cross slope greater than 2%					
Temporary obstruction (>0.25') in curb ramp/landing/flares			X		
Non-compliant detectable warning surface (DWS)					
No detectable warning surface (DWS)					Remove temporary obstruction
Curb ramp transition onto roadway is greater than 0.25"					
Counter slope of the gutter or street at the foot of the curb ramp is greater than 5%		X			
Ponding occurs at base of curb ramp		X	X		Fix curb ramp counter slope
					Fix ponding

Comment: Existing sidewalk, curb ramp, and/or striping configurations permit pedestrians to cross the major street. An Engineering study is needed to confirm crossing should be accommodated at this location and the current crossing treatment is appropriate.



Corner 1 No Ramp (1z)



Ramp 2A



Ramp 3A



Corner 4 No Ramp (4z)

Curb Ramp Recommendation Details:	Quantity	Unit	Unit Price
Types 1-11 (Standard Corner Ramp)	6	EA	\$1,700
Type 20 (Median Ramps with Shared Landing)	0	EA	\$2,525
Type 21 (Median Cut-thru Ramp)	0	EA	\$2,275
Type 22 (Channelizing Island Cut-thru Ramp)	0	EA	\$3,075

Opinion of Probable Construction Cost Disclaimer:

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Project Location Map Sources:

Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013, DigitalGlobe, GeoEye, i-cubed, USDA, AEX, Getmapping, Aerogrip, IGN, IGP, swisstopo, and the GIS User Community

Client: City of Angleton **Date:** 4/18/22
Program: ADA Self-Evaluation and Transition Plan
KHA No.: 068921101

Corridor : N Downing St **GPS ID:** 1002
Project Name: Intersection of N Downing St and Glenview Ln / Rosewood Ln
City: Angleton

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
TxDOT 110-6001	Excavation (Roadway)	0	CY	\$ 8.00	\$ -
TxDOT 529-6002	Conc Curb (Ty II)	0	LF	\$ 15.00	\$ -
TxDOT 531-6001	Conc Sidewalks (4")	12	SY	\$ 55.00	\$ 660.00
TxDOT 531-6004	Curb Ramps (Ty 1)	8	EA	see page 2	\$ 13,600.00
TxDOT 5003-6005	Retrofit Det Warn Surf (Cast In Place)	0	SF	\$ 925.00	\$ -
TxDOT 104-6015	Removing Conc (Sidewalks)	49	SY	\$ 10.00	\$ 490.00
TxDOT 677-6007	Elim Ext Pav Mrk & Mrks	0	LF	\$ 3.50	\$ -
TxDOT 666/678	Refl Pav Mrk Prep, Ty I & Ty II (W) 24"(Sld)	0	LF	\$ 7.00	\$ -
---	Repave Roadway	2	LS	\$ 5,000.00	\$ 10,000.00
---	Fix Ponding	0	LS	\$ 2,000.00	\$ -
---	Fix Curb Ramp Transition	1	LS	\$ 2,000.00	\$ 2,000.00
---	Median Nose Modification	0	LS	\$ 5,000.00	\$ -
---	Remove Temporary Obstruction	0	LS	\$ 500.00	\$ -
---	Fix Curb Ramp Counter Slope	0	LS	\$ 2,000.00	\$ -

Basis for Cost Projection
 No Design Completed
 Preliminary Design
 Final Design

Subtotal:	\$	26,750.00
Engineering: (% +/-)	15%	4,050.00
Contingency: (% +/-)	20%	5,400.00
Estimated Project Cost:	\$	36,200.00

Project Location



Field Observations

Intersection Issues	Crosswalk				Possible Solutions
	N	E	S	W	
Path of travel pavement condition	Good	Good	Poor	Good	
Path of travel running slope is greater than 5%					
Path of travel cross slope is greater than 2% for stop control approaches	N/A		N/A	X	Repave roadway and install crosswalk pavement markings
Path of travel cross slope is greater than 5% for free-flow approaches		N/A		N/A	
Crosswalk width is less than 6'	N/A	N/A	N/A	N/A	Install crosswalk pavement markings
Crosswalk striping condition	None	None	None	None	

Curb Ramp Issues	Curb Ramp ID ('z', 'i', or 'CN' in ramp label indicates no existing ramp)				Possible Solutions
	1A	2A	3A	4A	
Curb ramp does not exist and is needed					
Curb ramp does not land in crosswalk					
No 4' x 4' clear space at base of curb ramp					
Curbed side is not 90° or has traversable adjacent surface					
Flare cross slope is greater than 10%					
Curb ramp running slope is greater than 8.3%	X	X	X	X	
Blended transition running slope is greater than 5%					
Cut-thru ramp running slope is greater than 5%					
Curb ramp cross slope is greater than 2%		X	X		
Cut-thru ramp cross slope is greater than 2%					
Curb ramp width is less than 48"			X	X	Remove and replace curb ramp
Cut-thru ramp width is less than 60"					
Permanent obstruction (>0.25') in curb ramp/landing/flares					
Turning space does not exist and is needed		X			
Turning space length is less than 4' (or 5' when constrained)					
Turning space width is less than 4' (or 5' when constrained)			X		
Turning space running slope is greater than 2%			X		
Turning space cross slope greater than 2%			X		
Temporary obstruction (>0.25') in curb ramp/landing/flares					
Non-compliant detectable warning surface (DWS)					
No detectable warning surface (DWS)					
Curb ramp transition onto roadway is greater than 0.25"		X			Fix curb ramp transition
Counter slope of the gutter or street at the foot of the curb ramp is greater than 5%					
Ponding occurs at base of curb ramp					

Comment: Existing sidewalk, curb ramp, and/or striping configurations permit pedestrians to cross the major street. An Engineering study is needed to confirm crossing should be accommodated at this location and the current crossing treatment is appropriate.



Ramp 1A



Ramp 2A



Ramp 3A



Ramp 4A

Curb Ramp Recommendation Details:	Quantity	Unit	Unit Price
Types 1-11 (Standard Corner Ramp)	8	EA	\$1,700
Type 20 (Median Ramps with Shared Landing)	0	EA	\$2,525
Type 21 (Median Cut-thru Ramp)	0	EA	\$2,275
Type 22 (Channelizing Island Cut-thru Ramp)	0	EA	\$3,075

Opinion of Probable Construction Cost Disclaimer:

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Project Location Map Sources:

Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013, DigitalGlobe, GeoEye, i-cubed, USDA, AEX, Getmapping, Aerogrip, IGN, IGP, swisstopo, and the GIS User Community

Client: City of Angleton **Date:** 4/18/22
Program: ADA Self-Evaluation and Transition Plan
KHA No.: 068921101

Corridor : N Downing St **GPS ID:** 1003
Project Name: Intersection of N Downing St and Sagebrush St / N Belle Dr
City: Angleton

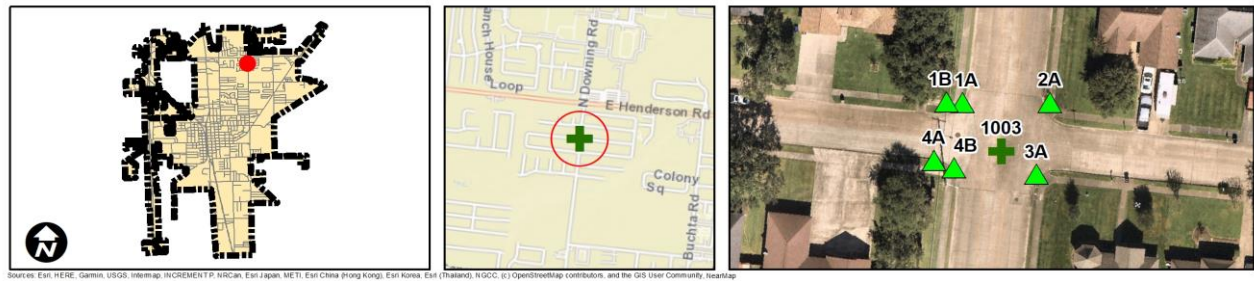
Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
TxDOT 110-6001	Excavation (Roadway)	0	CY	\$ 8.00	\$ -
TxDOT 529-6002	Conc Curb (Ty II)	0	LF	\$ 15.00	\$ -
TxDOT 531-6001	Conc Sidewalks (4")	17	SY	\$ 55.00	\$ 935.00
TxDOT 531-6004	Curb Ramps (Ty 1)	8	EA	see page 2	\$ 13,600.00
TxDOT 5003-6005	Retrofit Det Warn Surf (Cast In Place)	0	SF	\$ 925.00	\$ -
TxDOT 104-6015	Removing Conc (Sidewalks)	74	SY	\$ 10.00	\$ 740.00
TxDOT 677-6007	Elim Ext Pav Mk & Mrks	0	LF	\$ 3.50	\$ -
TxDOT 666/678	Refl Pav Mrk Prep, Ty I & Ty II (W) 24"(Slid)	0	LF	\$ 7.00	\$ -
---	Repave Roadway	0	LS	\$ 5,000.00	\$ -
---	Fix Ponding	3	LS	\$ 2,000.00	\$ 6,000.00
---	Fix Curb Ramp Transition	1	LS	\$ 2,000.00	\$ 2,000.00
---	Median Nose Modification	0	LS	\$ 5,000.00	\$ -
---	Remove Temporary Obstruction	0	LS	\$ 500.00	\$ -
---	Fix Curb Ramp Counter Slope	0	LS	\$ 2,000.00	\$ -

Basis for Cost Projection

No Design Completed
 Preliminary Design
 Final Design

Subtotal:	\$	23,275.00
Engineering: (% +/-)	15%	\$ 3,525.00
Contingency: (% +/-)	20%	\$ 4,700.00
Estimated Project Cost:	\$	31,500.00

Project Location



Field Observations

Intersection Issues	Crosswalk				Possible Solutions
	N	E	S	W	
Path of travel pavement condition	Good	Good	Good	Good	
Path of travel running slope is greater than 5%					
Path of travel cross slope is greater than 2% for stop control approaches	N/A		N/A		
Path of travel cross slope is greater than 5% for free-flow approaches		N/A		N/A	
Crosswalk width is less than 6'	N/A	N/A	N/A	N/A	Install crosswalk pavement markings
Crosswalk striping condition	None	None	None	None	

Curb Ramp Issues	Curb Ramp ID ('z', 'l', or 'CN' in ramp label indicates no existing ramp)						Possible Solutions
	1A	1B	2A	3A	4A	4B	
Curb ramp does not exist and is needed							Remove and replace curb ramp
Curb ramp does not land in crosswalk							
No 4' x 4' clear space at base of curb ramp							
Curbed side is not 90° or has traversable adjacent surface							
Flare cross slope is greater than 10%							
Curb ramp running slope is greater than 8.3%							
Blended transition running slope is greater than 5%							
Cut-thru ramp running slope is greater than 5%							
Curb ramp cross slope is greater than 2%	X	X		X	X	X	
Cut-thru ramp cross slope is greater than 2%							
Curb ramp width is less than 48"	X	X			X	X	
Cut-thru ramp width is less than 60"							
Permanent obstruction (>0.25') in curb ramp/landing/flares				X	X		
Turning space does not exist and is needed				X	X		
Turning space length is less than 4' (or 5' when constrained)				X	X		
Turning space width is less than 4' (or 5' when constrained)				X	X		
Turning space running slope is greater than 2%							
Turning space cross slope greater than 2%		X			X	X	
Temporary obstruction (>0.25') in curb ramp/landing/flares							
Non-compliant detectable warning surface (DWS)							
No detectable warning surface (DWS)							
Curb ramp transition onto roadway is greater than 0.25"				X			
Counter slope of the gutter or street at the foot of the curb ramp is greater than 5%							
Ponding occurs at base of curb ramp	X				X	X	

Comment: Existing sidewalk, curb ramp, and/or striping configurations permit pedestrians to cross the major street. An Engineering study is needed to confirm crossing should be accommodated at this location and the current crossing treatment is appropriate.



Ramp 1A



Ramp 1B



Ramp 2A



Ramp 3A



Ramp 4A



Ramp 4B

Curb Ramp Recommendation Details:	Quantity	Unit	Unit Price
Types 1-11 (Standard Corner Ramp)	8	EA	\$1,700
Type 20 (Median Ramps with Shared Landing)	0	EA	\$2,525
Type 21 (Median Cut-thru Ramp)	0	EA	\$2,275
Type 22 (Channelizing Island Cut-thru Ramp)	0	EA	\$3,075

Opinion of Probable Construction Cost Disclaimer:

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Project Location Map Sources:

Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013, DigitalGlobe, GeoEye, i-cubed, USDA, AEX, Getmapping, Aerogrip, IGN, IGP, swisstopo, and the GIS User Community

Client: City of Angleton **Date:** 4/18/22
Program: ADA Self-Evaluation and Transition Plan
KHA No.: 068921101

Corridor : N Downing St **GPS ID:** 1004
Project Name: Intersection of N Downing St and Heather Ln / S Belle Dr
City: Angleton

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
TxDOT 110-6001	Excavation (Roadway)	0	CY	\$ 8.00	\$ -
TxDOT 529-6002	Conc Curb (Ty II)	0	LF	\$ 15.00	\$ -
TxDOT 531-6001	Conc Sidewalks (4")	12	SY	\$ 55.00	\$ 660.00
TxDOT 531-6004	Curb Ramps (Ty 1)	7	EA	see page 2	\$ 11,900.00
TxDOT 5003-6005	Retrofit Det Warn Surf (Cast In Place)	0	SF	\$ 925.00	\$ -
TxDOT 104-6015	Removing Conc (Sidewalks)	50	SY	\$ 10.00	\$ 500.00
TxDOT 677-6007	Elim Ext Pav Mrk & Mrks	0	LF	\$ 3.50	\$ -
TxDOT 666/678	Refl Pav Mrk Prep, Ty I & Ty II (W) 24"(Sld)	0	LF	\$ 7.00	\$ -
---	Repave Roadway	0	LS	\$ 5,000.00	\$ -
---	Fix Ponding	4	LS	\$ 2,000.00	\$ 8,000.00
---	Fix Curb Ramp Transition	1	LS	\$ 2,000.00	\$ 2,000.00
---	Median Nose Modification	0	LS	\$ 5,000.00	\$ -
---	Remove Temporary Obstruction	0	LS	\$ 500.00	\$ -
---	Fix Curb Ramp Counter Slope	0	LS	\$ 2,000.00	\$ -

Basis for Cost Projection

No Design Completed
 Preliminary Design
 Final Design

Subtotal:	\$	23,060.00
Engineering: (% +/-)	15%	\$ 3,488.57
Contingency: (% +/-)	20%	\$ 4,651.43
Estimated Project Cost:	\$	31,200.00

Project Location



Field Observations

Intersection Issues	Crosswalk				Possible Solutions
	N	E	S	W	
Path of travel pavement condition	Good	Good	Good	Good	
Path of travel running slope is greater than 5%					
Path of travel cross slope is greater than 2% for stop control approaches	N/A		N/A		
Path of travel cross slope is greater than 5% for free-flow approaches		N/A		N/A	
Crosswalk width is less than 6'	N/A	N/A	N/A	N/A	Install crosswalk pavement markings
Crosswalk striping condition	None	None	None	None	

Curb Ramp Issues	Curb Ramp ID ('z', 'l', or 'CN' in ramp label indicates no existing ramp)					Possible Solutions
	1A	2A	3A	4A	4B	
Curb ramp does not exist and is needed						Remove and replace curb ramp
Curb ramp does not land in crosswalk						
No 4' x 4' clear space at base of curb ramp						
Curbed side is not 90° or has traversable adjacent surface	X					
Flare cross slope is greater than 10%						
Curb ramp running slope is greater than 8.3%			X			
Blended transition running slope is greater than 5%						
Cut-thru ramp running slope is greater than 5%						
Curb ramp cross slope is greater than 2%	X	X		X	X	
Cut-thru ramp cross slope is greater than 2%						
Curb ramp width is less than 48"	X			X	X	
Cut-thru ramp width is less than 60"						
Permanent obstruction (>0.25') in curb ramp/landings/flares	X					
Turning space does not exist and is needed		X	X			
Turning space length is less than 4' (or 5' when constrained)						
Turning space width is less than 4' (or 5' when constrained)						
Turning space running slope is greater than 2%						
Turning space cross slope greater than 2%	X			X		
Temporary obstruction (>0.25') in curb ramp/landings/flares						
Non-compliant detectable warning surface (DWS)						
No detectable warning surface (DWS)						
Curb ramp transition onto roadway is greater than 0.25"			X			
Counter slope of the gutter or street at the foot of the curb ramp is greater than 5%						
Ponding occurs at base of curb ramp	X		X	X	X	

Comment: Existing sidewalk, curb ramp, and/or striping configurations permit pedestrians to cross the major street. An Engineering study is needed to confirm crossing should be accommodated at this location and the current crossing treatment is appropriate.



Ramp 1A



Ramp 2A



Ramp 3A



Ramp 4A



Ramp 4B

Curb Ramp Recommendation Details:	Quantity	Unit	Unit Price
Types 1-11 (Standard Corner Ramp)	7	EA	\$1,700
Type 20 (Median Ramps with Shared Landing)	0	EA	\$2,525
Type 21 (Median Cut-thru Ramp)	0	EA	\$2,275
Type 22 (Channelizing Island Cut-thru Ramp)	0	EA	\$3,075

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Project Location Map Sources:

Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013, DigitalGlobe, GeoEye, i-cubed, USDA, AEX, Getmapping, Aerogrip, IGN, IGP, swisstopo, and the GIS User Community

Client: City of Angleton **Date:** 4/18/22
Program: ADA Self-Evaluation and Transition Plan
KHA No.: 068921101

Corridor : N Downing St **GPS ID:** 1005
Project Name: Intersection of N Downing St and Molina Ct
City: Angleton

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
TxDOT 110-6001	Excavation (Roadway)	0	CY	\$ 8.00	\$ -
TxDOT 529-6002	Conc Curb (Ty II)	0	LF	\$ 15.00	\$ -
TxDOT 531-6001	Conc Sidewalks (4")	6	SY	\$ 55.00	\$ 330.00
TxDOT 531-6004	Curb Ramps (Ty 1)	4	EA	see page 2	\$ 6,800.00
TxDOT 5003-6005	Retrofit Det Warn Surf (Cast In Place)	0	SF	\$ 925.00	\$ -
TxDOT 104-6015	Removing Conc (Sidewalks)	25	SY	\$ 10.00	\$ 250.00
TxDOT 677-6007	Elim Ext Pav Mrk & Mrks	0	LF	\$ 3.50	\$ -
TxDOT 666/678	Refl Pav Mrk Prep, Ty I & Ty II (W) 24"(Sld)	0	LF	\$ 7.00	\$ -
---	Repave Roadway	0	LS	\$ 5,000.00	\$ -
---	Fix Ponding	2	LS	\$ 2,000.00	\$ 4,000.00
---	Fix Curb Ramp Transition	1	LS	\$ 2,000.00	\$ 2,000.00
---	Median Nose Modification	0	LS	\$ 5,000.00	\$ -
---	Remove Temporary Obstruction	0	LS	\$ 500.00	\$ -
---	Fix Curb Ramp Counter Slope	0	LS	\$ 2,000.00	\$ -

Basis for Cost Projection

- No Design Completed
- Preliminary Design
- Final Design

Subtotal:	\$	13,380.00
Engineering: (% +/-)	15%	2,022.86
Contingency: (% +/-)	20%	2,697.14
Estimated Project Cost:	\$	18,100.00

Project Location



Field Observations

Intersection Issues	Crosswalk				Possible Solutions
	N	E	S	W	
Path of travel pavement condition	Good	Good	N/A	N/A	
Path of travel running slope is greater than 5%			N/A	N/A	
Path of travel cross slope is greater than 2% for stop control approaches	N/A		N/A	N/A	
Path of travel cross slope is greater than 5% for free-flow approaches		N/A	N/A	N/A	
Crosswalk width is less than 6'	N/A	N/A	N/A	N/A	Install crosswalk pavement markings
Crosswalk striping condition	None	None	N/A	N/A	

Curb Ramp Issues	Curb Ramp ID ('z', 'i', or 'CN' in ramp label indicates no existing ramp)				Possible Solutions
	1z	2A	3A	4z	
Curb ramp does not exist and is needed	X				Install curb ramp; if median improvement, see shapefile
Curb ramp does not land in crosswalk					
No 4' x 4' clear space at base of curb ramp					
Curbed side is not 90° or has traversable adjacent surface					
Flare cross slope is greater than 10%					
Curb ramp running slope is greater than 8.3%		X			
Blended transition running slope is greater than 5%					
Cut-thru ramp running slope is greater than 5%					
Curb ramp cross slope is greater than 2%					
Cut-thru ramp cross slope is greater than 2%					
Curb ramp width is less than 48"					Remove and replace curb ramp
Cut-thru ramp width is less than 60"					
Permanent obstruction (>0.25') in curb ramp/landing/flares					
Turning space does not exist and is needed		X	X		
Turning space length is less than 4' (or 5' when constrained)					
Turning space width is less than 4' (or 5' when constrained)					
Turning space running slope is greater than 2%					
Turning space cross slope greater than 2%					
Temporary obstruction (>0.25') in curb ramp/landing/flares					
Non-compliant detectable warning surface (DWS)					
No detectable warning surface (DWS)					Fix curb ramp transition
Curb ramp transition onto roadway is greater than 0.25"			X		
Counter slope of the gutter or street at the foot of the curb ramp is greater than 5%					Fix ponding
Ponding occurs at base of curb ramp		X	X		

Comment: Existing sidewalk, curb ramp, and/or striping configurations permit pedestrians to cross the major street. An Engineering study is needed to confirm crossing should be accommodated at this location and the current crossing treatment is appropriate.



Corner 1 No Ramp (1z)



Ramp 2A



Ramp 3A



Corner 4 No Ramp (4z)

Curb Ramp Recommendation Details:	Quantity	Unit	Unit Price
Types 1-11 (Standard Corner Ramp)	4	EA	\$1,700
Type 20 (Median Ramps with Shared Landing)	0	EA	\$2,525
Type 21 (Median Cut-thru Ramp)	0	EA	\$2,275
Type 22 (Channelizing Island Cut-thru Ramp)	0	EA	\$3,075

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Project Location Map Sources:

Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013, DigitalGlobe, GeoEye, i-cubed, USDA, AEX, Getmapping, Aerogrip, IGN, IGP, swisstopo, and the GIS User Community

Client: City of Angleton **Date:** 4/18/22
Program: ADA Self-Evaluation and Transition Plan
KHA No.: 068921101

Corridor : N Downing St **GPS ID:** 1006
Project Name: Intersection of N Downing St and Dennis St / Molina Dr
City: Angleton

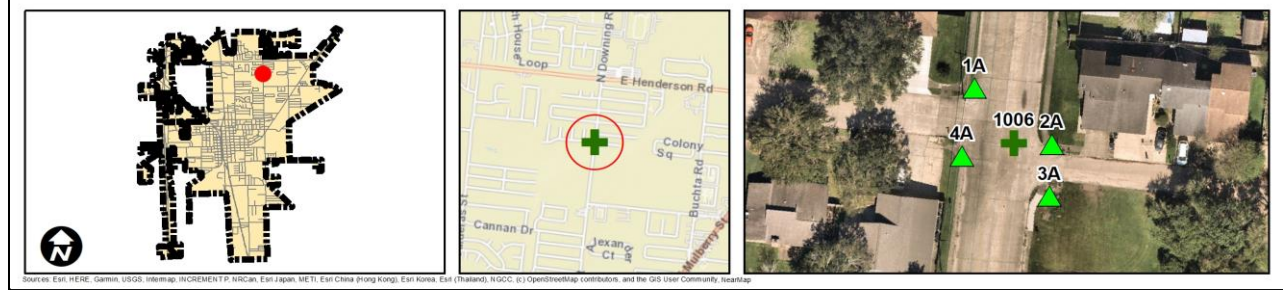
Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
TxDOT 110-6001	Excavation (Roadway)	0	CY	\$ 8.00	\$ -
TxDOT 529-6002	Conc Curb (Ty II)	0	LF	\$ 15.00	\$ -
TxDOT 531-6001	Conc Sidewalks (4")	12	SY	\$ 55.00	\$ 660.00
TxDOT 531-6004	Curb Ramps (Ty 1)	8	EA	see page 2	\$ 13,600.00
TxDOT 5003-6005	Retrofit Det Warn Surf (Cast In Place)	0	SF	\$ 925.00	\$ -
TxDOT 104-6015	Removing Conc (Sidewalks)	50	SY	\$ 10.00	\$ 500.00
TxDOT 677-6007	Elim Ext Pav Mk & Mrks	0	LF	\$ 3.50	\$ -
TxDOT 666/678	Refl Pav Mrk Prep, Ty I & Ty II (W) 24"(Sld)	0	LF	\$ 7.00	\$ -
---	Repave Roadway	1	LS	\$ 5,000.00	\$ 5,000.00
---	Fix Ponding	3	LS	\$ 2,000.00	\$ 6,000.00
---	Fix Curb Ramp Transition	0	LS	\$ 2,000.00	\$ -
---	Median Nose Modification	0	LS	\$ 5,000.00	\$ -
---	Remove Temporary Obstruction	0	LS	\$ 500.00	\$ -
---	Fix Curb Ramp Counter Slope	0	LS	\$ 2,000.00	\$ -

Basis for Cost Projection

- No Design Completed
- Preliminary Design
- Final Design

Subtotal:	\$	25,760.00
Engineering: (% +/-)	15%	3,874.29
Contingency: (% +/-)	20%	5,165.71
Estimated Project Cost:	\$	34,800.00

Project Location



Field Observations

Intersection Issues	Crosswalk				Possible Solutions
	N	E	S	W	
Path of travel pavement condition	Poor	Good	Good	Good	Repave roadway and install crosswalk pavement markings
Path of travel running slope is greater than 5%	X				
Path of travel cross slope is greater than 2% for stop control approaches	N/A		N/A		
Path of travel cross slope is greater than 5% for free-flow approaches		N/A		N/A	
Crosswalk width is less than 6'	N/A	N/A	N/A	N/A	Install crosswalk pavement markings
Crosswalk striping condition	None	None	None	None	

Curb Ramp Issues	Curb Ramp ID ('z', 'l', or 'CN' in ramp label indicates no existing ramp)				Possible Solutions
	1A	2A	3A	4A	
Curb ramp does not exist and is needed					Remove and replace curb ramp
Curb ramp does not land in crosswalk					
No 4' x 4' clear space at base of curb ramp					
Curbed side is not 90° or has traversable adjacent surface					
Flare cross slope is greater than 10%					
Curb ramp running slope is greater than 8.3%	X		X		
Blended transition running slope is greater than 5%					
Cut-thru ramp running slope is greater than 5%					
Curb ramp cross slope is greater than 2%				X	
Cut-thru ramp cross slope is greater than 2%					
Curb ramp width is less than 48"					
Cut-thru ramp width is less than 60"					
Permanent obstruction (>0.25') in curb ramp/landings/flares	X		X		
Turning space does not exist and is needed	X	X	X	X	
Turning space length is less than 4' (or 5' when constrained)					
Turning space width is less than 4' (or 5' when constrained)					
Turning space running slope is greater than 2%					
Turning space cross slope greater than 2%					
Temporary obstruction (>0.25') in curb ramp/landings/flares					
Non-compliant detectable warning surface (DWS)					
No detectable warning surface (DWS)					
Curb ramp transition onto roadway is greater than 0.25"					
Counter slope of the gutter or street at the foot of the curb ramp is greater than 5%					
Ponding occurs at base of curb ramp	X	X	X		Fix ponding

Comment: Existing sidewalk, curb ramp, and/or striping configurations permit pedestrians to cross the major street. An Engineering study is needed to confirm crossing should be accommodated at this location and the current crossing treatment is appropriate.



Ramp 1A



Ramp 2A



Ramp 3A



Ramp 4A

Curb Ramp Recommendation Details:	Quantity	Unit	Unit Price
Types 1-11 (Standard Corner Ramp)	8	EA	\$1,700
Type 20 (Median Ramps with Shared Landing)	0	EA	\$2,525
Type 21 (Median Cut-thru Ramp)	0	EA	\$2,275
Type 22 (Channelizing Island Cut-thru Ramp)	0	EA	\$3,075

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Project Location Map Sources:

Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013, DigitalGlobe, GeoEye, i-cubed, USDA, AEX, Getmapping, Aerogrip, IGN, IGP, swisstopo, and the GIS User Community

Client: City of Angleton **Date:** 4/18/22
Program: ADA Self-Evaluation and Transition Plan
KHA No.: 068921101

Corridor : N Downing St **GPS ID:** 1007
Project Name: Intersection of N Downing St and Riverwood Ranch Blvd
City: Angleton

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
TxDOT 110-6001	Excavation (Roadway)	0	CY	\$ 8.00	\$ -
TxDOT 529-6002	Conc Curb (Ty II)	0	LF	\$ 15.00	\$ -
TxDOT 531-6001	Conc Sidewalks (4")	0	SY	\$ 55.00	\$ -
TxDOT 531-6004	Curb Ramps (Ty 1)	2	EA	see page 2	\$ 3,400.00
TxDOT 5003-6005	Retrofit Det Warn Surf (Cast In Place)	20	SF	\$ 925.00	\$ 18,500.00
TxDOT 104-6015	Removing Conc (Sidewalks)	21	SY	\$ 10.00	\$ 210.00
TxDOT 677-6007	Elim Ext Pav Mrk & Mrks	0	LF	\$ 3.50	\$ -
TxDOT 666/678	Refl Pav Mrk Prep, Ty I & Ty II (W) 24"(Sld)	0	LF	\$ 7.00	\$ -
---	Repave Roadway	0	LS	\$ 5,000.00	\$ -
---	Fix Ponding	0	LS	\$ 2,000.00	\$ -
---	Fix Curb Ramp Transition	0	LS	\$ 2,000.00	\$ -
---	Median Nose Modification	0	LS	\$ 5,000.00	\$ -
---	Remove Temporary Obstruction	0	LS	\$ 500.00	\$ -
---	Fix Curb Ramp Counter Slope	0	LS	\$ 2,000.00	\$ -

Basis for Cost Projection
 No Design Completed
 Preliminary Design
 Final Design

Subtotal:	\$	22,110.00
Engineering: (% +/-)	15%	\$ 3,338.57
Contingency: (% +/-)	20%	\$ 4,451.43
Estimated Project Cost:	\$	29,900.00

Project Location



Field Observations

Intersection Issues	Crosswalk				Possible Solutions
	N	E	S	W	
Path of travel pavement condition	N/A	Good	N/A	N/A	
Path of travel running slope is greater than 5%	N/A		N/A	N/A	
Path of travel cross slope is greater than 2% for stop control approaches	N/A		N/A	N/A	
Path of travel cross slope is greater than 5% for free-flow approaches	N/A	N/A	N/A	N/A	
Crosswalk width is less than 6'	N/A		N/A	N/A	
Crosswalk striping condition	N/A	Good	N/A	N/A	

Curb Ramp Issues	Curb Ramp ID ('z', 'i', or 'CN' in ramp label indicates no existing ramp)					Possible Solutions
	EF	1z	2A	3A	4z	
Curb ramp does not exist and is needed						
Curb ramp does not land in crosswalk						
No 4' x 4' clear space at base of curb ramp						
Curbed side is not 90° or has traversable adjacent surface						
Flare cross slope is greater than 10%			X	X		
Curb ramp running slope is greater than 8.3%						
Blended transition running slope is greater than 5%						
Cut-thru ramp running slope is greater than 5%						
Curb ramp cross slope is greater than 2%						
Cut-thru ramp cross slope is greater than 2%						
Curb ramp width is less than 48"						
Cut-thru ramp width is less than 60"						
Permanent obstruction (>0.25") in curb ramp/landings/flares						
Turning space does not exist and is needed						
Turning space length is less than 4' (or 5' when constrained)						
Turning space width is less than 4' (or 5' when constrained)						
Turning space running slope is greater than 2%						
Turning space cross slope greater than 2%						
Temporary obstruction (>0.25") in curb ramp/landings/flares						
Non-compliant detectable warning surface (DWS)	X					Curb ramp is compliant - bring DWS into compliance
No detectable warning surface (DWS)						
Curb ramp transition onto roadway is greater than 0.25"						
Counter slope of the gutter or street at the foot of the curb ramp is greater than 5%						
Ponding occurs at base of curb ramp						



Ramp East F



Corner 1 No Ramp (1z)



Ramp 2A



Ramp 3A



Corner 4 No Ramp (4z)

Curb Ramp Recommendation Details:	Quantity	Unit	Unit Price
Types 1-11 (Standard Corner Ramp)	2	EA	\$1,700
Type 20 (Median Ramps with Shared Landing)	0	EA	\$2,525
Type 21 (Median Cut-thru Ramp)	0	EA	\$2,275
Type 22 (Channelizing Island Cut-thru Ramp)	0	EA	\$3,075

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Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013, DigitalGlobe, GeoEye, i-cubed, USDA, AEX, Getmapping, Aerogrip, IGN, IGP, swisstopo, and the GIS User Community

Client: City of Angleton **Date:** 4/18/22
Program: ADA Self-Evaluation and Transition Plan
KHA No.: 068921101

Corridor : N Downing St **GPS ID:** 90000
Project Name: Intersection of N Downing St and driveway (Lat. 29.1902; Long. -95.4193)
City: Angleton

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
TxDOT 110-6001	Excavation (Roadway)	0	CY	\$ 8.00	\$ -
TxDOT 529-6002	Conc Curb (Ty II)	0	LF	\$ 15.00	\$ -
TxDOT 531-6001	Conc Sidewalks (4")	0	SY	\$ 55.00	\$ -
TxDOT 531-6004	Curb Ramps (Ty 1)	2	EA	see page 2	\$ 3,400.00
TxDOT 5003-6005	Retrofit Det Warn Surf (Cast In Place)	0	SF	\$ 925.00	\$ -
TxDOT 104-6015	Removing Conc (Sidewalks)	21	SY	\$ 10.00	\$ 210.00
TxDOT 677-6007	Elim Ext Pav Mrk & Mrks	0	LF	\$ 3.50	\$ -
TxDOT 666/678	Refl Pav Mrk Prep, Ty I & Ty II (W) 24"(Std)	0	LF	\$ 7.00	\$ -
---	Repave Roadway	0	LS	\$ 5,000.00	\$ -
---	Fix Ponding	2	LS	\$ 2,000.00	\$ 4,000.00
---	Fix Curb Ramp Transition	1	LS	\$ 2,000.00	\$ 2,000.00
---	Median Nose Modification	0	LS	\$ 5,000.00	\$ -
---	Remove Temporary Obstruction	0	LS	\$ 500.00	\$ -
---	Fix Curb Ramp Counter Slope	0	LS	\$ 2,000.00	\$ -

Basis for Cost Projection

- No Design Completed
- Preliminary Design
- Final Design

Subtotal:	\$	9,610.00
Engineering: (% +/-)	15%	1,452.86
Contingency: (% +/-)	20%	1,937.14
Estimated Project Cost:	\$	13,000.00

Project Location



Field Observations

Intersection Issues	Crosswalk				Possible Solutions
	N	E	S	W	
Path of travel pavement condition					All driveway path of travel issues and possible solutions provided in sidewalk corridor shapefile (TRPEDSWC)
Path of travel running slope is greater than 5%					
Path of travel cross slope is greater than 2% for stop control approaches					
Path of travel cross slope is greater than 5% for free-flow approaches					
Crosswalk width is less than 6'					
Crosswalk striping condition					

Curb Ramp Issues	Curb Ramp ID ('z', 'l', or 'CN' in ramp label indicates no existing ramp)		Possible Solutions
	1A	4A	
Curb ramp does not exist and is needed			Remove and replace curb ramp
Curb ramp does not land in crosswalk			
No 4' x 4' clear space at base of curb ramp			
Curbed side is not 90° or has traversable adjacent surface			
Flare cross slope is greater than 10%			
Curb ramp running slope is greater than 8.3%			
Blended transition running slope is greater than 5%			
Cut-thru ramp running slope is greater than 5%			
Curb ramp cross slope is greater than 2%	X	X	
Cut-thru ramp cross slope is greater than 2%			
Curb ramp width is less than 48"			
Cut-thru ramp width is less than 60"			
Permanent obstruction (>0.25') in curb ramp/landing/flares			
Turning space does not exist and is needed			
Turning space length is less than 4' (or 5' when constrained)			
Turning space width is less than 4' (or 5' when constrained)			
Turning space running slope is greater than 2%			
Turning space cross slope greater than 2%	X	X	
Temporary obstruction (>0.25') in curb ramp/landing/flares			
Non-compliant detectable warning surface (DWS)			
No detectable warning surface (DWS)			
Curb ramp transition onto roadway is greater than 0.25'	X		Fix curb ramp transition
Counter slope of the gutter or street at the foot of the curb ramp is greater than 5%			
Ponding occurs at base of curb ramp	X	X	Fix ponding



Ramp 1A



Ramp 4A

Curb Ramp Recommendation Details:	Quantity	Unit	Unit Price
Types 1-11 (Standard Corner Ramp)	2	EA	\$1,700
Type 20 (Median Ramps with Shared Landing)	0	EA	\$2,525
Type 21 (Median Cut-thru Ramp)	0	EA	\$2,275
Type 22 (Channelizing Island Cut-thru Ramp)	0	EA	\$3,075

Opinion of Probable Construction Cost Disclaimer:

The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

Project Location Map Sources:

Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013, DigitalGlobe, GeoEye, i-cubed, USDA, AEX, Getmapping, Aerogrip, IGN, IGP, swisstopo, and the GIS User Community

Client: City of Angleton Date: 4/18/22
 Program: ADA Self-Evaluation and Transition Plan
 KHA No.: 068921101

Corridor : N Downing St GPS ID: 90001
 Project Name: Intersection of N Downing St and driveway (Lat. 29.1936; Long. -95.4194)
 City: Angleton

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
TxDOT 110-6001	Excavation (Roadway)	0	CY	\$ 8.00	\$ -
TxDOT 529-6002	Conc Curb (Ty II)	0	LF	\$ 15.00	\$ -
TxDOT 531-6001	Conc Sidewalks (4")	0	SY	\$ 55.00	\$ -
TxDOT 531-6004	Curb Ramps (Ty 1)	2	EA	see page 2	\$ 3,400.00
TxDOT 5003-6005	Retrofit Det Warn Surf (Cast In Place)	0	SF	\$ 925.00	\$ -
TxDOT 104-6015	Removing Conc (Sidewalks)	11	SY	\$ 10.00	\$ 110.00
TxDOT 677-6007	Elim Ext Pav Mrk & Mrks	0	LF	\$ 3.50	\$ -
TxDOT 666/678	Refl Pav Mrk Prep, Ty I & Ty II (W) 24"(Std)	0	LF	\$ 7.00	\$ -
---	Repave Roadway	0	LS	\$ 5,000.00	\$ -
---	Fix Ponding	0	LS	\$ 2,000.00	\$ -
---	Fix Curb Ramp Transition	0	LS	\$ 2,000.00	\$ -
---	Median Nose Modification	0	LS	\$ 5,000.00	\$ -
---	Remove Temporary Obstruction	0	LS	\$ 500.00	\$ -
---	Fix Curb Ramp Counter Slope	0	LS	\$ 2,000.00	\$ -

Basis for Cost Projection

- No Design Completed
- Preliminary Design
- Final Design

Subtotal:	\$	3,510.00
Engineering: (% +/-)	15%	\$ 552.86
Contingency: (% +/-)	20%	\$ 737.14
Estimated Project Cost:	\$	4,800.00

Project Location



Field Observations

Intersection Issues	Crosswalk				Possible Solutions
	N	E	S	W	
Path of travel pavement condition					All driveway path of travel issues and possible solutions provided in sidewalk corridor shapefile (TRPEDSWC)
Path of travel running slope is greater than 5%					
Path of travel cross slope is greater than 2% for stop control approaches					
Path of travel cross slope is greater than 5% for free-flow approaches					
Crosswalk width is less than 6'					
Crosswalk striping condition					

Curb Ramp Issues	Curb Ramp ID ('z', 'i', or 'CN' in ramp label indicates no existing ramp)		Possible Solutions
	1z	4A	
Curb ramp does not exist and is needed	X		Install curb ramp; if median improvement, see shapefile
Curb ramp does not land in crosswalk			
No 4' x 4' clear space at base of curb ramp			
Curbed side is not 90° or has traversable adjacent surface			
Flare cross slope is greater than 10%			
Curb ramp running slope is greater than 8.3%		X	
Blended transition running slope is greater than 5%			
Cut-thru ramp running slope is greater than 5%			
Curb ramp cross slope is greater than 2%		X	
Cut-thru ramp cross slope is greater than 2%			
Curb ramp width is less than 48"			
Cut-thru ramp width is less than 60"			
Permanent obstruction (>0.25') in curb ramp/landing/flares			
Turning space does not exist and is needed			
Turning space length is less than 4' (or 5' when constrained)			
Turning space width is less than 4' (or 5' when constrained)			
Turning space running slope is greater than 2%			
Turning space cross slope greater than 2%		X	
Temporary obstruction (>0.25') in curb ramp/landing/flares			
Non-compliant detectable warning surface (DWS)			
No detectable warning surface (DWS)			
Curb ramp transition onto roadway is greater than 0.25'			
Counter slope of the gutter or street at the foot of the curb ramp is greater than 5%			
Ponding occurs at base of curb ramp			



Corner 1 No Ramp (12)



Ramp 4A

Curb Ramp Recommendation Details:	Quantity	Unit	Unit Price
Types 1-11 (Standard Corner Ramp)	2	EA	\$1,700
Type 20 (Median Ramps with Shared Landing)	0	EA	\$2,525
Type 21 (Median Cut-thru Ramp)	0	EA	\$2,275
Type 22 (Channelizing Island Cut-thru Ramp)	0	EA	\$3,075

Opinion of Probable Construction Cost Disclaimer:

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Project Location Map Sources:

Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013, DigitalGlobe, GeoEye, i-cubed, USDA, AEX, Getmapping, Aerogrip, IGN, IGP, swisstopo, and the GIS User Community

Client: City of Angleton **Date:** 4/18/22
Program: ADA Self-Evaluation and Transition Plan
KHA No.: 068921101

Corridor : N Downing St **GPS ID:** 90002
Project Name: Intersection of N Downing St and driveway (Lat. 29.1887; Long. -95.4193)
City: Angleton

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
TxDOT 110-6001	Excavation (Roadway)	0	CY	\$ 8.00	\$ -
TxDOT 529-6002	Conc Curb (Ty II)	0	LF	\$ 15.00	\$ -
TxDOT 531-6001	Conc Sidewalks (4")	0	SY	\$ 55.00	\$ -
TxDOT 531-6004	Curb Ramps (Ty 1)	2	EA	see page 2	\$ 3,400.00
TxDOT 5003-6005	Retrofit Det Warn Surf (Cast In Place)	0	SF	\$ 925.00	\$ -
TxDOT 104-6015	Removing Conc (Sidewalks)	21	SY	\$ 10.00	\$ 210.00
TxDOT 677-6007	Elim Ext Pav Mk & Mrks	0	LF	\$ 3.50	\$ -
TxDOT 666/678	Refl Pav Mrk Prep, Ty I & Ty II (W) 24"(Sld)	0	LF	\$ 7.00	\$ -
---	Repave Roadway	0	LS	\$ 5,000.00	\$ -
---	Fix Ponding	2	LS	\$ 2,000.00	\$ 4,000.00
---	Fix Curb Ramp Transition	2	LS	\$ 2,000.00	\$ 4,000.00
---	Median Nose Modification	0	LS	\$ 5,000.00	\$ -
---	Remove Temporary Obstruction	0	LS	\$ 500.00	\$ -
---	Fix Curb Ramp Counter Slope	0	LS	\$ 2,000.00	\$ -
				Subtotal:	\$ 11,610.00
				Engineering: (% +/-)	15% \$ 1,752.86
				Contingency: (% +/-)	20% \$ 2,337.14
				Estimated Project Cost:	\$ 15,700.00

- Basis for Cost Projection**
- No Design Completed
 - Preliminary Design
 - Final Design

Project Location



Field Observations

Intersection Issues	Crosswalk				Possible Solutions
	N	E	S	W	
Path of travel pavement condition					All driveway path of travel issues and possible solutions provided in sidewalk corridor shapefile (TRPEDSWC)
Path of travel running slope is greater than 5%					
Path of travel cross slope is greater than 2% for stop control approaches					
Path of travel cross slope is greater than 5% for free-flow approaches					
Crosswalk width is less than 6'					
Crosswalk striping condition					

Curb Ramp Issues	Curb Ramp ID ('z', 'l', or 'CN' in ramp label indicates no existing ramp)		Possible Solutions
	2A	3A	
Curb ramp does not exist and is needed			Remove and replace curb ramp
Curb ramp does not land in crosswalk			
No 4' x 4' clear space at base of curb ramp			
Curbed side is not 90° or has traversable adjacent surface			
Flare cross slope is greater than 10%			
Curb ramp running slope is greater than 8.3%			
Blended transition running slope is greater than 5%			
Cut-thru ramp running slope is greater than 5%			
Curb ramp cross slope is greater than 2%	X	X	
Cut-thru ramp cross slope is greater than 2%			
Curb ramp width is less than 48"	X		
Cut-thru ramp width is less than 60"			
Permanent obstruction (>0.25') in curb ramp/landing/flares			
Turning space does not exist and is needed			
Turning space length is less than 4' (or 5' when constrained)	X		
Turning space width is less than 4' (or 5' when constrained)			
Turning space running slope is greater than 2%	X		
Turning space cross slope greater than 2%		X	
Temporary obstruction (>0.25') in curb ramp/landing/flares			
Non-compliant detectable warning surface (DWS)			
No detectable warning surface (DWS)			
Curb ramp transition onto roadway is greater than 0.25"	X	X	Fix curb ramp transition
Counter slope of the gutter or street at the foot of the curb ramp is greater than 5%			
Ponding occurs at base of curb ramp	X	X	Fix ponding



Ramp 2A



Ramp 3A

Curb Ramp Recommendation Details:	Quantity	Unit	Unit Price
Types 1-11 (Standard Corner Ramp)	2	EA	\$1,700
Type 20 (Median Ramps with Shared Landing)	0	EA	\$2,525
Type 21 (Median Cut-thru Ramp)	0	EA	\$2,275
Type 22 (Channelizing Island Cut-thru Ramp)	0	EA	\$3,075

Opinion of Probable Construction Cost Disclaimer:

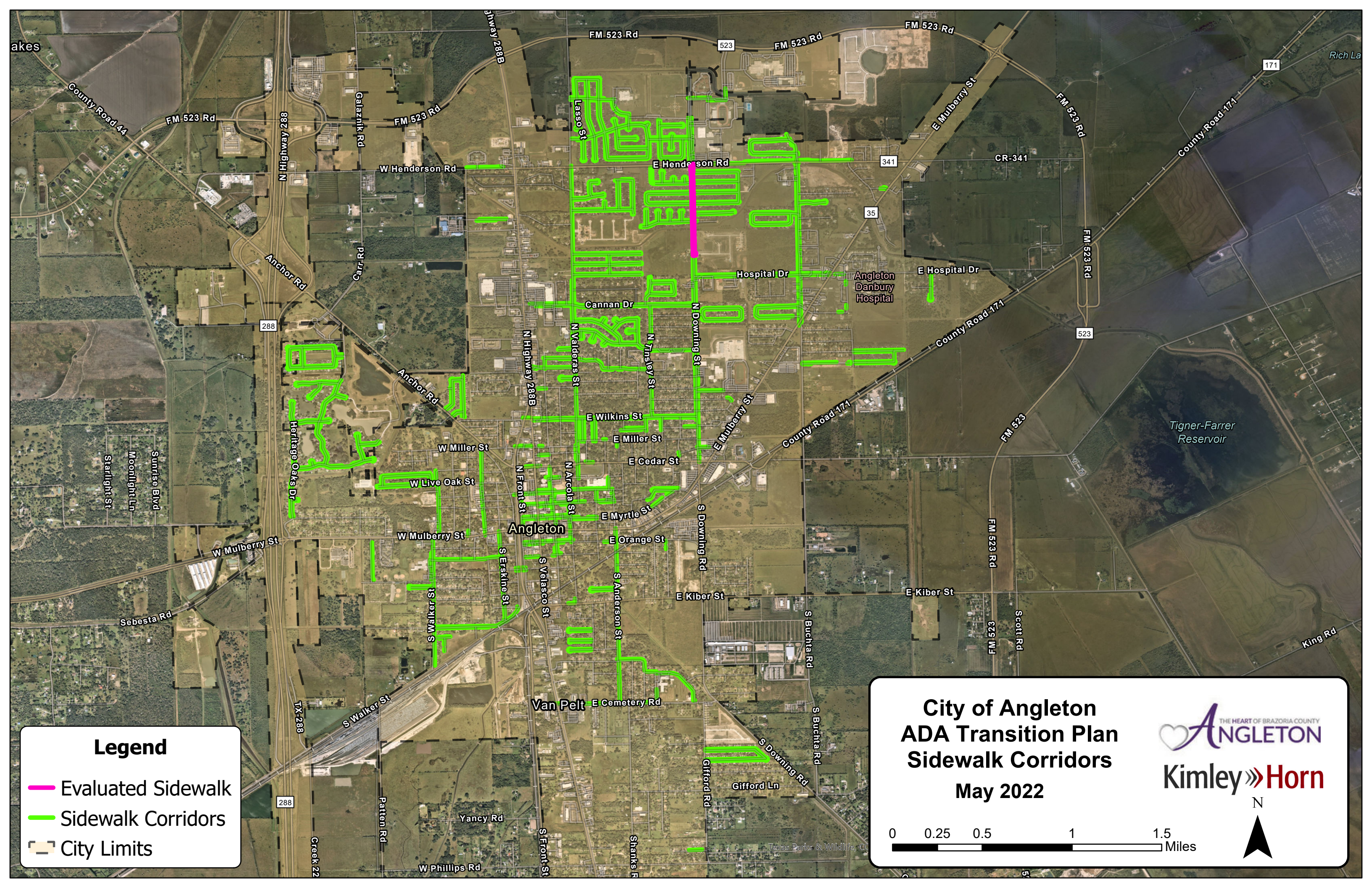
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Project Location Map Sources:

Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013, DigitalGlobe, GeoEye, i-cubed, USDA, AEX, Getmapping, Aerogrip, IGN, IGP, swisstopo, and the GIS User Community

Appendix F: Facility Inventory Map

Public Rights-of-Way Sidewalk Corridors



Legend

- Evaluated Sidewalk
- Sidewalk Corridors
- City Limits

City of Angleton
ADA Transition Plan
Sidewalk Corridors
 May 2022




0 0.25 0.5 1 1.5 Miles



N



Appendix G: ADA Action Log

City of Angleton
ADA Self-Evaluation and Transition Plan
Action Log
5/29/2022

Facility Type	Corridor ID	GPS ID	Project Name	Sidewalk Limit 1	Sidewalk Limit 2	Barrier #	Self-Evaluation Barrier	Cost Projection	Priority Value	Priority Rank	Funding Year	Year Completed
Building	N/A	1	Angleton Recreation Center & Natatorium	N/A	N/A	23	There is a 9.5% slope on the path of travel. The accessible route between the building entrance and the accessible parking has running slopes greater than 5% and has not been constructed as a ramp (i.e. handrails edge protection etc.). When the slope in the direction of travel of any walk exceeds 1 unit vertical in 20 units horizontal (5-percent slope) it must be constructed as a ramp. Surface cross slopes must not exceed one unit vertical in 48 units horizontal (2-percent slope).	\$ 2,000	4	High		
Park	N/A	1	Masterson Park	N/A	N/A	1	7.7% Running slope The running slope (long dimension) of the accessible parking stall exceeds 2%. The running slope in an accessible parking stall and the access aisle must not exceed 2%.	\$ 3,400	2	High		
Park	N/A	1	Masterson Park	N/A	N/A	2	Cross slope is at 2.2% The cross slope (narrow dimension) of the parking stall exceeds 2%. The running and cross slope in an accessible parking stall and the access aisle must not exceed 2%.	\$ 3,400	2	High		
Park	N/A	1	Masterson Park	N/A	N/A	4	23 parking spaces with 2 non compliant accessible spaces There are no van accessible parking stalls. 1 in every 6 minimum of one required accessible stalls must be a van accessible stall. There are a total of 23 parking stalls in the parking lot that could be reasonably associated with this facility. There should be a minimum of 1 accessible stalls with a minimum of 1 being designed as van accessible.	\$ 3,400	2	High		
Park	N/A	1	Masterson Park	N/A	N/A	5	Running slope 7.1% The running slope (long dimension) of the accessible parking stall exceeds 2%. The running slope in an accessible parking stall and the access aisle must not exceed 2%.	\$ 3,400	2	High		
Park	N/A	1	Masterson Park	N/A	N/A	8	The running slope 8.6%. The running slope of the access aisle (long dimension) exceeds 2%. The running slope in an accessible parking stall and the access aisle must not exceed 2%.	\$ 3,400	2	High		
Park	N/A	1	Masterson Park	N/A	N/A	9	Running slope exceeds 8.33% The curb ramp on the accessible route has cross slopes greater than 2 percent and running slopes greater than 8.33 percent. Surface cross slopes shall not exceed one unit vertical in 48 units horizontal (2-percent slope). Surface running slopes shall not exceed one unit vertical in 12 units horizontal (8.33-percent slope).	\$ 4,000	2	High		
Park	N/A	5	Brushy Bayou Park	N/A	N/A	1	There is no accessible seating. Picnic tables are not compliant. There are no on-street accessible parking stalls. Where on-street parking is provided on the block perimeter and the parking is marked or metered accessible parking spaces shall be provided. There is a total of 0 marked or metered parking stalls on the block perimeter. There should be a minimum of 1 accessible stalls designed as van accessible. Advisory R214 On-Street Parking Spaces. The MUTCD contains provisions for marking on-street parking spaces (see Section 3B.19). Metered parking includes parking metered by parking pay stations. Where parking on part of the block perimeter is altered the minimum number of accessible parking spaces required is based on the total number of marked or metered parking spaces on the block perimeter.	\$ 6,800	2	High		
Park	N/A	6	Freedom Park	N/A	N/A	5	Expansion joint is spaced greater than inch. The walkway contains abrupt vertical edges and/or variations over a 1/2 inch.	\$ 2,700	2	High		
Park	N/A	8	Veterans Park	N/A	N/A	1	There are no on-street accessible parking stalls. Where on-street parking is provided on the block perimeter and the parking is marked or metered accessible parking spaces shall be provided. There is a total of 6 marked or metered parking stalls on the block perimeter. There should be a minimum of 1 accessible stalls designed as van accessible. Advisory R214 On-Street Parking Spaces. The MUTCD contains provisions for marking on-street parking spaces (see Section 3B.19). Metered parking includes parking metered by parking pay stations. Where parking on part of the block perimeter is altered the minimum number of accessible parking spaces required is based on the total number of marked or metered parking spaces on the block perimeter.	\$ 6,700	2	High		
Park	N/A	8	Veterans Park	N/A	N/A	2	There are no accessible parking stalls. Each lot where parking is provided for the public as clients guests or employees shall provide accessible parking and shall be located on the shortest accessible route of travel from adjacent parking to an accessible entrance. A minimum of one accessible stall is required and it must be sized and designated as a van accessible stall.	\$ 4,100	2	High		
Park	N/A	2	BG Peck Soccer Complex	N/A	N/A	1	Only the parking spaces on the ends have access aisles. The majority do not. The access aisle is missing at the majority of the accessible parking stalls. Access aisles serving parking spaces shall adjoin an accessible route. Two parking spaces shall be permitted to share a common access aisle.	\$ 2,000	3	High		

Facility Type	Corridor ID	GPS ID	Project Name	Sidewalk Limit 1	Sidewalk Limit 2	Barrier #	Self-Evaluation Barrier	Cost Projection	Priority Value	Priority Rank	Funding Year	Year Completed
Park	N/A	2	BG Peck Soccer Complex	N/A	N/A	2	No accessible route is provided from accessible parking to the soccer fields. There is no accessible route to the soccer fields. At least one accessible route shall connect accessible buildings accessible facilities accessible elements and accessible spaces that are on the same site.	\$ 6,800	3	High		
Park	N/A	2	BG Peck Soccer Complex	N/A	N/A	4	Ramp to the pedestrian bridge has a 13.9% running slope. The accessible route has running slopes greater than 5 percent across the width of the walk and has not been constructed as a ramp (i.e. handrails edge protection etc.). When the slope in the direction of travel of any walk exceeds 1 unit vertical in 20 units horizontal (5-percent slope) it must be constructed as a ramp. Surface cross slopes must not exceed one unit vertical in 48 units horizontal (2-percent slope).	\$ -	4	High		
Park	N/A	6	Freedom Park	N/A	N/A	1	Expansion joint is spaced greater than inch. The running slope of the access aisle (long dimension) exceeds 2%. The running slope in an accessible parking stall and the access aisle must not exceed 2%.	\$ 3,400	4	High		
Park	N/A	6	Freedom Park	N/A	N/A	2	Expansion joint is spaced greater than inch. The running slope of the access aisle (long dimension) exceeds 2%. The running slope in an accessible parking stall and the access aisle must not exceed 2%.	\$ 3,400	4	High		
Park	N/A	8	Veterans Park	N/A	N/A	3	The concrete expansion joint is spaced greater than 1/2 inch. Openings in floor or ground surfaces shall not allow passage of a sphere more than 1/2 inch diameter. Elongated openings shall be placed so that the long dimension is perpendicular to the dominant direction of travel.	\$ 400	4	High		
Park	N/A	8	Veterans Park	N/A	N/A	4	The concrete expansion joint is spaced greater than 1/2 inch. Openings in floor or ground surfaces shall not allow passage of a sphere more than 1/2 inch diameter. Elongated openings shall be placed so that the long dimension is perpendicular to the dominant direction of travel.	\$ 400	4	High		
Park	N/A	8	Veterans Park	N/A	N/A	5	The top of the curb ramp does not have a level landing. A level landing 36 inches in length shall be provided at the upper end of each curb. The landing clear width shall be at least as wide as the curb ramp excluding flared sides leading to the landing.	\$ 4,100	4	High		
Park	N/A	8	Veterans Park	N/A	N/A	3	The walkway contains abrupt vertical edges and/or variations over a 1/2 inch. 1/4 inch is the maximum vertical rise. Changes in level between 1/4 inch and 1/2 inch must be beveled at 1:2 or less. Changes in level greater than 1/2 inch must be by way of a ramp.	\$ 1,100	4	High		
Park	N/A	8	Veterans Park	N/A	N/A	7	The concrete expansion joint is spaced greater than 1/2 inch. Openings in floor or ground surfaces shall not allow passage of a sphere more than 1/2 inch diameter. Elongated openings shall be placed so that the long dimension is perpendicular to the dominant direction of travel.	\$ 400	4	High		
Park	N/A	8	Veterans Park	N/A	N/A	8	The concrete expansion joint is spaced greater than 1/2 inch. Openings in floor or ground surfaces shall not allow passage of a sphere more than 1/2 inch diameter. Elongated openings shall be placed so that the long dimension is perpendicular to the dominant direction of travel.	\$ 400	4	High		
Park	N/A	8	Veterans Park	N/A	N/A	9	The walkway contains abrupt vertical edges and/or variations over a 1/2 inch. 1/4 inch is the maximum vertical rise. Changes in level between 1/4 inch and 1/2 inch must be beveled at 1:2 or less. Changes in level greater than 1/2 inch must be by way of a ramp.	\$ 400	4	High		
Park	N/A	8	Veterans Park	N/A	N/A	10	The concrete expansion joint is spaced greater than 1/2 inch. Openings in floor or ground surfaces shall not allow passage of a sphere more than 1/2 inch diameter. Elongated openings shall be placed so that the long dimension is perpendicular to the dominant direction of travel.	\$ 400	4	High		
Park	N/A	8	Veterans Park	N/A	N/A	11	The concrete expansion joint is spaced greater than 1/2 inch. Openings in floor or ground surfaces shall not allow passage of a sphere more than 1/2 inch diameter. Elongated openings shall be placed so that the long dimension is perpendicular to the dominant direction of travel.	\$ 400	4	High		
Park	N/A	8	Veterans Park	N/A	N/A	12	The concrete expansion joint is spaced greater than 1/2 inch. Openings in floor or ground surfaces shall not allow passage of a sphere more than 1/2 inch diameter. Elongated openings shall be placed so that the long dimension is perpendicular to the dominant direction of travel.	\$ 400	4	High		
Park	N/A	8	Veterans Park	N/A	N/A	13	The concrete expansion joint is spaced greater than 1/2 inch. Openings in floor or ground surfaces shall not allow passage of a sphere more than 1/2 inch diameter. Elongated openings shall be placed so that the long dimension is perpendicular to the dominant direction of travel.	\$ 400	4	High		
Park	N/A	8	Veterans Park	N/A	N/A	15	The concrete expansion joint is spaced greater than 1/2 inch. Openings in floor or ground surfaces shall not allow passage of a sphere more than 1/2 inch diameter. Elongated openings shall be placed so that the long dimension is perpendicular to the dominant direction of travel.	\$ 400	4	High		
PROW Sidewalk	1	N/A	N Downing St	Henderson Rd	Riverwood Ranch Blvd	N/A	See facility report and GIS data for detailed sidewalk evaluation findings.	\$ 146,487	1	High		
Unsignalized Intersection	N/A	1000	Intersection of N Downing St and Henderson Rd	N/A	N/A	N/A	See facility report and GIS data for detailed evaluation findings at intersection of N Downing St and Henderson Rd	\$ 26,900	2	High		
Unsignalized Intersection	N/A	90001	Intersection of N Downing St and driveway (Lat. 29.1936; Long. -95.4194)	N/A	N/A	N/A	See facility report and GIS data for detailed evaluation findings at intersection of N Downing St and driveway (Lat. 29.1936; Long. -95.4194)	\$ 4,800	2	High		

Facility Type	Corridor ID	GPS ID	Project Name	Sidewalk Limit 1	Sidewalk Limit 2	Barrier #	Self-Evaluation Barrier	Cost Projection	Priority Value	Priority Rank	Funding Year	Year Completed
Building	N/A	1	Angleton Recreation Center & Natatorium	N/A	N/A	2	There is a stool under the sink Knee and toe space has not been provided at the sink. Kitchen sinks must be provided with a clear floor space positioned for a forward approach including knee and toe clearance.	\$ -	6	Medium		
Building	N/A	1	Angleton Recreation Center & Natatorium	N/A	N/A	11	There is a portable seat outside the shower. A portable seat is not allowed in a roll-in type shower. A seat in a standard roll-in shower compartment shall be a folding type shall be installed on the side wall adjacent to the controls and shall extend from the back wall to a point within 3 inches of the compartment entry. A seat in an alternate roll-in type shower compartment shall be a folding type shall be installed on the front wall opposite the back wall and shall extend from the adjacent side wall to a point within 3 inches of the compartment entry. The top of the seat shall be 17 inches minimum and 19 inches maximum above the bathroom finish floor.	\$ 2,000	6	Medium		
Building	N/A	1	Angleton Recreation Center & Natatorium	N/A	N/A	15	There is no seat provided. No seat provided in the shower. A seat in a standard roll-in shower compartment shall be a folding type shall be installed on the side wall adjacent to the controls and shall extend from the back wall to a point within 3 inches of the compartment entry. A seat in an alternate roll-in type shower compartment shall be a folding type shall be installed on the front wall opposite the back wall and shall extend from the adjacent side wall to a point within 3 inches of the compartment entry. The top of the seat shall be 17 inches minimum and 19 inches maximum above the bathroom finish floor.	\$ 2,000	6	Medium		
Building	N/A	1	Angleton Recreation Center & Natatorium	N/A	N/A	17	Pool deck has a slope of 5.2% from the main pool drain to the secondary drain. The accessible route of travel contains cross slopes greater than 2%. Surface cross slopes shall not exceed 1 unit vertical in 48 units horizontal (2-percent slope). When the slope in the direction of travel of any walk exceeds 1 unit vertical in 20 units horizontal (5-percent slope) it must be constructed as ramp.	\$ 2,000	6	Medium		
Building	N/A	1	Angleton Recreation Center & Natatorium	N/A	N/A	19	Pool deck has a slope of 5.2% from the main pool drain to the secondary drain. The accessible route of travel contains cross slopes greater than 2%. Surface cross slopes shall not exceed 1 unit vertical in 48 units horizontal (2-percent slope). When the slope in the direction of travel of any walk exceeds 1 unit vertical in 20 units horizontal (5-percent slope) it must be constructed as ramp.	\$ 2,000	6	Medium		
Building	N/A	1	Angleton Recreation Center & Natatorium	N/A	N/A	20	Pool deck has a slope of 4.8% from the main pool drain to the secondary drain. The accessible route of travel contains cross slopes greater than 2%. Surface cross slopes shall not exceed 1 unit vertical in 48 units horizontal (2-percent slope). When the slope in the direction of travel of any walk exceeds 1 unit vertical in 20 units horizontal (5-percent slope) it must be constructed as ramp.	\$ 2,000	6	Medium		
Building	N/A	1	Angleton Recreation Center & Natatorium	N/A	N/A	21	Pool deck has a slope of 3.8% from the main pool drain to the secondary drain. The accessible route of travel contains cross slopes greater than 2%. Surface cross slopes shall not exceed 1 unit vertical in 48 units horizontal (2-percent slope). When the slope in the direction of travel of any walk exceeds 1 unit vertical in 20 units horizontal (5-percent slope) it must be constructed as ramp.	\$ 2,000	6	Medium		
Building	N/A	1	Angleton Recreation Center & Natatorium	N/A	N/A	22	All accessible signs are not in compliance to the minimum required height of 60 inches. The parking sign is mounted too low. Parking space identification signs shall include the International Symbol of Accessibility. Signs identifying van parking spaces shall contain the designation "van accessible." Signs shall be 60 inches minimum above the finish floor or ground surface measured to the bottom of the sign.	\$ 200	6	Medium		
Building	N/A	1	Angleton Recreation Center & Natatorium	N/A	N/A	1	Drain pipes are not insulated. The sink drain pipes are exposed. Hot water and drain pipes exposed under sinks shall be insulated or otherwise configured so as to protect against contact. There shall be no sharp or abrasive surfaces under sinks.	\$ -	7	Medium		
Building	N/A	1	Angleton Recreation Center & Natatorium	N/A	N/A	4	Some of the exercise equipment does not have the required clear floor space next to it. The exercise machine or equipment does not provide compliant clear floor space for transfer. Exercise machines and equipment shall have a clear floor space positioned for transfer or for use by an individual seated in a wheelchair. Clear floor or ground spaces required at exercise machines and equipment is be permitted to overlap.	\$ 400	7	Medium		
Building	N/A	1	Angleton Recreation Center & Natatorium	N/A	N/A	5	There were three lavatories. One was being serviced by the plumbers and the other two were partially insulated. The water and drain pipes under the lavatory are not adequately insulated. 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.	\$ 300	7	Medium		
Building	N/A	1	Angleton Recreation Center & Natatorium	N/A	N/A	7	The baby changing station is a protruding object when in the down position. The (baby changing table projects more than 4 inches into the circulation path. Wall-mounted objects that have leading edges between 27 inches and 80 inches from the floor must not project more than 4 inches into the circulation path. Protruding objects that extend to the floor or within 27 inches of the floor are cane detectable and are therefore not hazardous. Where it is necessary or desirable to have objects protrude from the wall a manner of cane detection must be provided.	\$ 2,000	7	Medium		
Building	N/A	1	Angleton Recreation Center & Natatorium	N/A	N/A	8	The baby changing station is a protruding object when in the down position The baby changing station projects more than 4 inches into the circulation path. Wall-mounted objects that have leading edges between 27 inches and 80 inches from the floor must not project more than 4 inches into the circulation path. Protruding objects that extend to the floor or within 27 inches of the floor are cane detectable and are therefore not hazardous. Where it is necessary or desirable to have objects protrude from the wall a manner of cane detection must be provided.	\$ 2,000	7	Medium		

Facility Type	Corridor ID	GPS ID	Project Name	Sidewalk Limit 1	Sidewalk Limit 2	Barrier #	Self-Evaluation Barrier	Cost Projection	Priority Value	Priority Rank	Funding Year	Year Completed
Building	N/A	1	Angleton Recreation Center & Natatorium	N/A	N/A	12	Toilet paper dispenser is approximately 15 inches from the toilet. The toilet paper is not installed within the compliant range. Toilet paper dispensers shall be 7 inches minimum and 9 inches maximum in front of the water closet measured to the centerline of the dispenser. The outlet of the dispenser shall be 15 inches minimum and 48 inches maximum above the finish floor and shall not be located behind grab bars. Dispensers shall not be of a type that controls delivery or that does not allow continuous paper flow. There shall be a clearance of 1 1/2 inches minimum below the grab bar.	\$ 400	7	Medium		
Building	N/A	1	Angleton Recreation Center & Natatorium	N/A	N/A	13	Not all the drain pipes were insulated. The water and drain pipes under the lavatory are not adequately insulated. 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.	\$ 200	7	Medium		
Building	N/A	1	Angleton Recreation Center & Natatorium	N/A	N/A	14	The clear floor space for the lockers is obstructed by the door. The clear floor space for the lockers is obstructed. The clear floor or ground space shall be 30 inches minimum by 48 inches minimum and free of obstructions.	\$ 2,700	7	Medium		
Building	N/A	1	Angleton Recreation Center & Natatorium	N/A	N/A	16	Toilet paper dispenser is approximately 15 inches from the toilet. The toilet paper is not installed within the compliant range. Toilet paper dispensers shall be 7 inches minimum and 9 inches maximum in front of the water closet measured to the centerline of the dispenser. The outlet of the dispenser shall be 15 inches minimum and 48 inches maximum above the finish floor and shall not be located behind grab bars. Dispensers shall not be of a type that controls delivery or that does not allow continuous paper flow. There shall be a clearance of 1 1/2 inches minimum below the grab bar.	\$ 400	7	Medium		
Building	N/A	1	Angleton Recreation Center & Natatorium	N/A	N/A	18	The water slide is a protruding object. The water slide extends down too close to the route of travel. Any obstruction that overhangs a circulation route must be a minimum of 80 inches above the walking surface as measured from the bottom of the obstruction.	\$ 2,000	7	Medium		
Park	N/A	1	Masterson Park	N/A	N/A	7	The words "NO PARKING" is missing from the access aisle adjacent to the parking space per Texas Administrative Code. The striping for the accessible parking stalls loading/unloading access aisle is missing. Access aisles shall be marked so as to discourage parking in them.	\$ 300	5	Medium		
Park	N/A	2	BG Peck Soccer Complex	N/A	N/A	3	There is a change of level on both ends of the pedestrian bridge between the accessible parking and soccer field 3. The pedestrian bridge contains changes in level greater than a 1/2 inch high that should be ramped. Changes in level greater than 1/2 inch high shall be constructed as a ramp or curb ramp.	\$ 6,800	5	Medium		
Park	N/A	2	BG Peck Soccer Complex	N/A	N/A	5	At the time of the evaluation the path of travel was under construction and is not accessible to other fields. There is no accessible route to the soccer fields and/or seating areas. At least one accessible route shall connect accessible buildings accessible facilities accessible elements and accessible spaces that are on the same site.	\$ 202,500	5	Medium		
Park	N/A	3	Dickey Park	N/A	N/A	1	Picnic tables throughout the park do not have the proper knee and toe clearance. The knee clearance is not compliant. The knee clearance shall be 11 inches deep minimum at 9 inches above the finish floor or ground and 8 inches deep minimum at 27 inches above the finish floor or ground and 30 inches wide minimum.	\$ 1,600	5	Medium		
Park	N/A	3	Dickey Park	N/A	N/A	4	Level change at entrance to the playground The walkway contains abrupt vertical edges and/or variations over a 1/2 inch. 1/4 inch is the maximum vertical rise. Changes in level between 1/4 inch and 1/2 inch must be beveled at 1:2 or less. Changes in level greater than 1/2 inch must be by way of a ramp.	\$ 1,000	5	Medium		
Park	N/A	3	Dickey Park	N/A	N/A	6	1.5 inch level change to the grill. The walkway contains abrupt vertical edges and/or variations over a 1/2 inch. 1/4 inch is the maximum vertical rise. Changes in level between 1/4 inch and 1/2 inch must be beveled at 1:2 or less. Changes in level greater than 1/2 inch must be by way of a ramp.	\$ 1,400	5	Medium		
Park	N/A	3	Dickey Park	N/A	N/A	7	No accessible route to any horseshoe pit. There is no accessible route to any of the horseshoe pits. At least one accessible route shall connect accessible buildings accessible facilities accessible elements and accessible spaces that are on the same site.	\$ 4,100	5	Medium		
Park	N/A	4	Bates Park	N/A	N/A	2	There is no prepared accessible route throughout the entire park the surface is comprised of grass and no wheel stops are present to protect the clear floor space of dispensers. There is no accessible route to the dog waste bags hand sanitizer or the library box. At least one accessible route shall connect accessible buildings accessible facilities accessible elements and accessible spaces that are on the same site.	\$ 2,000	5	Medium		
Park	N/A	4	Bates Park	N/A	N/A	3	There is no prepared accessible route throughout the entire park. All surfacing is comprised of grass and dirt. There is no accessible route to the picnic tables and pavilion. At least one accessible route shall connect accessible buildings accessible facilities accessible elements and accessible spaces that are on the same site.	\$ 2,000	5	Medium		
Park	N/A	4	Bates Park	N/A	N/A	6	The ramp to the basketball pavilion has a running slope of 13.3% percent. The ramps exceeds the maximum running slope (direction of travel) allowable of 8.33%. Ramps should have the least possible slope but in no case more than 8.3% (1:12).	\$ 4,100	5	Medium		


Facility Type	Corridor ID	GPS ID	Project Name	Sidewalk Limit 1	Sidewalk Limit 2	Barrier #	Self-Evaluation Barrier	Cost Projection	Priority Value	Priority Rank	Funding Year	Year Completed
Park	N/A	4	Bates Park	N/A	N/A	9	Each of the dugouts for all 5 of the fields has a level change both at the entry and at the exit onto the field. The walkway contains abrupt vertical edges and/or variations over a 1/2 inch. 1/4 inch is the maximum vertical rise. Changes in level between 1/4 inch and 1/2 inch must be beveled at 1:2 or less. Changes in level greater than 1/2 inch must be by way of a ramp.	\$ 8,800	5	Medium		
Park	N/A	4	Bates Park	N/A	N/A	11	The running slope of the ramp is 22.5% and it goes all the way to the entry door. The accessible route of travel exceeds 5% running slope and therefore must be considered a ramp. Where the slope is greater than one unit vertical in 20 units horizontal (5-percent slope) ramps shall be used.	\$ 4,700	5	Medium		
Park	N/A	4	Bates Park	N/A	N/A	12	Grate drain is set too low which causes a slope over 2% The accessible path of travel has cross slopes greater than 2%. Surface cross slopes shall not exceed one unit vertical in 48 units horizontal (2-percent slope). When the slope in the direction of travel of any walk exceeds 1 unit vertical in 20 units horizontal (5-percent slope) it must be constructed as a ramp.	\$ 6,800	5	Medium		
Park	N/A	5	Brushy Bayou Park	N/A	N/A	3	Gravel lot has a possible area for 14 parking spaces with access aisles. There are no marked or striped spaces. There is no accessible route to the element. At least one accessible route shall connect accessible buildings accessible facilities accessible elements and accessible spaces that are on the same site.	\$ 2,000	5	Medium		
Park	N/A	5	Brushy Bayou Park	N/A	N/A	4	Expansion joints have gaps greater than inch. The accessible path of travel has cross slopes greater than 2%. Surface cross slopes shall not exceed one unit vertical in 48 units horizontal (2-percent slope). When the slope in the direction of travel of any walk exceeds 1 unit vertical in 20 units horizontal (5-percent slope) it must be constructed as a ramp.	\$ 2,000	5	Medium		
Park	N/A	5	Brushy Bayou Park	N/A	N/A	6	Curb ramp running slope is 8.4%. There is no 36 inch level landing area provided. There is no accessible route to the element. At least one accessible route shall connect accessible buildings accessible facilities accessible elements and accessible spaces that are on the same site.	\$ 2,000	5	Medium		
Park	N/A	5	Brushy Bayou Park	N/A	N/A	7	A section of the sidewalk has a 1.5 inch level change. The knee clearance is not compliant. The knee clearance shall be 11 inches deep minimum at 9 inches above the finish floor or ground and 8 inches deep minimum at 27 inches above the finish floor or ground and 30 inches wide minimum.	\$ 600	5	Medium		
Park	N/A	5	Brushy Bayou Park	N/A	N/A	8	Expansion joint is spaced greater than inch. There is no accessible route to the element. At least one accessible route shall connect accessible buildings accessible facilities accessible elements and accessible spaces that are on the same site.	\$ 2,700	5	Medium		
Park	N/A	6	Freedom Park	N/A	N/A	6	Expansion joint is spaced greater than inch. There is no accessible route to the dugout. At least one accessible route shall connect accessible buildings accessible facilities accessible elements and accessible spaces that are on the same site.	\$ 2,700	5	Medium		
Park	N/A	6	Freedom Park	N/A	N/A	13	The drinking fountain has multiple violations. Drinking fountains must be on an accessible route that provides a 30 inch by 48 inch clear floor space centered on the low unit allowing a forward approach. Spout outlets shall be 30 inches maximum above the finish floor or ground if the drinking fountain is design for children.	\$ 3,400	5	Medium		
Park	N/A	7	Officer Cash Memorial Dog Park	N/A	N/A	1	There is no accessible route to the dog park entrance. At least one accessible route shall connect accessible buildings accessible facilities accessible elements and accessible spaces that are on the same site.	\$ 8,100	5	Medium		
Park	N/A	7	Officer Cash Memorial Dog Park	N/A	N/A	2	There is no accessible route to the element. At least one accessible route shall connect accessible buildings accessible facilities accessible elements and accessible spaces that are on the same site.	\$ 2,000	5	Medium		
Park	N/A	1	Masterson Park	N/A	N/A	3	The accessible parking sign is mounted at 36.75 inches above the ground. The parking sign is mounted too low. Parking space identification signs shall include the International Symbol of Accessibility. Signs identifying van parking spaces shall contain the designation "van accessible." Signs shall be 60 inches minimum above the finish floor or ground surface measured to the bottom of the sign.	\$ 300	6	Medium		
Park	N/A	1	Masterson Park	N/A	N/A	6	Height 34.5 inches and facing wrong direction. The parking sign is mounted too low. Parking space identification signs shall include the International Symbol of Accessibility. Signs identifying van parking spaces shall contain the designation "van accessible." Signs shall be 60 inches minimum above the finish floor or ground surface measured to the bottom of the sign.	\$ 300	6	Medium		
Park	N/A	1	Masterson Park	N/A	N/A	10	Only a grass surface is provided to the volleyball and picnic areas. There is no accessible route to the amenities offered in the park. At least one accessible route shall connect accessible buildings accessible facilities accessible elements and accessible spaces that are on the same site.	\$ 20,300	6	Medium		
Park	N/A	2	BG Peck Soccer Complex	N/A	N/A	6	There is a change of elevation of 1 inch at the entrance of the women's restroom. The walkway contains abrupt vertical edges and/or variations over a 1/2 inch. 1/4 inch is the maximum vertical rise. Changes in level between 1/4 inch and 1/2 inch must be beveled at 1:2 or less. Changes in level greater than 1/2 inch must be by way of a ramp.	\$ 2,000	6	Medium		

Facility Type	Corridor ID	GPS ID	Project Name	Sidewalk Limit 1	Sidewalk Limit 2	Barrier #	Self-Evaluation Barrier	Cost Projection	Priority Value	Priority Rank	Funding Year	Year Completed
Park	N/A	2	BG Peck Soccer Complex	N/A	N/A	11	Slope into the concession building is at 7.1%. The maneuvering clearance at the entrance door exceeds 2% slope. Exterior doors with a front approach must have a landing on the pull side that is a minimum of 60 inches in depth perpendicular to the door in a close position by a minimum width dimension of 18 inches plus the door width. The additional 18 inches must extend past the door on the latch side. The entire maneuvering clearance must be free of obstructions and must be flat (2% max. slope is considered flat in any direction).	\$ 33,800	6	Medium		
Park	N/A	3	Dickey Park	N/A	N/A	2	Transfer support missing. The transfer platform has not been provided with support for transferring. Where play components require transfer to entry points or seats at least one means of support for transferring shall be provided.	\$ 1,400	6	Medium		
Park	N/A	3	Dickey Park	N/A	N/A	3	The area that required for clear floor space next to the bench has a change in elevation due to transition from sidewalk to ground surface. The clear floor space required at the bench has a change in elevation.. Changes in level are not permitted at required clear floor or ground space except that slopes not steeper than 1:48 shall be permitted.	\$ 2,400	6	Medium		
Park	N/A	3	Dickey Park	N/A	N/A	8	No accessible route to trash cans. There is no accessible route to the element. At least one accessible route shall connect accessible buildings accessible facilities accessible elements and accessible spaces that are on the same site.	\$ 2,000	6	Medium		
Park	N/A	3	Dickey Park	N/A	N/A	9	No accessible route is provided for the start of play tee station through out the entire course. An accessible route is not provided to the start of play for each basket. Disc golf courses shall be configured so that the accessible start of play areas are consecutive.	\$ 4,700	6	Medium		
Park	N/A	3	Dickey Park	N/A	N/A	10	The concrete expansion joint is spaced greater than inch. The concrete expansion joint is spaced greater than 1/2 inch. Openings in floor or ground surfaces shall not allow passage of a sphere more than 1/2 inch diameter. Elongated openings shall be placed so that the long dimension is perpendicular to the dominant direction of travel.	\$ 1,000	6	Medium		
Park	N/A	3	Dickey Park	N/A	N/A	11	No accessible route to the park bench. There is no accessible route to the element. At least one accessible route shall connect accessible buildings accessible facilities accessible elements and accessible spaces that are on the same site.	\$ 2,000	6	Medium		
Park	N/A	4	Bates Park	N/A	N/A	1	All accessible parking signs are mounted too low. The parking sign is mounted too low. Parking space identification signs shall include the International Symbol of Accessibility. Signs identifying van parking spaces shall contain the designation "van accessible." Signs shall be 60 inches minimum above the finish floor or ground surface measured to the bottom of the sign.	\$ 1,400	6	Medium		
Park	N/A	4	Bates Park	N/A	N/A	4	There are no accessible picnic tables provided nor are any located on an accessible route. There are no accessible tables. At least 5% of each type in each functional area of dining surfaces must be accessible and must be dispersed throughout the space or facility containing dining surfaces. An accessible table must be on an accessible route (36 inches minimum) and have knee and toe spaces at least 27 inches high 30 inches wide and 17 inches deep. The tops of tables and counters shall be 28 inches to 34 inches from the floor or ground.	\$ 2,000	6	Medium		
Park	N/A	4	Bates Park	N/A	N/A	5	Grill and trash can are not located on an accessible route. There is no accessible route to the grill or trash can. At least one accessible route shall connect accessible buildings accessible facilities accessible elements and accessible spaces that are on the same site.	\$ 2,000	6	Medium		
Park	N/A	4	Bates Park	N/A	N/A	7	There is no accessible route provided for any of the start of play tee stations throughout the entire course. An accessible route is not provided from the last accessible hole to the course entrance or exit. Miniature golf courses shall be configured so that the accessible holes are consecutive. Miniature golf courses shall provide an accessible route from the last accessible hole to the course entrance or exit without requiring travel through any other holes on the course.	\$ 4,700	6	Medium		
Park	N/A	4	Bates Park	N/A	N/A	8	Engineered wood fiber. Compliance with ASTM F1951 and ASTM 1292 has not been determined. Compliance with ASTM F1951 for accessibility for ground surfaces on accessible routes clear floor or ground spaces and turning spaces has not been determined. Ground surfaces shall comply with ASTM F 1951. Ground surfaces shall be inspected and maintained regularly and frequently to ensure continued compliance with ASTM F 1951.	\$ 3,400	6	Medium		
Park	N/A	4	Bates Park	N/A	N/A	10	The concession counter measures at 46 inches. The transaction counter provides for a parallel approach and is not within the required height range. Transaction counters shall be 36 inches high maximum and a minimum of 36 inches wide and should extend the same depth as the sales or service counter tops.	\$ 3,300	6	Medium		
Park	N/A	4	Bates Park	N/A	N/A	13	The standard height drinking fountain projects more than 4 inches into circulation path The drinking fountain projects from the wall into the pedestrian way with its leading edge above 27 inches from the floor. Objects may protrude no more than 4 inches into circulation route when located between 27 and 80 inches above the floor. All drinking fountains shall be positioned so as not to encroach into pedestrian ways.	\$ 1,300	6	Medium		
Park	N/A	4	Bates Park	N/A	N/A	15	Flush control is flush with wall and requires more than 5 lbs to operate. The force required to operate the element exceeds the maximum allowable force. The force required to activate operable parts is 5 pounds maximum.	\$ 1,300	6	Medium		

Facility Type	Corridor ID	GPS ID	Project Name	Sidewalk Limit 1	Sidewalk Limit 2	Barrier #	Self-Evaluation Barrier	Cost Projection	Priority Value	Priority Rank	Funding Year	Year Completed
Park	N/A	4	Bates Park	N/A	N/A	16	Toilet paper dispenser is located less than 12" above side grab bar The toilet paper dispenser is positioned less than 12 inches from the top of the grab bar. Elements adjacent to the grab bar shall be positioned to provide unobstructed use of grab bars. The space between the grab bar and projecting objects below and at the ends shall be 1-1/2 inches minimum. The space between the grab bar and projecting objects above shall be 12 inches minimum.	\$ 700	6	Medium		
Park	N/A	4	Bates Park	N/A	N/A	18	Flush control is flush with wall and requires more than 5 lbs to operate. The force required to operate the element exceeds the maximum allowable force. The force required to activate operable parts is 5 pounds maximum.	\$ 1,300	6	Medium		
Park	N/A	4	Bates Park	N/A	N/A	19	Toilet paper dispenser is located less than 12" above side grab bar The element is positioned less than 12 inches from the top of the grab bar. Elements adjacent to the grab bar shall be positioned to provide unobstructed use of grab bars. The space between the grab bar and projecting objects below and at the ends shall be 1-1/2 inches minimum. The space between the grab bar and projecting objects above shall be 12 inches minimum.	\$ 700	6	Medium		
Park	N/A	6	Freedom Park	N/A	N/A	3	Expansion joint is spaced greater than inch. The access aisle is in not nearly compliant. The access ai the minimum width. The access aisle is not as long as the parking space it serves. There are no markings to discourage parking. The floor or ground surface is not firm stable or slip resistant. The parking space contains changes in level and/or gaps that exceed the maximum allowable requirements.	\$ 1,700	6	Medium		
Park	N/A	6	Freedom Park	N/A	N/A	4	Expansion joint is spaced greater than inch. The parking sign is mounted too low. Parking space identification signs shall include the International Symbol of Accessibility. Signs identifying van parking spaces shall contain the designation "van accessible." Signs shall be 60 inches minimum above the finish floor or ground surface measured to the bottom of the sign.	\$ 2,000	6	Medium		
Park	N/A	7	Officer Cash Memorial Dog Park	N/A	N/A	3	The knee clearance is not compliant. The knee clearance shall be 11 inches deep minimum at 9 inches above the finish floor or ground and 8 inches deep minimum at 27 inches above the finish floor or ground and 30 inches wide minimum.	\$ 1,100	6	Medium		
Park	N/A	8	Veterans Park	N/A	N/A	14	The outdoor seating area is not on an accessible route. At least 5% of the seating in each functional area must be accessible. An accessible table must be on an accessible route (36 inches minimum) and have knee spaces at least 27 inches high 30 inches wide and 19 inches deep. The tops of tables and counters must be 28 inches to 34 inches from the floor or ground.	\$ 7,500	6	Medium		
Park	N/A	1	Masterson Park	N/A	N/A	13	Drinking fountain for standing person not provided. The required types of drinking fountains are not provided. Where drinking fountains are provided a minimum of one must be designed for wheelchair users and one must be designed for standing persons unless a single fountain meets the requirements for both.	\$ 5,100	7	Medium		
Park	N/A	2	BG Peck Soccer Complex	N/A	N/A	12	The lower concession counter is mounted at 41 inches. The counter is too high. A portion of the counter surface that is 30 inches long minimum and 36 inches high maximum shall be provided. Knee and toe space shall be provided under the counter. A clear floor or ground space shall be positioned for a forward approach to the counter.	\$ 3,100	7	Medium		
Park	N/A	4	Bates Park	N/A	N/A	14	Lavatory drain pipes are not protected. The water and drain pipes under the lavatory are not adequately insulated. 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.	\$ 400	7	Medium		
Park	N/A	4	Bates Park	N/A	N/A	17	Lavatory drain pipes are not protected. The water and drain pipes under the lavatory are not adequately insulated. 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.	\$ 400	7	Medium		
Park	N/A	5	Brushy Bayou Park	N/A	N/A	2	6 total spaces are provided on street. The transfer platform has not been provided with support for transferring. Where play components require transfer to entry points or seats at least one means of support for transferring shall be provided.	\$ 1,000	7	Medium		
Park	N/A	6	Freedom Park	N/A	N/A	8	Expansion joint is spaced greater than inch. There is no accessible route to the trash can. At least one accessible route shall connect accessible buildings accessible facilities accessible elements and accessible spaces that are on the same site.	\$ 700	7	Medium		
Park	N/A	6	Freedom Park	N/A	N/A	9	There is no accessible route to the picnic table pavilion. At least one accessible route shall connect accessible buildings accessible facilities accessible elements and accessible spaces that are on the same site.	\$ 4,700	7	Medium		
Park	N/A	6	Freedom Park	N/A	N/A	10	There is no accessible route to either the trash can or the picnic table. At least one accessible route shall connect accessible buildings accessible facilities accessible elements and accessible spaces that are on the same site.	\$ 2,000	7	Medium		
Park	N/A	6	Freedom Park	N/A	N/A	11	There is no accessible route to the trash can from the pavilion. At least one accessible route shall connect accessible buildings accessible facilities accessible elements and accessible spaces that are on the same site.	\$ 700	7	Medium		
Park	N/A	6	Freedom Park	N/A	N/A	12	There is no accessible route to the trash can. At least one accessible route shall connect accessible buildings accessible facilities accessible elements and accessible spaces that are on the same site.	\$ 700	7	Medium		

Facility Type	Corridor ID	GPS ID	Project Name	Sidewalk Limit 1	Sidewalk Limit 2	Barrier #	Self-Evaluation Barrier	Cost Projection	Priority Value	Priority Rank	Funding Year	Year Completed
Park	N/A	6	Freedom Park	N/A	N/A	15	There is no accessible route to the element. At least one accessible route shall connect accessible buildings accessible facilities accessible elements and accessible spaces that are on the same site.	\$ 4,100	7	Medium		
Park	N/A	1	Masterson Park	N/A	N/A	14	Playground surface is wavy and uneven. Compliance with ASTM F1951 for accessibility for ground surfaces on accessible routes clear floor or ground spaces and turning spaces has not been determined. Ground surfaces shall comply with ASTM F 1951. Ground surfaces shall be inspected and maintained regularly and frequently to ensure continued compliance with ASTM F 1951.	\$ 3,400	8	Medium		
Park	N/A	2	BG Peck Soccer Complex	N/A	N/A	7	No pipe insulation is provided. The water and drain pipes under the lavatory are not adequately insulated. 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.	\$ 900	8	Medium		
Park	N/A	2	BG Peck Soccer Complex	N/A	N/A	10	No pipe insulation is provided. The water and drain pipes under the lavatory are not adequately insulated. 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.	\$ 900	8	Medium		
Park	N/A	3	Dickey Park	N/A	N/A	5	Playground surface is uneven. Compliance with ASTM F1951 for accessibility for ground surfaces on accessible routes clear floor or ground spaces and turning spaces has not been determined. Ground surfaces shall comply with ASTM F 1951. Ground surfaces shall be inspected and maintained regularly and frequently to ensure continued compliance with ASTM F 1951.	\$ 3,400	8	Medium		
Park	N/A	5	Brushy Bayou Park	N/A	N/A	5	Expansion joint is spaced greater than inch. Compliance with ASTM F1951 for accessibility for ground surfaces on accessible routes clear floor or ground spaces and turning spaces has not been determined. Ground surfaces shall comply with ASTM F 1951. Ground surfaces shall be inspected and maintained regularly and frequently to ensure continued compliance with ASTM F 1951.	\$ 3,400	8	Medium		
Park	N/A	6	Freedom Park	N/A	N/A	14	The spout is greater than 5 inches away from the leading edge of the drinking fountain. The spout shall be located 15 inches minimum from the vertical support and 5 inches maximum from the front edge of the unit including bumpers.	\$ 3,400	8	Medium		
PROW Sidewalk	1	N/A	N Downing St	Henderson Rd	Riverwood Ranch Blvd	N/A	See facility report and GIS data for detailed sidewalk evaluation findings.	\$ 110,363	2	Medium		
Unsignalized Intersection	N/A	1001	Intersection of N Downing St and Clover Dr	N/A	N/A	N/A	See facility report and GIS data for detailed evaluation findings at intersection of N Downing St and Clover Dr	\$ 30,100	5	Medium		
Unsignalized Intersection	N/A	1002	Intersection of N Downing St and Glenview Ln / Rosewood Ln	N/A	N/A	N/A	See facility report and GIS data for detailed evaluation findings at intersection of N Downing St and Glenview Ln / Rosewood Ln	\$ 36,200	5	Medium		
Unsignalized Intersection	N/A	1003	Intersection of N Downing St and Sagebrush St / N Belle Dr	N/A	N/A	N/A	See facility report and GIS data for detailed evaluation findings at intersection of N Downing St and Sagebrush St / N Belle Dr	\$ 31,500	5	Medium		
Unsignalized Intersection	N/A	1004	Intersection of N Downing St and Heather Ln / S Belle Dr	N/A	N/A	N/A	See facility report and GIS data for detailed evaluation findings at intersection of N Downing St and Heather Ln / S Belle Dr	\$ 31,200	5	Medium		
Unsignalized Intersection	N/A	1005	Intersection of N Downing St and Molina Ct	N/A	N/A	N/A	See facility report and GIS data for detailed evaluation findings at intersection of N Downing St and Molina Ct	\$ 18,100	5	Medium		
Unsignalized Intersection	N/A	1006	Intersection of N Downing St and Dennis St / Molina Dr	N/A	N/A	N/A	See facility report and GIS data for detailed evaluation findings at intersection of N Downing St and Dennis St / Molina Dr	\$ 34,800	5	Medium		
Unsignalized Intersection	N/A	1007	Intersection of N Downing St and Riverwood Ranch Blvd	N/A	N/A	N/A	See facility report and GIS data for detailed evaluation findings at intersection of N Downing St and Riverwood Ranch Blvd	\$ 29,900	5	Medium		
Unsignalized Intersection	N/A	90000	Intersection of N Downing St and driveway (Lat. 29.1902; Long. -95.4193)	N/A	N/A	N/A	See facility report and GIS data for detailed evaluation findings at intersection of N Downing St and driveway (Lat. 29.1902; Long. -95.4193)	\$ 13,000	5	Medium		
Unsignalized Intersection	N/A	90002	Intersection of N Downing St and driveway (Lat. 29.1887; Long. -95.4193)	N/A	N/A	N/A	See facility report and GIS data for detailed evaluation findings at intersection of N Downing St and driveway (Lat. 29.1887; Long. -95.4193)	\$ 15,700	5	Medium		
Building	N/A	1	Angleton Recreation Center & Natatorium	N/A	N/A	3	The locker box protrudes more than 4 inches into the path of travel. The locker box projects more than 4 inches into the circulation path. Wall-mounted objects that have leading edges between 27 inches and 80 inches from the floor must not project more than 4 inches into the circulation path. Protruding objects that extend to the floor or within 27 inches of the floor are cane detectable and are therefore not hazardous. Where it is necessary or desirable to have objects protrude from the wall a manner of cane detection must be provided.	\$ 1,000	9	Low		
Building	N/A	1	Angleton Recreation Center & Natatorium	N/A	N/A	6	Toilet paper dispenser is approximately 13 inches from the toilet. The toilet paper is not installed within the compliant range. Toilet paper dispensers shall be 7 inches minimum and 9 inches maximum in front of the water closet measured to the centerline of the dispenser. The outlet of the dispenser shall be 15 inches minimum and 48 inches maximum above the finish floor and shall not be located behind grab bars. Dispensers shall not be of a type that controls delivery or that does not allow continuous paper flow. There shall be a clearance of 1 1/2 inches minimum below the grab bar.	\$ 300	9	Low		
Building	N/A	1	Angleton Recreation Center & Natatorium	N/A	N/A	9	Toilet paper dispenser is approximately 13 inches from the toilet. The toilet paper is not installed within the compliant range. Toilet paper dispensers shall be 7 inches minimum and 9 inches maximum in front of the water closet measured to the centerline of the dispenser. The outlet of the dispenser shall be 15 inches minimum and 48 inches maximum above the finish floor and shall not be located behind grab bars. Dispensers shall not be of a type that controls delivery or that does not allow continuous paper flow. There shall be a clearance of 1 1/2 inches minimum below the grab bar.	\$ 400	9	Low		

Facility Type	Corridor ID	GPS ID	Project Name	Sidewalk Limit 1	Sidewalk Limit 2	Barrier #	Self-Evaluation Barrier	Cost Projection	Priority Value	Priority Rank	Funding Year	Year Completed
Building	N/A	1	Angleton Recreation Center & Natatorium	N/A	N/A	10	Toilet paper dispenser is approximately 15 inches from the toilet. The toilet paper is not installed within the compliant range. Toilet paper dispensers shall be 7 inches minimum and 9 inches maximum in front of the water closet measured to the centerline of the dispenser. The outlet of the dispenser shall be 15 inches minimum and 48 inches maximum above the finish floor and shall not be located behind grab bars. Dispensers shall not be of a type that controls delivery or that does not allow continuous paper flow. There shall be a clearance of 1 1/2 inches minimum below the grab bar.	\$ 400	9	Low		
Park	N/A	1	Masterson Park	N/A	N/A	11	Toilet paper dispenser is not installed within compliant range. The toilet paper is not installed within the compliant range in front of the toilet. Toilet paper dispensers shall be 7 inches minimum and 9 inches maximum in front of the water closet measured to the centerline of the dispenser. The outlet of the dispenser shall be 15 inches minimum and 48 inches maximum above the finish floor and shall not be located behind grab bars. Dispensers shall not be of a type that controls delivery or that does not allow continuous paper flow. There shall be a clearance of 1 1/2 inches minimum below the grab bar.	\$ 300	9	Low		
Park	N/A	1	Masterson Park	N/A	N/A	12	Toilet paper dispenser located 9 inches above grab bar. The element is positioned less than 12 inches from the top of the grab bar. Elements adjacent to the grab bar shall be positioned to provide unobstructed use of grab bars. The space between the grab bar and projecting objects below and at the ends shall be 1-1/2 inches minimum. The space between the grab bar and projecting objects above shall be 12 inches minimum.	\$ -	9	Low		
Park	N/A	2	BG Peck Soccer Complex	N/A	N/A	8	Neither the accessible stall nor the ambulatory stall have self-closing hinges. The compartment door is not self closing. The water closet compartment shall be equipped with a door that has an automatic-closing device.	\$ 900	9	Low		
Park	N/A	2	BG Peck Soccer Complex	N/A	N/A	9	Neither the accessible stall nor the ambulatory stall have self-closing hinges. The compartment door is not self closing. The water closet compartment shall be equipped with a door that has an automatic-closing device.	\$ 900	9	Low		
Park	N/A	3	Dickey Park	N/A	N/A	12	Both toilet paper dispensers are installed outside compliant range. The toilet paper is not installed within the compliant range in front of the toilet. Toilet paper dispensers shall be 7 inches minimum and 9 inches maximum in front of the water closet measured to the centerline of the dispenser. The outlet of the dispenser shall be 15 inches minimum and 48 inches maximum above the finish floor and shall not be located behind grab bars. Dispensers shall not be of a type that controls delivery or that does not allow continuous paper flow. There shall be a clearance of 1 1/2 inches minimum below the grab bar.	\$ 700	9	Low		
Park	N/A	6	Freedom Park	N/A	N/A	7	2 picnic tables are provided with no accessible route. The toilet paper dispenser does not allow a continuous flow. Toilet paper dispensers shall be 7 inches minimum and 9 inches maximum in front of the water closet measured to the centerline of the dispenser. The outlet of the dispenser shall be 15 inches minimum and 48 inches maximum above the finish floor and shall not be located behind grab bars. Dispensers shall not be of a type that controls delivery or that does not allow continuous paper flow. There shall be a clearance of 1 1/2 inches minimum below the grab bar.	\$ 200	9	Low		
PROW Sidewalk	1	N/A	N Downing St	Henderson Rd	Riverwood Ranch Blvd	N/A	See facility report and GIS data for detailed sidewalk evaluation findings.	\$ 450	3	Low		
TOTAL								\$ 1,039,800				

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Notice

The U.S. Access Board's Technical Assistance phone number is now 202-272-0080 extension 3.



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Advancing Full Access and Inclusion for All

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(Proposed) Public Rights-of-Way Accessibility Guidelines

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Proposed Guidelines for Pedestrian Facilities in the Public Right-of-Way



Published in the *Federal Register* on July 26, 2011.

36 CFR Part 1190

Docket No. ATBCB 2011-04

Note: On February 13, 2013, the Access Board issued a [notice](#) to supplement the proposed guidelines for public rights-of-way to address shared use paths.

AGENCY: Architectural and Transportation Barriers Compliance Board.

ACTION: Notice of Proposed Rulemaking.

SUMMARY: The Architectural and Transportation Barriers Compliance Board is proposing accessibility guidelines for the design, construction, and alteration of pedestrian facilities in the public right-of-way. The guidelines ensure that sidewalks, pedestrian street crossings, pedestrian signals, and other facilities for pedestrian circulation and use constructed or altered in the public right-of-way by state and local governments are readily accessible to and usable by pedestrians with disabilities. When the guidelines are adopted, with or without additions and modifications, as accessibility standards in regulations issued by other federal agencies implementing the Americans with Disabilities Act, Section 504 of the Rehabilitation Act, and the Architectural Barriers Act, compliance with the

accessibility standards is mandatory.

DATES: Submit comments by November 23, 2011. Hearings will be held on the proposed guidelines on the following dates:

1. September 12, 2011, 9:30 to 11:30 a.m., Dallas, TX.
2. November 9, 2011, 9:30 to 11:30 a.m., Washington, DC.

ADDRESSES: Submit comments by any of the following methods:

- Federal eRulemaking Portal: <http://www.regulations.gov>. Follow the instructions for submitting comments. Regulations.gov ID for this docket is ATBCB-2011-0004.
- E-mail: row@access-board.gov. Include docket number ATBCB 2011-04 in the subject line of the message.
- Fax: 202-272-0081.
- Mail or Hand Delivery/Courier: Office of Technical and Informational Services, Access Board, 1331 F Street, NW, Suite 1000, Washington, DC 20004-1111.

All comments will be posted without change to <http://www.regulations.gov>, including any personal information provided.

The hearing locations are:

1. Dallas – Sheraton Dallas (San Antonio A Ballroom), 400 North Olive Street, Dallas, TX 75201.
2. Washington, DC – Access Board Conference Room, 1331 F Street, NW, Suite 800, Washington, DC 20004.

FOR FURTHER INFORMATION CONTACT: Scott Windley, Office of Technical and Information Services, Architectural and Transportation Barriers Compliance Board, 1331 F Street NW, Suite 1000, Washington, DC 20004-1111. Telephone (202) 272-0025 (voice) or (202) 272-0028 (TTY). E-mail address row@access-board.gov.

SUPPLEMENTARY INFORMATION:

Availability of Proposed Guidelines with Figures

The proposed guidelines will be codified as an appendix to 36 CFR part 1190. In the past, the Architectural and Transportation Barriers Compliance Board (Access Board) submitted “camera ready” copy (i.e., images) of its guidelines to the Federal Register for the appendices since the guidelines included figures that illustrate the requirements in the guidelines. The appendices were not word searchable when viewed online because they

are images. After discussions with the Office of the Federal Register, the Access Board has decided to submit the proposed guidelines as a Word document with only one image, the International Symbol of Accessibility (Figure R411), so the appendix will be word searchable when viewed on-line. A copy of the proposed guidelines with figures is available on the Access Board website. Except for the International Symbol of Accessibility (Figure R411), the figures are for illustration purposes only and do not establish requirements. The copy of the proposed guidelines on the Access Board website also sets out advisory sections in shaded boxes, and indents subsections under the main sections.

Introduction

The Access Board is an independent federal agency established by section 502 of the Rehabilitation Act (29 U.S.C. 792).¹ The Access Board is responsible for developing accessibility guidelines for the design, construction, and alteration of facilities to ensure that they are readily accessible to and usable by individuals with disabilities. The Access Board's guidelines play an important part in the implementation of three laws that require newly constructed and altered facilities to be accessible to individuals with disabilities: the Americans with Disabilities Act, Section 504 of the Rehabilitation Act, and the Architectural Barriers Act. As further discussed under the Statutory and Regulatory Background, these laws require other federal agencies to issue regulations which include accessibility standards for the design, construction, and alteration of facilities. The regulations issued by the other federal agencies to implement these laws adopt, with or without additions and modifications, the Access Board's guidelines as accessibility standards. When the Access Board's guidelines are adopted, with or without additions and modifications, as accessibility standards in regulations issued by other federal agencies implementing these laws, compliance with the accessibility standards is mandatory.

Statutory and Regulatory Background

Americans with Disabilities Act

The Americans with Disabilities Act (42 U.S.C. 12101 et seq.) is a federal civil rights law that prohibits discrimination against individuals with disabilities. Title II of the Americans with Disabilities Act covers state and local governments.² The Department of Justice is

responsible for issuing regulations to implement Title II of the Americans with Disabilities Act, except for the public transportation parts.³ The regulations issued by the Department of Justice include accessibility standards for the design, construction, and alteration of facilities (other than facilities used in the provision of public transportation covered by regulations issued by the Department of Transportation).⁴ The Department of Justice’s accessibility standards adopt, with additions and modifications, the Access Board’s current guidelines, which are discussed below under the Need for Rulemaking.⁵ See 28 CFR 35.104 and 35.151.

The Department of Transportation is responsible for issuing regulations to implement the public transportation parts of Title II of the Americans with Disabilities Act.⁶ The regulations issued by the Department of Transportation include accessibility standards for the design, construction, and alteration of facilities used in the provision of public transportation covered by the public transportation parts of Title II of the Americans with Disabilities Act. The Department of Transportation’s accessibility standards adopt, with additions and modifications, the Access Board’s current guidelines, which are discussed below under the Need for Rulemaking. See 49 CFR 37.9 and Appendix A to 49 CFR part 37.

The Department of Justice is responsible for overall enforcement of Title II of the Americans with Disabilities Act. The Department of Justice has designated the Department of Transportation as the federal agency responsible for investigating complaints and conducting compliance reviews “relating to programs, services, and regulatory activities relating to transportation, including highways.” See 28 CFR 35.190 (b) (8).

Section 504 of the Rehabilitation Act

Section 504 of the Rehabilitation Act (29 U.S.C. 794) (hereinafter referred to as “Section 504”) prohibits discrimination against individuals with disabilities under any program or activity receiving federal financial assistance. The term “program or activity” includes all the operations of a state or local government entity that receives federal financial assistance directly or indirectly from the federal government. See 29 U.S.C. 794 (b). Each federal agency that provides federal financial assistance is responsible for issuing regulations to implement Section 504 that are consistent with requirements established by the Department of Justice. See Executive Order 12250 in Appendix A to 28 CFR part 41. The Department of Justice requires facilities designed, constructed, or altered by recipients of federal financial assistance to be accessible to individuals with disabilities. See 28 CFR 41.58.

The Department of Transportation provides federal financial assistance to state and local

The Department of Transportation provides federal financial assistance to state and local governments for the development of transportation networks, including pedestrian facilities in the public right-of-way.⁷ The regulations issued by the Department of Transportation to implement Section 504 require facilities designed, constructed, or altered by recipients of federal financial assistance from the Department to comply with accessibility standards included in the Department's regulations implementing the public transportation parts of Title II of the Americans with Disabilities Act, or the Uniform Federal Accessibility Standards. See 49 CFR §27.3. As discussed above, the accessibility standards included in the Department of Transportation regulations implementing the public transportation parts of Title II of the Americans with Disabilities Act adopt, with additions and modifications, the Access Board's current guidelines, which are discussed below under the Need for Rulemaking. See 49 CFR 37.9 and Appendix A to 49 CFR part 37.

The Department of Transportation is responsible for investigating complaints and conducting compliance reviews under Section 504 relating to recipients of federal financial assistance from the Department. See 49 CFR 27.121 and 27.123.

Architectural Barriers Act

The Architectural Barriers Act (42 U.S.C. 4151 et seq.) requires certain facilities financed with federal funds to be accessible to individuals with disabilities. The Architectural Barriers Act covers facilities financed in whole or part by a federal grant or loan where the federal agency that provides the grant or loan is authorized to issue standards for the design, construction, or alteration of the facilities.⁸ See 42 U.S.C. 4151 (3). The General Services Administration is required to issue accessibility standards for facilities covered by the Architectural Barriers Act.⁹ See 42 U.S.C. 4156. The accessibility standards issued by the General Services Administration adopt, without any additions or modifications, the Access Board's current guidelines, which are discussed below under the Need for Rulemaking. See 41 CFR 102-76.65.

The Access Board is responsible for enforcing the Architectural Barriers Act. See 29 U.S.C. 792 (b) (1) and (e).

Need for Rulemaking

This section discusses the Congressional findings in the Americans with Disabilities Act that establish the need for accessibility guidelines, the Access Board's current accessibility guidelines, and why the Access Board is proposing to issue accessibility guidelines for

pedestrian facilities in the public right-of-way.

Congressional Findings of Discrimination



The Americans with Disabilities Act was enacted in 1990 by overwhelming bipartisan majorities in the House of Representatives (377 – 28) and in the Senate (91 – 6).¹⁰ Congress compiled an extensive record of the discrimination experienced by individuals with disabilities in critical areas such as employment, public accommodations, state and local government services, and transportation. Congress found that “despite some improvements such forms of discrimination against individuals with disabilities continue to be a serious and pervasive social problem.” 42 U.S.C. 12101 (a) (2). Among the forms of discrimination that Congress found to be a continuing problem are “the discriminatory effects of architectural, transportation, and communication barriers.” 42 U.S.C. 12101 (a) (5). Congress found that “the continuing existence of unfair and unnecessary discrimination and prejudice denies people with disabilities the opportunity to compete on an equal basis and to pursue those opportunities for which our free society is justifiably famous, and costs the United States billions of dollars in unnecessary expenses resulting from dependency and nonproductivity.” 42 U.S.C. 12101 (a) (9). Congress declared that “the Nation’s proper goals regarding individuals with disabilities are to ensure equality of opportunity, full participation, independent living, and economic self-sufficiency for such individuals.” 42 U.S.C. 12101 (a) (8).

The purpose of the Americans with Disabilities Act is “to provide a clear and comprehensive national mandate for the elimination of discrimination against individuals with disabilities” and “to provide clear, strong, and consistent, enforceable standards addressing discrimination against individuals with disabilities.” 42 U.S.C. 12101 (b) (1) and (2). Congress directed the Access Board to supplement the accessibility guidelines developed earlier for the Architectural Barriers Act to include “additional requirements, consistent with this Act, to ensure that buildings, facilities, rail passenger cars, and vehicles are accessible in terms of architecture and design, transportation, and communication, to individuals with disabilities.” 42 U.S.C. 12204 (b).

Current Guidelines Developed Primarily for Buildings and Facilities on Sites



The Access Board’s current accessibility guidelines were issued in 2004 and are known as the Americans with Disabilities Act and Architectural Barriers Act Accessibility Guidelines (hereinafter referred to as “2004 ADA and ABA Accessibility Guidelines”).¹¹ 69 FR 44083

(July 23, 2004). The 2004 ADA and ABA Accessibility Guidelines revised and updated the Americans with Disabilities Act Accessibility Guidelines, which were issued by the Access Board in 1991 (hereinafter referred to as “1991 ADAAG”). 56 FR 35408 (July 26, 1991). The requirements in the 1991 ADAAG and 2004 ADA and ABA Accessibility Guidelines were developed primarily for buildings and facilities on sites.¹² Some of the requirements can be readily applied to pedestrian facilities in the public right-of-way. However, other requirements need to be adapted for pedestrian facilities in the public right-of-way.

Proposed Guidelines Developed Specifically for Pedestrian Facilities in the Public Right-of-Way



The proposed guidelines are developed specifically for pedestrian facilities in the public right-of-way and address conditions and constraints that exist in the public right-of-way. As discussed below under the Major Issues, the requirements in the proposed guidelines make allowances for typical roadway geometry and permit flexibility in alterations to existing facilities where existing physical constraints make it impractical to fully comply with new construction requirements. The proposed guidelines also include requirements for elements and facilities that exist only in the public right-of-way such as pedestrian signals and roundabouts.

Rulemaking History



The Access Board began developing accessibility guidelines for pedestrian facilities in the public right-of-way shortly after the Americans with Disabilities Act was enacted in 1990. Proposed guidelines for state and local government facilities, including pedestrian facilities in the public right-of-way, were initially issued in 1992. 57 FR 60612 (December 21, 1992). Interim guidelines were issued in 1994. 59 FR 31676 (June 20, 1994). Final guidelines were issued in 1998, but did not include requirements for pedestrian facilities in the public right-of-way because comments submitted on the proposed and interim guidelines demonstrated a need for additional research, as well as education and outreach. 63 FR 2000 (January 13, 1998).

The Access Board subsequently sponsored research on accessible pedestrian signals and pedestrian pushbuttons, detectable warning surfaces, and pedestrian facilities at roundabouts.¹³ The Access Board also produced a series of videos, a design guide, and an

accessibility checklist for pedestrian facilities in the public right-of-way, and conducted training programs around the country. The Access Board coordinated its work with organizations representing state and local government transportation officials and other transportation industry professionals, including the American Association of State Highway and Transportation Officials, Institute of Transportation Engineers, National Committee on Uniform Traffic Control Devices, and Transportation Research Board.

The Access Board established a federal advisory committee in 1999 to recommend accessibility guidelines for pedestrian facilities in the public right-of-way. The advisory committee included representatives of state and local governments, the transportation industry, disability organizations, and other interested groups.¹⁴ The advisory committee provided significant sources of expertise and produced consensus recommendations for accessibility guidelines for pedestrian facilities in the public right-of-way. The advisory committee presented its recommendations, “Building a True Community: Final Report of the Public Rights-of-Way Access Advisory Committee”, to the Access Board in 2001.¹⁵

The Access Board developed draft accessibility guidelines for pedestrian facilities in the public right-of-way based on the advisory committee’s recommendations, and made the draft guidelines available for public review and comment in 2002.¹⁶ 67 FR 41206 (June 17, 2002). The Access Board revised the draft guidelines in 2005 and made the revised draft guidelines available for public review to facilitate the gathering of data for a regulatory assessment of the potential costs and benefits of the guidelines. 70 FR 70734 (November 23, 2005). The Access Board entered into an interagency agreement with the Volpe National Transportation Systems Center (Volpe Center) to gather data and prepare cost estimates for the regulatory assessment.¹⁷

Major Issues

Transportation officials who commented on the 2002 draft guidelines raised some major issues that are addressed below.

Alterations to Existing Facilities

The draft guidelines required alterations to existing facilities to comply with the

The draft guidelines required alterations to existing facilities to comply with the requirements for new construction to the maximum extent feasible. Most of the improvements in the public right-of-way involve alterations to existing facilities. Transportation officials noted that the meaning of the term “to the maximum extent feasible” was not clear and wanted additional guidance on how to apply the guidelines when existing facilities are altered.

The proposed guidelines clarify that where elements, spaces, or facilities are altered, each altered element, space, or facility within the scope of the project must comply with the applicable requirements for new construction (see R202.3). The phrase “within the scope of the project” is intended to focus on whether the alteration project presents an opportunity to design the altered element, space, or facility in an accessible manner. It is not intended for additional work to be done outside the scope of the project. For example, if an alteration project involves only installing pedestrian signals at existing intersections and there are no detectable warning surfaces on the curb ramps at the intersections, the proposed guidelines would require accessible pedestrian signals and pedestrian pushbuttons to be provided at the intersections because they are within the scope of the project, but would not require detectable warning surfaces to be provided on the curb ramps because they are not within the scope of the project. The proposed guidelines also clarify that where elements are altered or added to existing facilities but the pedestrian circulation path to the altered or added elements is not altered, the pedestrian circulation path is not required to comply with the proposed requirements for pedestrian access routes (see R202.1). For example, if a new bench is installed on a sidewalk that has a cross slope exceeding 2 percent, the sidewalk is not required to be altered to reduce the cross slope because the bench is installed on the sidewalk.

In addition, the proposed guidelines recognize that it is not always possible for altered elements, spaces, or facilities to fully comply with new construction requirements because of existing physical constraints. Where existing physical constraints make it impracticable for altered elements, spaces, or facilities to fully comply with the requirements for new construction, compliance is required to the extent practicable within the scope of the project (see R202.3.1). Existing physical constraints include, but are not limited to, underlying terrain, right-of-way availability, underground structures, adjacent developed facilities, drainage, or the presence of a notable natural or historic feature. The proposed guidelines permit flexibility in alterations to existing facilities where needed.

Existing Facilities That Are Not Altered

Transportation officials expressed concern about application of the draft guidelines to

Transportation officials expressed concern about application of the draft guidelines to existing facilities that are not altered. The proposed guidelines clarify that the guidelines do not address existing facilities unless they are included within the scope of an alteration undertaken at the discretion of a covered entity (see R101.2).

The Department of Justice regulations implementing Title II of the Americans with Disabilities Act contain requirements for state and local governments regarding program accessibility and existing facilities. See 28 CFR 35.150. The Department of Transportation regulations implementing Section 504 also contain requirements for recipients of federal financial assistance from the Department regarding compliance planning. See 49 CFR 27.11 (c). The Access Board acknowledges that transportation officials are concerned about their obligations under the Title II of the Americans with Disabilities Act and Section 504 for existing facilities that are not altered, but the Access Board does not have the authority to address the application of the proposed guidelines to existing facilities that are not altered. When the Department of Justice and Department of Transportation conduct rulemaking to include accessibility standards for pedestrian facilities in the public right-of-way in regulations implementing Title II of the Americans with Disabilities Act and Section 504, they will address the application of the accessibility standards to existing facilities that are not altered. Comments concerning existing facilities that are not altered should be directed to the Department of Justice and Department of Transportation when they conduct rulemaking to include accessibility standards for pedestrian facilities in the public right-of-way in regulations implementing Title II of the Americans with Disabilities Act and Section 504.

Allowances for Typical Roadway Geometry

The 1991 ADAAG and 2004 ADA and ABA Accessibility Guidelines specify a maximum running slope of 5 percent and maximum cross slope of 2 percent for walking surfaces on accessible routes. The draft guidelines adapted these requirements for pedestrian access routes in the public right-of-way and made an allowance for typical roadway geometry by permitting the grade of pedestrian access routes within sidewalks to equal the general grade established for the adjacent street or highway. The draft guidelines also permitted the cross slope of pedestrian access routes within midblock pedestrian street crossings and of curb ramps at midblock pedestrian street crossings to equal the street or highway grade.

Transportation officials recommended that additional allowances be made for typical roadway geometry. The proposed guidelines include the following allowances for typical roadway geometry:

- The grade of pedestrian access routes within sidewalks is permitted to equal the general grade established for the adjacent street or highway (see R302.5).
- A maximum cross slope of 5 percent is permitted for pedestrian access routes within pedestrian street crossings without yield or stop control where vehicles can proceed through the intersection without slowing or stopping (see R302.6.1).
- The cross slope of pedestrian access routes within midblock pedestrian street crossings is permitted to equal the street or highway grade (see R302.6.2).
- The cross slope of curb ramps, blended transitions, and turning spaces at pedestrian street crossings without yield or stop control where vehicles can proceed through the intersection without slowing or stopping, and at midblock pedestrian street crossings are permitted to equal the street or highway grade (see R304.5.3).
- Clear spaces required at accessible pedestrian signals and pedestrian pushbuttons and at other accessible elements are permitted to have a running slope consistent with the grade of the adjacent pedestrian access route (see R404.2).

A maximum grade of 5 percent and maximum cross slope of 2 percent are required otherwise for pedestrian access routes within sidewalks and pedestrian street crossings (see R302.5 and R302.6).

Overview of Proposed Guidelines

The proposed guidelines apply to pedestrian facilities in the public right-of-way. The proposed guidelines define the public right-of-way to mean “public land or property, usually in interconnected corridors, that is acquired for or dedicated to transportation purposes” (see R105.5). The proposed guidelines ensure that the following facilities for pedestrian circulation and use located in the public right-of-way are readily accessible to and usable by pedestrians with disabilities:

- Sidewalks, pedestrian overpasses and underpasses, and other pedestrian circulation paths, including requirements for pedestrian access routes, alternate pedestrian access routes when pedestrian circulation paths are temporarily closed, and protruding objects along or overhanging pedestrian circulation paths;
- Pedestrian street crossings, medians, and pedestrian refuge islands, including

requirements for curb ramps or blended transitions, and detectable warning surfaces;

- Pedestrian street crossings at roundabouts, including requirements for detectable edge treatments where pedestrian crossing is not intended, and pedestrian activated signals at multi-lane pedestrian street crossings;
- Pedestrian street crossings at multi-lane channelized turn lanes at roundabouts and at other signalized intersections, including requirements for pedestrian activated signals;
- Pedestrian signals, including requirements for accessible pedestrian signals and pedestrian pushbuttons;
- Transit stops and transit shelters for buses and light rail vehicles, including requirements for boarding and alighting areas at sidewalk or street level, boarding platforms, and route signs;
- Pedestrian at-grade rail crossings, including requirements for flangeway gaps;
- On-street parking that is marked or metered, and passenger loading zones;
- Pedestrian signs, including requirements for visible characters on signs and alternative requirements for audible sign systems and other technologies;
- Street furniture for pedestrian use, including drinking fountains, public toilet facilities, tables, counters, and benches; and
- Ramps, stairways, escalators, handrails, doors, doorways, and gates.

Use of Mandatory Language in Proposed Guidelines

The proposed guidelines use the mandatory language “shall” and “requirement” because the guidelines are intended to be adopted, with or without additions and modifications, as accessibility standards in regulations issued by other federal agencies implementing Title II of the Americans with Disabilities Act, Section 504, and the Architectural Barriers Act. In this regard, the proposed guidelines are analogous to model codes. Model codes use mandatory language but compliance with model codes is not mandatory until they are adopted by a state or local government. When the Access Board’s guidelines are adopted, with or without additions and modifications, as accessibility standards in regulations issued by other federal agencies implementing Title II of the Americans with Disabilities Act, Section 504, and the Architectural Barriers Act, compliance with the accessibility standards is mandatory. The other federal agencies will conduct separate rulemakings to include accessibility standards for pedestrian facilities in the public right-of-way in regulations implementing Title II of the Americans with Disabilities Act, Section 504, and the Architectural Barriers Act. The other federal agencies will establish the effective dates for compliance with the accessibility standards when they complete their rulemakings. The

other federal agencies may permit use of the proposed guidelines as best practices pending the completion of their rulemakings. However, the proposed guidelines are not legally enforceable until adopted, with or without additions and modifications, as accessibility standards by other federal agencies in regulations implementing Title II of the Americans with Disabilities Act, Section 504, and the Architectural Barriers Act.

Impacts on State and Local Governments

When the proposed guidelines are adopted, with or without additions and modifications, as accessibility standards by other federal agencies in the regulations implementing Title II of the Americans with Disabilities Act, Section 504, and the Architectural Barriers Act, the accessibility standards will apply to units of state and local government that construct streets and highways.¹⁸ For ease of reference, these state and local governmental units are referred to as “state and local transportation departments” in this preamble but may go by different names (e.g., public works departments, or highway or streets departments) in their respective jurisdictions. State and local transportation departments may be required to comply with three accessibility standards. For example, a state or local transportation department that finances the design, construction, or alteration of a pedestrian facility in the public right-of-way with a federal grant or loan from the Department of Transportation would be required to comply with the accessibility standards issued by the Department of Justice in regulations implementing Title II of the Americans with Disabilities Act, the accessibility standards issued by the Department of Transportation in regulations implementing Section 504, and the accessibility standards issued by the General Services Administration in regulations implementing the Architectural Barriers Act. All three accessibility standards would be basically uniform because they adopt the proposed guidelines, but may vary to the extent that Department of Justice, Department of Transportation, and General Services Administration include additions or modifications to the proposed guidelines in their accessibility standards.

The Access Board prepared a regulatory assessment of the potential costs and benefits of the proposed guidelines. The regulatory assessment is available in the regulatory docket at <http://www.regulations.gov> and on the Access Board website. The proposed guidelines are compared to a baseline to assess their potential costs and benefits. The baseline is how state and local transportation departments would design and construct pedestrian facilities in the public right-of-way in the absence of the proposed guidelines. All state

transportation departments maintain design manuals and standard drawings for improvements in the public right-of-way.¹⁹ Most local transportation department also maintain design manuals and standard drawings for improvements in the public right-of-way that are consistent with the design manuals and standard drawings maintained by their state transportation departments. State and local transportation departments use publications issued by the American Association of State and Highway Transportation Officials (AASHTO) in their design manuals and standard drawings, including the “Policy on Geometric Design of Highways and Streets” (2004) (commonly referred to as the “AASHTO Green Book”) and the “Guide for the Planning, Design, and Operation of Pedestrian Facilities” (2004) which incorporate accessibility in the design of sidewalks and other pedestrian facilities.²⁰ The Federal Highway Administration as part of its stewardship and oversight responsibilities has also worked with state transportation departments to incorporate accessibility in their design manuals and standards drawings. The Federal Highway Administration has issued guidance that the accessibility standards in the Department of Justice regulations implementing Title II of the Americans with Disabilities Act and the Department of Transportation regulations implementing Section 504 “are to be used to the extent feasible” for the design of pedestrian facilities in the public right-of-way until new accessibility standards are adopted for these facilities.²¹ The Federal Highway Administration has also issued guidance that the 2005 draft of the proposed guidelines for pedestrian facilities in the public right-of-way “are the currently recommended best practices, and can be considered the state of the practice that could be followed for areas not fully addressed” in the existing accessibility standards.²²

In the absence of the proposed guidelines, the regulatory assessment assumes that state and local transportation departments will use the revised accessibility standards in the Department of Justice regulations implementing Title II of the Americans with Disabilities Act (hereinafter referred to as “DOJ 2010 Standards”) to the extent feasible when designing, constructing, or altering pedestrian facilities in the public right-of-way, consistent with the guidance issued by the Federal Highway Administration, as well as other applicable standards and industry practices.²³ An analysis of the proposed guidelines compared to the DOJ 2010 Standards, other applicable standards, and industry practices is included in the appendix to the regulatory assessment. The analysis consists of three tables.

Table 1. Proposed Guidelines Contain Same Requirements as in DOJ 2010 Standards



Table 1 analyzes requirements in the proposed guidelines that are the same as requirements in the DOJ 2010 Standards.²⁴ The requirements in the proposed guidelines in Table 1 will have no impacts on state and local transportation departments compared to the requirements in the DOJ 2010 Standards because the requirements are the same.

Table 2. Proposed Guidelines Adapt Requirements in DOJ 2010 Standards



Table 2 analyzes requirements in the proposed guidelines that adapt requirements in the DOJ 2010 Standards to allow for conditions and constraints in the public right-of-way.²⁵ The requirements in the proposed guidelines in Table 2 do not establish greater requirements for accessibility in the public right-of-way than the requirements in the DOJ 2010 Standards and industry practices. Some of the requirements in the proposed guidelines in Table 2 establish lesser requirements for accessibility in the public right-of-way than the requirements in the DOJ 2010 Standards. For example, where the pedestrian access route in a sidewalk is contained within the street or highway right-of-way, the grade of the pedestrian access route is permitted to equal the general grade established for the adjacent street or highway to allow for typical roadway geometry instead of the running slope requirements for accessible routes on sites. The requirements in the proposed guidelines in Table 2 will have no impacts on state and local transportation departments compared to the requirements in the DOJ 2010 Standards and industry practices, except for the 2 percent maximum cross slope requirement for pedestrian access routes contained within pedestrian street crossings with stop or yield control where vehicles slow or stop before proceeding through the intersection (see R204.3 and R302.6). This requirement will have more than minimal impacts on the design and construction of new tabled intersections in hilly urban areas that contain pedestrian street crossings with stop or yield control. The impacts are analyzed in the regulatory assessment and discussed below under Cross Slope (R302.6) in the Section-by-Section Analysis.

Table 3. Proposed Guidelines Contain Requirements Not in DOJ 2010 Standards



Table 3 analyzes requirements in the proposed guidelines for which there are no corresponding requirements in the DOJ 2010 Standards. 26 The requirements in the proposed guidelines in Table 3 are compared to other applicable accessibility standards and the 2009 edition of Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD). Where the requirements in the proposed guidelines in Table 3 are the same as the requirements in other applicable accessibility standards or the MUTCD, the requirements will have no impacts on state and local transportation departments. Where a requirement in the proposed guidelines in Table 3 differs from a corresponding requirement in other applicable accessibility standards or there is no corresponding requirement in other applicable accessibility standards, the analysis used the following factors to identify whether the requirement will have more than minimal impacts on state and local transportation departments:

- Whether the requirement can be easily incorporated into the design of the element or facility?
- Whether the requirement adds features to the element or facility?
- Whether the requirement reduces space needed for other purposes?
- What are the additional costs due to the requirement compared to the total design and construction costs for the element or facility?

A requirement that can be easily incorporated into the design of an element or facility, and does not add features to the element or facility or reduce space needed for other purposes will have minimal impacts on state and local transportation departments. A requirement that cannot be easily incorporated into the design of an element or facility, adds features to the element or facility, or reduces space needed for other purposes and that results in additional costs compared to the total design and construction costs of the element or facility which are not negligible (i.e., are worth considering) will have more than minimal impacts on state and local transportation departments.

The analysis identified three requirements in the proposed guidelines in Table 3 that will have more than minimal impacts on state and local transportation departments:

- Detectable warning surfaces on curb ramps and blended transitions at pedestrian street crossings (see R208.1 and R305);
- Accessible pedestrian signals and pedestrian pushbuttons (see R209); and
- Pedestrian activated signals at roundabout intersections with multi-lane pedestrian street crossings (see R206 and R306.3.2).

The impacts of these requirements are analyzed in the regulatory assessment and are discussed below under the relevant requirements in the Section-by-Section Analysis.

Question 1. Comments are requested on whether other requirements in the proposed guidelines will have more than minimal impacts on state and local transportation departments, in addition to the requirements identified in Tables 2 and 3. Comments should:

- Identify the requirement by section number or other information that identifies the specific requirement;
- Explain why the requirement will have more than minimal impacts using the factors described above or other appropriate factors; and
- Provide estimates of the additional costs due to the requirement compared to the total design and construction costs for the element or facility.

Question 2. Comments are requested on whether the requirements in the proposed guidelines have any unintended positive or negative consequences.

Question 3. Comments are requested on alternative regulatory approaches for achieving the objectives of the Americans with Disabilities Act, Section 504, and Architectural Barriers Act to eliminate the discriminatory effects of architectural, transportation, and communication barriers in the design and construction of pedestrian facilities in the public right-of-way.

Section-by-Section Analysis

The proposed guidelines consist of four chapters. Chapter R1 addresses the application and administration of the proposed guidelines. Chapter R2 contains scoping requirements. Chapter R3 contains technical requirements. Chapter R4 contains supplementary technical requirements, which are the same as in the 2004 ADA and ABA Accessibility Guidelines with a few exceptions. The sections in each chapter are discussed below. Sections marked as “advisory” contain advisory information related to the preceding section. Advisory sections do not establish mandatory requirements. Some advisory sections reference related mandatory requirements to alert readers about those requirements.

The Access Board is committed to writing guidelines that are clear, concise, and easy to

The Access Board is committed to writing guidelines that are clear, concise, and easy to understand so that persons who use the guidelines know what is required. If any of the proposed guidelines are ambiguous or not clear, point out the problematic language in your comments so it can be improved in the final guidelines.

Chapter R1: Application and Administration

R101 Purpose

The proposed guidelines contain scoping and technical requirements to ensure that facilities for pedestrian circulation and use located in the public right-of-way are readily accessible to and usable by pedestrians with disabilities. When the guidelines are adopted, with or without additions and modifications, as accessibility standards in regulations issued by other federal agencies implementing Title II of the Americans with Disabilities Act, Section 504, and the Architectural Barriers Act, compliance with the accessibility standards is mandatory.

The proposed guidelines do not address existing facilities unless they are included within the scope of an alteration to an existing facility undertaken at the discretion of a covered entity. The Department of Justice regulations implementing Title II of the Americans with Disabilities Act contain requirements for state and local governments regarding program accessibility and existing facilities. See 28 CFR 35.150. The Department of Transportation regulations implementing Section 504 also contain requirements for recipients of federal financial assistance from the Department regarding compliance planning. See 49 CFR 27.11 (c). As discussed above under the Major Issues, transportation officials who commented on the 2002 draft guidelines expressed concern about existing facilities that are not altered. When the Department of Justice and Department of Transportation conduct rulemaking to include accessibility standards for pedestrian facilities in the public right-of-way in regulations implementing Title II of the Americans with Disabilities Act and Section 504, they will address the application of the accessibility standards to existing facilities that are not altered. Comments concerning existing facilities that are not altered should be directed to the Department of Justice and Department of Transportation when they conduct rulemaking to include accessibility standards for pedestrian facilities in the public right-of-way in regulations implementing Title II of the Americans with Disabilities Act and Section 504.

R102 Equivalent Facilitation

The use of alternative designs, products, or technologies that result in substantially

The use of alternative designs, products, or technologies that result in substantially equivalent or greater accessibility and usability than the proposed guidelines is permitted.

R103 Conventions



Conventional industry tolerances apply where dimensions are not stated as a range. Where the required number of accessible facilities or elements is based on ratios or percentages and remainders or fractions result, the next greater whole number is required. Where the required size or dimension of a facility or element is based on ratios or percentages, rounding down for values less than one half is permitted. Measurements are stated in metric and U.S. customary units, and each system of measurement is to be used independently of the other.

R104 Referenced Standards



The proposed guidelines incorporate by reference certain standards in the 2009 edition of the Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD). The referenced MUTCD standards are discussed below under the relevant requirements regarding the provision of alternate pedestrian access routes when a pedestrian circulation path is temporarily closed, the provision of accessible pedestrian signals and pedestrian pushbuttons, and pedestrian signal phase timing. The MUTCD is available on the Federal Highway Administration website at: <http://mutcd.fhwa.dot.gov>.

R105 Definitions



The proposed guidelines incorporate the MUTCD definitions for the following terms: highway, intersection, island, median, pedestrian, roundabout, sidewalk, splitter island, and street. The proposed guidelines define the following terms: accessible, alteration, blended transition, cross slope, curb line, curb ramp, element, facility, grade break, operable part, pedestrian access route, pedestrian circulation path, public right-of-way, qualified historic facility, running slope, and vertical surface discontinuities. These definitions are discussed in the sections where the terms are used. Collegiate dictionaries are used to determine the meaning of terms that are not defined in the proposed guidelines, referenced MUTCD standards, or regulations issued by federal agencies that adopt the proposed guidelines as accessibility standards. Singular and plural words, terms, and phrases are used interchangeably.

Chapter R2: Scoping Requirements

Scoping requirements specify what pedestrian facilities must comply with the proposed guidelines. Some of the scoping requirements are triggered where certain pedestrian facilities are provided such as pedestrian signals (see R209), street furniture (see R212), transit stops and transit shelters (see R213), on-street parking (see R214), and passenger loading zones (see R215). The scoping requirements reference the technical requirements that each pedestrian facility must comply with in order to be considered accessible. The technical requirements are discussed in Chapters R3 and R4.

R201 Application

The proposed guidelines apply to newly constructed facilities, altered portions of existing facilities, and elements added to existing facilities for pedestrian circulation and use located in the public right-of-way. The proposed guidelines apply to both permanent and temporary facilities in the public right-of-way. An advisory section provides examples of temporary facilities in the public right-of-way that are covered by the scoping requirements (e.g., temporary pedestrian circulation routes around work zones and portable public toilets).

Buildings and structures in the public right-of-way that are not covered by the proposed guidelines must comply with the applicable requirements in the 2004 ADA and ABA Accessibility Guidelines. An advisory section provides examples of buildings and structures in the public right-of-way that are not covered by the proposed guidelines and must comply with the applicable requirements in the 2004 ADA and ABA Accessibility Guidelines (e.g., towers and temporary performance stages and reviewing stands).

R202 Alterations and Elements Added to Existing Facilities

The proposed guidelines apply to alterations and elements added to existing facilities. Alterations are changes to an existing facility that affect or could affect pedestrian access, circulation, or use (see R105.5). Alterations include, but are not limited to, resurfacing, rehabilitation, reconstruction, historic restoration, or changes or rearrangement of structural parts or elements of a facility. The Department of Justice and Department of

Transportation may provide guidance on the meaning of the word “resurfacing” when they conduct rulemaking to include accessibility standards for pedestrian facilities in the public right-of-way in regulations implementing Title II of the Americans with Disabilities Act and

Section 504. Comments requesting guidance on the meaning of the term “resurfacing” should be directed to the Department of Justice and Department of Transportation when they conduct rulemaking to include accessibility standards for pedestrian facilities in the public right-of-way in regulations implementing Title II of the Americans with Disabilities Act and Section 504.

Where elements are altered or added to existing facilities but the pedestrian circulation path to the altered or added elements is not altered, the pedestrian circulation path is not required to comply with the proposed requirements for pedestrian access routes. For example, if a new bench is installed on an existing sidewalk that has a cross slope exceeding 2 percent, the sidewalk is not required to be altered to reduce the cross slope because the bench is installed on the sidewalk. Advisory information recommends that, where possible, added elements should be located on an existing pedestrian access route. This provision is based on similar provisions in the 2004 ADA and ABA Accessibility Guidelines which do not require the circulation path to altered elements or spaces to comply with the requirements for accessible routes where the circulation path to the altered elements or spaces is not altered (see 202.3, Exception 1; and F202.3, Exception 1).

Where existing physical constraints make it impractical for altered elements, spaces, or facilities to fully comply with new construction requirements, compliance is required to the extent practicable within the scope of the project. Existing physical constraints include, but are not limited to, underlying terrain, right-of-way availability, underground structures, adjacent developed facilities, drainage, or the presence of a notable natural or historic feature.

The 2004 ADA and ABA Accessibility Guidelines (see 202.4 and F202.4) and the Department of Justice regulations implementing Title II of the Americans with Disabilities Act (see 28 CFR 35.151 (b)) include an additional requirement for facilities on sites whereby an alteration that affects or could affect the usability of or access to an area containing a “primary function” must be made so as to ensure that, to the maximum extent feasible, the “path of travel” to the altered area is accessible, unless the additional cost and scope of the alterations to provide an accessible “path of travel” are disproportionate to the cost of the alteration to the “primary function” area.

The Department of Justice regulations define the terms “primary function” and “path of travel.” See 28 CFR 35.151 (b) (4) (i) and (ii). According to the Department of Justice

regulations, a “primary function” is a major activity for which the facility is intended. “Primary function” areas include the dining area of a cafeteria, the meeting rooms in a conference center, as well as offices and other work areas in which the activities of the

public entity using the facility are carried out. Mechanical rooms, boiler rooms, supply storage rooms, employee lounges or locker rooms, janitorial closets, entrances, and corridors are not “primary function” areas. Restrooms are not “primary function” areas unless the provision of restrooms is a primary purpose of the area (e.g., restrooms in highway rest stops). Alterations to windows, hardware, controls, electrical outlets, and signage are not alterations that affect the usability of or access to a “primary function” area. The Department of Justice regulations further state that a “path of travel” includes a continuous, unobstructed way of pedestrian passage by means of which the altered area may be approached, entered, and exited, and which connects the altered area with an exterior approach (including sidewalks, streets, and parking areas), an entrance to the facility, and other parts of the facility. An accessible “path of travel” may consist of walks and sidewalks; curb ramps and other interior or exterior pedestrian ramps; clear floor paths through lobbies, corridors, rooms, and other improved areas; parking access aisles; elevators and lifts; or a combination of these elements; and also includes the restrooms, telephones, and drinking fountains serving the altered area.

The Department of Justice regulations deem the additional cost of alterations to provide an accessible “path of travel” to the altered area disproportionate when it exceeds 20 percent of the cost of the alteration to the “primary function” area. See 28 CFR 35.151 (b) (4) (iii). When the additional cost of alterations to provide an accessible “path of travel” to the altered area is disproportionate, the Department of Justice regulations require the “path of travel” to be made accessible to the extent that it can be made accessible without incurring disproportionate costs (i.e., an amount equal to 20 percent of the cost of the alteration to the “primary function” area must be expended to provide an accessible “path of travel” to the altered area). See 28 CFR 35.151 (b) (4) (iv). A similar requirement is not included in the proposed guidelines because of the uncertainty how the terms “primary function” and “path of travel” as defined in the Department of Justice regulations for facilities on sites would apply to pedestrian facilities in the public right-of-way. Revising the definitions of “primary function” and “path of travel” to apply to pedestrian facilities in the public right-of-way will not necessarily result in additional accessibility. For example, if an area that contains a “primary function” is defined to include sidewalks, an accessible “path of travel” would be required to the altered sidewalks, which in effect would require the cost and scope of planned sidewalk alteration projects to be increased by 20 percent. Sidewalk alteration projects can be planned to take into account the additional 20 percent scope and cost of work. For example, if a 5 block sidewalk alteration project would be planned in the absence of a requirement for an accessible “path of travel” to the altered sidewalks, imposing a requirement for an accessible “path of travel” to the altered sidewalks could result in a 4 block sidewalk alteration project being planned and the additional 20 percent

scope and cost of work would result in a 5 block sidewalk alteration project.

Transitional segments of pedestrian access routes must connect to unaltered segments of existing pedestrian circulation paths and comply with the technical requirements for pedestrian access routes to the extent practicable. Alterations must not decrease or have the effect of decreasing the accessibility of a facility or an accessible connection to an adjacent building or site below the requirements for new construction in effect at the time of the alteration.

Where the State Historic Preservation Officer or Advisory Council on Historic Preservation determines that compliance with a requirement would threaten or destroy historically significant features of a qualified historic facility, compliance is required to the extent that it does not threaten or destroy historically significant features of the facility. A qualified historic facility is a facility that is listed in or is eligible for listing in the National Register of Historic Places, or is designated as historic under state or local law (see R105.5)

R203 Machinery Spaces

Vaults, tunnels, and other spaces used by service personnel only are not required to comply with the proposed guidelines.

R204 Pedestrian Access Routes

A pedestrian access route is a continuous and unobstructed path of travel provided for pedestrians with disabilities within or coinciding with a pedestrian circulation path in the public right-of-way (see R105.5). Pedestrian access routes in the public right-of-way ensure that the transportation network used by pedestrians is accessible to pedestrians with disabilities. Pedestrian access routes in the public right-of-way are analogous to accessible routes on sites in that they connect to accessible elements, spaces, and facilities in the public right-of-way, including accessible pedestrian signals and pedestrian pushbuttons, accessible street furniture, accessible transit stops and transit shelters, accessible on-street parking spaces and parking meters and parking pay stations serving those parking spaces, and accessible passenger loading zones. Pedestrian access routes in the public right-of-way also connect to accessible routes at building and facility site arrival points.²⁷

Pedestrian access routes must be provided within:

- Sidewalks and other pedestrian circulation paths located in the public right-of-way;
- Pedestrian street crossings and at-grade rail crossings including medians and

- Pedestrian street crossings and at grade rail crossings, including medians and pedestrian refuge islands; and
- Overpasses, underpasses, bridges, and similar structures that contain pedestrian circulation paths.

Where an overpass, underpass, bridge, or similar structure is designed for pedestrian use only and the approach slope to the structure exceeds 5 percent, a ramp, elevator, limited use/limited application elevator, or platform lift must be provided. Elevators and platform lifts must be unlocked during the operating hours of the facility served.

An advisory section notes that the Federal Highway Administration has issued guidance on the obligations of state and local governments to keep pedestrian access routes open and usable throughout the year, including snow and debris removal.

R205 Alternate Pedestrian Access Routes



Alternate pedestrian access routes must be provided when a pedestrian circulation path is temporarily closed by construction, alterations, maintenance operations, or other conditions. The alternate pedestrian access route must comply with the referenced MUTCD standards. The MUTCD standards require alternate pedestrian routes to be accessible and detectable, including warning pedestrians who are blind or have low vision about sidewalk closures. Proximity-actuated audible signs are a preferred means to warn pedestrians who are blind or have low vision about sidewalk closures.

R206 Pedestrian Street Crossings



Pedestrian street crossings must comply with technical requirements in Chapter R3 that reference MUTCD standards for pedestrian signal phase timing. The technical requirements in Chapter R3 also include requirements for roundabouts and multi-lane channelized turn lanes.

R207 Curb Ramps and Blended Transitions



Curb ramps, blended transitions, or a combination of curb ramps and blended transitions must connect the pedestrian access routes at each pedestrian street crossing. Curb ramps and blended transitions must be wholly contained within the pedestrian street crossings served. Typically, two curb ramps must be provided at each street corner. In alterations where existing physical constraints prevent two curb ramps from being installed at a street

corner, a single diagonal curb ramp is permitted at the corner.

R208 Detectable Warning Surfaces

Detectable warning surfaces consist of small truncated domes built in or applied to a walking surface that are detectable underfoot. On pedestrian access routes, detectable warning surfaces indicate the boundary between a pedestrian route and a vehicular route where there is a flush rather than a curbed connection for pedestrians who are blind or have low vision. Detectable warning surfaces are not intended to provide wayfinding for pedestrians who are blind or have low vision. An advisory section provides information on streetscape designs that can make wayfinding easier. Detectable warning surfaces must be provided at the following locations on pedestrian access routes and at transit stops:

- Curb ramps and blended transitions at pedestrian street crossings;
- Pedestrian refuge islands;
- Pedestrian at-grade rail crossings not located within a street or highway;
- Boarding platforms at transit stops for buses and rail vehicles where the edges of the boarding platform are not protected by screens or guards; and
- Boarding and alighting areas at sidewalk or street level transit stops for rail vehicles where the side of the boarding and alighting areas facing the rail vehicles is not protected by screens or guards.

Detectable warning surfaces are not required at pedestrian refuge islands that are cut-through at street level and are less than 1.8 meters (6 feet) in length in the direction of pedestrian travel because detectable warning surfaces must extend 610 millimeters (2 feet) minimum on each side of the island and be separated by a 610 millimeters (2 feet) minimum length of island without detectable warning surfaces (see R305.1.4 and R305.2.4). Installing detectable warning surfaces at cut-through pedestrian islands that are less than 1.8 meters (6 feet) in length would compromise the effectiveness of detectable warning surfaces. An advisory section recommends that where a cut-through pedestrian island is less than 1.8 meters (6 feet) in length and the pedestrian street crossing is signalized, the signal should be timed for a complete crossing of the street.

Comments from Individuals Who Are Blind or Have Low Vision

The National Federation of the Blind was a member of the advisory committee that recommended the proposed guidelines, but filed a minority report recommending detectable warning surfaces should be required only on curb ramps with slopes of 6.6

percent or less, and at medians and pedestrian refuge islands. Comments on the 2002 draft guidelines from individuals who identified themselves as blind or having low vision supported requiring detectable warning surfaces on all curb ramps by a margin of 2:1.

Detectable Warning Surfaces on Curb Ramps



When the Access Board issued the 1991 ADAAG, the guidelines contained a requirement for detectable warning surfaces on curb ramps. The requirement was temporarily suspended between 1994 and 2001 pending additional research and review of issues relating to requirement. The Access Board deferred addressing detectable warning surfaces on curb ramps in the 2004 ADA and ABA Accessibility Guidelines pending completion of the guidelines for pedestrian facilities in the public right-of-way. As a result of these actions, there are different requirements for detectable warning surfaces on curb ramps in the accessibility standards included the regulations issued by the Department of Justice implementing Title II of the Americans with Disabilities Act and by the Department of Transportation implementing Section 504.

When the Department of Justice initially issued regulations in 1991 implementing Title II of the Americans with Disabilities Act, the regulations required state and local governments to use accessibility standards (hereinafter referred to as the “DOJ 1991 Standards”) that included the 1991 ADAAG which contained a requirement for detectable warning surfaces on curb ramps, or the Uniform Federal Accessibility Standards (UFAS) which did not contain a requirement for detectable warning surfaces on curb ramps.²⁸ When the Department of Justice adopted the DOJ 2010 Standards, those standards included the 2004 ADA and ABA Accessibility Guidelines which do not contain a requirement for detectable warning surfaces on curb ramps.

The Department of Transportation regulations implementing Section 504 require state and local governments that receive federal financial assistance directly or indirectly from the Department to use accessibility standards that include the 2004 ADA and ABA Accessibility Guidelines, as modified by the Department, or UFAS. See 49 CFR 27.3 (b). The Department of Transportation modified the 2004 ADA and ABA Accessibility Guidelines by retaining certain requirements from the 1991 ADAAG, including the requirement for detectable warning surfaces on curb ramps. See 406.8 in Appendix A to 49 CFR part 37.

State and local transportation departments will be affected differently by the requirement in the proposed guidelines for detectable warning surfaces on curb ramps depending on the accessibility standards that they use for curb ramps in the public right-of-way. The

Access Board reviewed the standard drawings for the design of curb ramps on state transportation department websites and found that the transportation departments in all 50 states and the District of Columbia specify detectable warning surfaces on curb ramps in the standard drawings.²⁹ Most local transportation departments use standard drawings for the design of curb ramps that are consistent with the standard drawings maintained by their state transportation departments. These state and local transportation departments use either the DOJ 1991 Standards, which include the 1991 ADAAG requirement for detectable warning surfaces on curb ramps, or the Department of Transportation accessibility standards, which include the 2004 ADA and ABA Accessibility Guidelines as modified by the Department to include the requirement from the 1991 ADAAG for detectable warning surfaces on curb ramps.³⁰

Governmental Units Affected

State and local transportation departments are divided into four groups for the purpose of evaluating the impacts of the requirement in the proposed guidelines for detectable warning surfaces on curb ramps:

- Group 1 consists of state and local transportation departments that use UFAS for curb ramps as currently permitted by the Department of Justice and Department of Transportation regulations implementing Title II of the Americans with Disabilities Act and Section 504. UFAS did not contain a requirement for detectable warning surfaces on curb ramps. The Access Board is not aware of any state or local transportation departments that use UFAS. The Department of Justice regulations do not permit the use of UFAS on or after March 15, 2012. See 28 CFR 35.151 (c) (3). Thus, Group 1 will cease to exist as of March 15, 2012, and any state and local transportation departments currently in Group 1 will fall into one of the other groups.

Question 4. The Access Board seeks information on whether any state and local transportation departments currently use UFAS for curb ramps in the public right-of-way.

- Group 2 consists of state and local transportation departments that receive federal financial assistance directly or indirectly from the Department of Transportation. State and local transportation departments in Group 2 are required to comply with the accessibility standards in the Department of Justice regulations implementing Title II of the Americans with Disabilities Act and the Department of Transportation regulations implementing Section 504. Where the requirements in the accessibility standards in the Department of Justice and Department of Transportation regulations differ, the more stringent requirement must be used. Excluding any state

and local transportation departments in Group 1, state and local transportation departments in Group 2 must comply with the requirement for detectable warning surfaces on curb ramps in the Department of Transportation regulations because it is the more stringent requirement. All state transportation departments and most local transportation departments are in Group 2 and specify detectable warning surfaces on curb ramps in their standard drawings. The requirement in the proposed guidelines for detectable warning surfaces on curb ramps will not have any impacts on state and local transportation departments in Group 2.

- Group 3 consists of local transportation departments that do not receive federal financial assistance directly or indirectly from the Department of Transportation. Local transportation departments in Group 3 are required to comply only with the accessibility standards in the Department of Justice regulations implementing Title II of the Americans with Disabilities Act. Excluding any local transportation departments in Group 1, local transportation departments in Group 3:
 - Used the DOJ 1991 Standards, which include the 1991 ADAAG and contain a requirement for detectable warning surfaces on curb ramps, before September 15, 2010. See 28 CFR 35.151 (c) (1).
 - Are permitted to use the DOJ 1991 Standards, which include the 1991 ADAAG and contain a requirement for detectable warning surfaces on curb ramps, or the DOJ 2010 Standards, which include the 2004 ADA and ABA Accessibility Guidelines and do not contain a requirement for detectable warnings on curb ramps, between September 15, 2010 and March 14, 2012. See 28 CFR 35.151 (c) (2).
 - Must use the DOJ 2010 Standards, which include the 2004 ADA and ABA Accessibility Guidelines and do not contain a requirement for detectable warnings on curb ramps, on or after March 15, 2012. See 28 CFR 35.151 (c) (3).

Thus, local transportation departments in Group 3 were required to provide detectable warning surfaces on curb ramps before September 15, 2010; may or may not be required to provide detectable warning surfaces on curb ramps between September 15, 2010 and March 14, 2012 depending on the accessibility standard they use (DOJ 1991 Standards or DOJ 2010 Standards); and are not required to provide detectable warning surfaces on curb ramps on or after March 15, 2012 pending the

future adoption of accessibility standards for pedestrian facilities in the public right-of-way by the Department of Justice.

Question 5 The Access Board seeks information on whether local transportation

Question 5. The Access Board seeks information on whether local transportation departments in Group 3 will continue or discontinue providing detectable warning surfaces on curb ramps in the public right-of-way pending the future adoption of accessibility standards for pedestrian facilities in the public right-of-way by the Department of Justice.

- Group 4 consists of state and local transportation departments that do not comply with accessibility standards for curb ramps in the public right-of-way. The Department of Justice and Federal Highway Administration have provided guidance on accessibility standards that apply to curb ramps in the public right-of-way, including the requirement for detectable warning surfaces.³¹ Despite the guidance provided by the Department of Justice and the Federal Highway Administration on the accessibility standards that apply to curb ramps in the public right-of-way, there may be state and local transportation departments that do not comply with the standards.

Question 6. Comments are requested on whether the future adoption of accessibility standards for pedestrian facilities in the public right of way by the Department of Justice and Department of Transportation in regulations implementing Title II of the Americans with Disabilities Act and Section 504 will have a positive or negative effect, or no effect on the compliance rates of state and local transportation departments, particularly with respect to providing detectable warning surfaces on curb ramps.

Question 7. The Access Board seeks information on the number of curb ramps that are constructed or altered on an annual basis in the public right-of-way by state and local transportation departments.

Costs to Provide Detectable Warning Surfaces on Curb Ramps

Detectable warning surfaces are available in a variety of materials. The Volpe Center gathered data from local transportation departments and vendors on various detectable warning materials and estimated the costs of 8 square feet of the materials for a typical curb ramp as shown in the table below. The estimates do not include installation costs.

Costs to Provide Detectable Warning Surfaces on Curb Ramps

Detectable Warning Surfaces	Materials Costs for Typical Curb Ramp
Concrete pavers	\$48 to \$80

Detectable Warning Surfaces	Materials Costs for Typical Curb Ramp
Polymer and composite materials	\$120 to \$200
Stainless steel or cast iron products	\$240

Question 8. The Access Board seeks additional information on the costs for detectable warning materials (8 square feet) and installation of the materials on a typical curb ramp.

Detectable Warning Surfaces on Boarding Platforms Used by Buses and Rail Vehicles, and Boarding and Alighting Areas Used by Rail Vehicles



The 1991 ADAAG and 2004 ADA and ABA Accessibility Guidelines contain a requirement for detectable warning surfaces on rail platforms.³² The proposed guidelines adapt this requirement to transit stops in the public right-of-way, and require detectable warning surfaces on boarding platforms at transit stops for buses and rail vehicles (i.e., raised platforms used for level boarding by bus rapid transit systems and light rail systems) and at boarding and alighting areas at sidewalk or street level transit stops for rail vehicles. Detectable warning surfaces are not required where the edges of the boarding platform or the boarding and alighting areas facing the rail vehicles are protected by screens or guards.

Durability and Maintenance of Detectable Warning Surfaces



Transportation officials who commented on the 2002 draft guidelines expressed concern about the durability and maintenance of detectable warning surfaces. The National Cooperative Highway Research Program (NCHRP) has conducted two studies on the durability and maintenance of detectable warning surfaces. The first study was completed in 2005 and reviewed performance information submitted by state and local transportation departments.³³ The performance information was limited in terms of the products reviewed and time period of review (about 2 years). The study noted that there were new promising detectable warning products on the market, and recommended that test methods be developed for evaluating the long-term performance and durability of the products. The second study was completed in 2010 and recommended procedures for testing and evaluating detectable warning products.³⁴ The test methods can be used by state and local transportation departments to select detectable warning products that will provide long-term performance and durability under different environmental conditions.

Many state and local transportation departments have evaluated and approved detectable warning products that are suited to their environments.

R209 Accessible Pedestrian Signals and Pedestrian Pushbuttons

An accessible pedestrian signal and pedestrian pushbutton is an integrated device that communicates information about the WALK and DON'T WALK intervals at signalized intersections in non-visual formats (i.e., audible tones and vibrotactile surfaces) to pedestrians who are blind or have low vision. The pedestrian pushbutton has a locator tone for detecting the device and a tactile arrow to indicate which pedestrian street crossing is served by the device. The MUTCD contains standards for accessible pedestrian signals and pedestrian pushbuttons, but does not require that they be provided. The proposed guidelines require accessible pedestrian signals and pedestrian pushbuttons to be provided when new pedestrian signals are installed. For existing pedestrian signals, the proposed guidelines require accessible pedestrian signals and pedestrian pushbuttons to be provided when the signal controller and software are altered, or the signal head is replaced. Accessible pedestrian signals and pedestrian pushbuttons must comply with the referenced standards in the MUTCD and the technical requirements for operable parts in Chapter R4. Technical assistance and training on the installation of accessible pedestrian signals and pedestrian pushbuttons is available from the Access Board and transportation industry professional associations.³⁵

Comments from Individuals Who Are Blind or Have Low Vision

The National Federation of the Blind was a member of the advisory committee that recommended the proposed guidelines, but filed a minority report recommending that state and local governments consult with the local blind community to determine whether to provide accessible pedestrian signals and pushbuttons on an intersection-by-intersection basis. Comments on the 2002 draft guidelines from individuals who identified themselves as blind or having low vision supported providing accessible pedestrian signals and pushbuttons at each signalized intersection where pedestrian signals are newly installed or replaced by a margin of 2:1.

Governmental Units Affected

The Transportation Equity Act for the 21st Century (TEA-21) directed that audible traffic

The Transportation Equity Act for the 21st Century (TEA 21) directed that audible traffic signals be included in transportation plans and projects where appropriate. See 23 U.S.C. 217 (g). Some state and local transportation departments currently provide accessible pedestrian signals and pedestrian pushbuttons when pedestrian signals are newly installed or replaced at signalized intersections. The requirement in the proposed guidelines for accessible pedestrian signals and pedestrian pushbuttons will have impacts on state and local transportation departments that do not currently provide accessible pedestrian signals and pedestrian pushbuttons when pedestrian signals are newly installed or replaced at signalized intersections.

Question 9. The Access Board seeks information on how many state and local transportation departments currently provide accessible pedestrian signals and pedestrian pushbuttons when pedestrian signals are newly installed or replaced at signalized intersections.

Costs to Provide Accessible Pedestrian Signals and Pedestrian Pushbuttons



The Volpe Center estimated the additional cost for an accessible pedestrian pushbutton compared to conventional pushbutton is \$350 per unit. For a typical intersection with four crosswalks, two accessible pedestrian pushbuttons would be required at each corner for a total of eight units per intersection and a total additional cost of \$2,800 for the eight units. The cost of the units is expected to decrease as a result of the proposed guidelines due to greater standardization of customer requirements and increased orders. The total additional cost to provide accessible pedestrian signals and pedestrian pushbuttons, including labor and other equipment such as stub poles and conduit, will vary by location. The Volpe Center estimated that the total additional costs are \$3,600 per intersection based on a published cost study and interviews with local transportation departments.

**Question 10.* *The Access Board seeks information from state and local transportation departments that currently provide accessible pedestrian signals and pedestrian pushbuttons on the additional costs to provide the accessible pedestrian signals and pedestrian pushbuttons.

The Volpe Center estimated that pedestrian signals are newly installed or replaced at 13,095 signalized intersections on an annual basis based on the following assumptions:

- There are over 300,000 existing signalized intersections in the United States using a rule-of-thumb of one signalized intersection per 1,000 population.³⁶
- There are 2,550 new signalized intersections in the United States each year based on

the US Census Bureau forecast of future population growth (0.85 percent).

- Ninety (90) percent of new and existing signalized intersections in the United States provide pedestrian signals.
- The life cycle or replacement rate for existing pedestrian signals is 25 years.

The Volpe Center estimated that the total annual costs are \$47 million for requiring accessible pedestrian signals and pedestrian pushbuttons when pedestrian signals are newly installed or replaced at signalized intersections.

Question 11. Comments are requested on the assumptions used to estimate the total annual costs for requiring accessible pedestrian signals and pushbuttons when pedestrian signals are newly installed or replaced at signalized intersections.

R210 Protruding Objects

Objects that protrude into pedestrian circulation paths can be hazardous for pedestrians, especially pedestrians who are blind or have low vision. Objects along or overhanging any portion of a pedestrian circulation path must comply with the technical requirements for protruding objects in Chapter R4. Objects also must not reduce the clear width required for pedestrian access routes. An advisory section provides examples of street furniture and other objects that must comply with these requirements, and notes that the AASHTO “Guide for the Planning, Design, and Operation of Pedestrian Facilities” recommends that local governments regulate the use of sidewalks by private entities for activities such as outdoor dining, vending carts and stands, and street fairs under an encroachment permit process that addresses accessibility, including protruding objects and maintaining the clear width of pedestrian access routes.

R211 Signs

Signs that provide directions, warnings, or other information for pedestrians only and signs that identify routes served by transit stops must comply with the technical requirements for visual characters in Chapter R4. An advisory section provides examples of signs that are required and are not required to comply with the technical requirements for visual characters in Chapter R4. Signs displaying the International Symbol of Accessibility must be provided at accessible parking spaces and accessible passenger loading zones.

The 2004 ADA and ABA Accessibility Guidelines contain similar requirements for transit signs (see 810.4 and 810.6). In the 2004 ADA and ABA Accessibility Guidelines, characters on bus route signs must comply with the technical requirements for character height “to the

maximum extent practicable.”³⁷ The phrase “to the maximum extent practicable” was intended to provide flexibility where there are restrictions on the size of signs. A similar provision is not included in the proposed guidelines because it is almost always practicable to comply with the technical requirements for character height.

Audible sign systems and other technologies are widely used today to transmit information and are more usable by pedestrians who are blind or have low vision.³⁸ Where audible sign systems and other technologies are used to transmit information equivalent to the information contained on signs, the signs are not required to comply with the technical requirements for visual characters in Chapter R4.

Question 12. The Access Board seeks information on technologies that are currently used or are under development to transmit information that is equivalent to the information contained on pedestrian signs and transit signs provided in the public right-of-way.

R212 Street Furniture

Drinking fountains, public toilet facilities, tables, and counters must comply with applicable requirements in the 2004 ADA and ABA Accessibility Guidelines. Where multiple single-user public toilet facilities are clustered at a single location, at least 5 percent, but no less than one, of the toilet facilities in each cluster must be accessible and identified by the International Symbol of Accessibility. At least 50 percent, but no less than one, of benches at each location must provide a clear space for a wheelchair adjacent to the bench. Benches at tables are not required to comply.

R213 Transit Stops and Transit Shelters

Transit stops and transit shelters must comply with the technical requirements for transit stops and transit shelters in Chapter R3. Transit stops in the public right-of-way typically serve fixed route bus systems, including bus rapid transit systems, and light rail transit systems. An advisory section notes that the Federal Highway Administration has issued guidance on the obligation of state and local transportation departments, metropolitan planning organizations, and transit agencies to coordinate the planning and funding of accessibility improvements to transit systems and facilities.

R214 On-Street Parking Spaces

Where on-street parking is provided on the block perimeter and the parking is marked or

where on-street parking is provided on the block perimeter and the parking is marked or metered, a minimum number of parking spaces must be accessible and comply with the technical requirements for parking spaces in Chapter R3. For every 25 parking spaces on the block perimeter up to 100 spaces, one parking space must be accessible. For every additional 50 parking spaces on the block perimeter between 101 and 200 spaces, an additional parking space must be accessible. Where more than 200 parking spaces are provided on the block perimeter, 4 percent of the parking spaces must be accessible. Metered parking includes parking metered by parking pay stations. Where parking is metered by parking pay stations and the parking is not marked, each 6.1 meters (20 feet) of the block perimeter where parking is permitted is counted as one parking space for determining the minimum number of accessible parking spaces.

R215 Passenger Loading Zones

Where passenger loading zones are provided, at least one passenger loading zone for each 30 meters (100 feet) of continuous loading zone space or fraction thereof must be accessible and comply with the technical requirements for passenger loading zones in Chapter R3.

R216 Stairways and Escalators

Stairways on pedestrian circulation paths must comply with technical requirements for stairways in Chapter R4. Escalators on pedestrian circulation paths must comply with the applicable technical requirements in the 2004 ADA and ABA Accessibility Guidelines. Stairways and escalators cannot be part of a pedestrian access route.

R217 Handrails

Handrails are not required on pedestrian circulation paths. However, if handrails are provided on pedestrian circulation paths, the handrails must comply with the technical requirements for handrails in Chapter R4.

R218 Doors, Doorways, and Gates

Doors, doorways, and gates to pedestrian facilities such as transit shelters must comply with applicable technical requirements in the 2004 ADA and ABA Accessibility Guidelines.

Chapter R3: Technical Requirements

Technical requirements specify what design criteria elements, spaces, and facilities must comply with in order to be considered accessible.

R301 General

The technical requirements in Chapter R3 apply where required by the scoping requirements in Chapter R2, or where referenced by another technical requirement in Chapters R3 or R4.

R302 Pedestrian Access Routes

General (R302.1)

The technical requirements for pedestrian access routes are contained in R302, and adapt the technical requirements for accessible routes in the 2004 ADA and ABA Accessibility Guidelines to the public right-of-way. In alterations where existing physical constraints make it impractical to fully comply with the technical requirements, compliance is required to the extent practicable within the scope of the project (see R202.3.1).

Components (R302.2)

The components of pedestrian access routes and the technical requirements for each component are listed in R302.2. Sidewalks and other pedestrian circulation paths, pedestrian street crossings, and pedestrian overpasses and underpasses and similar structures must comply with all the technical requirements in R302.3 through R302.7. Curb ramps and blended transitions must comply with the technical requirements in R302.7 and R304. Ramps must comply with the technical requirements in R407. Elevators, limited use/limited application elevators, platform lifts, and doors, doorways, and gates must comply with applicable technical requirements in the 2004 ADA and ABA Accessibility Guidelines.

Continuous Width (R302.3)

The continuous clear width of pedestrian access routes (exclusive of the width of the curb)

The continuous clear width of pedestrian access routes (exclusive of the width of the curb), must be 1.2 meters (4 feet) minimum, except for medians and pedestrian refuge islands where the clear width must be 1.5 meters (5 feet) minimum in order to allow for passing space. The AASHTO “Guide for the Planning, Design, and Operation of Pedestrian Facilities” recommends that sidewalks be wider than 1.2 meters (4 feet), particularly in urban areas. Where sidewalks are wider than 1.2 meters (4 feet), only a portion of the sidewalk is required to comply with the technical requirements in R302.3 through R302.7.

The advisory committee recommended a minimum width of 1.5 meters (5 feet) for pedestrian access routes. The proposed guidelines specify a minimum width of 1.2 meters (4 feet) in order to allow for street furniture and other objects that may be located on sidewalks. R210 prohibits street furniture and other objects from reducing the clear width required for pedestrian access routes. A minimum width of 1.2 meters (4 feet) will accommodate turns at intersections and building entrances. Advisory information recommends additional maneuvering clearance at turns or changes in direction, recesses and alcoves, building entrances, and along curved or angled routes, particularly where the grade exceeds 5 percent.

Passing Spaces (R302.4)

Where the clear width of pedestrian access routes is less than 1.5 meters (5 feet), passing spaces must be provided at intervals of 61 meters (200 feet) maximum. Passing spaces must be 1.5 meters (5 feet) minimum by 1.5 meters (5 feet) minimum. Passing spaces are permitted to overlap pedestrian access routes.

Grade (R302.5)

Grade is the slope parallel to the direction of pedestrian travel. Grade is calculated by dividing the vertical change in elevation by the horizontal distance covered, and is expressed as a percent. Where pedestrian access routes are contained within a street or highway right-of-way, the grade of the pedestrian access route is permitted to equal the general grade established for the adjacent street or highway, except that where pedestrian access routes are contained within pedestrian street crossings a maximum grade of 5 percent is required. This is consistent with the AASHTO “Policy on Geometric Design of Highways and Streets” which recommends that the sidewalk grade follow the grade of adjacent roadways, and also recommends maximum cross slopes for roadways. Where pedestrian access routes are not contained within a street or highway right-of-way, a maximum grade of 5 percent is required.

Cross Slope (R302.6)

Cross slope is the slope perpendicular to the direction of pedestrian travel (see R105.5). On a sidewalk, cross slope is measured perpendicular to the curb line or edge of the street or highway. Cross slope impedes travel by pedestrians who use wheeled mobility devices since energy must be expended to counteract the perpendicular force of the cross slope. Cross slope makes it more difficult for pedestrians who use wheelchairs to travel on uphill slopes and to maintain balance and control on downhill slopes. Cross slope also negatively affects pedestrians who use braces, lower limb prostheses, crutches, or walkers, as well as pedestrians who have gait, balance, or stamina impairments. The maximum cross slope permitted on accessible routes in the 2004 ADA and ABA Accessibility Guidelines is 2 percent. In exterior environments, a maximum cross slope of 2 percent is generally accepted as adequate to allow water to drain off paved walking surfaces.

A maximum cross slope of 2 percent is specified for pedestrian access routes, except for pedestrian access routes contained within certain pedestrian street crossings in order to allow for typical roadway geometry. A 5 percent maximum cross slope is specified for pedestrian access routes contained within pedestrian street crossings without yield or stop control to avoid any unintended negative impacts on the control and safety of vehicles, their occupants, and pedestrians in the vicinity of the intersection. Pedestrian street crossings without yield or stop control are crossings where there is no yield or stop sign, or where there is a traffic signal that is designed for the green phase. At pedestrian street crossings without yield or stop control vehicles can proceed through the intersection without slowing or stopping. The cross slope of pedestrian access routes contained within midblock pedestrian street crossings is permitted to equal the street or highway grade.

Question 13. Comments are requested on whether the description of pedestrian street crossings without yield or stop control is clear, or whether there is a better way to describe such crossings?

In new construction, where pedestrian access routes within sidewalks intersect at corners, the 2 percent maximum cross slope requirement will result in level corners (i.e., the slope at the corners will not exceed 2 percent in each direction of pedestrian travel). The level corners will provide a platform for providing level spaces for curb ramps and blended transitions, pedestrian street crossings, and accessible pedestrian signals and pedestrian pushbuttons.

Newly Constructed Tabled Intersections That Contain Pedestrian Street Crossings With Yield or Stop Control



The 2 percent maximum cross slope requirement applies to pedestrian access routes within pedestrian street crossings with yield or stop control where vehicles slow or stop before proceeding through the intersection. The cross slope of the pedestrian access route within the pedestrian street crossing is the longitudinal grade of the street being crossed, and the 2 percent maximum cross slope requirement will impact the vertical alignment of streets in the vicinity of the intersection. In new construction, street intersections in hilly urban areas are typically cut-and filled to produce relative flat or tabled intersections. Where pedestrian street crossings with yield or stop control are provided at newly constructed tabled intersections, the tabling would be extended to the pedestrian street crossings to comply with the 2 percent maximum cross slope for pedestrian access routes within the pedestrian street crossings.

Question 14. The Access Board seeks information on the current design policies and practices of state and local transportation departments with respect to tabling newly constructed intersections in hilly urban areas, and particularly whether the tabling is extended to pedestrian street crossings with yield or stop control.

In new construction, extending the tabling of intersections to pedestrian street crossings with yield or stop control involves additional costs for site preparation, grading, and earthwork. The Volpe Center roughly estimated the additional costs to extend the tabling to pedestrian street crossings with yield or stop control to be \$60,000 per intersection based on information provided by a transportation official to the Access Board. The costs will vary by site.

Question 15. The Access Board seeks information on the additional costs to extend the tabling of newly constructed intersections in hilly urban areas to pedestrian street crossings with yield or stop control.

Question 16. The Access Board seeks information on number of tabled intersections which contain pedestrian street crossings with yield or stop control that are newly constructed in hilly urban areas on an annual basis by state and local transportation departments.

Surfaces (R302.7)

The proposed technical requirements for surfaces apply to pedestrian access routes

The proposed technical requirements for surfaces apply to pedestrian access routes, including curb ramps and blended transitions, and accessible elements and spaces that connect to pedestrian access routes. An advisory section lists the accessible elements and spaces that connect to pedestrian access routes and are required to comply with the technical requirements for surfaces.

The surfaces of pedestrian access routes and the surfaces at accessible elements and spaces that connect to pedestrian access routes must be firm, stable, and slip resistant. Vertical alignment of surfaces within pedestrian access routes (including curb ramp runs, blended transitions, turning spaces, and gutter areas within pedestrian access routes) and within the surfaces at accessible elements and spaces that connect to pedestrian access routes must be generally planar. Grade breaks (i.e., the line where two surface planes with different grades meet, see R105.5) must be flush. Where pedestrian access routes cross rails at grade, the pedestrian access route must be level and flush with the top of the rail at the outer edges of the rails, and the surfaces between the rails must be aligned with the top of the rail.

Vertical surface discontinuities (i.e., vertical difference in level between two adjacent surfaces, see R105.5) must be 13 millimeters (0.5 inch) maximum. Vertical surface discontinuities between 6.4 millimeters (0.25 inch) and 13 millimeters (0.5 inch) must be beveled with a slope not steeper than 50 percent, and the bevel must be applied across the entire vertical surface discontinuity. Horizontal openings in gratings and joints must not permit the passage of a sphere more than 13 millimeters (0.5 inch) in diameter. Elongated openings in gratings must be placed so that the long dimension is perpendicular to the dominant direction of travel.

Flangeway gaps at pedestrian at-grade rail crossings must be 64 millimeters (2.5 inches) maximum on non-freight rail track, and 75 millimeters (3 inches) maximum on freight rail track. These are the typical gaps required to allow passage of train wheel flanges. The flangeway gaps are wider than the maximum gap allowed for horizontal openings in other surfaces. These wider flangeway gaps pose a potential safety hazard to pedestrians who use wheelchairs because the gap can entrap the wheelchair casters.³⁹ The Federal Railroad Administration is sponsoring research to develop materials or devices that will fill the flangeway gap under light loads of a wheelchair but will compress or retract when a train wheel flange passes over it.⁴⁰ The materials or devices will be tested under heavy and light train loads for safety, effectiveness, durability, and cost.

Question 17. The Access Board seeks information on materials and devices that fill the flangeway gap, and any related research and sources of expertise.

R303 Alternate Pedestrian Access Routes (See R205)

In the 2005 draft of the proposed guidelines, the technical requirements for alternate pedestrian access routes were contained in Chapter R3. The proposed guidelines reference MUTCD standards for alternate pedestrian access routes in the scoping requirements at R205. This section heading is included in Chapter R3 of the proposed guidelines to notify readers who were familiar with the 2005 draft of the proposed guidelines where to find the requirements for alternate pedestrian access routes. This section heading will not be included in the final guidelines.

R304 Curb Ramps and Blended Transitions

General (R304.1)

Curb ramps are ramps that are cut through or built up to the curb (see R105.5). Curb ramps can be perpendicular or parallel, or a combination of parallel and perpendicular ramps. Blended transitions are raised pedestrian street crossings, depressed corners, or similar connections between the pedestrian access route at the level of the sidewalk and the level of the pedestrian street crossing that have a grade of 5 percent or less (see R105.5).

The technical requirements for curb ramps and blended transitions are contained in R304 and adapt the technical requirements for curb ramps in the 2004 ADA and ABA Accessibility Guidelines to the public right-of-way. In alterations where existing physical constraints make it impractical to fully comply with the technical requirements, compliance is required to the extent practicable within the scope of the project (see R202.3.1).

Perpendicular Curb Ramps (R304.2)

Perpendicular curb ramps have a running slope that cuts through or is built up to the curb at right angles or meets the gutter grade break at right angles where the curb is curved. On corners with a large curb radius, it will be necessary to indent the gutter grade break on one side of the curb ramp in order for the curb ramp to meet the gutter grade break at right angles.

A turning space must be provided at the top of perpendicular curb ramps. The turning space must be 1.2 meters (4 feet) minimum by 1.2 meters (4 feet) minimum, and is permitted to overlap other turning spaces and clear spaces. Where the turning space is

constrained at the back of the sidewalk, the turning space must be 1.2 meters (4 feet) minimum by 1.5 meters (5 feet) minimum, with the 1.5 meters (5 feet) dimension provided in the direction of the ramp run.

A minimum running slope of 5 percent and a maximum running slope of 8.3 percent are specified for perpendicular curb ramps, and the ramp length is limited to 4.5 meters (15 feet). A maximum running slope of 2 percent is specified for the turning space at the top of the curb ramp. The running slope is measured parallel to the direction of pedestrian travel.

A maximum slope of 10 percent is specified for the flared sides of perpendicular curb ramps where a pedestrian circulation path crosses the curb ramp. The flared sides are part of the pedestrian circulation path, but are not part of the pedestrian access route. The slope of the flared sides is measured parallel to the curb line. The 10 percent maximum slope for the flared sides is the same as in the 2004 ADA and ABA Accessibility Guidelines (see 403.6). Transportation officials have reported that the 10 percent maximum slope for the flared sides can make it difficult to provide two perpendicular curb ramps at some street corners due to the width of the flared sides at the base of the curb ramp. The Access Board is considering increasing the maximum slope for the flared sides to 12.5 percent or 16.7 percent to address this issue.

Question 18. Comments are requested on whether the maximum slope for the flared sides of perpendicular curb ramps should be increased from 10 percent to 12.5 percent or 16.7 percent, and what impact such a change would have on providing two perpendicular curb ramps at street corners. Comments are also requested on any public safety issues that may arise from increasing the maximum slope for the flared sides from 10 percent to 12.5 percent or 16.7 percent.

Parallel Curb Ramps (R304.3)

Parallel curb ramps have a running slope that is in-line with the direction of sidewalk travel and lower the sidewalk to a level turning space where a turn is made to enter the pedestrian street crossing.

A turning space must be provided at the bottom of parallel curb ramps. The turning space must be 1.2 meters (4 feet) minimum by 1.2 meters (4 feet) minimum, and is permitted to overlap other turning spaces and clear spaces. Where the turning space is constrained on two or more sides, the turning space must be 1.2 meters (4 feet) minimum by 1.5 meters (5 feet) minimum, with the 1.5 meters (5 feet) dimension provided in the direction of the pedestrian street crossing.

A minimum running slope of 5 percent and a maximum running slope of 8.3 percent are specified for parallel curb ramps, and the ramp length is limited to 4.5 meters (15 feet). A maximum running slope of 2 percent is specified for the turning space at the bottom of the curb ramp. The running slope is measured parallel to the direction of pedestrian travel.

Blended Transitions (R304.4)

A maximum running slope of 5 percent is specified for blended transitions. The running slope is measured parallel to the direction of pedestrian travel.

Common Requirements (R304.5)

The clear width of curb ramp runs (excluding flared sides), blended transitions, and turning spaces must be 1.2 meters (4 feet) minimum. Grade breaks at the top and bottom of curb ramp runs must be perpendicular to the direction of the ramp run. Grade breaks are not permitted on the surface of ramp runs and turning spaces. Surface slopes that meet at grade breaks must be flush. A maximum cross slope of 2 percent is specified for curb ramps, blended transitions, and turning spaces. At pedestrian street crossings without yield or stop control and at midblock pedestrian street crossings, the cross slope is permitted to equal the street or highway grade. The cross slope is measured perpendicular to the direction of pedestrian travel. A maximum counter slope of 5 percent is specified for the gutter or street at the foot of curb ramp runs, blended transitions, and turning spaces. A clear space must be provided beyond the bottom of the grade break that is within the width of the pedestrian street crossing and wholly outside the parallel vehicle traffic lane. The clear space must be 1.2 meters (4 feet) minimum by 1.2 meters (4 feet) minimum.

R305 Detectable Warning Surfaces

Detectable warning surfaces consist of truncated domes aligned in a square or radial grid pattern. The dimensions for dome size and dome spacing are the same as in the 2004 ADA and ABA Accessibility Guidelines. The detectable warning surfaces must contrast visually with adjacent gutter, street or highway, or pedestrian access route surface, either light-on-dark or dark-on-light. The detectable warning surfaces must extend 610 millimeters (2 feet) minimum in the direction of pedestrian travel. At curb ramps and blended transitions, detectable warning surfaces must extend the full width of the ramp run (excluding flared sides), blended transition, or turning space. At pedestrian at-grade rail crossings not

located within a street or highway, detectable warning surfaces must extend the full width of the crossing. At boarding platforms for buses and rail vehicles, detectable warning surfaces must extend the full length of the public use areas of the platform. At boarding and alighting areas at sidewalk or street level transit stops for rail vehicles, detectable warning surfaces must extend the full length of the transit stop. The proposed technical requirements specify where detectable warning surfaces must be placed on perpendicular curb ramps, parallel curb ramps, blended transitions, pedestrian refuge islands, pedestrian at-grade rail crossings, boarding platforms for buses and rail vehicles, and boarding and alighting areas at sidewalk or street level transit stops for rail vehicles.

R306 Pedestrian Street Crossings

The technical requirements in R306 address pedestrian signal phase timing and pedestrian street crossings at roundabouts and multi-lane channelized turn lanes.

Pedestrian Signal Phase Timing

Pedestrian signal phase timing must comply with referenced MUTCD standards and use a pedestrian clearance time that is calculated based on pedestrian walking speed of 1.1 meters/second (3.5 feet/second) or less.

Roundabouts

A roundabout is a circular intersection with yield control at entry, which permits a vehicle on the circulatory roadway to proceed, and with deflection of the approaching vehicle counter-clockwise around a central island (MUTCD section 1A.13). Pedestrian street crossings at roundabouts can be difficult for pedestrians who are blind or have low vision to identify because the crossings are located off to the side of the pedestrian circulation path around the street or highway. Where sidewalks are flush against the curb at roundabouts and pedestrian street crossing is not intended, a continuous and detectable edge treatment must be provided along the street side of the sidewalk at roundabouts. Detectable warning surfaces must not be used for edge treatment. Where chains, fencing, or railings are used for edge protection, the bottom edge of the treatment must be 380 millimeters (15 inches) maximum above the sidewalk to be detectable by cane.

The continuous traffic flow at roundabouts removes many of the audible cues that pedestrians who are blind use to navigate pedestrian street crossings. At roundabouts with multi-lane pedestrian street crossings, a pedestrian activated signal must be provided for

each multilane segment of each crossing, including the splitter island (i.e., median island used to separate opposing directions of traffic entering and exiting a roundabout, MUTCD section 1A.13). Transportation officials who commented on the 2002 draft guidelines expressed concern that signalization of roundabouts would interfere with the flow of traffic at roundabout intersections. Pedestrian Hybrid Beacons can be used at roundabouts. See MUTCD sections 4F.01 through 4F.03. Pedestrian Hybrid Beacons are traffic signals that consist of a yellow signal centered below two horizontally aligned red signals. The signals are normally dark (i.e., not illuminated). The signals are initiated only upon pedestrian activation and can be timed to minimize the interruption of traffic. The signals cease operation after the pedestrian clears the crosswalk. When activated by a pedestrian, the following signals are displayed to drivers: a flashing yellow signal, then a steady yellow signal, then two steady red signals during the pedestrian walk interval, and then alternating flashing red signals during the pedestrian clearance interval. The following signals are displayed to pedestrians: a steady upraised hand (symbolizing DON'T WALK) when the flashing or steady yellow signal is operating, then a walking person (symbolizing WALK) when the steady red signals are operating, and then a flashing upraised hand (symbolizing DON'T WALK) when the alternating flashing red signals are operating. Transportation officials may request permission from the Federal Highway Administration to experiment with alternative signals at roundabouts (see MUTCD section 1A.10).⁴¹

Multi-Lane Channelized Turn Lanes

Pedestrian activated signals must be provided at pedestrian street crossings at multi-lane channelized turn lanes at roundabouts and other signalized intersections. The pedestrian activated signals must comply with MUTCD standards for accessible pedestrian signals and pedestrian pushbuttons.

Governmental Units Affected

The requirement for pedestrian activated signals at roundabouts with multi-lane pedestrian street crossings will affect state and local transportation departments that construct new roundabouts with multi-lane pedestrian street crossings. The Volpe Center estimated that state and local transportation departments construct 27 new roundabouts with multi-lane pedestrian street crossings on an annual basis.⁴²

Costs to Provide Pedestrian Activated Signals at Roundabouts with Multi-Lane Pedestrian Street Crossings

The Volpe Center estimated the cost to provide pedestrian activated signals at new

The report also estimated the cost to provide pedestrian activated signals at new roundabouts with multi-lane pedestrian street crossings to range from \$90,000 to \$230,000 per roundabout, and the total annual costs for requiring pedestrian activated signals at new roundabouts with multi-lane pedestrian street crossings to range from \$2.4 million to \$6.2 million.

Question 19. The Access Board seeks additional information on the number of roundabouts with multi-lane pedestrian street crossings that are newly constructed on an annual basis by state and local transportation departments, and the costs to provide pedestrian activated signals at newly constructed roundabouts with multi-lane pedestrian street crossings.

R307 Accessible Pedestrian Signals and Pedestrian Pushbuttons (See R209)



In the 2005 draft of the proposed guidelines, the technical requirements for accessible pedestrian signals and pedestrian pushbuttons were contained in Chapter R3. The proposed guidelines reference MUTCD standards for accessible pedestrian signals and pedestrian pushbuttons in the scoping requirements at R209. This section heading is included in Chapter R3 of the proposed guidelines to notify readers who were familiar with the 2005 draft of the proposed guidelines where to find the requirements for accessible pedestrian signals and pedestrian pushbuttons. This section heading will not be included in the final guidelines.

R308 Transit Stops and Transit Shelters



The technical requirements for transit stops and transit shelters are contained in R308 and adapt the technical requirements for transit facilities in the 2004 ADA and ABA Accessibility Guidelines to the public right-of-way.

Transit Stops (R308.1)



Boarding and alighting areas at sidewalk or street level transit stops must be 2.4 meters (8 feet) minimum measured perpendicular to the street or highway, and 1.5 meters (5 feet)

minimum measured parallel to the street or highway. The grade of the boarding and alighting area parallel to the street or highway must be equal to street or highway grade to the extent practicable. The grade of the boarding and alighting area perpendicular to the

street or highway must not exceed 2 percent. Where transit stops serve vehicles with more than one car, boarding and alighting areas serving each car must comply with these requirements.

Boarding platforms at transit stops must be positioned to coordinate with vehicles to minimize the vertical and horizontal gaps. The slope of boarding platforms must not exceed 2 percent in any direction. Where boarding platforms serve vehicles operating on existing track or existing street or highway, the slope of the platform parallel to the track or street or highway is permitted to equal the grade of the track or street or highway.

The surfaces of boarding and alighting areas and boarding platforms must comply with the technical requirements for surfaces (see R302.7). Boarding and alighting areas and boarding platforms must be connected to streets, sidewalks, or pedestrian circulation paths by a pedestrian access route.

Transit Shelters (R308.2)

Transit shelters must be connected by a pedestrian access route to boarding and alighting areas or boarding platforms. A clear space (see R404) must be provided entirely within the transit shelter. Where seating is provided within transit shelters, the clear space must be located either at the end of a seat, or not overlap the area within 460 millimeters (1.5 feet) from the front edge of the seat in order to not interfere with others using the seating. Environmental controls within transit shelters must be proximity actuated. Protruding objects within transit shelters must comply with the technical requirements for protruding objects (see R402).

The Access Board is considering whether to require a turning space in transit shelters. Transit shelter designs vary. Some transit shelters are enclosed on three or four sides, with an opening for ingress and egress. The turning space would be based on the 2004 ADA and ABA Accessibility Guidelines (see 304.3).⁴³ The turning space would be permitted to overlap the clear space within the transit shelter and the pedestrian access route, but would not be permitted to overlap the area within 460 millimeters (1.5 feet) from the front edge of seats in the transit shelter in order to not interfere with others using the seating. The portion of the turning space that does not overlap the clear space would be permitted to be outside the transit shelter.

Question 20. Comments are requested on whether a turning space should be required in transit shelters and what impact such a requirement would have on the design and placement of transit shelters?

R309 On-Street Parking Spaces [↗](#)

General (R309.1) [↗](#)

The technical requirements for accessible on-street parking spaces are contained in R309 and adapt the technical requirements for accessible parking spaces in the 2004 ADA and ABA Accessibility Guidelines to the public right-of-way.

Parallel Parking Spaces (R309.2) [↗](#)

Where the adjacent sidewalk or available right-of-way is more than 4.3 meters (14 feet) wide, an access aisle must be provided at street level for the entire length of each accessible parallel parking space. The access aisle must be 1.5 meters (5 feet) wide minimum and connect to a pedestrian access route. The access aisle must not encroach on the vehicular travel lane and comply with the technical requirements for surfaces (see R302.7). In alterations where the street or sidewalk adjacent to the parking spaces is not altered, an access aisle is not required provided the parking spaces are located at the end of the block face.

Where the adjacent sidewalk or available right-of-way is less than or equal to 4.3 meters (14 feet) wide, an access aisle is not required, but accessible parallel parking spaces must be located at the end of the block face.

Perpendicular and Angled Parking Spaces (R309.3) [↗](#)

An access aisle must be provided at street level for the entire length of each accessible perpendicular or angled parking space. The access aisle must be 2.4 meters (8 feet) wide minimum to accommodate vans with lifts, and connect to a pedestrian access route. Two accessible parking spaces are permitted to share a common access aisle. The access aisle must be marked to discourage parking in the aisle and comply with the technical requirements for surfaces (see R302.7).

Curb Ramps and Blended Transitions (R309.4) [↗](#)

Curb ramps or blended transitions must connect the access aisle serving each accessible

Curb ramps or blended transitions must connect the access aisle serving each accessible on-street parking space to the pedestrian access route. Curb ramps are not permitted within the access aisle. Parking spaces at the end of block face can be served by curb ramps or blended transitions at the pedestrian street crossing. Detectable warning surfaces are not required on curb ramps and blended transitions that connect the access aisle to the sidewalk, including where the sidewalk is at the same level as the parking spaces, unless the curb ramps and blended transitions also serve pedestrian street crossings.

Parking Meters and Parking Pay Stations (R309.5)

Operable parts of parking meters and parking pay stations that serve accessible on-street parking spaces must comply with technical requirements for operable parts in Chapter R4. Displays and information must be visible from a point located 1 meter (3.3 feet) maximum above the center of the clear space in front of the parking meter or parking pay station. At accessible parallel parking spaces, parking meters must be located at the head or foot of the space.

R310 Passenger Loading Zones

The technical requirements for accessible passenger loading zones are the same as in the 2004 ADA and ABA Accessibility Guidelines. A vehicular pull-up space 2.4 meters (8 feet) wide minimum and 6.1 meters (20 feet) long minimum must be provided at accessible passenger loading zones. An access aisle must be provided at the same level as the vehicle pull-up space. The access aisle must be 1.5 meters (5 feet) wide minimum, extend the entire length of the vehicle pull-up space, and connect to the pedestrian access route. The access aisle must be marked to discourage parking in the aisle and comply with the technical requirements for surfaces (see R302.7).

Chapter R4: Supplementary Technical Requirements

Chapter R4 contains supplementary technical requirements that are the same as in the 2004 ADA and ABA Accessibility Guidelines unless otherwise noted below.

R401 General

The supplementary technical requirements in Chapter R4 apply where required by scoping

The supplementary technical requirements in Chapter R4 apply where required by scoping requirements in Chapter R2, or where referenced by another technical requirement in Chapters R3 or R4.

R402 Protruding Objects

Objects with leading edges between 685 millimeters (2.25 feet) and 2 meters (6.7 feet) above the finish surface must not protrude into pedestrian circulation paths more than 100 millimeters (4 inches). Post-mounted objects such as signs that are between 685 millimeters (2.25 feet) and 2 meters (6.7 feet) above the finish surface must not overhang pedestrian circulation paths more than 100 millimeters (4 inches) measured horizontally from the base of the post. The post base must be 64 millimeters (2.5 inches) thick minimum. Where objects are mounted between posts and the clear distance between the posts is more than 305 millimeters (1 foot), the lowest edge of the object must be 685 millimeters (2.25 feet) minimum or 2 meters (6.7 feet) maximum above the finish surface. The requirement for post-mounted objects differs from the 2004 ADA and ABA Accessibility Guidelines but is consistent with the MUTCD which requires the bottom of signs installed on the sidewalk to be 7 feet minimum above the sidewalk, and the bottom of secondary signs (i.e., signs mounted below another sign) that are lower than 7 feet above the sidewalk to project not more than 4 inches into the sidewalk (see MUTCD section 2A.18).

Guardrails or other barriers to pedestrian travel must be provided where the vertical clearance on pedestrian circulation paths is less than 2 meters (6.7 feet) high. The leading edge of the guardrail or barrier must be 685 millimeters (2.25 feet) maximum above the finish surface.

R403 Operable Parts

An operable part is a component of an element used to insert or withdraw objects, or to activate, deactivate, or adjust the element (see R105.5). The technical requirements for operable parts apply to operable parts on accessible pedestrian signals and pedestrian pushbuttons (see R209) and parking meters and parking pay stations that serve accessible parking spaces (see R309.5). A clear space must be provided at operable parts (see R404). Operable parts must be located within the reach ranges (see R406). Operable parts must be

operable with one hand and not require tight grasping, pinching, or twisting of the wrist. The force required to activate operable parts must be no more than 22 newtons (5 pounds).

R404 Clear Spaces

Clear spaces are required at operable parts (see R403.2), including accessible pedestrian signals and pedestrian pushbuttons (see R209) and parking meters and parking pay stations that serve accessible parking spaces (see R309.5). Clear spaces are also required at benches (see R212.6) and within transit shelters (see R308.2). Clear spaces must be 760 millimeters (2.5 feet) minimum by 1220 millimeters (4 feet) minimum. Additional maneuvering space must be provided where an element is confined on all or part of three sides. Clear spaces are permitted to include knee and toe clearance and to be positioned for either forward or parallel approach to an element, unless another requirement specifies otherwise. The running slope of clear spaces is permitted to be consistent with the grade of the adjacent pedestrian access route. This requirement differs from the 2004 ADA and ABA Accessibility Guidelines which does not permit slopes steeper than 2 percent at clear spaces. A 2 percent maximum cross slope is specified for clear spaces. Clear spaces must comply with the technical requirements for surfaces (see R302.7).

R405 Knee and Toe Clearance

The technical requirements for knee and toe clearance apply where space beneath an element is included as part of the clear space.

R406 Reach Ranges

Forward and side reach ranges must be between 380 millimeters (1.25 feet) and 1220 millimeters (4 feet) above the finish surface. The requirements for reach ranges differ from the 2004 ADA and ABA Accessibility Guidelines in that forward reach over an obstruction is not permitted, and side reach over an obstruction is permitted where the depth of the obstruction between the clear space and the element is 225 millimeters (10 inches) maximum.

R407 Ramps

R408 Stairways

R409 Handrails

R410 Visual Characters on Signs

R4.10 Visual Characters on Signs

R4.11 International Symbol of Accessibility

The technical requirements ramps, stairways, handrails, visual characters on signs, and the International Symbol of Accessibility are the same as in the 2004 ADA and ABA Accessibility Guidelines.

Other Issues

Rollability and Smoothness of Walking Surfaces

Rollability refers to the ease and comfort with which pedestrians using wheelchairs and other wheeled mobility devices can travel on walking surfaces. Rough or jointed walking surfaces can cause pedestrians using wheelchairs and other wheeled mobility devices to expend extra energy or pushing effort that makes it more difficult for them to use the walking surface, and the resulting surface vibration can cause discomfort or pain that may prevent them from using the walking surface all together. There are smoothness measures for road surfaces but no similar measures for walking surfaces. The Access Board is sponsoring preliminary research that will produce a plan for a test protocol and instrumentation to measure the rollability and smoothness of walking surfaces and to establish an index of surface vibration.

Question 21. The Access Board seeks information on related research and sources of expertise on measuring the rollability and smoothness of walking surfaces, including information from the medical community on the effects of surface vibration on individuals with disabilities.

Shared Streets

A shared street is a common space designed for use by pedestrians, bicyclists, and vehicles.⁴⁴ Shared streets typically do not have curbs and delineated sidewalks. Vehicles typically travel at low speeds on shared streets. Trees, planters, parking areas, and other obstacles may be placed on shared streets to slow vehicles. Shared streets can be in a

commercial area or residential area. Shared streets are difficult for pedestrians who are blind or have low vision to navigate because of the absence of curbs and clearly delineated sidewalks.⁴⁵ The Pedestrian Accessibility and Movement Environment Laboratory at

University College London has conducted limited research on the use of tactile surfaces to delineate the space on shared streets that is to be used exclusively by pedestrians, and not vehicles.⁴⁶ The tactile surfaces tested included raised truncated domes that, in the United States, are used as detectable warning surfaces on curb ramps and blended transitions to indicate the boundary between the pedestrian route and the vehicular route at pedestrian street crossings. Using detectable warning surfaces to facilitate wayfinding along shared streets would be expanding the use of such surfaces.

Question 22. The Access Board seeks information on the design of shared streets in the United States, and whether tactile surfaces or other design features are used to facilitate wayfinding along shared streets. The Access Board also seeks information about other research that is planned or underway on the use of tactile surfaces or other design features to facilitate wayfinding along shared streets.

Regulatory Process Matters

Executive Orders 12866 and 13563

The Office of Management and Budget has reviewed this proposed rule pursuant to Executive Orders 12866 and 13563.⁴⁷ The Access Board prepared a regulatory assessment of the potential costs and benefits of the proposed rule. The regulatory assessment is available on the Access Board website at: <http://www.access-board.gov/prowag/index.htm>, and is also available in the regulatory docket at <http://www.regulations.gov>. The information in the regulatory assessment is discussed in the preamble under Impacts on State and Local Governments and under the relevant requirements in the Section-by-Section Analysis. The information in the regulatory assessment is also summarized in the tables below, As indicated in the tables below, the regulatory assessment does not include estimates of the total annual costs for two of the requirements in the proposed guidelines that will have more than minimal impacts because information is not available to estimate the costs. Questions are included in the preamble seeking additional information to assist the Board to estimate the total annual costs of these two requirements and to refine the cost estimates for the other requirements in the proposed guidelines. Consequently, the Access Board has not determined whether the proposed guidelines are an economically significant regulatory action.⁴⁸ The Access Board will analyze the information received in response to the questions in the preamble. When the final guidelines are issued, the Access

Board will revise the regulatory assessment and determine whether the guidelines are an economically significant regulatory action.

Baseline

All state transportation departments and most local transportation departments maintain design manuals and standard drawings for improvements in the public right-of-way. The local transportation department design manuals and standard drawings are generally consistent with their state transportation department design manuals and standard drawings. State and local transportation departments use publications issued by the American Association of State and Highway Transportation Officials (AASHTO) in their design manuals and standard drawings, including the “Policy on Geometric Design of Highways and Streets” (2004) (commonly referred to as the “AASHTO Green Book”) and the “Guide for the Planning, Design, and Operation of Pedestrian Facilities” (2004) which incorporate accessibility in the design of sidewalks and other pedestrian facilities.⁴⁹ The Federal Highway Administration as part of its stewardship and oversight responsibilities has also worked with state transportation departments to incorporate accessibility in their design manuals and standards drawings. The Federal Highway Administration has issued guidance that the accessibility standards in the Department of Justice regulations implementing Title II of the Americans with Disabilities Act and the Department of Transportation regulations implementing Section 504 are to be used to the extent feasible for the design of pedestrian facilities in the public right-of-way until new accessibility standards are adopted for these facilities.

In the absence of the proposed guidelines, the regulatory assessment assumes that state and local transportation departments will use the DOJ 2010 Standards in the Department of Justice regulations implementing Title II of the Americans with Disabilities Act to the extent feasible when designing, constructing, or altering pedestrian facilities in the public right-of-way, consistent with the guidance issued by the Federal Highway Administration, as well as other applicable standards and industry practices. An analysis of the proposed guidelines compared to the DOJ 2010 Standards, other applicable standards, and industry practices is included in the appendix to the regulatory assessment. The analysis identified four requirements in the proposed guidelines that will have more than minimal impacts on state and local transportation departments. The factors used to identify whether the requirements in the proposed guidelines will have more than minimal impacts are discussed in the regulatory assessment and in the preamble under Impacts on State and Local Governments. The four requirements in the proposed guidelines that will have more than minimal impacts on state and local transportation departments are summarized in

the table below, along with a description of the governmental units affected by proposed requirements and questions in the preamble to the proposed guidelines that seek additional information on the governmental units affected.

Requirements in Proposed Guidelines That Will Have More Than Minimal Impacts on State and Local Transportation Departments

Requirement	Governmental Units Affected
<p>Detectable warning surfaces required on newly constructed and altered curb ramps and blended transitions at pedestrian street crossings (R208.1 and R305)</p>	<p>Will affect state and local transportation departments that do not currently provide detectable warning surfaces on curb ramps</p> <p>All state transportation departments currently specify detectable warning surfaces on curb ramps in their standard drawings; most local transportation departments maintain standard drawings that are consistent with standard drawings maintained by their state transportation departments</p> <p>Questions 4, 5, and 6 in preamble seek information on state and local transportation departments that do not currently provide detectable warning surfaces on curb ramps</p>

	<p>Will affect state and local transportation departments</p>
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Requirement	Governmental Units Affected
<p>Accessible pedestrian signals and pushbuttons required when pedestrian signals newly installed or replaced at signalized intersections (R209)</p>	<p>that do not currently provide accessible pedestrian signals and pedestrian pushbuttons when pedestrian signals are newly installed or replaced at signalized intersections</p> <p>Some state and local transportation departments currently provide accessible pedestrian signals and pedestrian pushbuttons when pedestrian signals are newly installed or replaced at signalized intersections; TEA-21 (23 U.S.C. 217 (g)) directed that audible traffic signals be included in transportation plans and projects where appropriate</p> <p>Question 9 in preamble seeks information on state and local transportation departments that currently provide accessible pedestrian signals and pedestrian pushbuttons when pedestrian signals are newly installed or replaced at signalized intersections</p>
<p>Maximum cross slope of 2 percent required on pedestrian access routes, including within pedestrian street crossings with yield or stop control (R204.3 and R302.6)</p>	<p>Will affect state and local transportation departments that construct new tabled intersections in hilly urban areas which contain pedestrian street crossings with yield or stop control</p> <p>Question 14 in preamble seeks information on the current design policies and practices of state and local transportation departments with respect to tabling newly constructed intersections in hilly urban areas, particularly with respect to extending the tabling to pedestrian street crossings with yield or stop control</p>

<p>Pedestrian activated</p>	
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<p>signals required at roundabouts with multi-lane pedestrian crossings (R206 and R306.3.2)</p>	<p>Governmental Units Affected Will affect state and local transportation departments that construct new roundabouts with multi-lane pedestrian street crossings</p>
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The Access Board entered into an interagency agreement with the Volpe National Transportation Systems Center (Volpe Center) to gather data and prepare cost estimates for the regulatory assessment. The cost estimates prepared by the Volpe Center are summarized in the table below, along with questions in the preamble to the proposed guidelines that seek additional information to refine the cost estimates.

Estimated Total Annual Costs for Requirements That Will Have More Than Minimal Impacts on State and Local Transportation Departments

<p>Requirement</p>	<p>Additional Costs Per Element or Facility Due to Requirement</p>	<p>Number of Elements or Facilities Constructed or Altered on Annual Basis</p>	<p>Total Annual Costs for Requirement</p>
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	Additional Costs Per Element or Facility Due to Requirement	Number of Elements or Facilities Constructed or Altered on Annual Basis	Total Annual Costs for Requirement
Requirement	\$48 to \$240 for detectable		
Detectable warning surfaces required on newly constructed and altered curb ramps and blended transitions at pedestrian street crossings (R208.1 and R305)	warning materials for typical curb ramp Question 8 in preamble seeks additional information on costs for detectable warning materials and installation of the materials on typical curb ramp	No information available Question 7 in preamble seeks information on number of curb ramps that are constructed or altered on an annual basis in the public right-of-way	No estimate provided Total annual costs will depend on number of state and local transportation departments that do not currently provide detectable warning surfaces on curb ramps, and number of curb ramps that they construct or alter on an annual basis

	Additional Costs Per Element or Facility Due to Requirement	Number of Elements or Facilities Constructed or Altered on Annual Basis	Total Annual Costs for Requirement
<p>Accessible pedestrian signals and pushbuttons required when pedestrian signals newly installed or replaced at signalized intersections (R209)</p>	<p>\$3,600 per signalized intersection</p> <p>Question 10 in preamble seeks additional information on costs for providing accessible pedestrian signals and pedestrian pushbuttons at signalized intersections</p>	<p>Pedestrian signals newly installed or replaced at 13,095 signalized intersections on an annual basis</p>	<p>\$47 million</p>

	Additional Costs Per	Number of Elements or Facilities	Total Annual Costs for Requirement
Requirement	Element or Facility Due to Requirement	Constructed or Altered on Annual Basis	
<p>Maximum cross slope of 2 percent required on pedestrian access routes, including within pedestrian street crossings with yield or stop control (R204.3 and R302.6)</p>	<p>\$60,000 per tabled intersection</p> <p>Question 15 in preamble seeks additional information on costs to extend tabling of newly constructed intersections in hilly urban areas to pedestrian street crossings with yield or stop control</p>	<p>No information available</p> <p>Question 16 in preamble seeks information on number of tabled intersections which contain pedestrian street crossings with yield or stop control that are newly constructed in hilly urban areas on an annual basis</p>	<p>No estimate provided</p> <p>Total annual costs will depend on number of tabled intersections which contain pedestrian street crossings with yield or stop control that are newly constructed in hilly urban areas on an annual basis</p>

	Additional Costs Per Element or Facility Due to Requirement	Number of Elements or Facilities Constructed or Altered on Annual Basis	Total Annual Costs for Requirement
Requirement	\$90,000 to \$230,000 per		
Pedestrian activated signals required at roundabouts with multi-lane pedestrian crossings (R206 and R306.3.2)	roundabout Question 19 in preamble seeks additional information on costs to provide pedestrian activated signals at roundabouts with multi-lane pedestrian crossings	27 new roundabouts with multi-lane pedestrian street crossings constructed on an annual basis	\$2.4 million to \$6.2 million

Benefits

The proposed guidelines will benefit pedestrians with disabilities. The U.S. Census Bureau reports that 54.4 million Americans, about one in five U.S. residents, reported some level of disability in 2005.⁵⁰ The number of individuals with disabilities is almost equal to the combined total population of California and Florida. The U.S. Census Bureau provides this breakdown of the population of people aged 15 and older:

- 27.4 million (11.9 percent) had difficulty with ambulatory activities of the lower body;
- 22.6 million people (9.8 percent) had difficulty walking a quarter of a mile;
- 21.8 million (9.4 percent) had difficulty climbing a flight of stairs;
- 10.2 million (4.4 percent) used a cane, crutches, or walker to assist with mobility;
- 3.3 million (1.4 percent) used a wheelchair or other wheeled mobility device; and

- 7.8 million (3 percent) had difficulty seeing words or letters in ordinary newspaper print, including 1.8 million who are completely unable to see.

Executive Order 13563 states that to the extent permitted by law federal agencies must

Executive Order 13563 states that to the extent permitted by law, Federal agencies must “propose or adopt a regulation only upon a reasoned determination that its benefits justify its costs (recognizing that some benefits and costs are difficult to quantify)” and that “where appropriate and permitted by law, each agency may consider and (discuss qualitatively) values that are difficult or impossible to quantify, including equity, human dignity, fairness, and distributive impacts.” The proposed guidelines promote important societal values that are difficult or impossible to quantify. As discussed above under the Need for Rulemaking, when enacting the Americans with Disabilities Act, Congress found “the discriminatory effects of architectural, transportation, and communication barriers” to be a continuing problem that “denies people with disabilities the opportunity to compete on an equal basis and to pursue those opportunities for which our free society is justifiably famous, and costs the United States billions of dollars in unnecessary expenses resulting from dependency and nonproductivity.” 42 U.S.C. 12101 (a) (5) and (9). Congress declared that “the Nation’s proper goals regarding individuals with disabilities are to assure equality of opportunity, full participation, independent living, and economic self-sufficiency.” 42 U.S.C. 12101 (a) (8). The proposed guidelines promote the goals declared by Congress by eliminating the discriminatory effects of architectural, transportation, and communication barriers in the design and construction of pedestrian facilities in the public right-of-way. The proposed guidelines are also important to achieving the benefits of the other parts of the Americans with Disabilities Act. As the House Report for the Americans with Disabilities Act stated, “[t]he employment, transportation, and public accommodation sections . . . would be meaningless if people who use wheelchairs were not afforded the opportunity to travel on and between the streets.” H.R. 485, 101st Cong., 2d Sess. 84 (1990).

Question 23. Comments are requested on whether the proposed guidelines have other quantitative or qualitative benefits in addition to those discussed above.

Regulatory Flexibility Act: Initial Regulatory Flexibility Analysis

The impacts of the proposed guidelines on small governmental jurisdictions with a population of less than 50,000 are discussed below. This information is required by the Regulatory Flexibility Act (5 U.S.C. §603).

Reasons for issuing proposed accessibility guidelines

The Access Board’s current accessibility guidelines, the 2004 ADA and ABA Accessibility Guidelines, were developed primarily for buildings and facilities on sites. Some of the requirements in the 2004 ADA and ABA Accessibility Guidelines can be readily applied to

pedestrian facilities in the public right-of-way, but other requirements need to be adapted for pedestrian facilities in the public right-of-way. The proposed guidelines are developed specifically for pedestrian facilities in the public right-of-way and address conditions and constraints that exist in the public right-of-way.

Objectives of, and legal basis for, proposed accessibility guidelines

The Access Board is required to issue accessibility guidelines by the Americans with Disabilities Act (42 U.S.C. §12204) and Section 502 of the Rehabilitation Act (29 U.S.C. §792) to ensure that newly constructed and altered facilities are readily accessible to and usable by pedestrians with disabilities.

Small governmental jurisdictions affected by proposed accessibility guidelines



The number of small governmental jurisdictions with a population less than 50,000 affected by the proposed guidelines is shown in the table below.

Number of small governmental jurisdictions with a population less than 50,000 affected by the proposed guidelines

Governmental Jurisdictions	Population Less Than 50,000
County	2,178
Municipal	18,824
Town or Township	16,371
Total	37,375

Source: US Census Bureau 2002 Census of Governments available at:

www.census.gov/prod/2003pubs/gc021x1.pdf.

Almost 70 percent of municipal governments (13,038) and more than 75 percent of towns and townships (12,331) have a population of less than 2,500. Many of these small governmental jurisdictions are located in rural areas, which generally do not construct

pedestrian transportation networks (e.g., sidewalks, pedestrian street crossings, and pedestrian signals).

Compliance requirements

The proposed accessibility guidelines address the design, construction, and alteration of pedestrian facilities in the public right-of-way, including sidewalks, pedestrian street crossings, pedestrian overpasses and underpasses, curb ramps and blended transitions at pedestrian street crossings, pedestrian signals, street furniture (i.e., drinking fountains, public toilet facilities, tables, counters, and benches), pedestrian signs, transit stops and transit shelters for buses and light rail vehicles, on-street parking that is marked or metered, and passenger loading zones. The Section-by-Section Analysis of the preamble describes the proposed accessibility guidelines. Compliance with the proposed accessibility guidelines is not mandatory until they are adopted, without or without additions and modifications, as accessibility standards by other federal agencies. There are no reporting or recordkeeping requirements.

Other federal rules

The Department of Justice, Department of Transportation, and General Services Administration are responsible for issuing accessibility standards that are consistent with the accessibility guidelines issued by the Access Board and are expected to conduct rulemaking to adopt the proposed guidelines, with or without additions and modifications, as accessibility standards in regulations implementing Title II of the Americans with Disabilities Act (28 CFR part 36 and 49 CFR part 37), Section 504 of the Rehabilitation Act (49 CFR part 27), and the Architectural Barriers Act (41 CFR part 102). Additional information on these laws and regulations is provided under the Statutory and Regulatory Background in the preamble to the proposed guidelines.

Significant alternatives which minimize any significant economic impacts on small entities



The regulatory assessment analyzes the following four requirements in the proposed guidelines that will have more than minimal impacts on state and local transportation departments:

- *Detectable warning surfaces required on newly constructed and altered curb ramps and blended transitions at pedestrian street crossings (see R208.1 and R305).*

Detectable warning surfaces consist of small truncated domes that are detectable underfoot. Where curb ramps or blended transitions are provided at pedestrian street crossings, detectable warning surfaces indicate the boundary between a pedestrian route and a vehicular route for pedestrians who are blind or have low vision in place of the missing curb.

- *Accessible pedestrian signals and pedestrian pushbuttons required when pedestrian signals newly installed or replaced at signalized intersections (see R209).* Accessible pedestrian signals and pedestrian pushbuttons communicate the information about the WALK and DON'T WALK intervals at signalized intersections in non-visual formats (i.e., audible tones and vibrotactile surfaces) to pedestrians who are blind or have low vision.
- *Maximum cross slope of 2 percent required on pedestrian access routes, including within pedestrian street crossings with yield or stop control.* Cross slope is the slope perpendicular to the direction of pedestrian travel. Cross slope impedes travel by pedestrians who use wheeled mobility devices since energy must be expended to counteract the perpendicular force of the cross slope. The 2 percent maximum cross slope required on pedestrian access routes has more than minimal impacts on the construction of new tabled intersections in hilly urban areas that contain pedestrian street crossings with yield or stop control where vehicles slow or stop before proceeding through the intersection.
- *Pedestrian activated signals at roundabouts with multi-lane pedestrian street crossings.* A roundabout is a circular intersection with yield control at entry, which permits a vehicle on the circulatory roadway to proceed, and with deflection of the approaching vehicle counter-clockwise around a central island. Pedestrian activated signals are required at roundabouts with multi-lane pedestrian street crossings to facilitate crossing by pedestrians who are blind or have low vision. Small governmental jurisdictions with a population less than 50,000 are not likely to construct roundabouts with multi-lane pedestrian street crossings and will not be affected by this requirement.

There are no significant alternatives that will minimize any significant impacts of these requirements on small governmental jurisdictions and achieve the objectives of the Americans with Disabilities Act, Section 504 of the Rehabilitation Act, and the Architectural Barriers Act to eliminate the discriminatory effects of architectural, transportation, and communication barriers in the design and construction of pedestrian facilities in the public right-of-way.

Executive Order 13132: Federalism

The proposed rule adheres to the fundamental federalism principles and policy making criteria in Executive Order 13132. The proposed rule is issued under the authority of the Americans with Disabilities Act, civil rights legislation that was enacted by Congress pursuant to its authority to enforce the Fourteenth Amendment to the U.S. Constitution and to regulate commerce. The Americans with Disabilities Act was enacted “to provide a clear and comprehensive national mandate for the elimination of discrimination against individuals with disabilities.” 42 U.S.C. §12101 (b) (1). The Americans with Disabilities Act recognizes the authority of State and local governments to enact and enforce laws that “provide for greater or equal protection for the rights of individuals with disabilities than are afforded by this chapter.” 42 U.S.C. §12201 (b). The proposed rule is based on the recommendations of a federal advisory committee which included representatives of state and local governments. The Access Board made drafts of the proposed rule available for public review and comment. State and local governments provided comments on the drafts of the proposed rule.

Unfunded Mandates Reform Act

The Unfunded Mandates Reform Act does not apply to proposed or final rules that enforce constitutional rights of individuals or enforce statutory rights that prohibit discrimination on the basis of race, color, sex, national origin, age, handicap, or disability. Since the proposed rule is issued under the Americans with Disabilities Act, which prohibits discrimination on the basis of disability, an assessment of the rule’s effect on State, local, and tribal governments, and the private sector is not required by the Unfunded Mandates Reform Act.

List of Subjects in 36 CFR Part 1190

Buildings and facilities, Civil rights, Individuals with disabilities, Transportation.

Nancy Starnes,
Chair.

NOTES



1 The Access Board consists of 13 members appointed by the President from the public, a majority of which are individuals with disabilities, and the heads of 12 federal agencies or their designees whose positions are Executive Level IV or above. The federal agencies are: The Departments of Commerce, Defense, Education, Health and Human Services, Housing and Urban Development, Interior, Justice, Labor, Transportation, and Veterans Affairs; General Services Administration; and United States Postal Service.

2 Other titles of the Americans with Disabilities Act cover employers (Title I), private entities that own, lease, or operate places of public accommodation and commercial facilities (Title III), and telecommunications (Title IV). This preamble focuses on Title II because pedestrian facilities in the public right-of-way are constructed and altered by state and local governments.

3 Title II of the Americans with Disabilities Act contains two subtitles. Subtitle A applies to all state and local government programs, services, and activities. Subtitle B contains two parts. Subtitle B, Part I applies to designated public transportation provided by state and local governments by bus, rail, or other conveyance (other than aircraft or intercity or commuter rail) as a general or special service (including charter service) to the general public on a regular and continuing basis. Subpart B, Part II applies to public transportation provided by the National Railroad Passenger Corporation and commuter authorities by intercity and commuter rail. The Department of Justice is responsible for issuing regulations to implement Subtitle A of Title II, except for matters within the scope of authority of the Department of Transportation under Parts I and II of Subtitle B of Title II. See 42 U.S.C. 12134. The Department of Transportation is responsible for issuing regulations to implement Parts I and II of Subtitle B of Title II. See 42 U.S.C. 12149 and 12164.

4 Subtitle A of Title II of the Americans with Disabilities Act requires that the regulations issued by the Department of Justice include accessibility standards that are “consistent with the minimum guidelines and requirements issued by the Architectural and Transportation Barriers Compliance Board.” 42 U.S.C. 12134(c). The accessibility standards issued by the Department of Justice can include additional or modified requirements provided they are consistent with the Access Board’s guidelines.

5 In September 2010, the Department of Justice issued regulations with revised accessibility standards for Titles II and III of the Americans with Disabilities Act (DOJ 2010 Standards). See 75 FR 56164 (September 15, 2010). Compliance with the DOJ 2010

Standards is required on or after March 15, 2012. State and local governments are permitted to comply with earlier standards (DOJ 1991 Standards without the elevator exception or UFAS) or the DOJ 2010 Standards between September 15, 2010 and March 14, 2012. Additional information on the applicable standards and their effective dates is available on the Department of Justice website at:

http://www.ada.gov/revised_effective_dates-2010.htm. The DOJ 2010 Standards are available on the Department of Justice website at:
http://www.ada.gov/2010ADASTandards_index.htm.

6 Parts I and II of Subtitle B of Title II of the Americans with Disabilities Act require that the regulations issued by the Department of Transportation include accessibility standards that are “consistent with the minimum guidelines and requirements issued by the Architectural and Transportation Barriers Compliance Board.” 42 U.S.C. 12149 (b) and 12163. The accessibility standards issued by the Department of Transportation can include additional or modified requirements provided they are consistent with the Access Board’s guidelines.

7 See Department of Transportation “Policy Statement on Bicycle and Pedestrian Accommodation Regulations and Recommendations” at:
<http://www.dot.gov/affairs/2010/bicycle-ped.html>.

8 The Architectural Barriers Act also covers facilities constructed, altered, or leased by federal agencies; and facilities constructed or altered by the Washington Metropolitan Area Transit Authority. See 42 U.S.C. 4151 (1), (2), and (4).

9 The accessibility standards issued by the General Services Administration apply to all facilities covered by the Architectural Barriers Act, except for postal, military, and residential facilities. The United States Postal Service is responsible for issuing accessibility standards for postal facilities; the Department of Defense is responsible for issuing accessibility standards for military facilities; and the Department of Housing and Urban Development is responsible for issuing accessibility standards for residential facilities. See 42 U.S.C. 4153, 4154, and 4154a.

10 101 Cong. Rec. H4629 and 4630 (July 12, 1990); 101 Cong. Rec. S9695 (July 13, 1990).

11 The 2004 ADA and ABA Accessibility Guidelines are codified in 36 CFR part 1191 and consist of six appendices:

- Appendix A is the Table of Contents to the guidelines;
- Appendix B contains ADA Chapters 1 and 2, which include application and scoping requirements for the design, construction, and alteration of facilities covered by the

Americans with Disabilities Act;

- Appendix C contains ABA Chapters 1 and 2, which include application and scoping requirements for the design, construction, and alteration of facilities covered by the Architectural Barriers Act;
- Appendix D contains Chapters 3 through 10, which include common technical requirements for the design, construction, and alteration of facilities covered by the Americans with Disabilities Act or the Architectural Barriers Act;
- Appendix E contains the index of terms and list of figures included in the guidelines; and
- Appendix F contains additions and modifications to the guidelines issued by the Department of Transportation.

The DOJ 2010 Standards and the Department of Transportation standards for transportation facilities used in the provision of transportation services covered by the transportation parts of Title II of the ADA and facilities covered by Section 504 adopt Appendices B and D, with additions and modifications. The General Services Administration standards for facilities covered by the Architectural Barriers Act adopt Appendices C and D, without additions and modifications.

12 The term “site” is defined in the 1991 ADAAG (see 3.5) and 2004 ADA and ABA Accessibility Guidelines (see 106.5 and F106.5) as a “parcel of land bounded by a property line or a designated portion of a public right-of-way.”

13 The reports on the research sponsored by the Access Board and technical assistance materials on accessible design of pedestrian facilities in the public right-of-way are available on the Access Board website.

14 The following organizations were members of the advisory committee: AARP, America Walks, American Association of State Highway and Transportation Officials, American Council of the Blind, American Institute of Architects, American Public Transit Association, American Public Works Association, Association for Education and Rehabilitation of the Blind and Visually Impaired, Bicycle Federation of America, Californians for Disability Rights, Canadian Standards Association (Technical Committee on Barrier-Free Design), City of Birmingham (Department of Planning, Engineering and Permits), Council of Citizens with Low Vision International, Disability and Business Technical Assistance Centers, Disability Rights Education and Defense Fund, Federal Highway Administration, Hawaii Commission

on Persons with Disabilities, Hawaii Department of Transportation, Institute of Traffic Engineers, Los Angeles Department of Public Works (Bureau of Street Services), Massachusetts Architectural Access Board, Municipality of Anchorage, National Center for

Bicycling and Walking, National Council on Independent Living, National Federation of the Blind, New York State Department of Transportation, Paralyzed Veterans of America, Portland Office of Transportation, San Francisco Mayor's Office on Disability, State of Alaska, TASH, Texas Department of Transportation, and The Seeing Eye.

15 The advisory committee report is available on the Access Board website .

16 The 2002 and 2005 draft guidelines and comments submitted on the 2

Part 1190 - Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way



Sec. 1190.1 Accessibility guidelines. Appendix to part 1190 – Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way

Authority: 29 U.S.C. 792 and 42 U.S.C. 12204.

§ 1190.1 Accessibility Guidelines.



The accessibility guidelines for pedestrian facilities in the public right-of-way are set forth in the appendix to this part. When the guidelines are adopted, with or without additions and modifications, as accessibility standards in regulations issued by other federal agencies implementing the Americans with Disabilities Act, Section 504 of the Rehabilitation Act, and the Architectural Barriers Act, compliance with the accessibility standards is mandatory. A copy of the guidelines with figures is available on the Access Board website. Except for the International Symbol of Accessibility in Figure R411, which is included in the appendix to this part, the figures are for illustration purposes only and do not establish requirements.

Appendix to Part 1190 –Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way



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Technical Assistance

Contact the Access Board for assistance on these guidelines

202-272-0080 (voice)

row@access-board.gov



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CHAPTER R1: APPLICATION AND ADMINISTRATION

R101 Purpose

R101.1 General. This document contains scoping and technical requirements to ensure that facilities for pedestrian circulation and use located in the public right-of-way are readily accessible to and usable by pedestrians with disabilities. Compliance with this document is mandatory when required by regulations issued by federal agencies that include accessibility standards for the design, construction, and alteration of pedestrian facilities in the public right-of-way.

Advisory R101.1 General. Sections marked as “advisory” contain advisory information related to the preceding section. Advisory sections do not establish mandatory requirements. Some advisory sections reference related mandatory requirements to alert readers about those requirements.

R101.2 Effect on Existing Facilities. This document does not address existing facilities unless the facilities are included within the scope of an alteration undertaken at the discretion of a covered entity.

Advisory R101.2 Effect on Existing Facilities. The Department of Justice regulations implementing Title II of the Americans with Disabilities Act contain requirements for state and local governments regarding program accessibility and existing facilities. See 28 CFR 35.150. The Department of Transportation regulations implementing Section 504 of the Rehabilitation Act also contain requirements for recipients of federal financial assistance from the Department regarding compliance planning. See 49 CFR 27.11 (c).

R102 Equivalent Facilitation. The use of alternative designs, products, or technologies that result in substantially equivalent or greater accessibility and usability than the requirements in this document is permitted.

R103 Conventions

R103.1 Conventional Industry Tolerances. Dimensions are subject to conventional industry tolerances except where dimensions are stated as a range.

Advisory R103.1 Conventional Industry Tolerances. Conventional industry tolerances include tolerances for field conditions and tolerances that may be a necessary consequence of a particular manufacturing process. Conventional industry tolerances do not apply to design work.

R103.2 Calculation of Percentages. Where the required number of elements or facilities to be provided is determined by calculations of ratios or percentages and remainders or fractions result, the next greater whole number of such elements or facilities shall be provided. Where the determination of the required size or dimension of an element or facility involves ratios or percentages, rounding down for values less than one half is permitted.

Convention	Description
	dimension showing International System of Units (in millimeters unless otherwise specified) above the line and US customary units (in inches unless otherwise specified) below
	dimension for small measurements
	dimension showing a range with minimum - maximum
min	minimum
max	maximum
>	greater than
≥	greater than or equal to
<	less than
≤	less than or equal to
	boundary of clear floor space or maneuvering clearance
	centerline
	a permitted element or its extension
	direction of travel or approach
	a highlighted element in elevation or plan
	location zone of element, control or feature

Figure R103
Graphic Convention for Figures

R103.3 Units of Measurement. Measurements are stated in metric and U.S. customary units. The values stated in each system (metric and U.S. customary units) may not be exact equivalents, and each system shall be used independently of the other.

Advisory R103.3 Units of Measurement. Users should work entirely within one system of measurement, either metric or U.S. customary units. Combining values from the two systems may result in non-compliance.

R104 Referenced Standards

R104.1 Incorporation by Reference. The specific editions of the standards listed in R104.2 are incorporated by reference in this document and are part of the requirements to the prescribed extent of each such reference. The Director of the Federal Register has approved the standards for incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of the referenced standards may be inspected at the Access Board, 1331 F Street, NW, Suite 1000, Washington, DC 20004; or at the National Archives and Records Administration (NARA). For information on the availability of the referenced standards at NARA, call (202) 741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

R104.2 MUTCD. The portions of the Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD), 2009 Edition, that are incorporated by reference in this document consist of definitions (see R105.2) and standard statements, as defined in section 1A.13 of the MUTCD (see R205, R209, and R306.3). Guidance, option, and support statements, as defined in section 1A.13 of the MUTCD, shall be used to assist in the interpretation of the standard statements. Where there are differences between this document and the referenced standards, this document applies. The MUTCD is available on the Federal Highway Administration website at <http://mutcd.fhwa.dot.gov>. Printed copies may be purchased from the American Association of State Highway and Transportation Officials, 444 N Capitol Street, NW, Washington, DC 20001 (<http://www.transportation.org/>).

Advisory R104.2 MUTCD. MUTCD definitions and standard statements are referenced in the following sections of this document:

- R105.2 references definitions in section 1A.13 of the MUTCD;
- R205 references standard statements in sections 6D.01, 6D.02, 6G.05, 6F.63, 6F.68, and 6F.71 of the MUTCD for providing alternate pedestrian access routes when a pedestrian circulation path is temporarily closed;
- R209 references standard statements in sections 4E.08 through 4E.13 of the MUTCD for accessible pedestrian signals and pedestrian pushbuttons; and
- R306.2 references standard statements in section 4E.06 of the MUTCD for pedestrian signal phase timing.

R105 Definitions

R105.1 General. For the purpose of this document, the terms defined in R105.5 have the indicated meaning.

R105.2 Terms Defined in Referenced Standards. Terms used in specific sections of the MUTCD that are incorporated by reference in this document shall have the meaning specified in section 1A.13 of the MUTCD (incorporated by reference, see R104.2). In addition, the following terms shall have the meaning specified in section 1A.13 of the MUTCD (incorporated by reference, see R104.2): highway, intersection, island, median, pedestrian, roundabout, sidewalk, splitter island, and street.

R105.3 Undefined Terms. The meaning of terms not specifically defined in R105.5, the referenced standards, or regulations issued by Federal agencies that adopt this document as accessibility standards shall be as defined by collegiate dictionaries in the sense that the context implies.

R105.4 Interchangeability. Words, terms, and phrases used in the singular include the plural and those used in the plural include the singular.

R105.5 Defined Terms.

Accessible. Describes a facility in the public right-of-way that complies with this document.

Alteration. A change to a facility in the public right-of-way that affects or could affect pedestrian access, circulation, or use. Alterations include, but are not limited to, resurfacing, rehabilitation, reconstruction, historic restoration, or changes or rearrangement of structural parts or elements of a facility.

Blended Transition. A raised pedestrian street crossing, depressed corner, or similar connection between the pedestrian access route at the level of the sidewalk and the level of the pedestrian street crossing that has a grade of 5 percent or less.

Cross Slope. The grade that is perpendicular to the direction of pedestrian travel.

Curb Line. A line at the face of the curb that marks the transition between the curb and the gutter, street, or highway.

Curb Ramp. A ramp that cuts through or is built up to the curb. Curb ramps can be perpendicular or parallel, or a combination of parallel and perpendicular ramps.

Element. An architectural or mechanical component of a building, facility, space, site, or public right-of-way.

Facility. All or any portion of buildings, structures, improvements, elements, and pedestrian or vehicular routes located in the public right-of-way.

Grade Break. The line where two surface planes with different grades meet.

Operable Part. A component of an element used to insert or withdraw objects, or to activate, deactivate, or adjust the element.

Pedestrian Access Route. A continuous and unobstructed path of travel provided for pedestrians with disabilities within or coinciding with a pedestrian circulation path.

Pedestrian Circulation Path. A prepared exterior or interior surface provided for pedestrian travel in the public right-of-way.

Public Right-of-Way. Public land acquired for or dedicated to transportation purposes, or other land where there is a legally established right for use by the public for transportation purposes.

Qualified Historic Facility. A facility that is listed in or eligible for listing in the National Register of Historic Places, or designated as historic under an appropriate state or local law.

Running Slope. The grade that is parallel to the direction of pedestrian travel.

Shared Use Path. A multi-use path designed primarily for use by bicyclists and pedestrians, including pedestrians with disabilities, for transportation and recreation purposes. Shared use paths are physically separated from motor vehicle traffic by an open space or barrier, and are either within the highway right-of-way or within an independent right-of-way.

Vertical Surface Discontinuities. Vertical differences in level between two adjacent surfaces.

CHAPTER R2: SCOPING REQUIREMENTS

R201 Application

R201.1 Scope. All newly constructed facilities, altered portions of existing facilities, and elements added to existing facilities for pedestrian circulation and use located in the public right-of-way shall comply with the requirements in this document.

Advisory R201.1 Scope. The requirements in this document are to be applied to all areas of a facility within the scope of the project. Where multiple features of the same type are provided, such as on-street parking spaces, and a percentage of the features are required to be accessible, only the required number of features must comply with the technical requirements in this document and be connected to a pedestrian access route. Where elements are provided on a site that is a designated portion of a public right-of-way, the elements are required to comply with the applicable requirements in this document instead of the requirements in the Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities and the Architectural Barriers Act Accessibility Guidelines (36 CFR part 1191).

R201.2 Temporary and Permanent Facilities. The requirements in this document shall apply to temporary and permanent facilities in the public right-of-way.

Advisory R201.2 Temporary and Permanent Facilities. Temporary pedestrian circulation paths around work zones and portable public toilets are examples of temporary facilities in the public right-of-way that are covered by the requirements in this document.

R201.3 Buildings and Structures. Buildings and structures in the public right-of-way that are not covered by the requirements in this document shall comply with the applicable requirements in 36 CFR part 1191.

Advisory R201.3 Buildings and Structures. Towers and temporary performance stages and reviewing stands are examples of structures that may be provided in the public right-of-way and are not covered by the requirements in this document. These structures are required to comply with the applicable requirements in the Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities and the Architectural Barriers Act Accessibility Guidelines (36 CFR part 1191).

R202 Alterations and Elements Added to Existing Facilities

R202.1 General. Alterations and elements added to existing facilities shall comply with R202. Where elements are altered or added and the pedestrian circulation path to the altered or added elements is not altered, the pedestrian circulation path is not required to comply with R204.

Advisory R202.1 General. Where possible, added elements should be located on an existing pedestrian access route.

R202.2 Added Elements. Where elements are added to existing facilities, the added elements shall comply with the applicable requirements for new construction.

R202.3 Alterations. Where existing elements, spaces, or facilities are altered, each altered element, space, or facility within the scope of the project shall comply with the applicable requirements for new construction.

Advisory R202.3 Alterations. The alteration of multiple elements or spaces within a facility may provide a cost-effective opportunity to make the entire facility or a significant portion of the facility accessible.

R202.3.1 Existing Physical Constraints. Where existing physical constraints make it impracticable for altered elements, spaces, or facilities to fully comply with the requirements for new construction, compliance is required to the extent practicable within the scope of the project. Existing physical constraints include, but are not limited to, underlying terrain, right-of-way availability, underground structures, adjacent developed facilities, drainage, or the presence of a notable natural or historic feature.

R202.3.2 Transitional Segments. Transitional segments of pedestrian access routes shall connect to existing unaltered segments of pedestrian circulation paths and shall comply with R302 to the extent practicable.

R202.3.3 Reduction in Access Prohibited. An alteration shall not decrease or have the effect of decreasing the accessibility of a facility or an accessible connection to an adjacent building or site below the requirements for new construction in effect at the time of the alteration.

Advisory R202.3.3 Reduction in Access Prohibited. Sidewalk improvements that correct existing excessive cross slope should be carefully planned to avoid creating excessive slope in curb ramps or adding a step at existing building entrances. Solutions may include:

- Split sidewalks that serve building entrances and street or highway at separate levels;
- Sidewalks with greater cross slope along the curb and pedestrian access routes with lesser cross slope along building fronts;
- Pedestrian access routes along the curb and ramped entrances to buildings.

R202.3.4 Alterations to Qualified Historic Facilities. Where the State Historic Preservation Officer or Advisory Council on Historic Preservation determines that compliance with a requirement would threaten or destroy historically significant features of a qualified historic facility, compliance shall be required to the extent that it does not threaten or destroy historically significant features of the facility.

Advisory R202.3.4 Alterations to Qualified Historic Facilities. Where there is a federal agency “undertaking”, as defined in 36 CFR 800.16 (y), the requirements in section 106 of the National Historic Preservation Act (16 U.S.C. 470f) and 36 CFR part 800 apply. Location of a facility within an historic district by itself does not excuse compliance with the requirements in this document. The State Historic Preservation Officer or Advisory Council on Historic Preservation must determine that compliance would threaten or destroy historically significant features of the facility. Reproductions or replications of historic facilities are not qualified historic facilities.

R203 Machinery Spaces. Vaults, tunnels, and other spaces used by service personnel only for maintenance, repair, or monitoring are not required to comply with this document.

R204 Pedestrian Access Routes

R204.1 General. Pedestrian access routes shall be provided in accordance with R204 and shall comply with R302.

Advisory R204.1 General. The Federal Highway Administration (FHWA) has issued guidance on the obligations of state and local governments to keep pedestrian access routes open and usable throughout the year, including snow and debris removal. The guidance is available at FHWA’s website:

http://www.fhwa.dot.gov/civilrights/programs/ada_sect504qa.htm.

R204.2 Pedestrian Circulation Paths. A pedestrian access route shall be provided within pedestrian circulation paths located in the public right-of-way. The pedestrian access route shall connect to accessible elements, spaces, and facilities required by this document and to accessible routes required by section 206.2.1 of appendix B to 36 CFR part 1191 or section F206.2.1 of appendix C to 36 CFR 1191 that connect building and facility entrances to public streets and sidewalks.

Advisory R204.2 Pedestrian Circulation Paths. The accessible elements, spaces, and facilities located in the public right-of-way that pedestrian access routes must connect to include accessible pedestrian signals and pedestrian pushbuttons (see R209), street furniture (see R212), boarding and alighting areas and boarding platforms at transit stops (see R213 and R308.1.3.2), transit shelters (see R213 and R308.2), accessible on-street parking spaces (see R214 and R309), parking meters and parking pay stations serving accessible parking spaces (see R309.5), and accessible passenger loading zones (see R215 and R310).

R204.3 Pedestrian Street Crossings. A pedestrian access route shall be provided within pedestrian street crossings, including medians and pedestrian refuge islands, and pedestrian at-grade rail crossings. The pedestrian access route shall connect departure and arrival sidewalks.

R204.4 Pedestrian Overpasses and Underpasses. A pedestrian access route shall be provided within overpasses, underpasses, bridges, and similar structures that contain pedestrian circulation paths.

Where an overpass, underpass, bridge, or similar structure is designed for pedestrian use only and the approach slope to the structure exceeds 5 percent, a ramp, elevator, limited use/limited application elevator, or platform lift shall be provided. Elevators and platform lifts shall be unlocked during the operating hours of the facility served.

Advisory R204.4 Pedestrian Overpasses and Underpasses. Where an overpass, underpass, bridge, or similar structure is designed for both pedestrian and vehicle use and the pedestrian access route is contained within the street or highway right-of-way, the grade of the pedestrian access route must not exceed the general grade established for the adjacent street or highway (see R302.5). Where the pedestrian access route is not contained within the street or highway right-of-way, the grade of the pedestrian access route must be 5 percent maximum (see R302.5). Where pedestrian overpasses or underpasses provide an alternative pedestrian circulation path to street level crossings, both the pedestrian overpass or underpass and the street level crossing must contain a pedestrian access route. State and local governments can provide a ramp, elevator, or lift at overpasses and underpasses designed for pedestrian use only. Long ramps present difficulties for some pedestrians with disabilities and can require snow clearance. Elevators or lifts can require maintenance.

R205 Alternate Pedestrian Access Routes. When a pedestrian circulation path is temporarily closed by construction, alterations, maintenance operations, or other conditions, an alternate pedestrian access route complying with sections 6D.01, 6D.02, and 6G.05 of the MUTCD (incorporated by reference, see R104.2) shall be provided. Where provided, pedestrian barricades and channelizing devices shall comply with sections 6F.63, 6F.68, and 6F.71 of the MUTCD (incorporated by reference, see R104.2).

Advisory R205 Alternate Pedestrian Access Routes. Section 6G.05 of the MUTCD recommends that whenever possible work should be done in a manner that does not create a need to detour pedestrians from existing pedestrian routes. Extra distance and additional pedestrian street crossings add complexity to a trip and increase exposure of risk to accidents. Sections 6D.01 and 6G.05 of the MUTCD require alternate pedestrian routes to be accessible and detectable, including warning pedestrians who are blind or have low vision about sidewalk closures. Proximity-actuated audible signs are a preferred means to warn pedestrians who are blind or have low vision about sidewalk closures.

R206 Pedestrian Street Crossings. Pedestrian street crossings shall comply with R306.

Advisory R206 Pedestrian Street Crossings. All pedestrian street crossings must be accessible to pedestrians with disabilities. If pedestrian crossing is prohibited at certain locations, “No Pedestrian Crossing” signs should be provided along with detectable features, such as grass strips, landscaping, planters, chains, fencing, railings, or other barriers.

R207 Curb Ramps and Blended Transitions

R207.1 General. A curb ramp, blended transition, or a combination of curb ramps and blended transitions complying with R304 shall connect the pedestrian access routes at each pedestrian street crossing. The curb ramp (excluding any flared sides) or blended transition shall be contained wholly within the width of the pedestrian street crossing served.

R207.2 Alterations. In alterations where existing physical constraints prevent compliance with R207.1, a single diagonal curb ramp shall be permitted to serve both pedestrian street crossings.

R208 Detectable Warning Surfaces

R208.1 Where Required. Detectable warning surfaces complying with R305 shall be provided at the following locations on pedestrian access routes and at transit stops:

1. Curb ramps and blended transitions at pedestrian street crossings;
2. Pedestrian refuge islands;
3. Pedestrian at-grade rail crossings not located within a street or highway;
4. Boarding platforms at transit stops for buses and rail vehicles where the edges of the boarding platform are not protected by screens or guards; and
5. Boarding and alighting areas at sidewalk or street level transit stops for rail vehicles where the side of the boarding and alighting areas facing the rail vehicles is not protected by screens or guards.

Advisory R208.1 Where Required. On pedestrian access routes, detectable warning surfaces indicate the boundary between pedestrian and vehicular routes where there is a flush rather than a curbed connection. Detectable warning surfaces should not be provided at crossings of residential driveways since the pedestrian right-of-way continues across residential driveway aprons. However, where commercial driveways are provided with yield or stop control, detectable warning surfaces should be provided at the junction between the pedestrian route and the vehicular route. Where pedestrian at-grade rail crossings are located within a street or highway, detectable warning surfaces at the curb ramps or blended transitions make a second set of detectable warning surfaces at the rail crossing unnecessary.

Detectable warning surfaces are not intended to provide wayfinding for pedestrians who are blind or have low vision. Wayfinding can be made easier by:

- Sidewalks that provide a clear path free of street furniture;
- Visual contrast between walking and non-walking areas (e.g., planted borders);
- Route edges that are clear and detectable by cane;
- Direct pedestrian street crossings and curb ramps that are in-line with direction of travel;
- Small corner radiuses that permit pedestrian street crossings to be as short and direct as possible;
- Orthogonal intersections that facilitate navigation using parallel and perpendicular vehicle sound cues;
- and barriers where pedestrian travel or crossing is not permitted.

R208.2 Where Not Required. Detectable warning surfaces are not required at pedestrian refuge islands that are cut-through at street level and are less than 1.8 meters (6.0 ft) in length in the direction of pedestrian travel.

Advisory R208.2 Where Not Required. Detectable warning surfaces are not required at cut-through pedestrian refuge islands that are less than 1.8 meters (6.0 ft) in length because detectable warning surfaces must extend 610 millimeters (2.0 ft) minimum on each side of the island and be separated by 610 millimeters (2.0 ft) minimum length of island without detectable warning surfaces (see R305.1.4 and R305.2.4). Installing detectable warning surfaces at cut-through pedestrian islands that are less than 1.8 meters (6.0 ft) in length would compromise the effectiveness of detectable warning surfaces. Where a cut-through pedestrian refuge island is less than 1.8 m (6.0 ft) in length and the pedestrian street crossing is signalized, the signal should be timed for a complete crossing of the street.

R209 Accessible Pedestrian Signals and Pedestrian Pushbuttons

R209.1 General. Where pedestrian signals are provided at pedestrian street crossings, they shall include accessible pedestrian signals and pedestrian pushbuttons complying with sections 4E.08 through 4E.13 of the MUTCD (incorporated by reference, see R104.2). Operable parts shall comply with R403.

Advisory R209 Accessible Pedestrian Signals and Pedestrian Pushbuttons. An accessible pedestrian signal and pedestrian pushbutton is an integrated device that communicates information about the WALK and DON'T WALK intervals at signalized intersections in non-visual formats (i.e., audible tones and vibrotactile surfaces) to pedestrians who are blind or have low vision.

R209.2 Alterations. Existing pedestrian signals shall comply with R209.1 when the signal controller and software are altered, or the signal head is replaced.

R210 Protruding Objects.

R210.1 General. Protruding objects shall comply with the applicable requirements in R210.

Advisory R210.1 General. Protruding objects can be hazardous for pedestrians, especially pedestrians who are blind or have low vision. The requirements for protruding objects in R402 apply across the entire width of the pedestrian circulation path, not just the pedestrian access route. In addition, objects must not reduce the clear width required for pedestrian access routes. State and local governments must comply with the requirements for protruding objects and maintain the clear width of pedestrian access routes when installing or permitting the installation of street furniture on sidewalks, including street lights, utility poles and equipment cabinets, sign posts and signs, parking meters, trash receptacles, public telephones, mailboxes, newspaper vending machines, benches, transit shelters, kiosks, bicycle racks, planters and planted trees, and street sculptures. The American Association of State Highway and Transportation Officials (AASHTO) recommends that local governments use an encroachment permit process to regulate the use of sidewalks by private entities for activities such as outdoor dining, vending carts and stands, and street fairs in order to control protruding objects and maintain the clear width of pedestrian access routes. See AASHTO, Guide for the Planning, Design, and Operation of Pedestrian Facilities (2004), section 3.2.3.

R210.2 Pedestrian Circulation Paths Other Than Shared Use Paths. Objects along or overhanging any portion of a pedestrian circulation path other than a shared use path shall comply with R402 and shall not reduce the clear width required for pedestrian access routes.

R210.3 Shared Use Paths. Objects shall not overhang or protrude into any portion of a shared use path at or below 2.4 m (8.0 ft) measured from the finish surface.

R211 Signs

R211.1 General. Signs shall comply with R211. Where audible sign systems and other technologies are used to provide information equivalent to the information contained on pedestrian signs and transit signs, the signs are not required to comply with R211.2 and R211.3.

Advisory R211.1 General. Audible sign systems and other technologies that provide information equivalent to the information contained on signs are more usable by pedestrians who are blind or have low vision. Remote infrared audible signs that transmit information to portable devices that are carried by and audible only to the user are an example of audible sign systems and other technologies.

R211.2 Pedestrian Signs. Signs, other than transit signs, that provide directions, warnings, or other information for pedestrians only shall comply with R410.

Advisory R211.2 Pedestrian Signs. Pedestrian route signs along an historic trail, sidewalk closure and pedestrian detour signs, and tourist information signs are examples of signs that provide directions, warnings, or other information for pedestrians only. Signs provided for motorists and pedestrians such as highway and street name signs are not required to comply with R410.

R211.3 Transit Signs. Signs that identify the routes served by transit stops shall comply with R410.

Advisory R211.3 Transit Signs. Transit schedules, timetables, and maps are not required to comply with R410.

R211.4 Accessible Parking Space and Passenger Loading Zone Signs. Accessible parking spaces and accessible passenger loading zones shall be identified by signs displaying the International Symbol of Accessibility complying with R411. At accessible parallel parking spaces and accessible passenger loading zones, the signs shall be located at the head or foot of the parking space or passenger loading zone.

R212 Street Furniture

R212.1 General. Where provided, street furniture shall comply with the applicable requirements in R212.

R212.2 Drinking Fountains. Drinking fountains shall comply with sections 602.1 through 602.6 of Appendix D to 36 CFR part 1191.

R212.3 Public Toilet Facilities. Public toilet facilities shall comply with sections 206.2.4 and 603 of Appendix D to 36 CFR part 1191. At least one fixture of each type provided shall comply with sections 604 through 610 of Appendix D to 36 CFR part 1191. Where multiple single-user public toilet facilities are clustered at a single location, at least 5 percent, but no less than one, of single-user toilets at each cluster shall comply with R212.3 and shall be identified by the International Symbol of Accessibility complying with R411.

R212.4 Tables. At least 5 percent, but no less than one, of tables at each location shall comply with section 902 of Appendix D to 36 CFR part 1191.

R212.5 Counters. Counters shall comply with section 904 of Appendix D to 36 CFR part 1191.

R212.6 Benches. At least 50 percent, but no less than one, of benches at each location shall provide clear space complying with R404 adjacent to the bench. The clear space shall be located either at one end of the bench or shall not overlap the area within 460 mm (1.5 ft) from the front edge of the bench. Benches at tables are not required to comply.

Advisory R212.6 Benches. Benches that provide full back support and armrests to assist in sitting and standing are more usable by pedestrians with disabilities.

R213 Transit Stops and Transit Shelters. Where provided, transit stops and transit shelters shall comply with R308.

Advisory R213 Transit Stops and Transit Shelters. Transit stops in the public right-of-way typically serve fixed route bus systems, including bus rapid transit systems, and light rail transit systems. Signs that identify the routes served by the transit stop must comply with the technical requirements for visual characters on signs unless audible sign systems or other technologies are used to provide the information (see R211 and R410). The Federal Highway Administration (FHWA) has issued guidance on the obligations of state transportation departments, metropolitan planning organizations, and transit agencies to coordinate the planning and funding of accessibility improvements to transit systems and facilities. The guidance is available at FHWA's website:
http://www.fhwa.dot.gov/civilrights/memos/ada_memo_clarificationa.htm.

R214 On-Street Parking Spaces. Where on-street parking is provided on the block perimeter and the parking is marked or metered, accessible parking spaces complying with R309 shall be provided in accordance with Table R214. Where parking pay stations are provided and the parking is not marked, each 6.1 m (20.0 ft) of block perimeter where parking is permitted shall be counted as one parking space.

Table R214 On-Street Parking Spaces

Total Number of Marked or Metered Parking Spaces on the Block Perimeter	Minimum Required Number of Accessible Parking Spaces
1 to 25	1
26 to 50	2
51 to 75	3
76 to 100	4
101 to 150	5
151 to 200	6
201 and over	4 percent of total

Advisory R214 On-Street Parking Spaces. The MUTCD contains provisions for marking on-street parking spaces (see section 3B.19). Metered parking includes parking metered by parking pay stations. Where parking on part of the block perimeter is altered, the minimum number of accessible parking spaces required is based on the total number of marked or metered parking spaces on the block perimeter.

R215 Passenger Loading Zones. Where passenger loading zones other than transit stops are provided, at least one accessible passenger loading zone complying with R310 shall be provided for each 30 m (100.0 ft) of continuous loading zone space or fraction thereof.

R216 Stairways and Escalators. Where provided on pedestrian circulation paths, stairways shall comply with R408 and escalators shall comply with section 810.9 of Appendix D to 36 CFR part 1191. Stairways and escalators shall not be part of a pedestrian access route.

R217 Handrails. Where provided on pedestrian circulation paths, handrails shall comply with R409.

R218 Doors, Doorways, and Gates. Except for shared use paths, doors, doorways, and gates provided at pedestrian facilities shall comply with section 404 of Appendix D to 36 CFR to 36 CFR part 1191.

Advisory R218 Doors, Doorways, and Gates. Enclosed transit shelters are an example of pedestrian facilities where doors and doorways are provided.

CHAPTER R3: TECHNICAL REQUIREMENTS

R301 General

R301.1 Scope. The technical requirements in Chapter 3 shall apply where required by Chapter 2 or where referenced by a requirement in this document.

R302 Pedestrian Access Routes

R302.1 General. Pedestrian access routes shall comply with R302.

R302.2 Components. Pedestrian access routes shall consist of one or more of the following components:

1. Sidewalks and other pedestrian circulation paths, or a portion of sidewalks and other pedestrian circulation paths, complying with R302.3 through R302.7;
2. Pedestrian street crossings and at-grade rail crossings complying with R302.3 through R302.7, and R306;
3. Pedestrian overpasses and underpasses and similar structures complying with R302.3 through R302.7;
4. Curb ramps and blended transitions complying with R302.7 and R304;
5. Ramps complying with R407;
6. Elevators and limited use/limited application elevators complying with sections 407 or 408 of Appendix D to 36 CFR part 1191;
7. Platform lifts complying with section 410 of Appendix D to 36 CFR part 1191; and
8. Doors, doorways, and gates complying with section 404 of Appendix D to 36 CFR part 1191.

Advisory R302.2 Components. The technical requirement for elevators, limited use/limited application elevators, platform lifts, and doors, doorways, and gates are contained in the Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities and the Architectural Barriers Act Accessibility Guidelines (36 CFR part 1191).

R302.3 Continuous Width. Except as provided in R302.3.1 and R302.3.2, the continuous clear width of pedestrian access routes shall be 1.2 m (4.0 ft) minimum, exclusive of the width of the curb.

Advisory R302.3 Continuous Width. The continuous clear width requirements in R302.3 apply to sidewalks and other pedestrian circulation paths, pedestrian street crossings and at-grade rail crossings, and pedestrian overpasses and underpasses and similar structures (see R302.2). Clear width requirements are contained in R304.5.1 for curb ramps and blended transitions, and in R407.4 for ramps. Where sidewalks are wider than 1.2 m (4.0 ft), only a portion of the sidewalk is required to comply with the requirements in R302.3 through R302.7. Additional maneuvering space should be provided at turns or changes in direction, transit stops, recesses and alcoves, building entrances, and along curved or angled routes, particularly where the grade exceeds 5 percent. R210 prohibits street furniture and other objects from reducing the minimum clear width of pedestrian access routes.

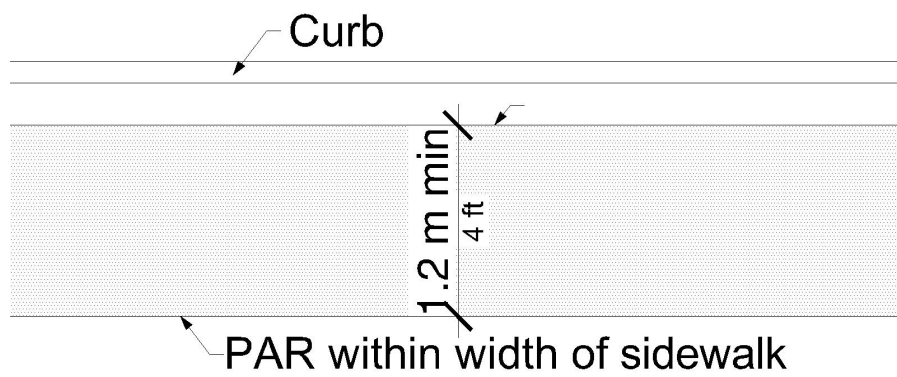


Figure R302.3
Continuous Width

R302.3.1 Medians and Pedestrian Refuge Islands. The clear width of pedestrian access routes within medians and pedestrian refuge islands shall be 1.5 m (5.0 ft) minimum.

R302.3.2 Shared Use Paths. A pedestrian access route shall be provided for the full width of a shared use path.

R302.4 Passing Spaces. Where the clear width of pedestrian access routes is less than 1.5 m (5.0 ft), passing spaces shall be provided at intervals of 61 m (200.0 ft) maximum. Passing spaces shall be 1.5 m (5.0 ft) minimum by 1.5 m (5.0 ft) minimum. Passing spaces are permitted to overlap pedestrian access routes.

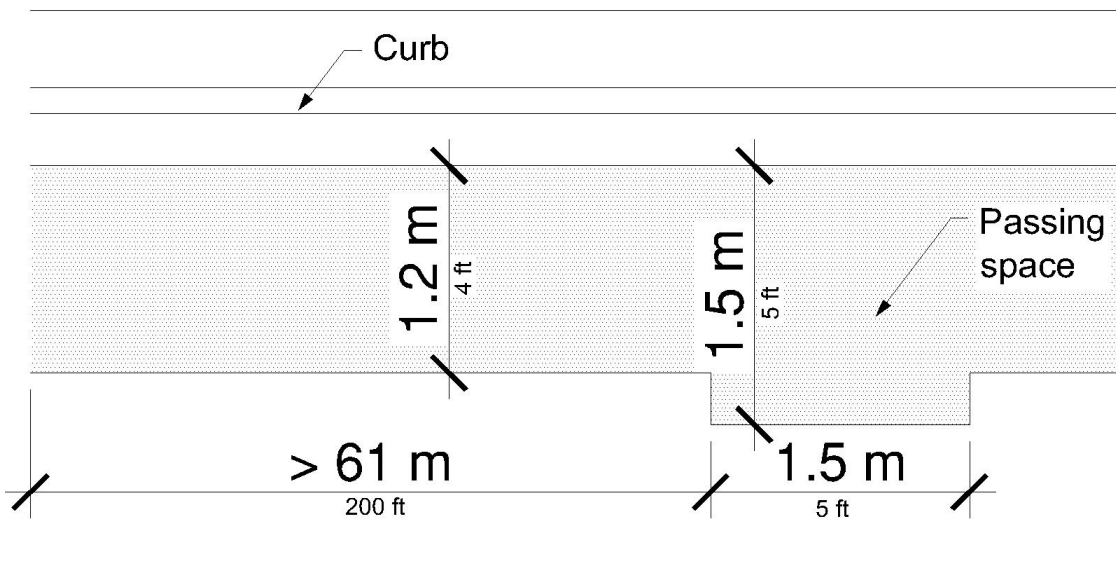


Figure R302.4
Passing Spaces

R302.5 Grade. The grade of pedestrian access routes shall comply with R302.5.

Advisory R302.5 Grade. The grade requirements in R302.5 apply to sidewalks and other pedestrian circulation paths, pedestrian street crossings and at-grade rail crossings, and pedestrian overpasses and underpasses and similar structures (see R302.2). The grade of the pedestrian access route is measured parallel to the direction of pedestrian travel. Running slope requirements are contained in R304.2.2 for perpendicular curb ramps, in R304.3.2 for parallel curb ramps, in R304.4.1 for blended transitions, and in R407.2 for ramps.

R302.5.1 Within Street or Highway Right-of-Way. Except as provided in R302.5.3, where pedestrian access routes are contained within a street or highway right-of-way, the grade of pedestrian access routes shall not exceed the general grade established for the adjacent street or highway.

R302.5.2 Not Within Street or Highway Right-of-Way. Where pedestrian access routes are not contained within a street or highway right-of-way, the grade of pedestrian access routes shall be 5 percent maximum.

R302.5.3 Within Pedestrian Street Crossings. Where pedestrian access routes are contained within a pedestrian street crossing, the grade of pedestrian access routes shall be 5 percent maximum.

R302.5.4 Physical Constraints. Where compliance with R302.5.1 or R302.5.2 is not practicable due to existing terrain or infrastructure, right-of-way availability, a notable natural feature, or similar existing physical constraints, compliance is required to the extent practicable.

R302.5.5 Regulatory Constraints. Where compliance with R302.5.1 or R302.5.2 is precluded by federal, state, or local laws the purpose of which is to preserve threatened or endangered species; the environment; or archaeological, cultural, historical, or significant natural features, compliance is required to the extent practicable.

R302.6 Cross Slope. Except as provided in R302.6.1 and R302.6.2, the cross slope of pedestrian access routes shall be 2 percent maximum.

Advisory R302.6 Cross Slope. The cross slope requirements in R302.6 apply to sidewalks and other pedestrian circulation paths, pedestrian street crossings and at-grade rail crossings, and pedestrian overpasses and underpasses and similar structures (see R302.2). The cross slope of the pedestrian access route is measured perpendicular to the direction of pedestrian travel. Cross slope requirements are contained in R304.5.3 for curb ramps and blended transitions, and in R407.3 for ramps.

R302.6.1 Pedestrian Street Crossings Without Yield or Stop Control. Where pedestrian access routes are contained within pedestrian street crossings without yield or stop control, the cross slope of the pedestrian access route shall be 5 percent maximum.

Advisory R302.6.1 Pedestrian Street Crossings Without Yield or Stop Control. Pedestrian street crossings without yield or stop control are crossings where there is no yield or stop sign, or where there is a traffic signal that is designed for the green phase. At pedestrian street crossings without yield or stop control, vehicles can proceed through the intersection without slowing or stopping. Where pedestrian access routes are contained within pedestrian street crossings with yield or stop control, the cross slope of the pedestrian access route must be 2 percent maximum (see R302.6). At pedestrian street crossings with yield or stop control, vehicles slow or stop before proceeding through the intersection.

R302.6.2 Midblock Pedestrian Street Crossings. Where pedestrian access routes are contained within midblock pedestrian street crossings, the cross slope of the pedestrian access route shall be permitted to equal the street or highway grade.

R302.7 Surfaces. The surfaces of pedestrian access routes and elements and spaces required to comply with R302.7 that connect to pedestrian access routes shall be firm, stable, and slip resistant and shall comply with R302.7.

Advisory R302.7 Surfaces. The surface requirements in R302.7 apply to sidewalks and other pedestrian circulation paths, pedestrian street crossings and at-grade rail crossings, pedestrian overpasses and underpasses and similar structures, and curb ramps and blended transitions (see R302.2). The surface requirements in R302.7 also apply to surfaces at the following accessible elements and spaces that connect to pedestrian access routes:

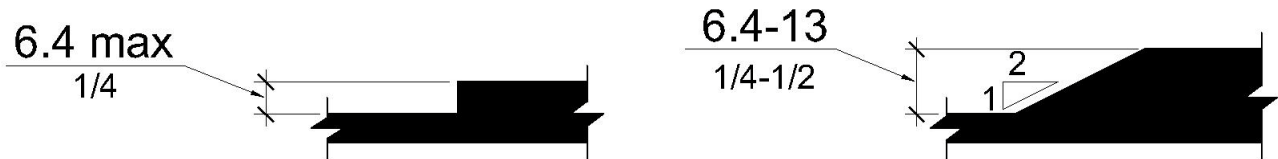
- Clear spaces (see R404.2), including clear spaces at operable parts (see R403.2) such as accessible pedestrian signals and pedestrian pushbuttons (see R209), clear spaces at street furniture such as benches (see R212.6), and clear spaces within transit shelters (see R308.2);
- Boarding and alighting areas and boarding platforms at transit stops (see R308.1.3.1);
- Access aisles at accessible parking spaces (see R309.2.1 and R309.3) and accessible passenger loading zones (see R310.3.4); and ramp runs and landings (see R407.7).

R302.7.1 Vertical Alignment. Vertical alignment shall be generally planar within pedestrian access routes (including curb ramp runs, blended transitions, turning spaces, and gutter areas within pedestrian access routes) and surfaces at other elements and spaces required to comply with R302.7 that connect to pedestrian access routes. Grade breaks shall be flush. Where pedestrian access routes cross rails at grade, the pedestrian access route surface shall be level and flush with the top of rail at the outer edges of the rails, and the surface between the rails shall be aligned with the top of rail.

Advisory R302.7.1 Vertical Alignment. Pedestrian access route surfaces must be generally planar and smooth. Surfaces should be chosen for easy rollability. Surfaces that are heavily textured, rough, or chamfered and paving systems consisting of individual units that cannot be laid in plane will greatly increase rolling resistance and subject pedestrians who use wheelchairs, scooters, and rolling walkers to the stressful and often painful effects of vibration. Such materials should be reserved for borders and decorative accents located outside of or only occasionally crossing the pedestrian access route. Surfaces should be designed, constructed, and maintained according to appropriate industry standards, specifications, and recommendations for best practice.

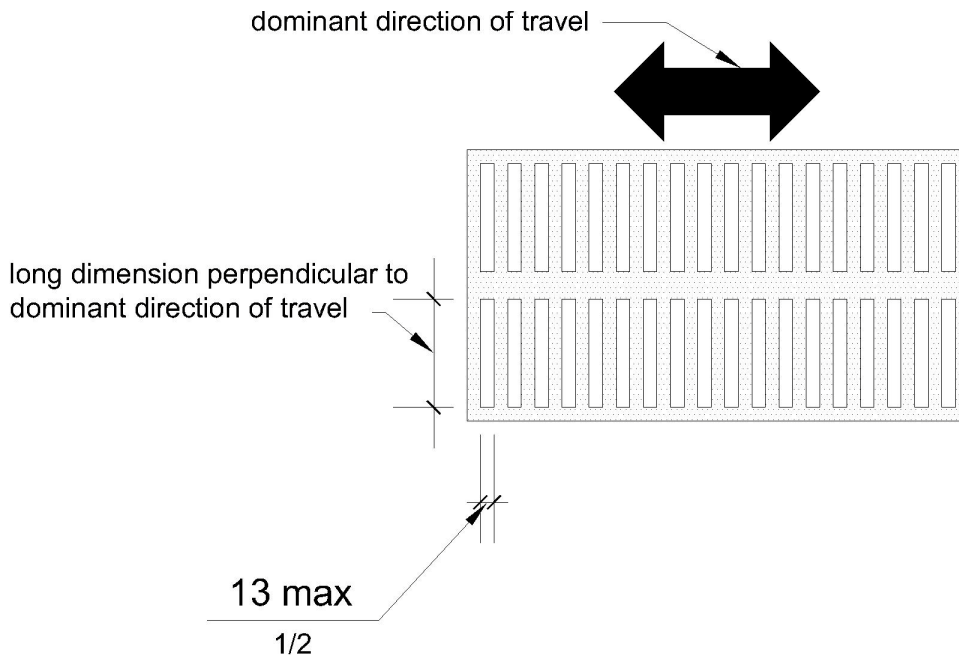
R302.7.2 Vertical Surface Discontinuities. Vertical surface discontinuities shall be 13 mm (0.5 in) maximum. Vertical surface discontinuities between 6.4 mm (0.25 in) and 13 mm (0.5 in) shall be beveled with a slope not steeper than 50 percent. The bevel shall be applied across the entire vertical surface discontinuity.

Advisory R302.7.2 Vertical Surface Discontinuities. The allowance for vertical surface discontinuities is for occasional expansion joints and objects such as utility covers, vault frames, and gratings that cannot be located in another portion of the sidewalk outside the pedestrian access route. However, objects such as utility covers, vault frames, and gratings should not be located on curb ramp runs, blended transitions, turning spaces, or gutter areas within the pedestrian access route. This may not always be possible in alterations, but should be avoided wherever possible. Vertical surface discontinuities between unit pavers should be minimized.



**Figure R302.7.2
Vertical Surface Discontinuities**

R302.7.3 Horizontal Openings. Horizontal openings in gratings and joints shall not permit passage of a sphere more than 13 mm (0.5 in) in diameter. Elongated openings in gratings shall be placed so that the long dimension is perpendicular to the dominant direction of travel.



**Figure R302.7.3
Horizontal Openings**

R302.7.4 Flangeway Gaps. Flangeway gaps at pedestrian at-grade rail crossings shall be 64 mm (2.5 in) maximum on non-freight rail track and 75 mm (3 in) maximum on freight rail track.

Advisory R302.7.4 Flangeway Gaps. Flangeway gaps are necessary to allow the passage of train wheel flanges. Flangeway gaps pose a potential hazard to pedestrians who use wheelchairs because the gaps can entrap the wheelchair casters.

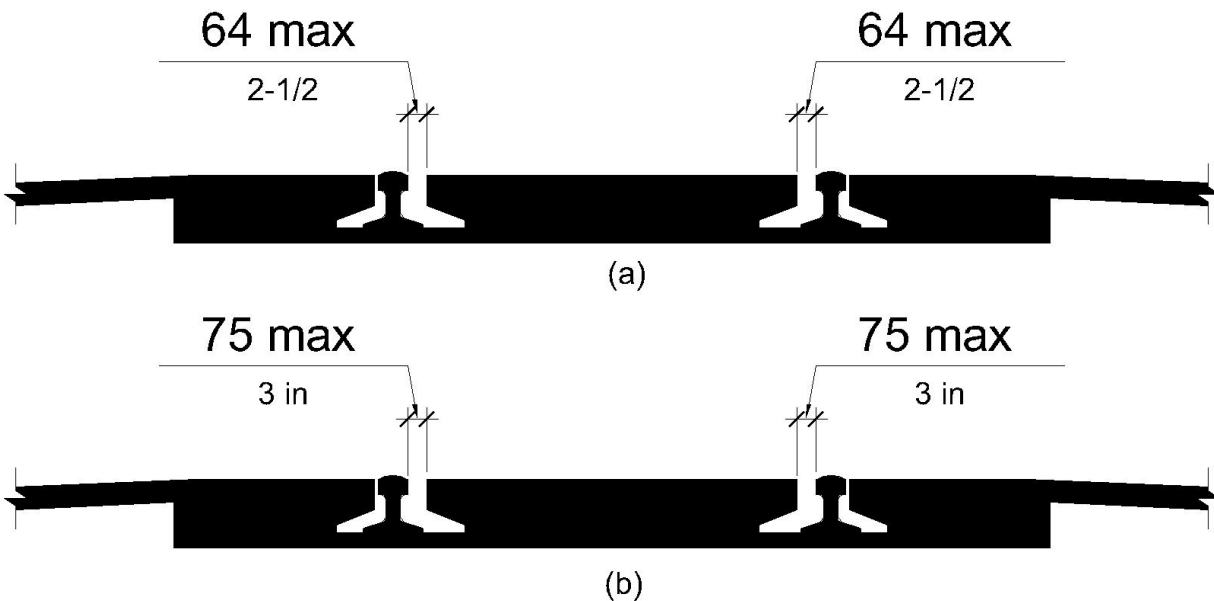


Figure R302.7.4
Flangeway Gaps

R303 Alternate Pedestrian Access Routes (See R205)

R304 Curb Ramps and Blended Transitions

R304.1 General. Curb ramps and blended transitions shall comply with R304.

Advisory R304.1 General. There are two types of curb ramps:

- Perpendicular curb ramps have a running slope that cuts through or is built up to the curb at right angles or meets the gutter break at right angles where the curb is curved. On large corner radiuses, it will be necessary to indent the gutter break on one side of the curb ramp in order for the curb ramp to meet the gutter break at right angles.
- Parallel curb ramps have a running slope that is in-line with the direction of sidewalk travel and lower the sidewalk to a level turning space where a turn is made to enter the pedestrian street crossing.

Advisory R304.1 General (continued). Perpendicular curb ramps can be provided where the sidewalk is at least 3.7 m (12.0 ft) wide. Parallel curb ramps can be provided where the sidewalk is at least 1.2 m (4.0 ft) wide. Parallel and perpendicular curb ramps can be combined. A parallel curb ramp is used to lower the sidewalk to a mid-landing and a short perpendicular curb ramp connects the landing to the street. Combination curb ramps can be provided where the sidewalk is at least 1.8 m (6.0 ft) wide.

Blended transitions are raised pedestrian street crossings, depressed corners, or similar connections between pedestrian access routes at the level of the sidewalk and the level of the pedestrian street crossing that have a grade of 5 percent or less. Blended transitions are suitable for a range of sidewalk conditions.

R304.2 Perpendicular Curb Ramps. Perpendicular curb ramps shall comply with R304.2 and R304.5.

R304.2.1 Turning Space. A turning space 1.2 m (4.0 ft) minimum by 1.2 m (4.0 ft) minimum shall be provided at the top of the curb ramp and shall be permitted to overlap other turning spaces and clear spaces. Where the turning space is constrained at the back-of-sidewalk, the turning space shall be 1.2 m (4.0 ft) minimum by 1.5 m (5.0 ft) minimum. The 1.5 m (5.0 ft) dimension shall be provided in the direction of the ramp run.

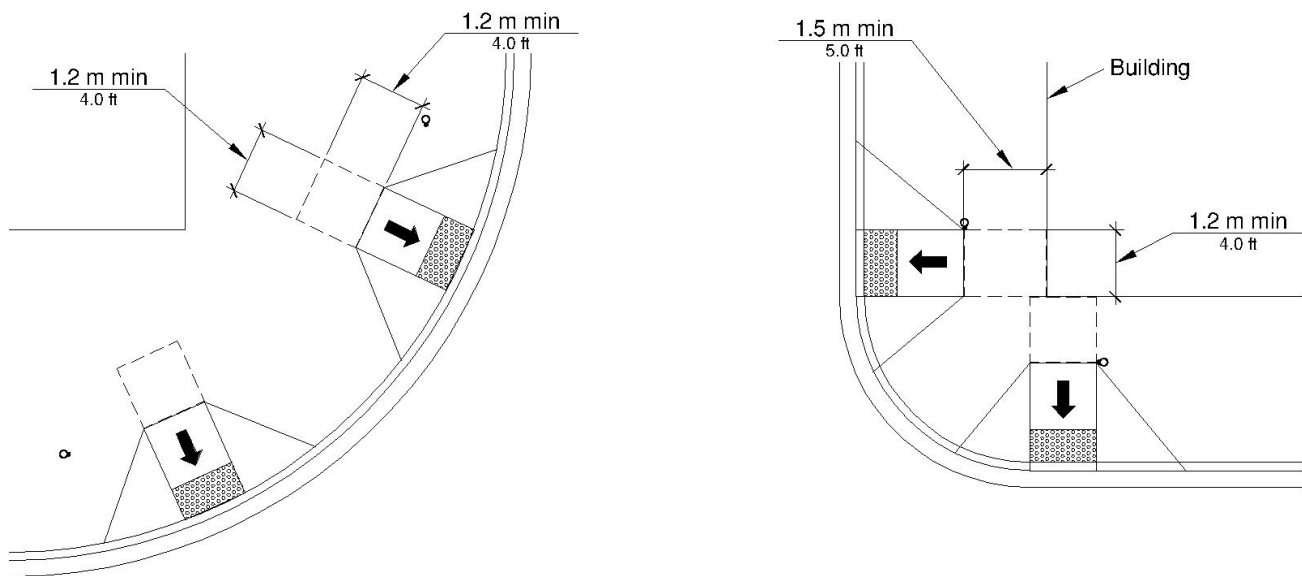
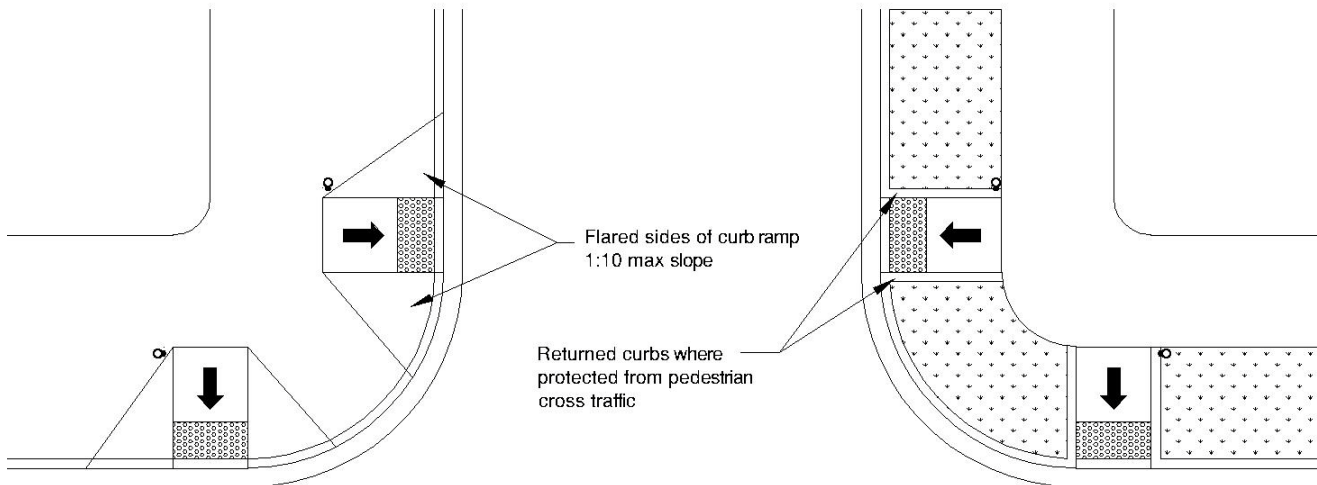


Figure R304.2.1
Turning Space

R304.2.2 Running Slope. The running slope of the curb ramp shall cut through or shall be built up to the curb at right angles or shall meet the gutter grade break at right angles where the curb is curved. The running slope of the curb ramp shall be 5 percent minimum and 8.3 percent maximum but shall not require the ramp length to exceed 4.5 m (15.0 ft). The running slope of the turning space shall be 2 percent maximum.

R304.2.3 Flared Sides. Where a pedestrian circulation path crosses the curb ramp, flared sides shall be sloped 10 percent maximum, measured parallel to the curb line.

Advisory R304.2.3 Flared Sides. The flared sides are part of the pedestrian circulation path, but are not part of the pedestrian access route. Curb ramps whose sides have returned curbs provide useful directional cues where they are aligned with the pedestrian street crossing and are protected from cross travel by landscaping, street furniture, chains, fencing, or railings.



**Figure R304.2.3
Flared Sides**

R304.3 Parallel Curb Ramps. Parallel curb ramps shall comply with R304.3 and R304.5.

R304.3.1 Turning Space. A turning space 1.2 m (4.0 ft) minimum by 1.2 m (4.0 ft) minimum shall be provided at the bottom of the curb ramp and shall be permitted to overlap other turning spaces and clear spaces. If the turning space is constrained on 2 or more sides, the turning space shall be 1.2 m (4.0 ft) minimum by 1.5 m (5.0 ft). The 1.5 m (5.0 ft) dimension shall be provided in the direction of the pedestrian street crossing.

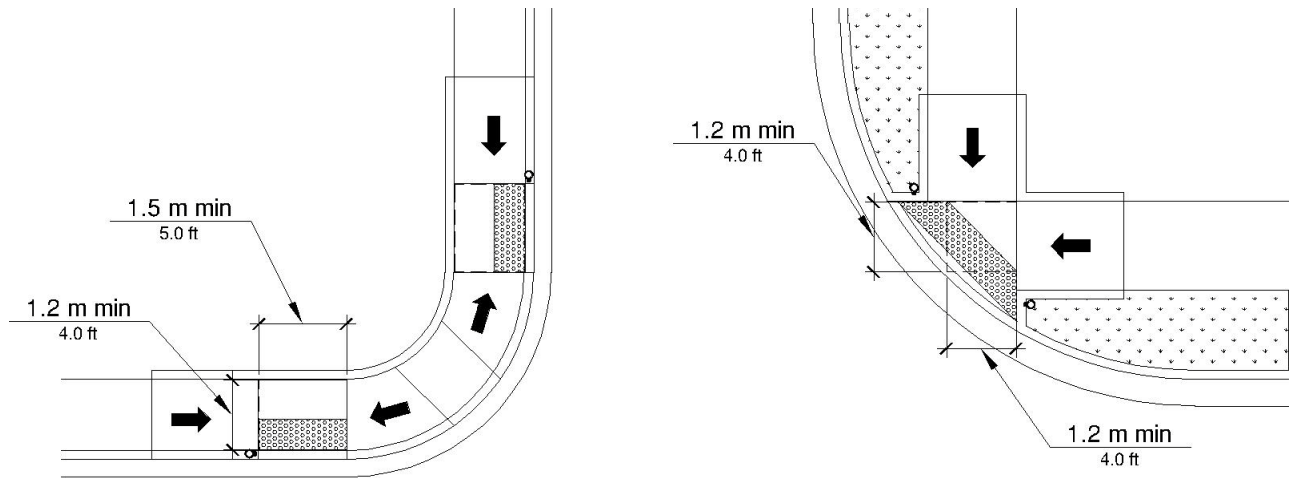


Figure R304.3.1
Turning Space

R304.3.2 Running Slope. The running slope of the curb ramp shall be in-line with the direction of sidewalk travel. The running slope of the curb ramp shall be 5 percent minimum and 8.3 percent maximum but shall not require the ramp length to exceed 4.5 m (15.0 ft) minimum. The running slope of the turning space shall be 2 percent maximum.

R304.4 Blended Transitions. Blended transitions shall comply with R304.4 and R304.5.

R304.4.1 Running Slope. The running slope of blended transitions shall be 5 percent maximum.

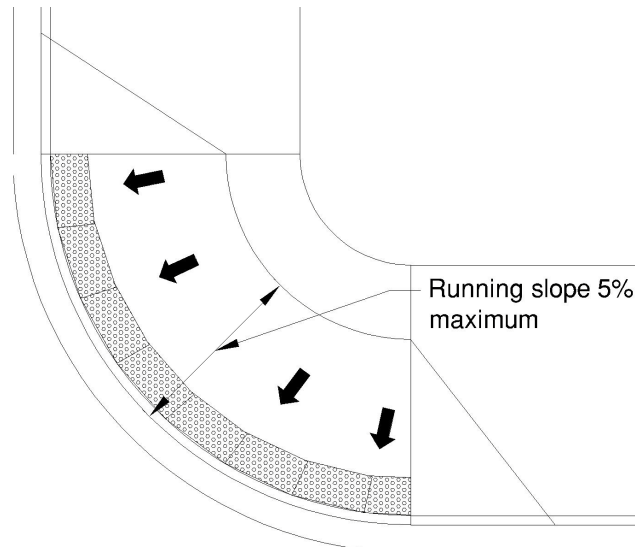


Figure R304.4.1
Running Slope

R304.5 Common Requirements. Curb ramps and blended transitions shall comply with R304.5.

R304.5.1 Width. The width of curb ramps and blended transitions shall comply with 304.5.1.1 or 304.5.1.2, as applicable. If provided, flared sides of curb ramp runs and blended transitions shall be located outside the width of the curb ramp run or blended transition.

R304.5.1.1 Pedestrian Circulation Paths Other Than Shared Use Paths. In pedestrian circulation paths other than shared use paths, the clear width of curb ramp runs, blended transitions, and turning spaces shall be 1.2 m (4.0 ft) minimum.

R304.5.1.2 Shared Use Paths. In shared use paths, the width of curb ramps runs and blended transitions shall be equal to the width of the shared use path.

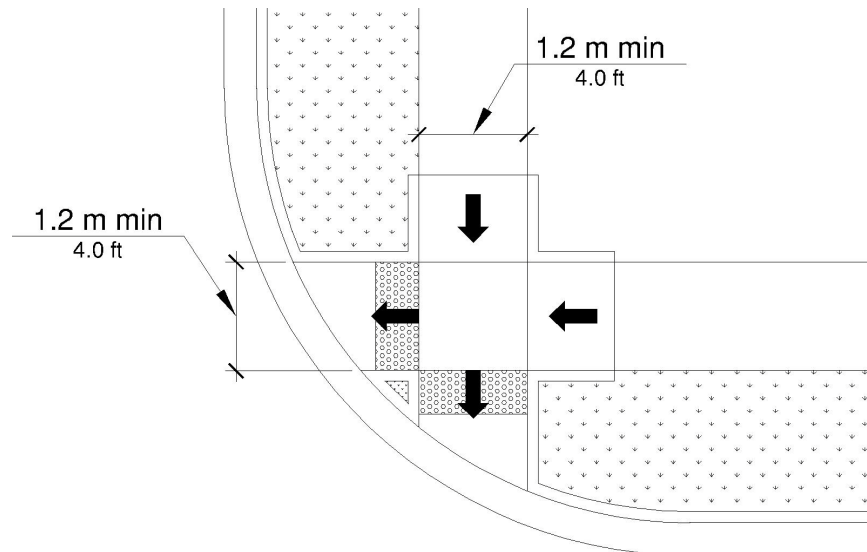


Figure R304.5.1
Width

R304.5.2 Grade Breaks. Grade breaks at the top and bottom of curb ramp runs shall be perpendicular to the direction of the ramp run. Grade breaks shall not be permitted on the surface of ramp runs and turning spaces. Surface slopes that meet at grade breaks shall be flush.

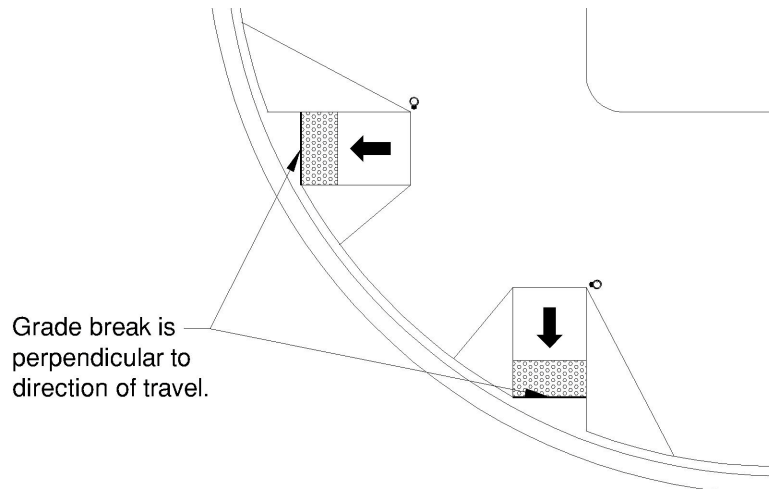


Figure R304.5.2
Grade Breaks

R304.5.3 Cross Slope. The cross slope of curb ramps, blended transitions, and turning spaces shall be 2 percent maximum. At pedestrian street crossings without yield or stop control and at midblock pedestrian street crossings, the cross slope shall be permitted to equal the street or highway grade.

Advisory R304.5.3 Cross Slope. Pedestrian street crossings without yield or stop control are crossings where there is no yield or stop sign, or where there is a traffic signal that is designed for the green phase. At pedestrian street crossings without yield or stop control, vehicles can proceed through the intersection without slowing or stopping.

R304.5.4 Counter Slope. The counter slope of the gutter or street at the foot of curb ramp runs, blended transitions, and turning spaces shall be 5 percent maximum.

R304.5.5 Clear Space. Beyond the bottom grade break, a clear space 1.2 m (4.0 ft) minimum by 1.2 m (4.0 ft) minimum shall be provided within the width of the pedestrian street crossing and wholly outside the parallel vehicle travel lane.

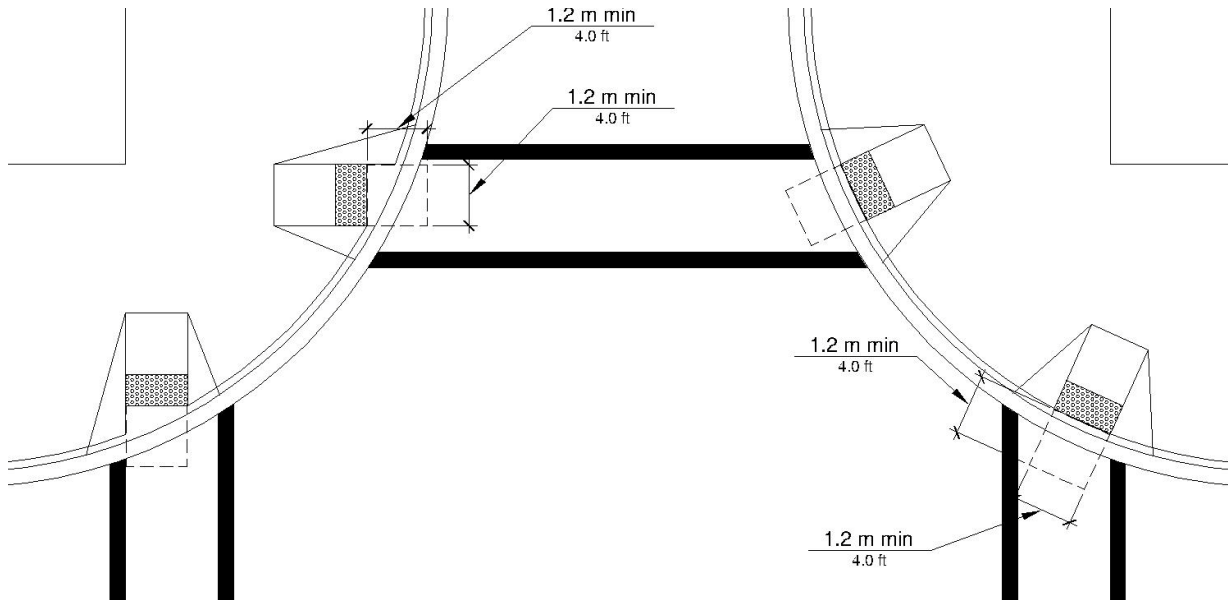


Figure R304.5.5
Clear Space

R305 Detectable Warning Surfaces

R305.1 General. Detectable warning surfaces shall consist of truncated domes aligned in a square or radial grid pattern and shall comply with R305.

R305.1.1 Dome Size. The truncated domes shall have a base diameter of 23 mm (0.9 in) minimum and 36 mm (1.4 in) maximum, a top diameter of 50 percent of the base diameter minimum and 65 percent of the base diameter maximum, and a height of 5 mm (0.2 in).

Advisory R305.1.1 Dome Size. Where the truncated domes are arrayed radially, they may differ in diameter and center-to-center spacing within the ranges specified in R305.1.1 and R305.1.2.

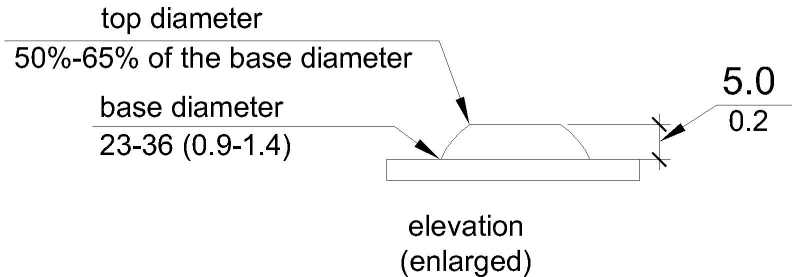
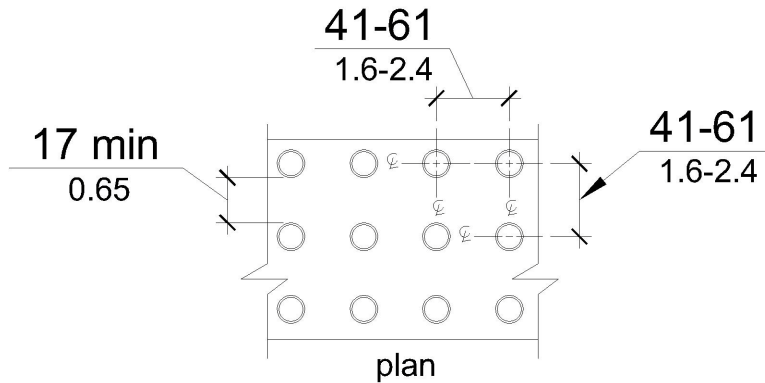


Figure R305.1.1
Dome Size

R305.1.2 Dome Spacing. The truncated domes shall have a center-to-center spacing of 41 mm (1.6 in) minimum and 61 mm (2.4 in) maximum, and a base-to-base spacing of 17 mm (0.65 in) minimum, measured between the most adjacent domes.



**Figure R305.1.2
Dome Spacing**

R305.1.3 Contrast. Detectable warning surfaces shall contrast visually with adjacent gutter, street or highway, or pedestrian access route surface, either light-on-dark or dark-on-light.

Advisory R305.1.3 Contrast. Visual contrast may be provided on the full surface of the curb ramp but should not extend to flared sides. Visual contrast also helps pedestrians who use wheelchairs to locate the curb ramp from the other side of the street.

R305.1.4 Size. Detectable warning surfaces shall extend 610 mm (2.0 ft) minimum in the direction of pedestrian travel. At curb ramps and blended transitions, detectable warning surfaces shall extend the full width of the ramp run (excluding any flared sides), blended transition, or turning space. At pedestrian at-grade rail crossings not located within a street or highway, detectable warnings shall extend the full width of the crossing. At boarding platforms for buses and rail vehicles, detectable warning surfaces shall extend the full length of the public use areas of the platform. At boarding and alighting areas at sidewalk or street level transit stops for rail vehicles, detectable warning surfaces shall extend the full length of the transit stop.

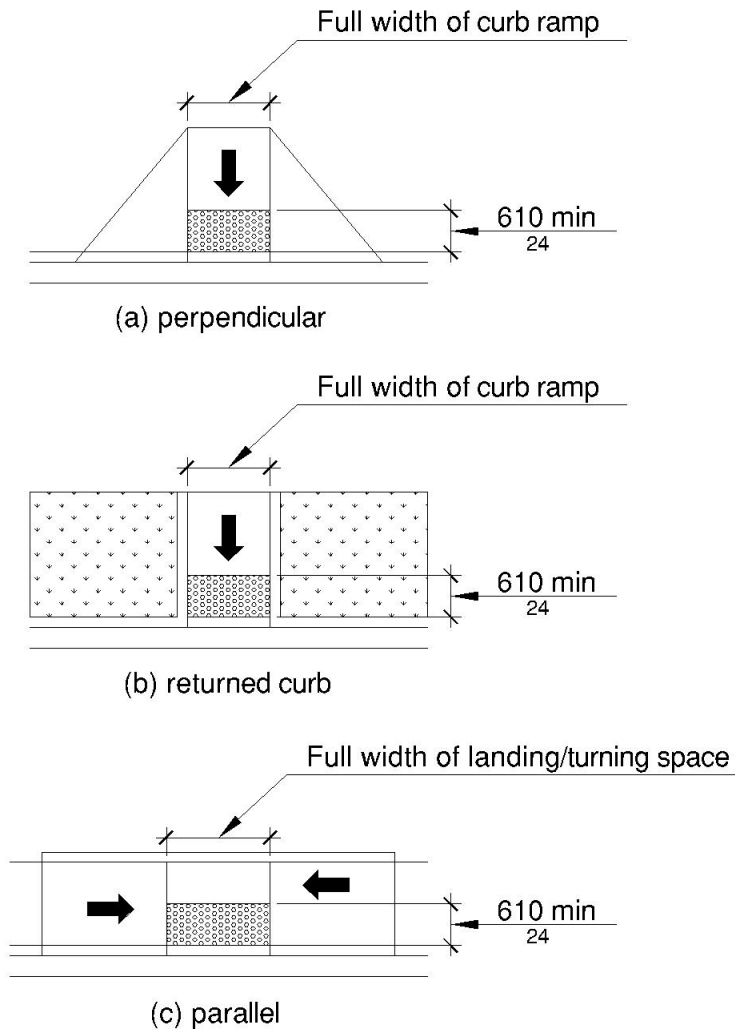


Figure R305.1.4
Size

R305.2 Placement. The placement of detectable warning surfaces shall comply with R305.2.

Advisory R305.2 Placement. Some detectable warning products require a concrete border for proper installation. The concrete border should not exceed 51 mm (2 in). Where the back of curb edge is tooled to provide a radius, the border dimension should be measured from the end of the radius.

R305.2.1 Perpendicular Curb Ramps. On perpendicular curb ramps, detectable warning surfaces shall be placed as follows:

1. Where the ends of the bottom grade break are in front of the back of curb, detectable warning surfaces shall be placed at the back of curb.

2. Where the ends of the bottom grade break are behind the back of curb and the distance from either end of the bottom grade brake to the back of curb is 1.5 m (5.0 ft) or less, detectable warning surfaces shall be placed on the ramp run within one dome spacing of the bottom grade break.

3. Where the ends of the bottom grade break are behind the back of curb and the distance from either end of the bottom grade brake to the back of curb is more than 1.5 m (5.0 ft), detectable warning surfaces shall be placed on the lower landing at the back of curb.

Advisory R305.2.1 Perpendicular Curb Ramps. Detectable warning surfaces are intended to provide a tactile equivalent underfoot of the visible curb line. If detectable warning surfaces are placed too far from the curb line because of a large curb radius, the location may compromise effective crossing. Detectable warning surfaces should not be placed on paving or expansion joints. The rows of truncated domes in detectable warning surfaces should be aligned perpendicular to the grade break between the ramp run and the street so pedestrians who use wheelchairs can "track" between the domes. Where detectable warning surfaces are provided on a surface with a slope that is less than 5 percent, dome orientation is less critical.

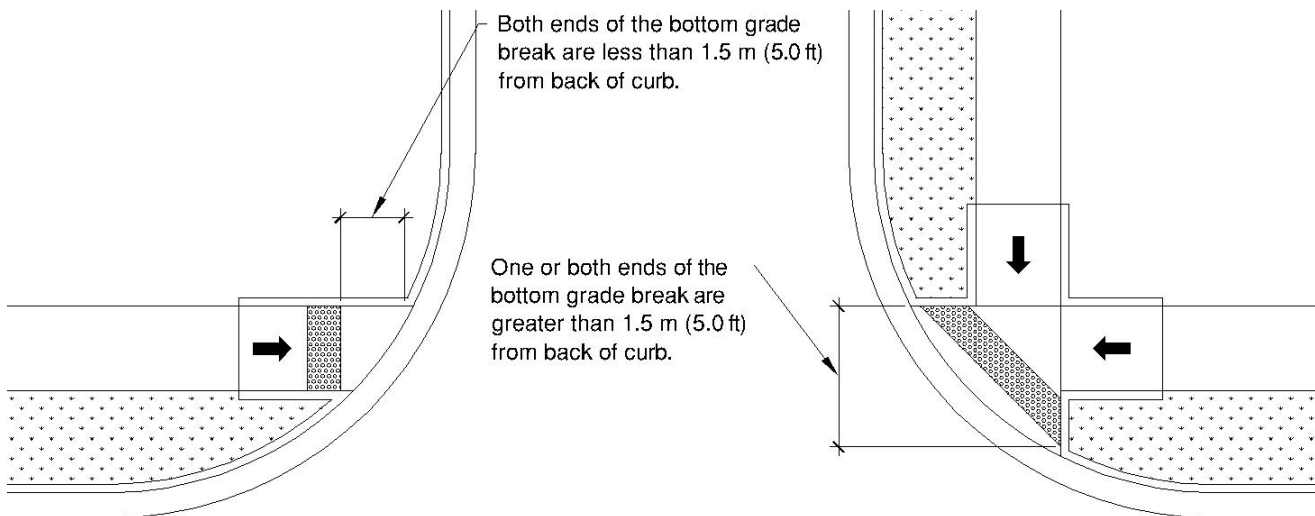
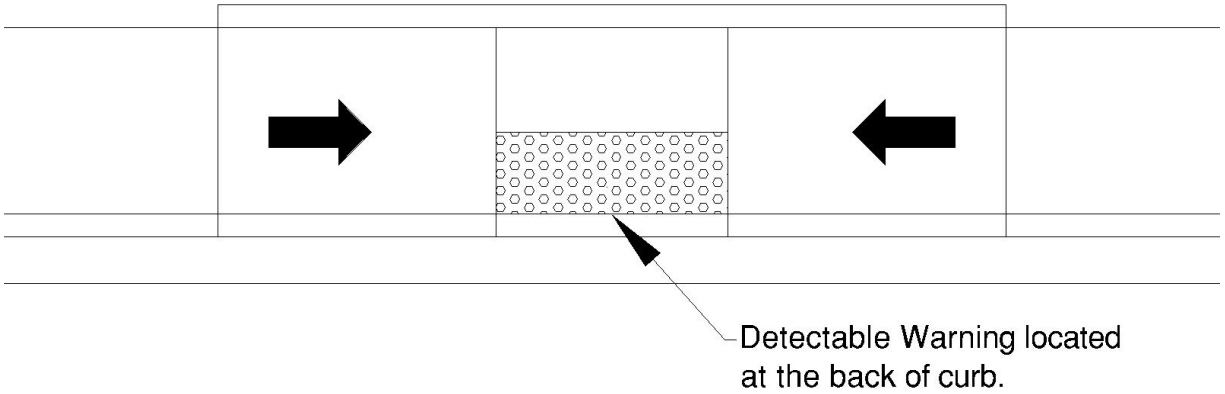


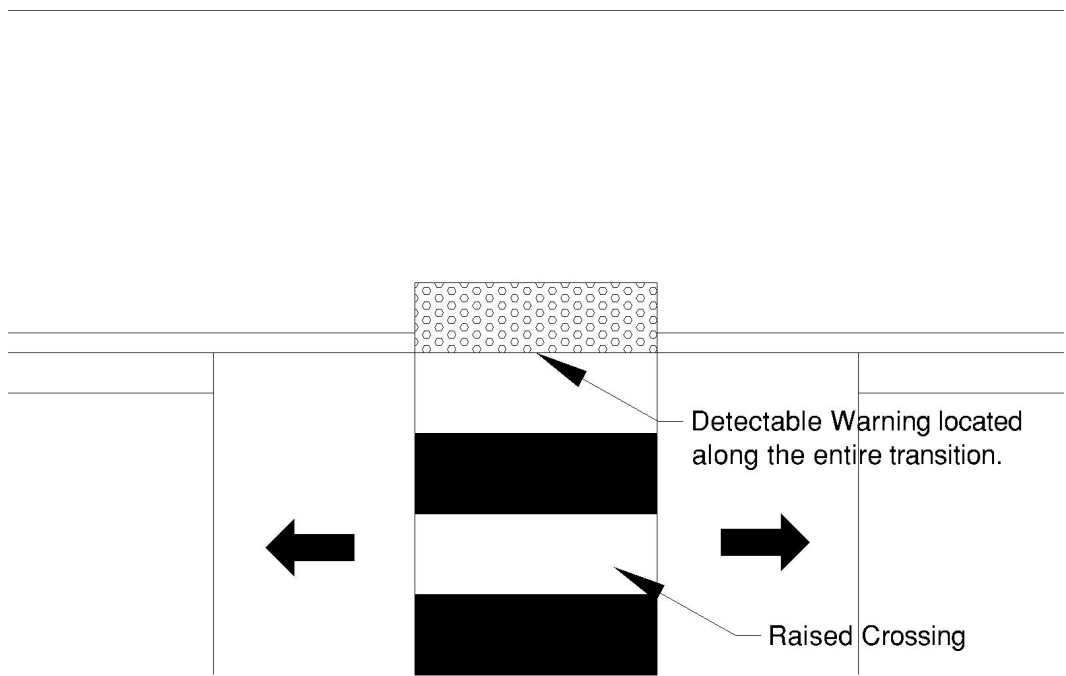
Figure R305.2.1
Perpendicular Curb Ramps

R305.2.2 Parallel Curb Ramps. On parallel curb ramps, detectable warning surfaces shall be placed on the turning space at the flush transition between the street and sidewalk.



**Figure R305.2.2
Parallel Curb Ramps**

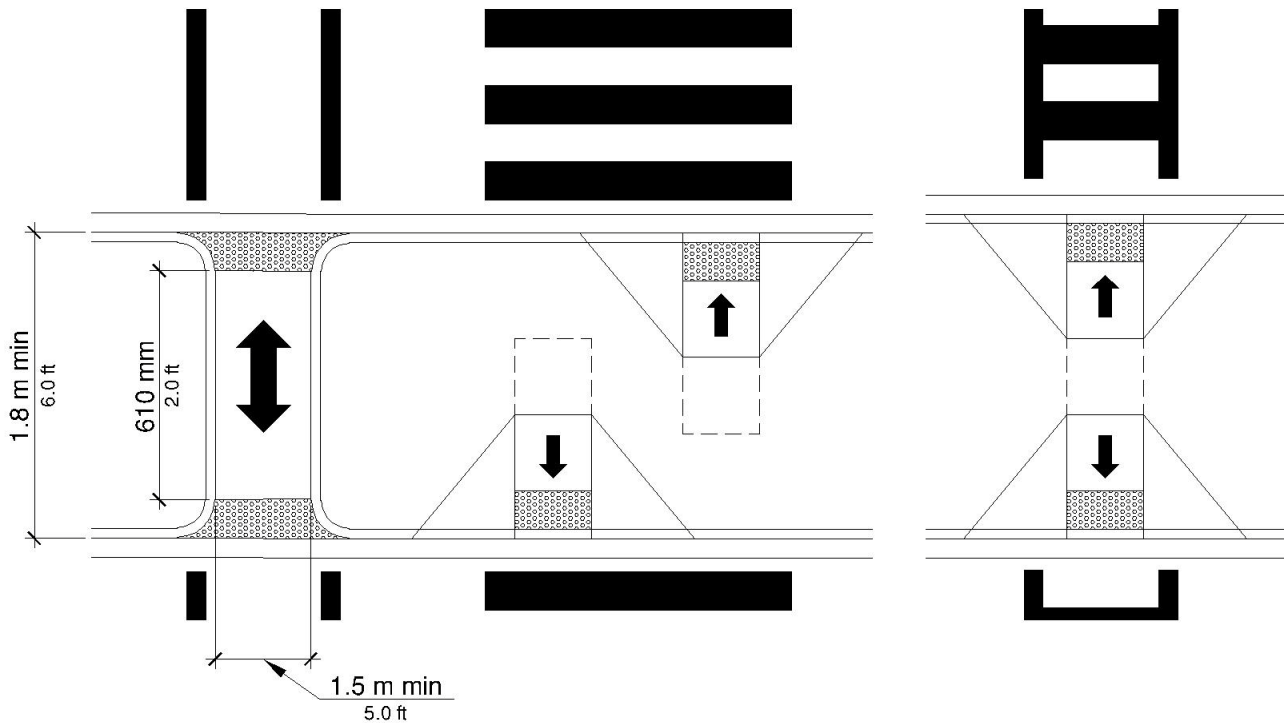
R305.2.3 Blended Transitions. On blended transitions, detectable warning surfaces shall be placed at the back of curb. Where raised pedestrian street crossings, depressed corners, or other level pedestrian street crossings are provided, detectable warning surfaces shall be placed at the flush transition between the street and the sidewalk.



**Figure R305.2.3
Blended Transitions**

R305.2.4 Pedestrian Refuge Islands. At cut-through pedestrian refuge islands, detectable warning surfaces shall be placed at the edges of the pedestrian island and shall be separated by a 610 mm (2.0 ft) minimum length of surface without detectable warnings.

Advisory R305.2.4 Pedestrian Refuge Islands. The edges of cut-through pedestrian refuge islands can provide useful cues to the direction of the crossing.



**Figure R305.2.4
Pedestrian Refuge Islands**

R305.2.5 Pedestrian At-Grade Rail Crossings. At pedestrian at-grade rail crossings not located within a street or highway, detectable warning surfaces shall be placed on each side of the rail crossing. The edge of the detectable warning surface nearest the rail crossing shall be 1.8 m (6.0 ft) minimum and 4.6 m (15.0 ft) maximum from the centerline of the nearest rail. Where pedestrian gates are provided, detectable warning surfaces shall be placed on the side of the gates opposite the rail.

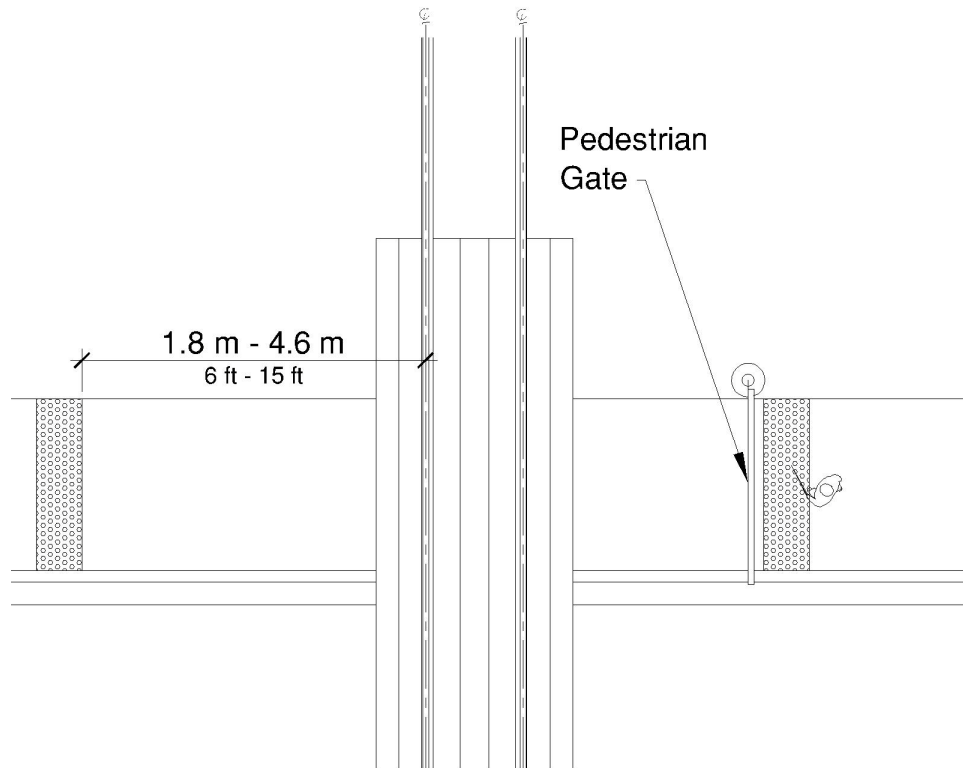


Figure R305.2.5
Pedestrian At-Grade Rail Crossings

R305.2.6 Boarding Platforms. At boarding platforms for buses and rail vehicles, detectable warning surfaces shall be placed at the boarding edge of the platform.

R305.2.7 Boarding and Alighting Areas. At boarding and alighting areas at sidewalk or street level transit stops for rail vehicles, detectable warning surfaces shall be placed at the side of the boarding and alighting area facing the rail vehicles.

R306 Pedestrian Street Crossings

R306.1 General. Pedestrian street crossings shall comply with R306.

R306.2 Pedestrian Signal Phase Timing. All pedestrian signal phase timing shall comply with section 4E.06 of the MUTCD (incorporated by reference, see R104.2) and shall be based on a pedestrian clearance time that is calculated using a pedestrian walking speed of 1.1 m/s (3.5 ft/s) or less.

R306.3 Roundabouts. Where pedestrian facilities are provided at roundabouts, they shall comply with R306.3.

Advisory R306.3 Roundabouts. Pedestrian street crossings at roundabouts can be difficult for pedestrians who are blind or have low vision to identify because the crossings are located off to the side of the pedestrian circulation path around the street or highway. The continuous traffic flow at roundabouts removes many of the audible cues that pedestrians who are blind use to navigate pedestrian street crossings. Water fountains and other features that produce background noise should not be placed in the middle island of a roundabout because pedestrians who are blind use auditory cues to help detect gaps in traffic. Multi-lane pedestrian street crossings at roundabouts involve an increased risk of pedestrian exposure to accident.

R306.3.1 Separation. Where sidewalks are flush against the curb and pedestrian street crossing is not intended, a continuous and detectable edge treatment shall be provided along the street side of the sidewalk. Detectable warning surfaces shall not be used for edge treatment. Where chains, fencing, or railings are used for edge treatment, they shall have a bottom edge 380 mm (15 in) maximum above the sidewalk.

Advisory R306.3.1 Separation. Carefully delineated pedestrian street crossing approaches with plantings or other defined edges provide effective non-visual cues for identifying pedestrian street crossings at roundabouts. European and Australian roundabouts provide a 610 mm (24 inch) width of tactile surface treatment from the centerline of the curb ramp or blended transition across the full width of the sidewalk to provide an underfoot cue for identifying pedestrian street crossings. Detectable warning surfaces should not be used to guide pedestrians who are blind or have low vision to pedestrian street crossings because detectable warning surfaces indicate the flush transition between the sidewalk and the street or highway. Schemes that remove cyclists from the street or highway by means of a ramp that angles from the curb lane to the sidewalk and then provide re-entry by means of a similar ramp beyond pedestrian street crossings can provide false cues to pedestrians who are using the edge of the sidewalk for wayfinding about the location of pedestrian street crossings.

R306.3.2 Pedestrian Activated Signals. At roundabouts with multi-lane pedestrian street crossings, a pedestrian activated signal complying with R209 shall be provided for each multi-lane segment of each pedestrian street crossing, including the splitter island. Signals shall clearly identify which pedestrian street crossing segment the signal serves.

Advisory R306.3.2 Pedestrian Activated Signals. Roundabouts with single-lane approach and exit legs are not required to provide pedestrian activated signals. Pedestrian activated signals must comply with the requirements for accessible pedestrian signals and pedestrian pushbuttons (see R209). Pedestrian activated signals installed at splitter islands should be carefully located and separated so that signal spillover does not give conflicting information about which pedestrian street crossing has the WALK indication displayed. Pedestrian Hybrid Beacons can be used at roundabouts (see MUTCD sections 4F.01 through 4F.03). Pedestrian Hybrid Beacons are traffic signals that consist of a yellow signal centered below two horizontally aligned red signals. The signals are normally not illuminated. The signals are initiated only upon pedestrian activation and can be timed to minimize the interruption of traffic. The signals cease operation after the pedestrian clears the crosswalk. When activated by a pedestrian, the following signals are displayed to drivers: a flashing yellow signal, then a steady yellow signal, then two steady red signals during the pedestrian walk interval, and then alternating flashing red signals during the pedestrian clearance interval. The following signals are displayed to pedestrians: a steady upraised hand (symbolizing DON'T WALK) when the flashing or steady yellow signal is operating, then a walking person (symbolizing WALK) when the steady red signals are operating, and then a flashing upraised hand (symbolizing DON'T WALK) when the alternating flashing red signals are operating.

R306.4 Channelized Turn Lanes at Roundabouts. At roundabouts with pedestrian street crossings, pedestrian activated signals complying with R209 shall be provided at pedestrian street crossings at multi-lane channelized turn lanes.

R306.5 Channelized Turn Lanes at Other Signalized Intersections. At signalized intersections other than roundabouts with pedestrian street crossings, pedestrian activated signals complying with R209 shall be provided at pedestrian street crossings at multi-lane channelized turn lanes.

R307 Accessible Pedestrian Signals and Pedestrian Pushbuttons (See R209)

R308 Transit Stops and Transit Shelters

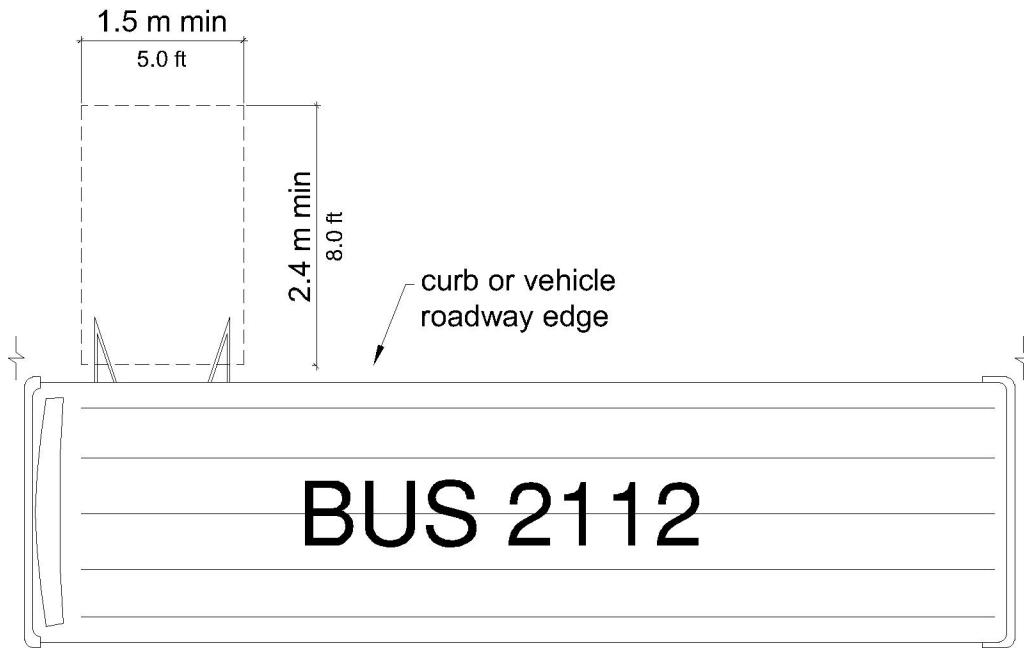
R308.1 Transit Stops. Transit stops shall comply with R308.1.

Advisory R308.1 Transit Stops. Transit stops should be located so that there is a level and stable surface for boarding vehicles. Locating transit stops at signalized intersections increases the usability for pedestrian with disabilities. Where security bollards are installed at transit stops, they must not obstruct the clear space at boarding and alighting areas or reduce the required clear width at pedestrian access routes (see R210).

R308.1.1 Boarding and Alighting Areas. Boarding and alighting areas at sidewalk or street level transit stops shall comply with R308.1.1 and R308.1.3. Where transit stops serve vehicles with more than one car, boarding and alighting areas serving each car shall comply with R308.1.1 and R308.1.3.

Advisory R308.1.1 Boarding and Alighting Areas. Where a transit shelter is provided, the boarding and alighting area can be located either within or outside of the shelter.

R308.1.1.1 Dimensions. Boarding and alighting areas shall provide a clear length of 2.4 m (8.0 ft) minimum, measured perpendicular to the curb or street or highway edge, and a clear width of 1.5 m (5.0 ft) minimum, measured parallel to the street or highway.



**Figure R308.1.1.1
Dimensions**

R308.1.1.2 Grade. Parallel to the street or highway, the grade of boarding and alighting areas shall be the same as the street or highway, to the extent practicable. Perpendicular to the street or highway, the grade of boarding and alighting areas shall not be steeper than 2 percent.

R308.1.2 Boarding Platforms. Boarding platforms at transit stops shall comply with R308.1.2 and R308.1.3.

R308.1.2.1 Platform and Vehicle Floor Coordination. Boarding platforms shall be positioned to coordinate with vehicles in accordance with the applicable requirements in 49 CFR parts 37 and 38.

Advisory R308.1.2.1 Platform and Vehicle Floor Coordination. The Department of Transportation regulations (49 CFR parts 37 and 38) require the height of the vehicle floor and the station platform to be coordinated so as to minimize the vertical and horizontal gaps.

R308.1.2.2 Slope. Boarding platforms shall not exceed a slope of 2 percent in any direction. Where boarding platforms serve vehicles operating on existing track or existing street or highway, the slope of the platform parallel to the track or the street or highway is permitted to be equal to the grade of the track or street or highway.

R308.1.3 Common Requirements. Boarding and alighting areas and boarding platforms shall comply with R308.1.3.

R308.1.3.1 Surfaces. The surfaces of boarding and alighting areas and boarding platforms shall comply with R302.7.

Advisory R308.1.3.1 Surfaces. Detectable warning surfaces are required at boarding and alighting areas for rail vehicles and at boarding platforms for buses and rail vehicles (see R208).

R308.1.3.2 Connection. Boarding and alighting areas and boarding platforms shall be connected to streets, sidewalks, or pedestrian circulation paths by pedestrian access routes complying with R302.

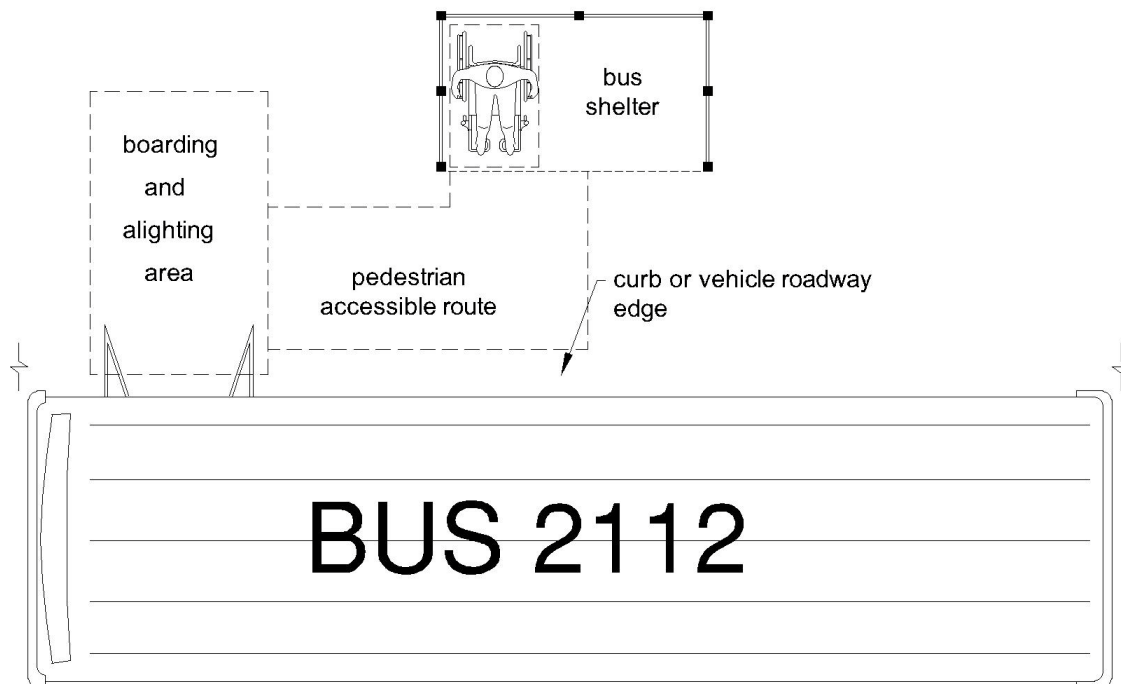


Figure R308.1.3.2
Connection

R308.2 Transit Shelters. Transit shelters shall be connected by pedestrian access routes complying with R302 to boarding and alighting areas or boarding platforms complying with R308.1. Transit shelters

shall provide a minimum clear space complying with R404 entirely within the shelter. Where seating is provided within transit shelters, the clear space shall be located either at one end of a seat or shall not overlap the area within 460 mm (1.5 ft) from the front edge of the seat. Environmental controls within transit shelters shall be proximity-actuated. Protruding objects within transit shelters shall comply with R402.

Advisory R308.2 Transit Shelters. The clear space must be located entirely within the transit shelter and not interfere with other persons using the seating.

R309 On-Street Parking Spaces

R309.1 General. On-street parking spaces shall comply with R309.

Advisory R309.1 General. R214 specifies how many accessible parking spaces must be provided on the block perimeter where on-street parking is marked or metered. Accessible parking spaces must be identified by signs displaying the International Symbol of Accessibility (see R211.3 and R411). Accessible parking spaces should be located where the street has the least crown and grade and close to key destinations.

R309.2 Parallel Parking Spaces. Parallel parking spaces shall comply with R309.2.

Advisory R309.2 Parallel Parking Spaces. The sidewalk adjacent to accessible parallel parking spaces should be free of signs, street furniture, and other obstructions to permit deployment of a van side-lift or ramp or the vehicle occupant to transfer to a wheelchair or scooter. Accessible parallel parking spaces located at the end of the block face are usable by vans that have rear lifts and cars that have scooter platforms.

R309.2.1 Wide Sidewalks. Where the width of the adjacent sidewalk or available right-of-way exceeds 4.3 m (14.0 ft), an access aisle 1.5 m (5.0 ft) wide minimum shall be provided at street level the full length of the parking space and shall connect to a pedestrian access route. The access aisle shall comply with R302.7 and shall not encroach on the vehicular travel lane.

Advisory R309.2.1 Wide Sidewalks. Vehicles may park at the curb or at the parking lane boundary and use the space required by R309.2.1 on either the driver or passenger side of the vehicle to serve as the access aisle.

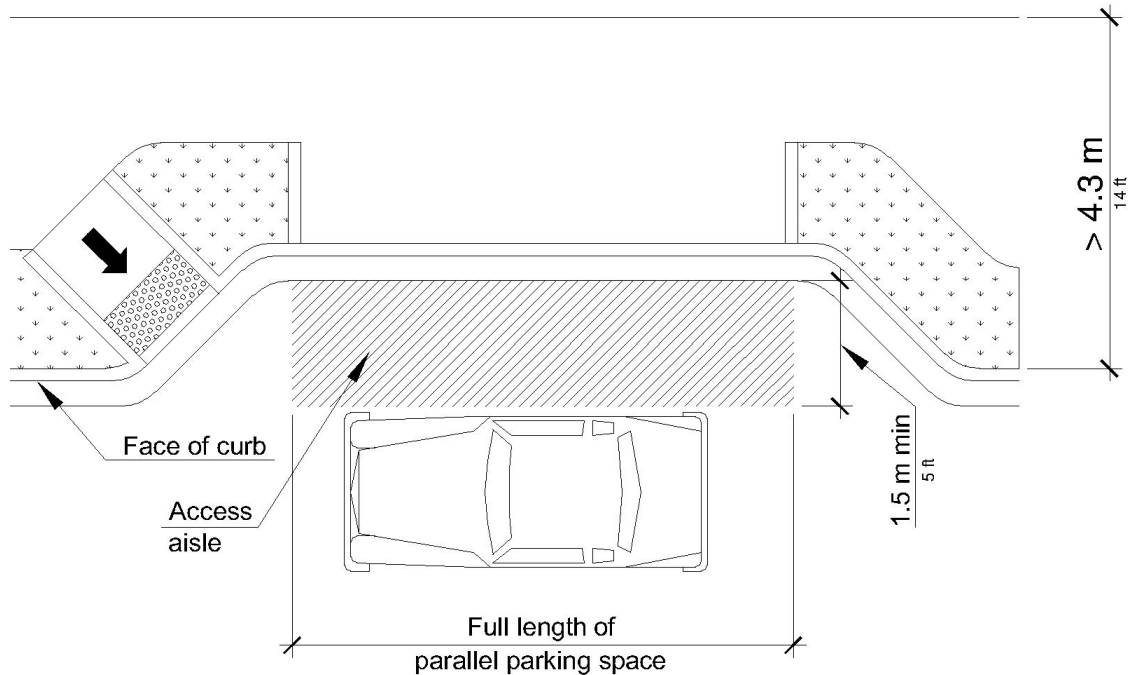


Figure R309.2.1
Wide Sidewalks

R309.2.1.1 Alterations. In alterations where the street or sidewalk adjacent to the parking spaces is not altered, an access aisle shall not be required provided the parking spaces are located at the end of the block face.

R309.2.2 Narrow Sidewalks. An access aisle is not required where the width of the adjacent sidewalk or the available right-of-way is less than or equal to 4.3 m (14.0 ft). When an access aisle is not provided, the parking spaces shall be located at the end of the block face.

Advisory R309.2.2 Narrow Sidewalks. Vehicle lifts or ramps can be deployed on a 2.4 m (8.0 ft) sidewalk if there are no obstructions.

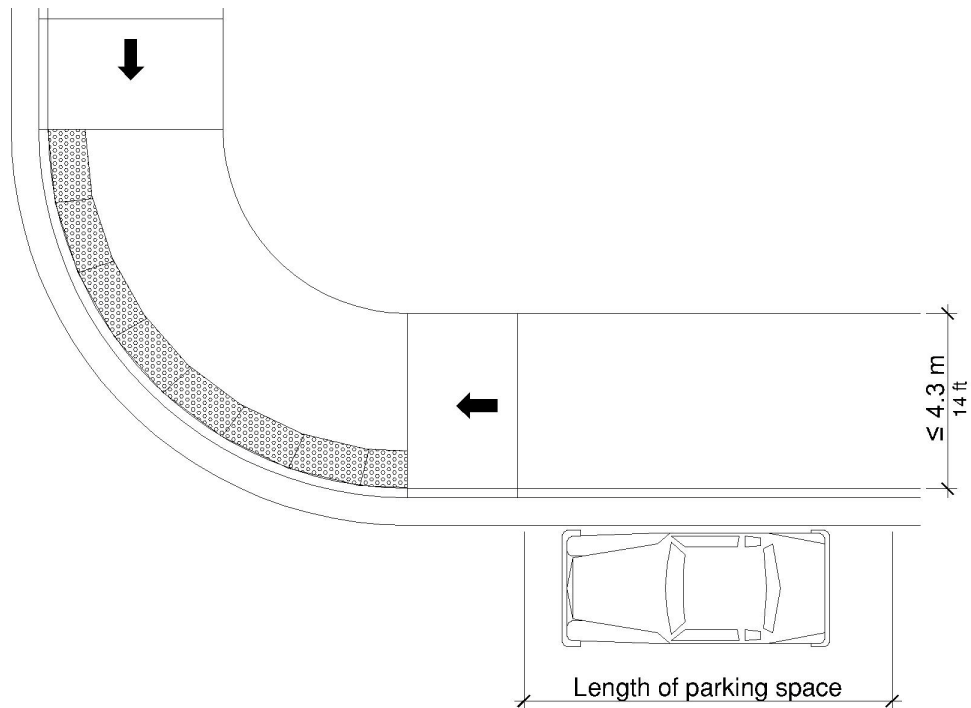


Figure R309.2.2
Narrow Sidewalks

R309.3 Perpendicular or Angled Parking Spaces. Where perpendicular or angled parking is provided, an access aisle 2.4 m (8.0 ft) wide minimum shall be provided at street level the full length of the parking space and shall connect to a pedestrian access route. The access aisle shall comply with R302.7 and shall be marked so as to discourage parking in the access aisle. Two parking spaces are permitted to share a common access aisle.

Advisory R309.3 Perpendicular or Angled Parking Spaces. Perpendicular and angled parking spaces permit the deployment of a van side-lift or ramp.

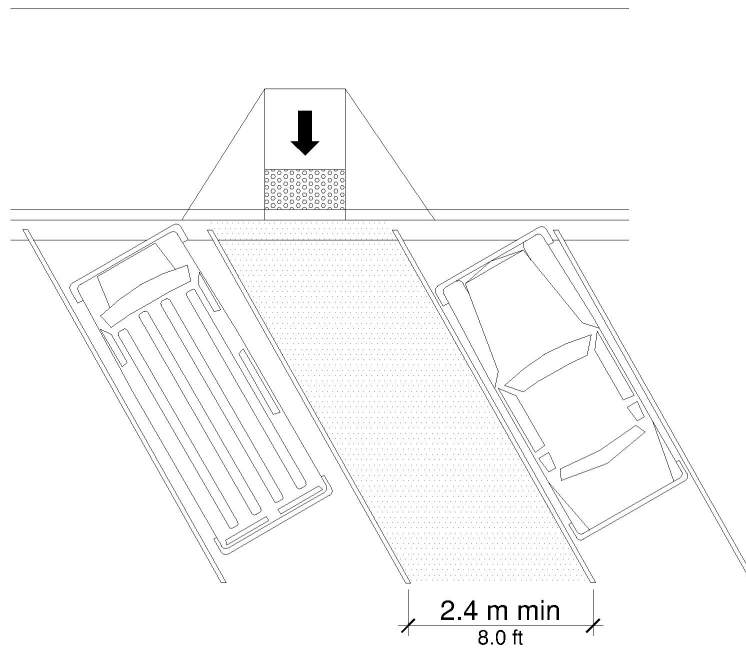


Figure R309.3
Perpendicular or Angled Parking Spaces

R309.4 Curb Ramps or Blended Transitions. Curb ramps or blended transitions complying with R304 shall connect the access aisle to the pedestrian access route. Curb ramps shall not be located within the access aisle.

Advisory R309.4 Curb Ramps or Blended Transitions. At parallel parking spaces, curb ramps and blended transitions should be located so that a van side-lift or ramp can be deployed to the sidewalk and the vehicle occupant can transfer to a wheelchair or scooter. Parking spaces at the end of the block face can be served by curb ramps or blended transitions at the pedestrian street crossing. Detectable warning surfaces are not required on curb ramps and blended transitions that connect the access aisle to the sidewalk, including where the sidewalk is at the same level as the parking spaces, unless the curb ramps and blended transitions also serve pedestrian street crossings (see R208).

R309.5 Parking Meters and Parking Pay Stations. Parking meters and parking pay stations that serve accessible parking spaces shall comply with R309.5. Operable parts shall comply with R403.

R309.5.1 Location. At accessible parallel parking spaces, parking meters shall be located at the head or foot of the parking space.

Advisory R309.5.1 Location. Locating parking meters at the head or foot of the parking space permits deployment of a van side-lift or ramp or the vehicle occupant to transfer to a wheelchair or scooter.

R309.5.2 Displays and Information. Displays and information shall be visible from a point located 1.0 m (3.3 ft) maximum above the center of the clear space in front of the parking meter or parking pay station.

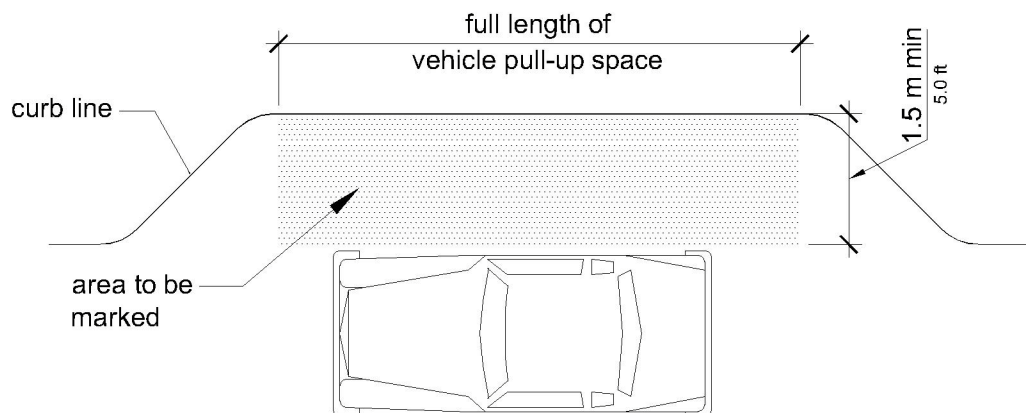
R310 Passenger Loading Zones

R310.1 General. Passenger loading zones shall comply with R310.

Advisory R310.1 General. Accessible passenger loading zones must be identified by signs displaying the International Symbol of Accessibility (see R211.3 and R411).

R310.2 Vehicle Pull-Up Space. Passenger loading zones shall provide a vehicular pull-up space 2.4 m (8.0 ft) wide minimum and 6.1 m (20.0 ft) long minimum.

R310.3 Access Aisle. Passenger loading zones shall provide access aisles complying with R310.3 adjacent to the vehicle pull-up space. Access aisles shall be at the same level as the vehicle pull-up space they serve and shall not overlap the vehicular travel lane. Curb ramps or blended transitions complying with R304 shall connect the access aisle to the pedestrian access route. Curb ramps are not permitted within the access aisle.



**Figure R310.3
Access Aisle**

R310.3.1 Width. Access aisles serving vehicle pull-up spaces shall be 1.5 m (5.0 ft) wide minimum.

R310.3.2 Length. Access aisles shall extend the full length of the vehicle pull-up spaces they serve.

R310.3.3 Marking. Access aisles shall be marked so as to discourage parking in them.

R310.3.4 Surfaces. Access aisle surfaces shall comply with R302.7.

CHAPTER R4: SUPPLEMENTARY TECHNICAL REQUIREMENTS

R401 General

R401.1 Scope. The supplemental technical requirements in Chapter 4 shall apply where required by Chapter 2 or where referenced by a requirement in this document.

R402 Protruding Objects

R402.1 General. Protruding objects shall comply with R402.

R402.2 Protrusion Limits. Objects with leading edges more than 685 mm (2.25 ft) and not more than 2 m (6.7 ft) above the finish surface shall protrude 100 mm (4 in) maximum horizontally into pedestrian circulation paths.

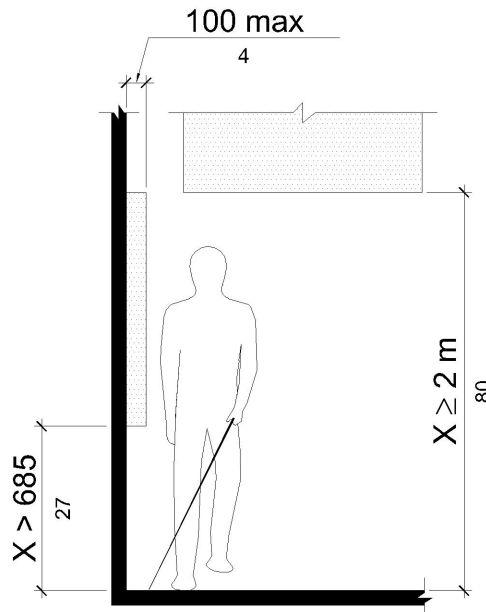


Figure R402.2
Protrusion Limits

R402.3 Post-Mounted Objects. Where objects are mounted on free-standing posts or pylons and the objects are 685 mm (2.25 ft) minimum and 2030 mm (6.7 ft) maximum above the finish surface, the objects shall overhang pedestrian circulation paths 100 mm (4 in) maximum measured horizontally from the post or pylon base. The base dimension shall be 64 mm (2.5 in) thick minimum. Where objects are mounted between posts or pylons and the clear distance between the posts or pylons is greater than 305 mm (1.0 ft), the lowest edge of the object shall be 685 mm (2.25 ft) maximum or 2 m (6.7 ft) minimum above the finish surface.

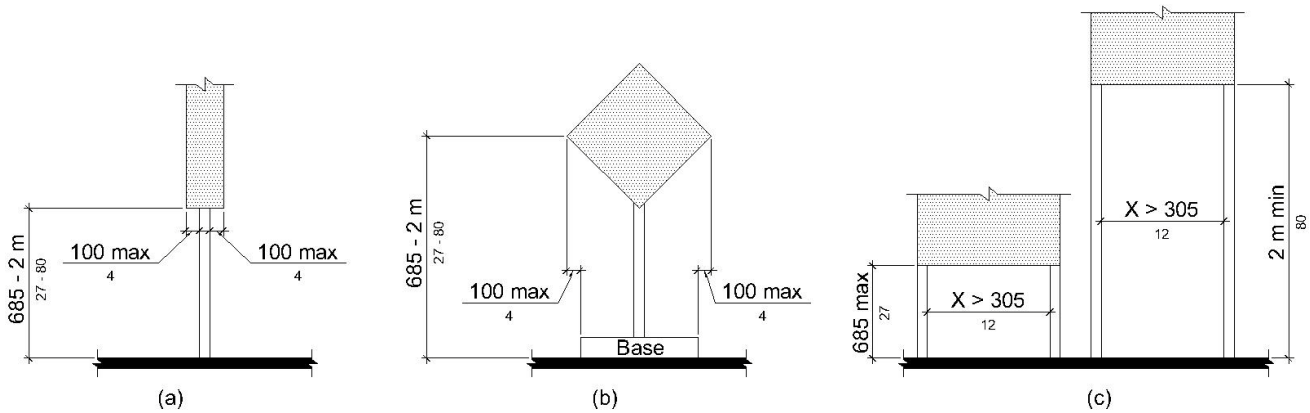


Figure R402.3
Post-Mounted Objects

R402.4 Reduced Vertical Clearance. Guardrails or other barriers to pedestrian travel shall be provided where the vertical clearance is less than 2 m (6.7 ft) high. The leading edge of the guardrail or barrier shall be located 685 mm (2.25 ft) maximum above the finish surface.

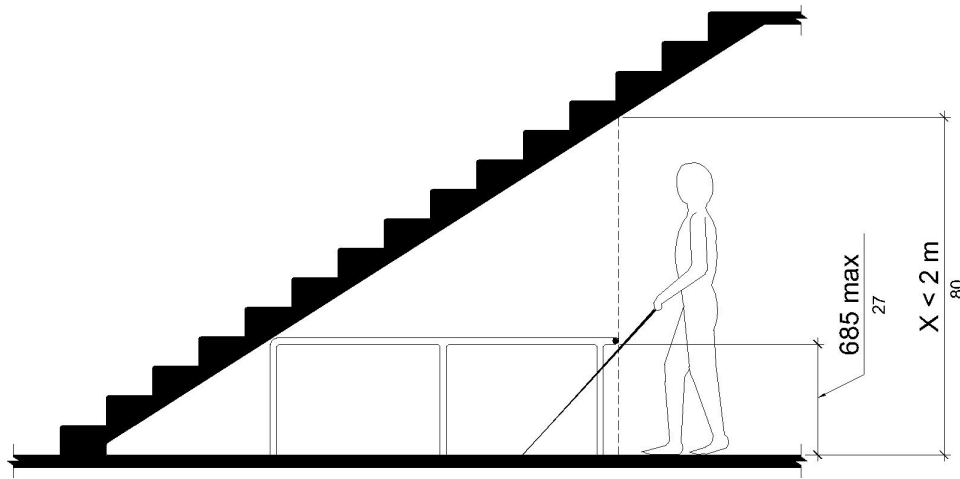


Figure R402.4
Reduced Vertical Clearance

R403 Operable Parts

R403.1 General. Operable parts shall comply with R403.

Advisory R403.1 General. Operable parts on accessible pedestrian signals and pedestrian pushbuttons (see R209) and parking meters and parking pay stations that serve accessible parking spaces (see R309.5) must comply with R403.

R403.2 Clear Space. A clear space complying with R404 shall be provided at operable parts.

R403.3 Height. Operable parts shall be placed within one or more of the reach ranges specified in R406.

R403.4 Operation. Operable parts shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist. The force required to activate operable parts shall be 22 N (5 lbs) maximum.

R404 Clear Spaces

R404.1 General. Clear spaces shall comply with R404.

Advisory R404.1 General. Clear spaces are required at operable parts (see R403.2), including accessible pedestrian signals and pedestrian pushbuttons (see R209) and parking meters and parking pay stations that serve accessible parking spaces (see R309.5). Clear spaces are also required at benches (see R212.6) and within transit shelters (see R308.2).

R404.2 Surfaces. Surfaces of clear spaces shall comply with R302.7 and shall have a running slope consistent with the grade of the adjacent pedestrian access route and cross slope of 2 percent maximum.

R404.3 Size. Clear spaces shall be 760 mm (2.5 ft) minimum by 1220 mm (4.0 ft) minimum.

R404.4 Knee and Toe Clearance. Unless otherwise specified, clear spaces shall be permitted to include knee and toe clearance complying with R405.

R404.5 Position. Unless otherwise specified, clear spaces shall be positioned for either forward or parallel approach to an element.

R404.6 Approach. One full unobstructed side of a clear space shall adjoin a pedestrian access route or adjoin another clear space.

R404.7 Maneuvering Space. Where a clear space is confined on all or part of three sides, additional maneuvering space shall be provided in accordance with R404.7.1 and R404.7.2.

R404.7.1 Forward Approach. The clear space and additional maneuvering space shall be 915 mm (3.0 ft) wide minimum where the depth exceeds 610 mm (2.0 ft).

R404.7.2 Parallel Approach. The clear space and additional maneuvering space shall be 1525 mm (5.0 ft) wide minimum where the depth exceeds 380 mm (1.25 ft).

R405 Knee and Toe Clearance

R405.1 General. Where space beneath an element is included as part of a clear space, the space shall comply with R405. Additional space shall not be prohibited beneath an element but shall not be considered as part of the clear space.

Advisory R405.1 General. Clearances are measured in relation to the usable clear space, not necessarily to the vertical support for an element. When determining clearance under an object, care should be taken to ensure that the space is clear of any obstructions.

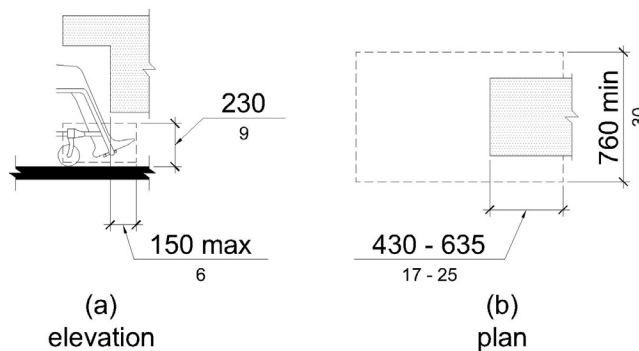
R405.2 Toe Clearance

R405.2.1 General. Space under an element between the finish surface and 230 mm (9 in) above the finish surface shall be considered toe clearance and shall comply with R405.2.

R405.2.2 Maximum Depth. Toe clearance shall extend 635 mm (2.1 ft) maximum under an element.

R405.2.3 Minimum Required Depth. Where toe clearance is required at an element as part of a clear space, the toe clearance shall extend 430 mm (1.4 ft) minimum under the element.

R405.2.4 Width. Toe clearance shall be 760 mm (2.5 ft) wide minimum.



**Figure R405.2
Toe Clearance**

R405.3 Knee Clearance

R405.3.1 General. Space under an element between 230 mm (9 in) and 685 mm (2.25 ft) above the finish surface shall be considered knee clearance and shall comply with R405.3.

R405.3.2 Maximum Depth. Knee clearance shall extend 635 mm (2.1 ft) maximum under an element at 230 mm (9 in) above the finish surface.

R405.3.3 Minimum Required Depth. Where knee clearance is required under an element as part of a clear space, the knee clearance shall be 280 mm (11 in) deep minimum at 230 mm (9 in) above the finish surface, and 205 mm (8 in) deep minimum at 685 mm (2.25 ft) above the finish surface.

R405.3.4 Clearance Reduction. Between 230 mm (9 in) and 685 mm (2.25 ft) above the finish surface, the knee clearance shall be permitted to reduce at a rate of 25 mm (1 in) in depth for each 150 mm (6 in) in height.

R405.3.5 Width. Knee clearance shall be 760 mm (2.5 ft) wide minimum.

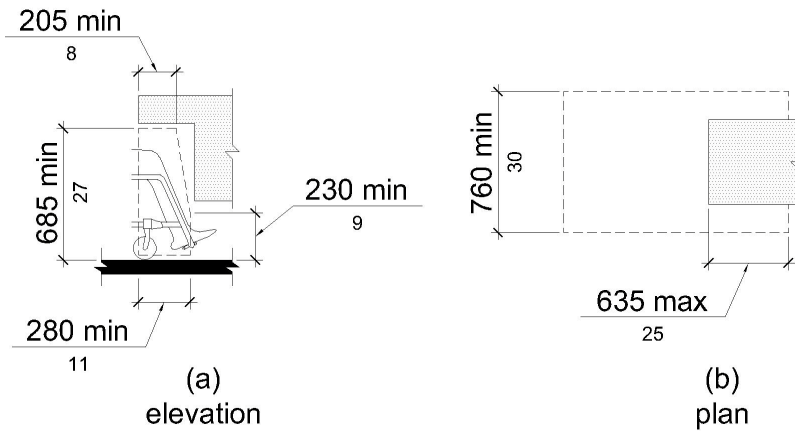


Figure R405.3
Knee Clearance

R406 Reach Ranges

R406.1 General. Reach ranges shall comply with R406.

R406.2 Unobstructed Forward Reach. Where a forward reach is unobstructed, the high forward reach shall be 1220 mm (4.0 ft) maximum and the low forward reach shall be 380 mm (1.25 ft) minimum above the finish surface. Forward reach over an obstruction is not permitted.

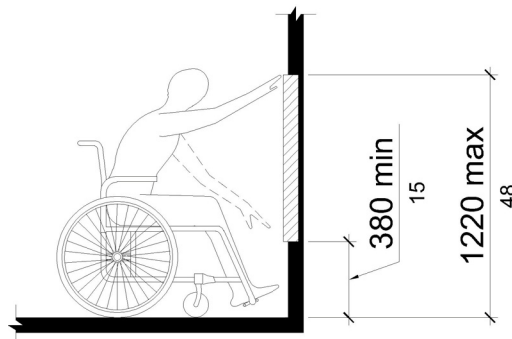


Figure R406.2
Unobstructed Forward Reach

R406.3 Unobstructed Side Reach. Where a clear space allows a parallel approach to an element and the side reach is unobstructed, the high side reach shall be 1220 mm (4.0 ft) maximum and the low side reach shall be 380 mm (1.25 ft) minimum above the finish surface. An obstruction shall be permitted between the clear space and the element where the depth of the obstruction is 255 mm (10 in) maximum.

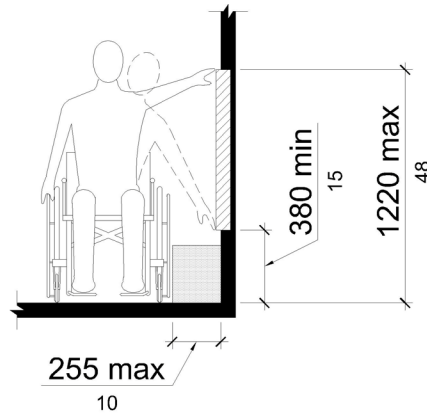


Figure R406.3
Unobstructed Side Reach

R407 Ramps

R407.1 General. Ramps shall comply with R407.

R407.2 Running Slope. Ramp runs shall have a running slope between 5 percent minimum and 8.3 percent maximum.

Advisory R407.2 Running Slope. Ramps with the least possible running slope accommodate the widest range of users. Providing stairways along with ramps, where possible, benefits pedestrians with heart disease, limited stamina, and others for whom distance presents a greater barrier than steps.

R407.3 Cross Slope. The cross slope of ramp runs shall be 2 percent maximum.

R407.4 Width. The clear width of a ramp run and, where handrails are provided, the clear width between handrails shall be 915 mm (3.0 ft) minimum.

R407.5 Rise. The rise for any ramp run shall be 760 mm (2.5 ft) maximum.

R407.6 Landings. Ramps shall have landings at the top and the bottom of each ramp run. Landings shall comply with R407.6.

R407.6.1 Slope. Landing slopes shall be 2 percent maximum in any direction.

R407.6.2 Width. The landing clear width shall be at least as wide as the widest ramp run leading to the landing.

R407.6.3 Length. The landing clear length shall be 1.5 m (5.0 ft) long minimum.

R407.6.4 Change in Direction. Ramps that change direction between runs at landings shall have a clear landing 1.5 m (5.0 ft) minimum by 1.5 m (5.0 ft) minimum.

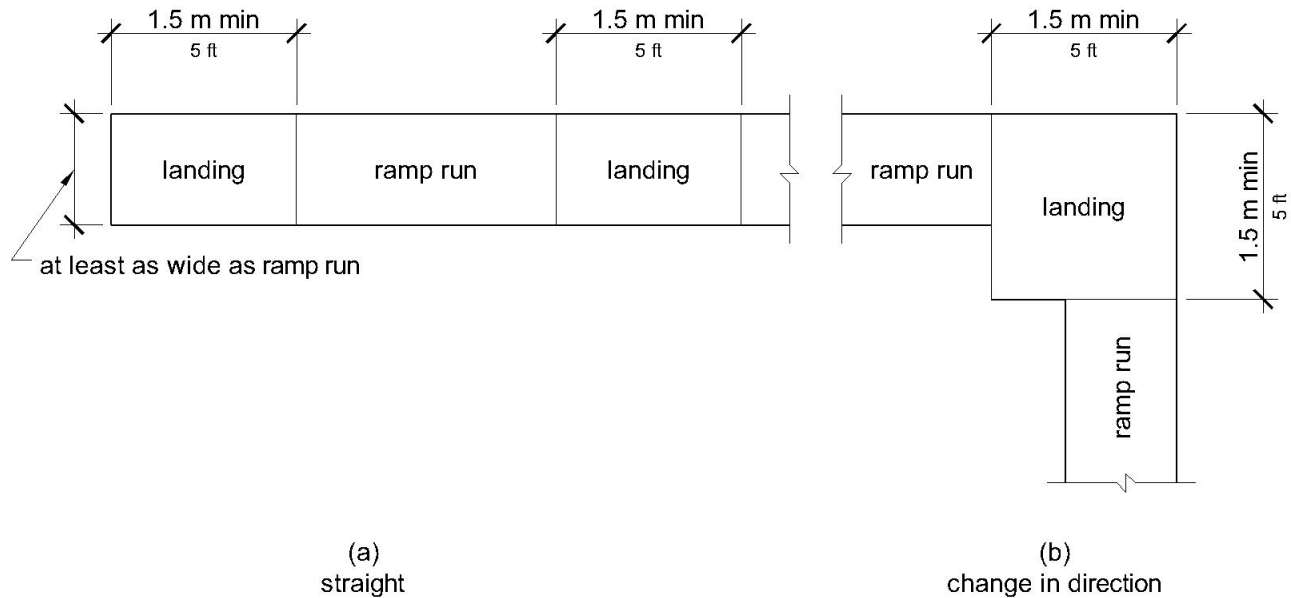


Figure R407.6
Landings

R407.7 Surfaces. Surfaces of ramp runs and landings shall comply with R302.7.

R407.8 Handrails. Ramp runs with a rise greater than 150 mm (6 in) shall have handrails complying with R409.

R407.9 Edge Protection. Edge protection complying with R407.9.1 or R407.9.2 shall be provided on each side of ramp runs and ramp landings.

R407.9.1 Extended Ramp Surface. The surface of the ramp run or landing shall extend 305 mm (1.0 ft) minimum beyond the inside face of a handrail complying with R409.

Advisory R407.9.1 Extended Ramp Surface. The extended surface prevents wheelchair casters and crutch tips from slipping off the ramp surface.

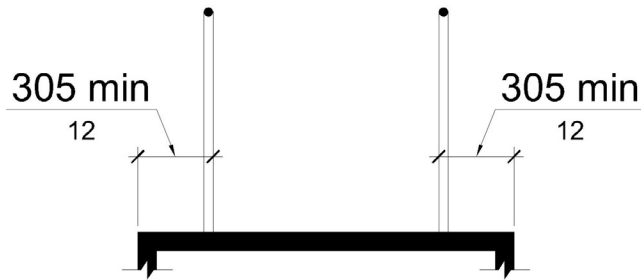


Figure R407.9.1
Extended Ramp Surface

R407.9.2 Curb or Barrier. A curb or barrier shall be provided that prevents the passage of a 100 mm (4 in) diameter sphere, where any portion of the sphere is within 100 mm (4 in) of the finish surface.

R408 Stairways

R408.1 General. Stairways shall comply with R408.

R408.2 Treads and Risers. All steps on a flight of stairs shall have uniform riser heights and uniform tread depths. Risers shall be 100 mm (4 in) high minimum and 180 mm (7 in) high maximum. Treads shall be 280 mm (11 in) deep minimum.

R408.3 Open Risers. Open risers are not permitted.

R408.4 Tread Surface. Stairway treads shall comply with R302.7. Changes in level are not permitted.

R408.5 Nosings. The radius of curvature at the leading edge of the tread shall be 13 mm (0.5 inch) maximum. Nosings that project beyond risers shall have the underside of the leading edge curved or beveled. Risers shall be permitted to slope under the tread at an angle of 30 degrees maximum from vertical. The permitted projection of the nosing shall extend 38 mm (1.5 in) maximum over the tread below.

R408.6 Handrails. Stairways shall have handrails complying with R409.

R409 Handrails

R409.1 General. Handrails required at ramps and stairways, and handrails provided on pedestrian circulation paths shall comply with R409.

Advisory R409.1 General. Handrails are required on ramp runs with a rise greater than 150 mm (6 in) (see R407.8) and stairways (see R408.6). Handrails are not required on pedestrian circulation paths. However, if handrails are provided on pedestrian circulation paths, the handrails must comply with R409 (see R217). The requirements in R409.2, R409.3, and R409.10 apply only to handrails at ramps and stairways, and do not apply to handrails provided on pedestrian circulation paths.

R409.2 Where Required. Handrails shall be provided on both sides of ramps and stairways.

R409.3 Continuity. Handrails shall be continuous within the full length of each ramp run or stair flight. Inside handrails on switchback or dogleg ramps and stairways shall be continuous between ramp runs or stair flights.

R409.4 Height. Top of gripping surfaces of handrails shall be 865 mm (2.8 ft) minimum and 965 mm (3.2 ft) maximum vertically above walking surfaces, ramp surfaces, and stair nosings. Handrails shall be at a consistent height above walking surfaces, ramp surfaces, and stair nosings.

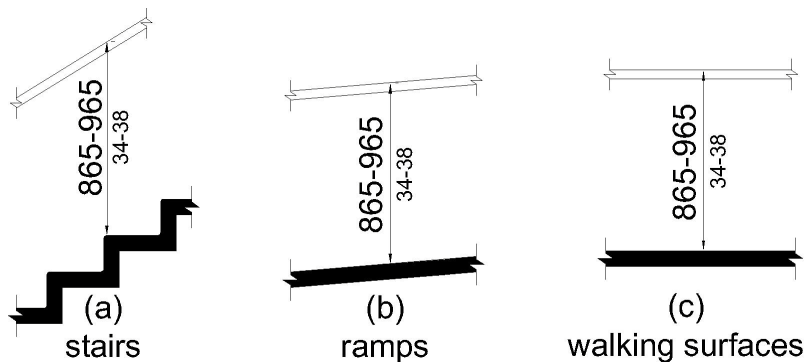


Figure R409.4
Height

R409.5 Clearance. Clearance between handrail gripping surfaces and adjacent surfaces shall be 38 mm (1.5 in) minimum.

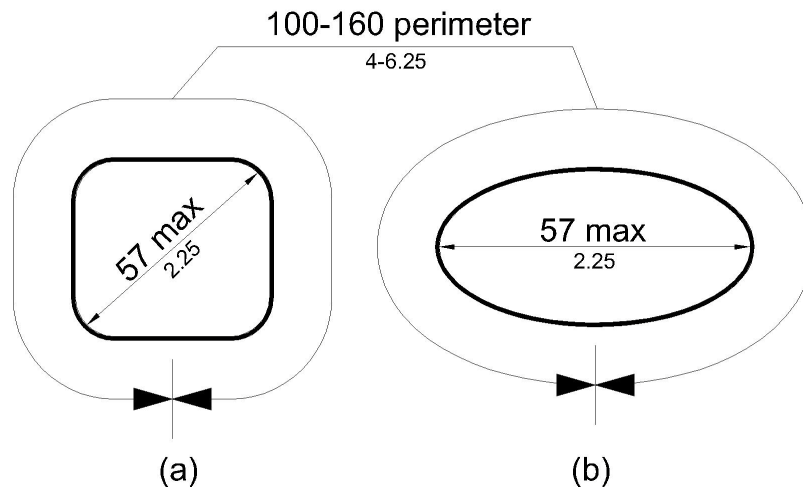
R409.6 Gripping Surface. Handrail gripping surfaces shall be continuous along their length and shall not be obstructed along their tops or sides. The bottoms of handrail gripping surfaces shall not be obstructed for more than 20 percent of their length. Where provided, horizontal projections shall occur 38 mm (1.5 in) minimum below the bottom of the handrail gripping surface.

Advisory R409.6 Gripping Surface. Pedestrians with disabilities and others benefit from continuous gripping surfaces that permit users to reach the fingers outward or downward to grasp the handrail.

R409.7 Cross Section. Handrail gripping surfaces shall have a cross section complying with R409.7.1 or R409.7.2. Where expansion joints are necessary for large spans of handrails, the expansion joint is permitted to be smaller than the specified cross section diameters for a 25mm (1 in) length.

R409.7.1 Circular Cross Section. Handrail gripping surfaces with a circular cross section shall have an outside diameter of 32 mm (1.25 in) minimum and 51 mm (2 in) maximum.

R409.7.2 Non-Circular Cross Sections. Handrail gripping surfaces with a non-circular cross section shall have a perimeter dimension of 100 mm (4 in) minimum and 160 mm (6.25 in) maximum, and a cross-section dimension of 57 mm (2.25 in) maximum.



**Figure R409.7.2
Non-Circular Cross Sections**

R409.8 Surfaces. Handrail gripping surfaces and any surfaces adjacent to them shall be free of sharp or abrasive elements and shall have rounded edges.

R409.9 Fittings. Handrails shall not rotate within their fittings. Where expansion joints are necessary for large spans of handrails, the expansion joint is permitted to rotate in its fitting.

R409.10 Handrail Extensions. Handrail gripping surfaces shall extend beyond and in the same direction of ramp runs and stair flights in accordance with R409.10. Extensions shall not be required for continuous handrails at the inside turn of switchback or dogleg ramps and stairways. In alterations where handrail extensions would reduce the clear width required for pedestrian access routes, handrail extensions shall not be required.

R409.10.1 Top and Bottom Extension at Ramps. Ramp handrails shall extend horizontally above the landing for 305 mm (1.0 ft) minimum beyond the top and bottom of ramp runs. Extensions shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent ramp run.

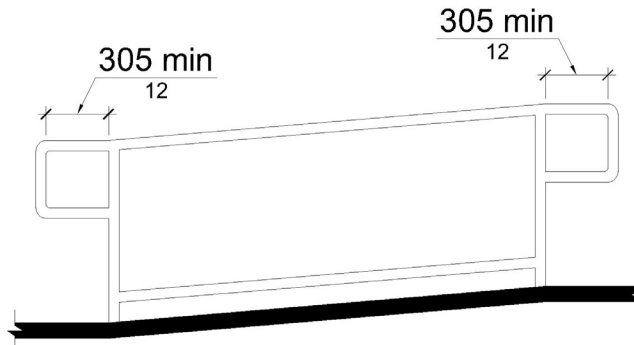


Figure R409.10.1
Top and Bottom Extension at Ramps

R409.10.2 Top Extension at Stairways. At the top of a stair flight, handrails shall extend horizontally above the landing for 305 mm (1.0 ft) minimum beginning directly above the first riser nosing. Extensions shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent stair flight.

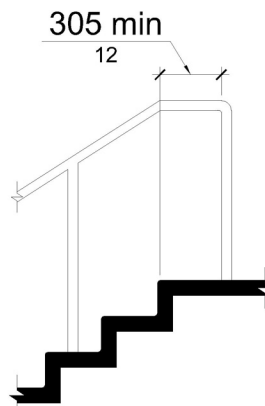


Figure R409.10.2
Top Extension at Stairways

R409.10.3 Bottom Extension at Stairways. 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. Extensions shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent stair flight.

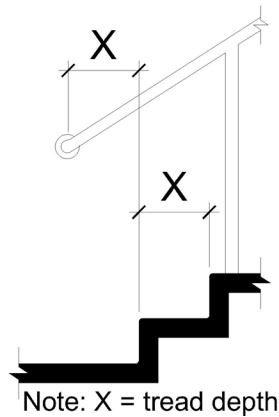


Figure R409.10.3
Bottom Extension at Stairways

R410 Visual Characters on Signs

R410.1 General. Visual characters on signs shall comply with R410.

R410.2 Finish and Contrast. Characters and their background shall have a non-glare finish. Characters shall contrast with their background with either light characters on a dark background or dark characters on a light background.

Advisory R410.2 Finish and Contrast. Signs are more legible for pedestrians with low vision when characters contrast as much as possible with their background. Additional factors affecting the ease with which the text can be distinguished from its background include shadows cast by lighting sources, surface glare, and the uniformity of the text and its background colors and textures.

R410.3 Case. Characters shall be uppercase or lowercase or a combination of both.

R410.4 Style. Characters shall be conventional in form. Characters shall not be italic, oblique, script, highly decorative, or of other unusual forms.

R410.5 Character Proportions. Characters shall be selected from fonts where the width of the uppercase letter "O" is 55 percent minimum and 110 percent maximum of the height of the uppercase letter "I".

R410.6 Character Height. Minimum character height shall comply with Table R410.2.5. Viewing distance shall be measured as the horizontal distance between the character and an obstruction preventing further approach towards the sign. Character height shall be based on the uppercase letter "I".

Table R410.6 Visual Character Height

Height to Finish Surface from Baseline of Character	Horizontal Viewing Distance	Minimum Character Height
1.0 m (3.3 ft) to less than or equal to 1.8 m (5.8 ft)	Less than 1.8 m (6.0 ft)	16 mm (0.625 in)
	1.8 m (6.0 ft) and greater	16 mm (0.625 in), plus 3.2 mm (0.125 in) per 0.3 m (1.0 ft) of viewing distance above 1.8 m (6.0 ft)
Greater than 1.8 m (5.8 ft) to less than or equal to 3.0 m (10.0 ft)	Less than 4.6 m (15.0 ft)	51 mm (2 in)
	4.6 m (15.0 ft) and greater	16 mm (0.625 in), plus 3.2 mm (0.125 in) per 0.3 m (1.0 ft) of viewing distance above 1.8 m (6.0 ft)
Greater than 3.0 m (10.0 ft)	Less than 6.4 m (21.0 ft)	75 mm (3 in)
	6.4 m (21.0 ft) and greater	75 mm (3 in), plus 3.2 mm (0.125 in) per 0.3 m (1.0 ft) of viewing distance above 6.4 m (21.0 ft)

R410.7 Height from Finish Surface. Visual characters shall be 1.0 m (3.25 ft) minimum above the finish surface.

R410.8 Stroke Thickness. Stroke thickness of the uppercase letter "I" shall be 10 percent minimum and 30 percent maximum of the height of the character.

R410.9 Character Spacing. Character spacing shall be measured between the two closest points of adjacent characters, excluding word spaces. Spacing between individual characters shall be 10 percent minimum and 35 percent maximum of character height.

R410.10 Line Spacing. Spacing between the baselines of separate lines of characters within a message shall be 135 percent minimum and 170 percent maximum of the character height.

R411 International Symbol of Accessibility. The International Symbol of Accessibility shall comply with Figure 411. The symbol and its background shall have a non-glare finish. The symbol shall contrast with its background with either a light symbol on a dark background or a dark symbol on a light background.

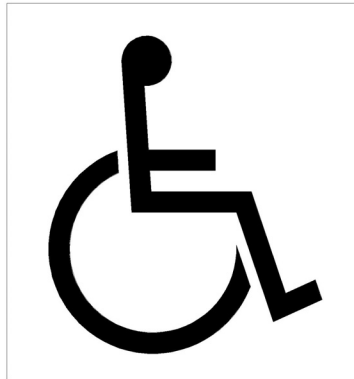


Figure R411
International Symbol of Accessibility